

What is git?

- Distributed version control (no central server needed)
- Easy to take a snapshot of current state of all tracked files
- Differences are efficiently stored
- Easy to revert to earlier version, compare between versions

Also facilitates collaboration:

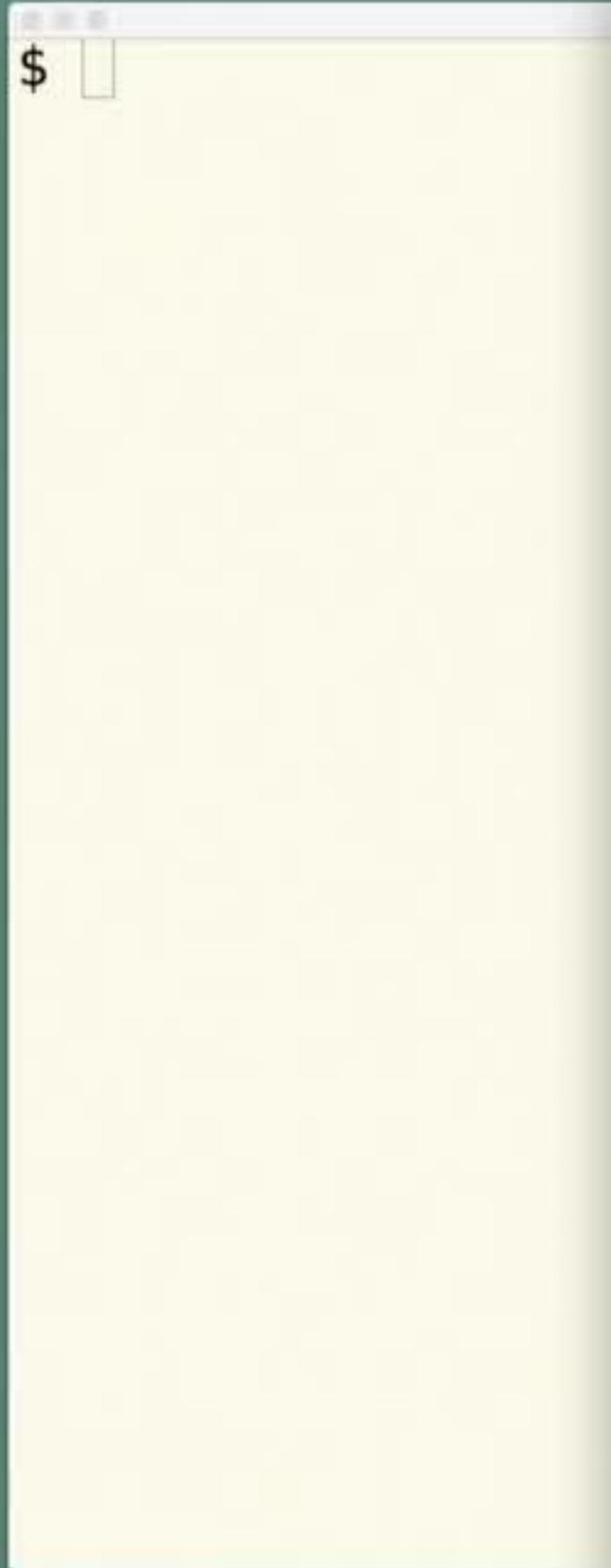
- With yourself on multiple computers (and for backup)
- With others (see Part 2)

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Version Control with Git

Part I

Tutorial for the SIAM CSE Conference, 2017

http://meetings.siam.org/sess/dsp_programsess.cfm?SESSIONCODE=61491

On Github:

<https://github.com/uwescience/git-tutorials-siamcse2017>

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Documentation

- At the command line, try for example: `git help commit`
- [Git Book](#)
- [Git Cheat Sheet](https://education.github.com) from <https://education.github.com>

Tutorials

Many exist on the web if you search, for example:

- [From the Git Book](#)
- From Software Carpentry: <http://swcarpentry.github.io/git-novice/>

Other useful tools

- [gitk](#) The git repository browser
- [atom](#) Atom editor developed by Github

Install git

Try this: At the command line,

```
git config --list
```

If you don't have git installed, see for example:

- [Installing Git](#) from the [Git Book](#).

Note: This tutorial uses git from the command line.
On Mac OSX you also need Xcode command line tools installed.

Other GUI-based tools also exist.

```

alias.ss=status -s
alias.stat=status
alias.br=branch
alias.wdiff=diff --color-words
core.editor=vim
core.excludesfile=/Users/rjl/.gitignore_global
merge.summary=true
merge.tool=opendiff
diff.external=~/.opendiff-git.sh
filter.stripoutput.clean=/Users/rjl/git/nbstripout/nbstripout
push.default=matching
core.repositoryformatversion=0
core.filemode=true
core.bare=false
core.logallrefupdates=true
core.ignorecase=true
core.precomposeunicode=true
remote.origin.url=https://github.com/uwescience/git-tutorials-siamcse2017.git
remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
branch.master.remote=origin
branch.master.merge=refs/heads/master
$

```

example:

command line.
command line tools installed.

```

alias.ss=status -s
alias.stat=status
alias.br=branch
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core.repositoryformatversion=0
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remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
branch.master.remote=origin
branch.master.merge=refs/heads/master
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diff.external=~/.op
filter.stripoutput
pout
push.default=match
core.repositoryform
core.filemode=true
core.bare=false
core.logallrefupdat
core.ignorecase=tru
core.precomposeunic
remote.origin.url=t
ials-siamcse2017.g
remote.origin.fetch
branch.master.remot
branch.master.merge
$
```

Install git

Try this: At the command line,

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git config --list
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If you don't have git installed, see for example:

- [Installing Git](#) from the [Git Book](#).

Note: This tutorial uses git from the command line. On Mac OSX you also need Xcode command line tools installed.

Other GUI-based tools also exist.

Configure git: (only need to do this once)

```
git config --global user.name "John Doe"
git config --global user.email johndoe@example.com
git config --global core.editor nano # or vim, emacs, etc.
```

See: <http://swcarpentry.github.io/git-novice/02-setup/>

```
alias.ss=status -s
alias.stat=status
alias.br=branch
alias.wdiff=diff --
core.editor=vim
core.excludesfile=
merge.summary=true
merge.tool=opendiff
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core.repositoryform
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core.ignorecase=tru
core.precomposeunic
remote.origin.url=f
ials-siamcse2017.g
remote.origin.fetch
branch.master.remot
branch.master.merge
$
```

Turn any directory into a git repository:

```
cd path/to/directory
git init
```

This creates a "hidden" directory .git containing the database.

Then use various commands to tell which files to track, take a new "snapshot", etc., e.g.

```
git add file1.txt
git commit -m "commit message"
```

(We will do this later)

```
alias.ss=status -s
alias.stat=status
alias.br=branch
alias.wdiff=diff --
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core.excludesfile=
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branch.master.remot
branch.master.merge
$
```

Or start by cloning an existing repository:

For example, get these slides via:

```
git clone https://github.com/uwescience/git-tutorials-siamcse2017
cd git-tutorials-siamcse2017
ls -a # list files, including those "hidden" to see .git
```

The clone contains all the history!

```
git log
```

prints all the commits and the commit messages, or:

```
git log --oneline # gives one-line summary of each commit
```

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alias.ss=status -s
alias.stat=status
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remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
branch.master.remote=origin
branch.master.merge=refs/heads/master
$ cd
```

existing repository:

```
/git-tutorials-siamcse2017
```

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remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
branch.master.remote=origin
branch.master.merge=refs/heads/master
$ cd
$ cd -
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ clear

```

existing repository:

/git-tutorials-siamcse2017

idden" to see .git

messages, or:

summary of each commit

```
$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$
```

on existing repository:

```
nce/git-tutorials-siamcse2017
```

```
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```
$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ ls -a
./          .git/      README.md
../         LICENSE.md slides/
$
```

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$ ls -a
./          .git/      README.md
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COMMIT_EDITMSG  description  logs/
FETCH_HEAD     gitk.cache  objects/
HEAD           hooks/      refs/
ORIG_HEAD      index
config         info/
$
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```
git-tutorials-siamcse2017
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```
$ pwd
/Users/rjl/git/uw
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./
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HEAD
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Before the tutorial:

Please do the following in preparation for the tutorial:

- Make sure you have Git installed on your laptop, e.g. by attempting to clone this repository via:

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git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
```

If you don't have Git installed, see for example [Installing Git](#) from the [Git Book](#) or the Software Carpentry instructions below.

If you cloned the repository earlier and want to update with recent changes:

```
cd git-tutorials-siamcse2017
git pull
```

- Know how to use basic command line instructions in a Unix shell, such as `cd`, `ls`, etc. See for example: <http://swcarpentry.github.io/shell-novice/>
- Have an editor that you know how to use for modifying files. (e.g. nano, vim, emacs, etc.)
- For Part 2, you should also have a Github account. Create a free account at <https://github.com/>

Tips:

- See <http://installation.software-carpentry.org/> for the software recommended for [Software Carpentry](#) workshops. We suggest following this if you don't have Git, bash, editors, etc. (especially if you are using a Windows laptop).
- If you have a MacBook, you will need to install Xcode in order for command line tools to work.
- The file `slides/part1.html` in this repository also contains some hints.

These tutorials are supported in part by [Github Education](#), who kindly provided some materials such as [Git cheat sheets](#) that will be distributed during the tutorial. See their webpage for other resources, or if you are interested in getting such materials or private repositories for a class you are teaching.

```
$ pwd
/Users/rjl/git/uw
$ ls -a
./
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COMMIT_EDITMSG
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```
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/Users/rjl/git/uwescience
$ ls -la
./
../
$ ls .git
COMMIT_EDITMSG
FETCH_HEAD
HEAD
ORIG_HEAD
config
$
```

Chrome | File | Edit | View | History | Bookmarks | People | Window | Help | 100% | Mon Feb 27 10:34 AM | Randall LeVeque

Git Tutorial 1 | Conference Program Online | uwescience/git-tutorials-siam | Git Tutorial 2 | Pull Requests - rjleveque/git

GitHub, Inc. [US] | https://github.com/uwescience/git-tutorials-siamcse2017

This repository | Search | Pull requests | Issues | Gist

uwescience / git-tutorials-siamcse2017 | Unwatch 10 | Star 3 | Fork 2

Code | Issues 0 | Pull requests 0 | Projects 0 | Wiki | Pulse | Graphs | Settings

Git tutorial slides for the SIAM CSE 2017 conference | Edit

New Add topics

35 commits | 2 branches | 2 releases | 2 contributors

Branch: master | New pull request | Create new file | Upload files | Find file | Clone or download

rjleveque demo instructions | Latest commit 4874e7b 2 hours ago

slides	demo instructions	2 hours ago
LICENSE.md	Added CC-BY license	29 days ago
README.md	Update README to thank Github Education	4 days ago

README.md

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

- Version Control with Git - Parts I and II

If you clone the repository, you should be able to open the file `slides/part1.html` for example in any browser.

```
$ pwd
/Users/rjl/git/uw
$ ls -a
./
../
$ ls .git
COMMIT_EDITMSG
FETCH_HEAD
HEAD
ORIG_HEAD
config
$
```

GitHub, Inc. [US] | https://github.com/uwescience/git-tutorials-siamcse2017

This repository Search Pull requests Issues Gist

uwescience / git-tutorials-siamcse2017 Unwatch 10 Star 3 Fork 2

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Git tutorial slides for the SIAM CSE 2017 conference Edit

New Add topics

35 commits 2 branches 2 releases 2 contributors

Branch: master New pull request Create new file Upload files Find file Clone or download

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2017 SIAM Conference on Computational Science and Engineering

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/Users/rjl/git/uw
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./
../
$ ls .git
COMMIT_EDITMSG
FETCH_HEAD
HEAD
ORIG_HEAD
config
$
```

The screenshot shows a web browser window displaying a GitHub repository page. The browser's address bar shows the URL `https://github.com/uwescience/git-tutorials-siamcse2017`. The repository page includes a header with navigation options like 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. Below the header, the repository name 'git-tutorials-siamcse2017' is displayed, along with the user 'rjleveque' and the commit hash '4874e7b' from '2 hours ago'. A list of files is shown, including 'slides', 'LICENSE.md', and 'README.md', with their respective commit messages and dates. The 'README.md' file is selected, showing its content. The README content includes a title 'git-tutorials-siamcse2017', a subtitle '2017 SIAM Conference on Computational Science and Engineering', and instructions for using the repository, such as cloning and viewing files directly from the browser. It also lists links for 'Part 1' and 'Part 2' of the tutorial, and provides instructions for preparing for the tutorial, such as installing Git.

```
$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ ls -a
./          .git/      README.md
../         LICENSE.md slides/
$ ls .git
COMMIT_EDITMSG  description  logs/
FETCH_HEAD     gitk.cache  objects/
HEAD           hooks/      refs/
ORIG_HEAD      index
config         info/
$ atom -n README.md
$
```

28 days ago
4 days ago

and Engineering

onference:

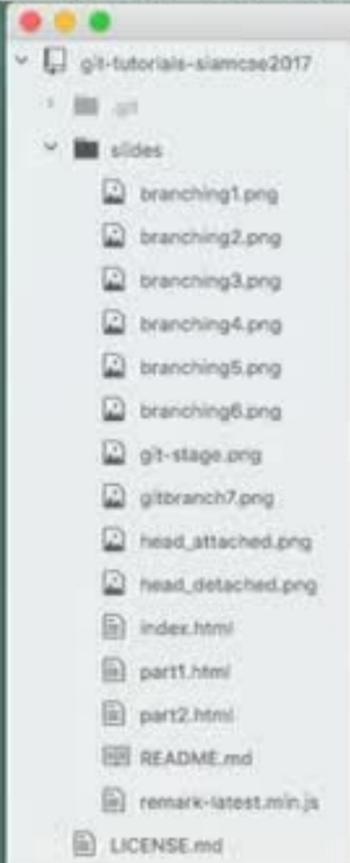
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ting to clone this repository via:

```
als-siamcse2017.git
```

m the [Git Book](#) or the Software Carpentry instructions below.

ent changes:



```

1
2 ## git-tutorials-siamcse2017
3
4 ### 2017 SIAM Conference on Computational Science and Engineering
5
6 Under development, to be used in tutorials at the 2017 SIAM CSE Conference:
7
8 - [Version Control with Git - Parts I and II] (http://meetings.siam.org/session/dsp\_programsess.cfm?SESSIONCODE=61491)
9
10 If you clone the repository, you should be able to open the file
11 'slides/part1.html' for example in any browser.
12
13 Or you can view directly from these links:
14
15 - [Part 1] (https://uwescience.github.io/git-tutorials-siamcse2017/slides/part1.html)
16 - [Part 2] (https://uwescience.github.io/git-tutorials-siamcse2017/slides/part2.html)

```

Git Tutorial 2

Pull Requests - rjleveque/git-tutorials-siamcse2017

28 days ago

4 days ago

and Engineering

onference:

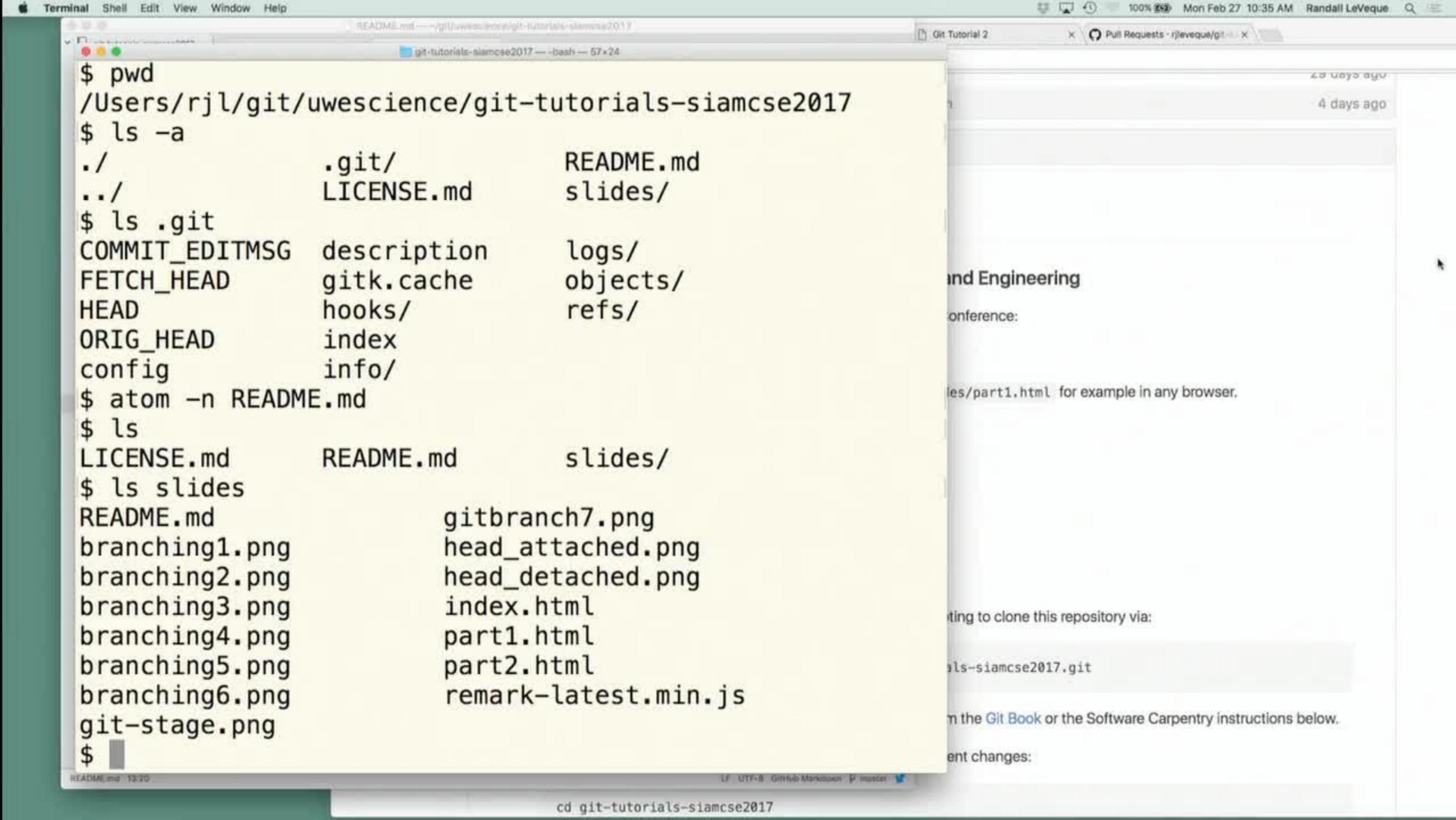
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```
$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ ls -a
./ .git/ README.md
../ LICENSE.md slides/
$ ls .git
COMMIT_EDITMSG description logs/
FETCH_HEAD gitk.cache objects/
HEAD hooks/ refs/
ORIG_HEAD index
config info/
$ atom -n README.md
$ ls
LICENSE.md README.md slides/
$ ls slides
README.md gitbranch7.png
branching1.png head_attached.png
branching2.png head_detached.png
branching3.png index.html
branching4.png part1.html
branching5.png part2.html
branching6.png remark-latest.min.js
git-stage.png
$
```

cd git-tutorials-siamcse2017

```
$ pwd
/Users/rjl/git/uw
$ ls -a
./
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COMMIT_EDITMSG
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branching1.png
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branching4.png
branching5.png
branching6.png
git-stage.png
$
```

README.md 13:20

The screenshot shows a web browser window with several tabs. The active tab is titled "uwescience/git-tutorials-siamcse2017" and displays the GitHub repository page. The page content includes:

- Repository name: **git-tutorials-siamcse2017**
- Subtitle: **2017 SIAM Conference on Computational Science and Engineering**
- Description: Under development, to be used in tutorials at the 2017 SIAM CSE Conference:
- List of files:
 - [LICENSE.md](#) (Added CC-BY license, 28 days ago)
 - [README.md](#) (Update README to thank Github Education, 4 days ago)
- Section: **git-tutorials-siamcse2017**
- Section: **2017 SIAM Conference on Computational Science and Engineering**
- Text: Under development, to be used in tutorials at the 2017 SIAM CSE Conference:
- List of links:
 - [Version Control with Git - Parts I and II](#)
- Text: If you clone the repository, you should be able to open the file `slides/part1.html` for example in any browser.
- Text: Or you can view directly from these links:
- List of links:
 - [Part 1](#)
 - [Part 2](#)
- Section: **Before the tutorial:**
- Text: Please do the following in preparation for the tutorial:
- List of instructions:
 - Make sure you have Git installed on your laptop, e.g. by attempting to clone this repository via:
- Code block:

```
git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
```
- Text: If you don't have Git installed, see for example [Installing Git](#) from the [Git Book](#) or the Software Carpentry instructions below.
- Text: If you cloned the repository earlier and want to update with recent changes:
- Code block:

```
cd git-tutorials-siamcse2017
```

```
$ pwd
/Users/rjl/git/uw
$ ls -a
./
../
$ ls .git
COMMIT_EDITMSG
FETCH_HEAD
HEAD
ORIG_HEAD
config
$ atom -n README.
$ ls
LICENSE.md
$ ls slides
README.md
branching1.png
branching2.png
branching3.png
branching4.png
branching5.png
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git-stage.png
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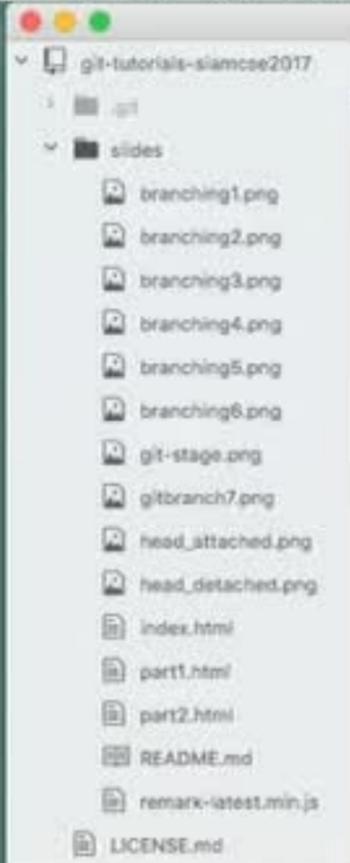
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git clone https://github.com/uwescience/git-tutorials-siamcse2017
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```

1
2 ## git-tutorials-siamcse2017
3
4 ### 2017 SIAM Conference on
5 • Computational Science and
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7
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9 tutorials at the 2017 SIAM CSE
10 Conference:
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17 • should be able to open the file
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20
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22 • links:
23
24

```

```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

• Version Control with Git - Parts I and II

If you clone the repository, you should be able to open the file slides/part1.html for example in any browser.

Or you can view directly from these links:

• Part 1
• Part 2

Before the tutorial:

Please do the following in preparation for the tutorial:

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If you don't have Git installed, see for example Installing Git from the Git Book or the Software Carpentry instructions below.

If you cloned the repository earlier and want to update with recent changes:



```
cd git-tutorials-siamcse2017
git pull
```

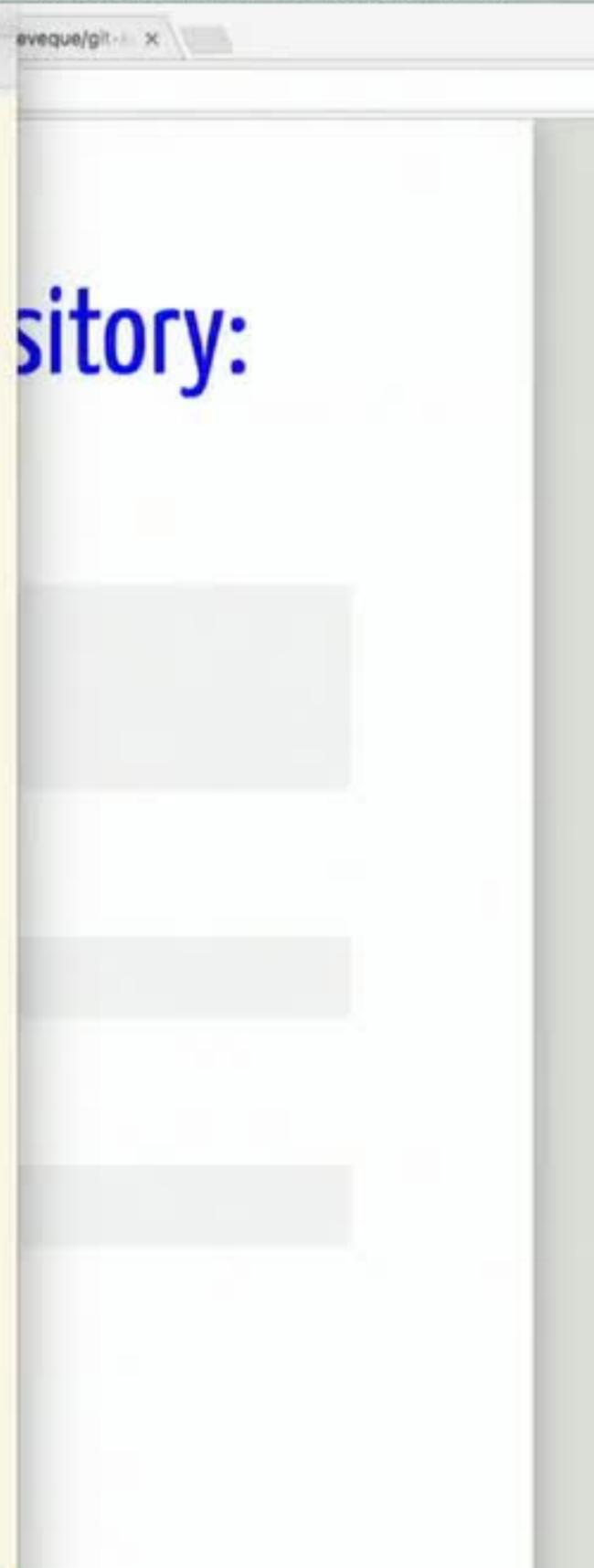


• Know how to use basic command line instructions in a Unix shell, such as cd, ls, etc. See for example: http://swcarpentry.github.io/shell-novice/

• Have an editor that you know how to use for modifying files. (e.g. nano, vim, emacs, etc.)

• For Part 2, you should also have a Github account. Create a free account at

```



- git-tutorials-siamcse2017
- git
- slides
 - branching1.png
 - branching2.png
 - branching3.png
 - branching4.png
 - branching5.png
 - branching6.png
 - git-stage.png
 - gitbranch7.png
 - head_attached.png
 - head_detached.png
 - index.html
 - part1.html
 - part2.html
 - README.md
 - remark-latest.min.js
- LICENSE.md

```

1
2 ## git-tutorials-siamcse2017
3
4 ### 2017 SIAM Conference on
5 • Computational Science and
6 • Engineering
7
8 Under development, to be used in
9 • tutorials at the 2017 SIAM CSE
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14 • II](http://meetings.siam.org/sess/d
15 • sp_programsess.cfm?SESSIONCODE=6149
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18 If you clone the repository, you
19 • should be able to open the file
20 `slides/part1.html` for example in
21 • any browser.
22
23 Or you can view directly from these
24 • links:

```

```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and
Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

• Version Control with Git - Parts I and II

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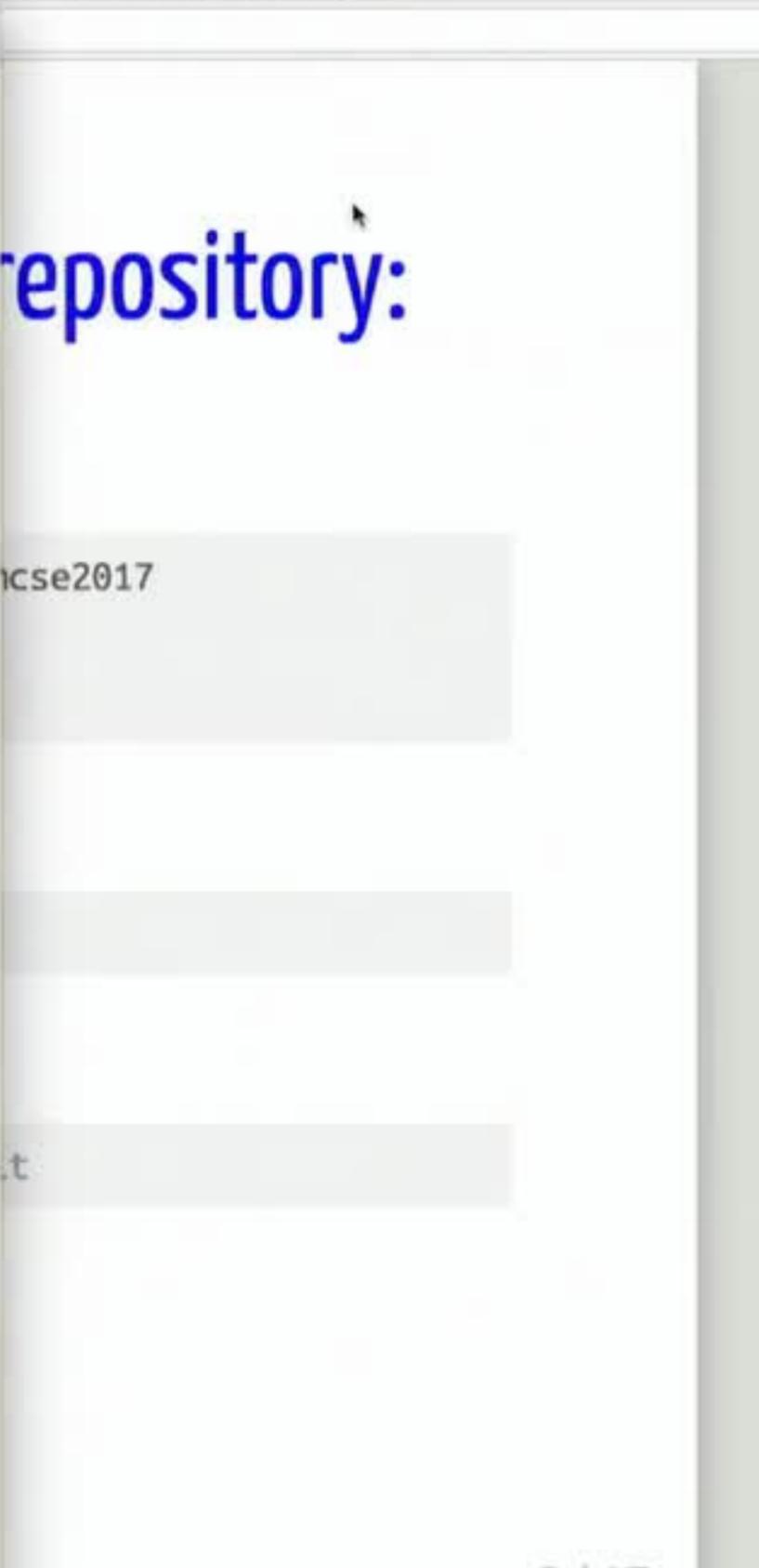


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git-tutorials-siamcse2017

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part1.html

```

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```

Git Tutorial 1 | Conference Program Online | uwescience/git-tutorials-siamcse2017 | Git Tutorial 2 | Pull Requests · rjleveque/git-tutorials-siamcse2017

file:///Users/rjl/git/uwescience/git-tutorials-siamcse2017/slides/part1.html#8

Or start by cloning an existing repository:

For example, get these slides via:

```
git clone https://github.com/uwescience/git-tutorials-siamcse2017
cd git-tutorials-siamcse2017
ls -a # list files, including those "hidden" to see .git
```

The clone contains all the history!

```
git log
```

prints all the commits and the commit messages, or:

```
git log --oneline # gives one-line summary of each commit
```

git-tutorials-siamcse2017

- git
- slides
 - branching1.png
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 - branching3.png
 - branching4.png
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part1.html x README

```

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```

GitHub, Inc. [US] https://github.com/uwescience/git-tutorials-siamcse2017

LICENSE.md ADDED CC-BY license 28 days ago

README.md Update README to thank Github Education 4 days ago

README.md

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

- [Version Control with Git - Parts I and II](#)

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```

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```
cd git-tutorials-siamcse2017
```

```

git-tutorials-siamcse2017
├── .git
├── slides
│   ├── branching1.png
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```

```

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Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

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New Add topics

35 commits 2 branches 2 releases 2 contributors

Branch: master New pull request Create new file Upload files Find file Clone or download

rjleveque	demo instructions	Latest commit 4874e7b 2 hours ago
	slides	demo instructions 2 hours ago
	LICENSE.md	Added CC-BY license 29 days ago
	README.md	Update README to thank Github Education 4 days ago

README.md

git-tutorials-siamcse2017

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- Version Control with Git - Parts I and II

```

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```

```

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Git tutorial slides for the SIAM CSE 2017 conference Edit

New [Add topics](#)

35 commits **2** branches **2** releases **2** contributors

Branch: **master** [New pull request](#) [Create new file](#) [Upload files](#) [Find file](#) [Clone or download](#)

rjleveque demo instructions Latest commit 4874e7b 2 hours ago

- slides** demo instructions 2 hours ago
- LICENSE.md** Added CC-BY license 29 days ago
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```

Chrome File Edit View History Bookmarks People Window Help

Git Tutorial 1 Conference Program Online uwescience/git-tutorials-siamcse2017 Git Tutorial 2 Pull Requests - rjleveque/git-tutorials-siamcse2017

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Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

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New Add topics

35 commits 2 branches 2 releases 2 contributors

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Graphs Settings

Edit

2 contributors

Upload files Find file Clone or download

Latest commit 4874e7b 2 hours ago

2 hours ago

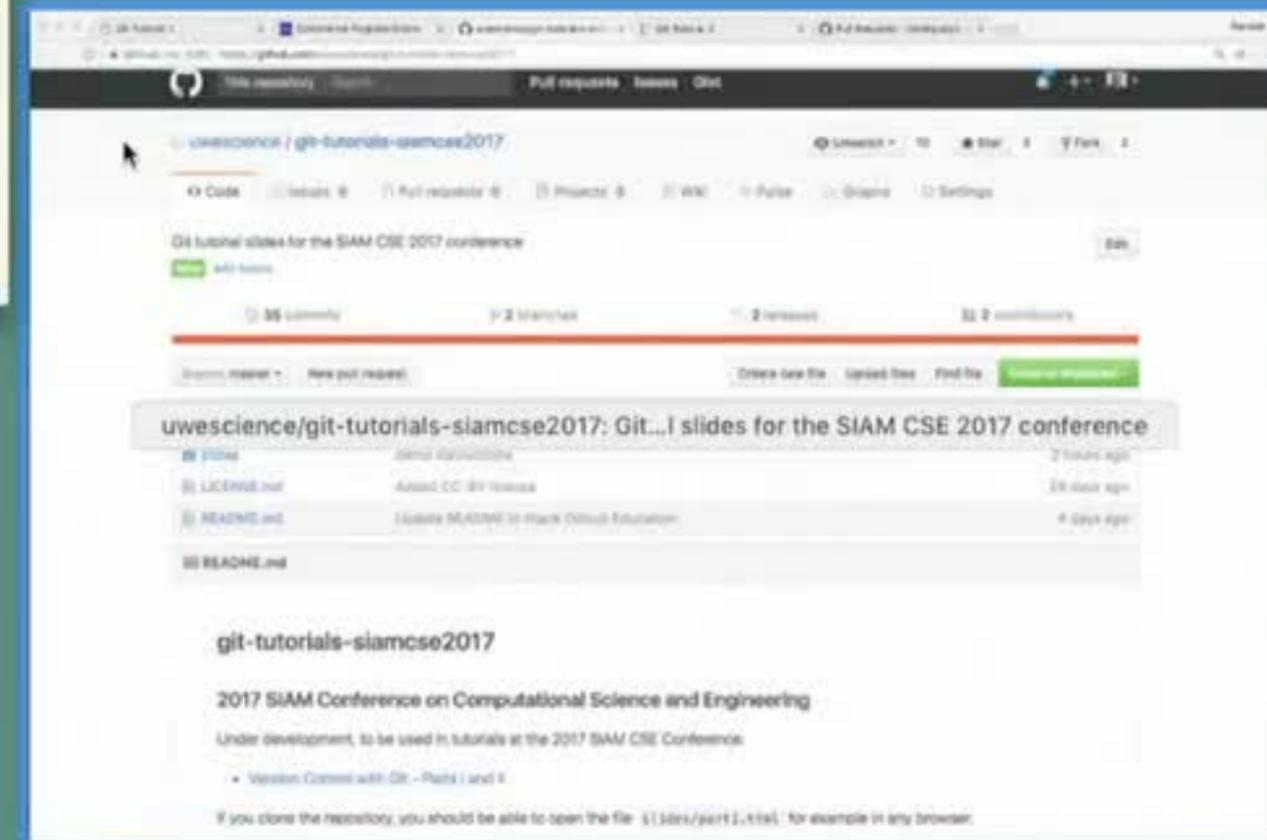
29 days ago

4 days ago

```

1 #! git-tutorials-siamcse2017
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4 ### 2017 SIAM Conference on Computational Science and Engineering
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6 Under development, to be used in tutorials at the 2017 SIAM CSE Conference:
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```



```

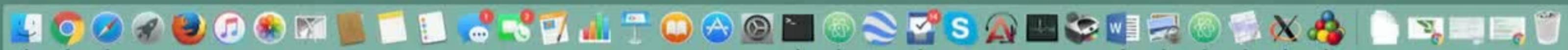
$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ ls -a
./          .git/      README.md
../        LICENSE.md slides/
$ ls .git
COMMIT_EDITMSG  description  logs/
FETCH_HEAD     gitk.cache  objects/
HEAD           hooks/      refs/
ORIG_HEAD      index
config         info/
$ atom -n README.md
$ ls
LICENSE.md  README.md  slides/
$ ls slides
README.md          gitbranch7.png
branching1.png    head_attached.png
branching2.png    head_detached.png
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branching4.png    part1.html
branching5.png    part2.html
branching6.png    remark-latest.min.js
git-stage.png
$

```

```

Last login: Sun Feb 26 06:46:57 AM 1983
rjl@rjl:~$ cd
rjl@rjl:~/git/uwescience/git-tutorials-siamcse2017$ ls
LICENSE.md  README.md  slides/
rjl@rjl:~/git/uwescience/git-tutorials-siamcse2017$ cd slides/
rjl@rjl:~/git/uwescience/git-tutorials-siamcse2017/slides$ ls
gitbranch7.png  head_attached.png  head_detached.png  index.html  part1.html  part2.html  remark-latest.min.js
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```



```

git-tutorials-siamcse2017
├── git
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│   ├── branching1.png
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│   ├── branching6.png
│   ├── git-stage.png
│   ├── gitbranch7.png
│   ├── head_attached.png
│   ├── head_detached.png
│   ├── index.html
│   ├── part1.html
│   ├── part2.html
│   ├── README.md
│   └── remark-latest.min.js
└── LICENSE.md

```

```

1
2 ## git-tutor
3
4 ### 2017 SIAM
5 Computational
6 Engineering
7
8 Under developo
9 tutorials at
10 Conference:
11
12 - [Version
13 Parts I and
14 II](http://
    sp_programs
    1)

```

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10 If you clone
11 should be ab
12 `slides/part
13 any browser.
14
15 Or you can v
16 links:

```

GitHub, Inc. [US] https://github.com/uwescience/git-tutorials-siamcse2017

This repository Search Pull requests Issues Gist

uwescience / git-tutorials-siamcse2017

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Git tutorial slides for the SIAM CSE 2017 conference Edit

New Add topics

35 commits 2 branches 2 releases 2 contributors

Branch: master New pull request Create new file Upload files Find file Clone or download

rjleveque	demo instructions	Latest commit 4874e7b 2 hours ago
	slides	demo instructions 2 hours ago
	LICENSE.md	Added CC-BY license 29 days ago
	README.md	Update README to thank Github Education 4 days ago

README.md

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

- [Version Control with Git - Parts I and II](#)

If you clone the repository, you should be able to open the file `slides/part1.html` for example in any browser.

git-tutorials-siamcse2017

- git
- slides
 - branching1.png
 - branching2.png
 - branching3.png
 - branching4.png
 - branching5.png
 - branching6.png
 - git-stage.png
 - gitbranch7.png
 - head_attached.png
 - head_detached.png
 - index.html
 - part1.html
 - part2.html
 - README.md
 - remark-latest.min.js
- LICENSE.md

part1.html

```

1
2  ## git-tutor
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5  • Computational
6  • Engineering
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8  Under develo
9  tutorials at
10 Conference:
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13 • Parts I and
14 • II](http://
15 • sp_programs
16 • 1)
17
18 If you clone
19 • should be ab
20 `slides/part
21 • any browser.
22
23 Or you can v
24 • links:
    
```

Git Tutorial 1 x Conference Program Online x uwescience/git-tutorials-siamcse2017 x Git Tutorial 2 x Pull Requests - r/leveque/git-tutorials-siamcse2017

file:///Users/rjl/git/uwescience/git-tutorials-siamcse2017/slides/part1.html#8

Or start by cloning an existing repository:

For example, get these slides via:

```
git clone https://github.com/uwescience/git-tutorials-siamcse2017
cd git-tutorials-siamcse2017
ls -a # list files, including those "hidden" to see .git
```

The clone contains all the history!

```
git log
```

prints all the commits and the commit messages, or:

```
git log --oneline # gives one-line summary of each commit
```

- git-tutorials-siamcse2017
- git
- slides
 - branching1.png
 - branching2.png
 - branching3.png
 - branching4.png
 - branching5.png
 - branching6.png
 - git-stage.png
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```

1
2 ## git-tutorials-siamcse2017
3
4 ### 2017 SIAM Conference on
5 • Computational Science and
6 • Engineering
7
8 Under development, to be used in
9 tutorials at the 2017 SIAM CSE
10 Conference:
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12 - [Version Control with Git -
13 • Parts I and
14 • II](http://meetings.siam.org/sess/d
    sp_programsess.cfm?SESSIONCODE=6149
    1)
15
16 If you clone the repository, you
17 • should be able to open the file
18 `slides/part1.html` for example in
19 • any browser.
20
21 Or you can view directly from these
22 • links:
23
24

```

```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and
Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

• Version Control with Git - Parts I and II

If you clone the repository, you should be able to open the file slides/part1.html for
example in any browser.

Or you can view directly from these links:

• Part 1
• Part 2

Before the tutorial:

Please do the following in preparation for the tutorial:

• Make sure you have Git installed on your laptop, e.g. by attempting to clone this
repository via:



```
git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
```



If you don't have Git installed, see for example Installing Git from the Git Book or the
Software Carpentry instructions below.

If you cloned the repository earlier and want to update with recent changes:



```
cd git-tutorials-siamcse2017
git pull
```

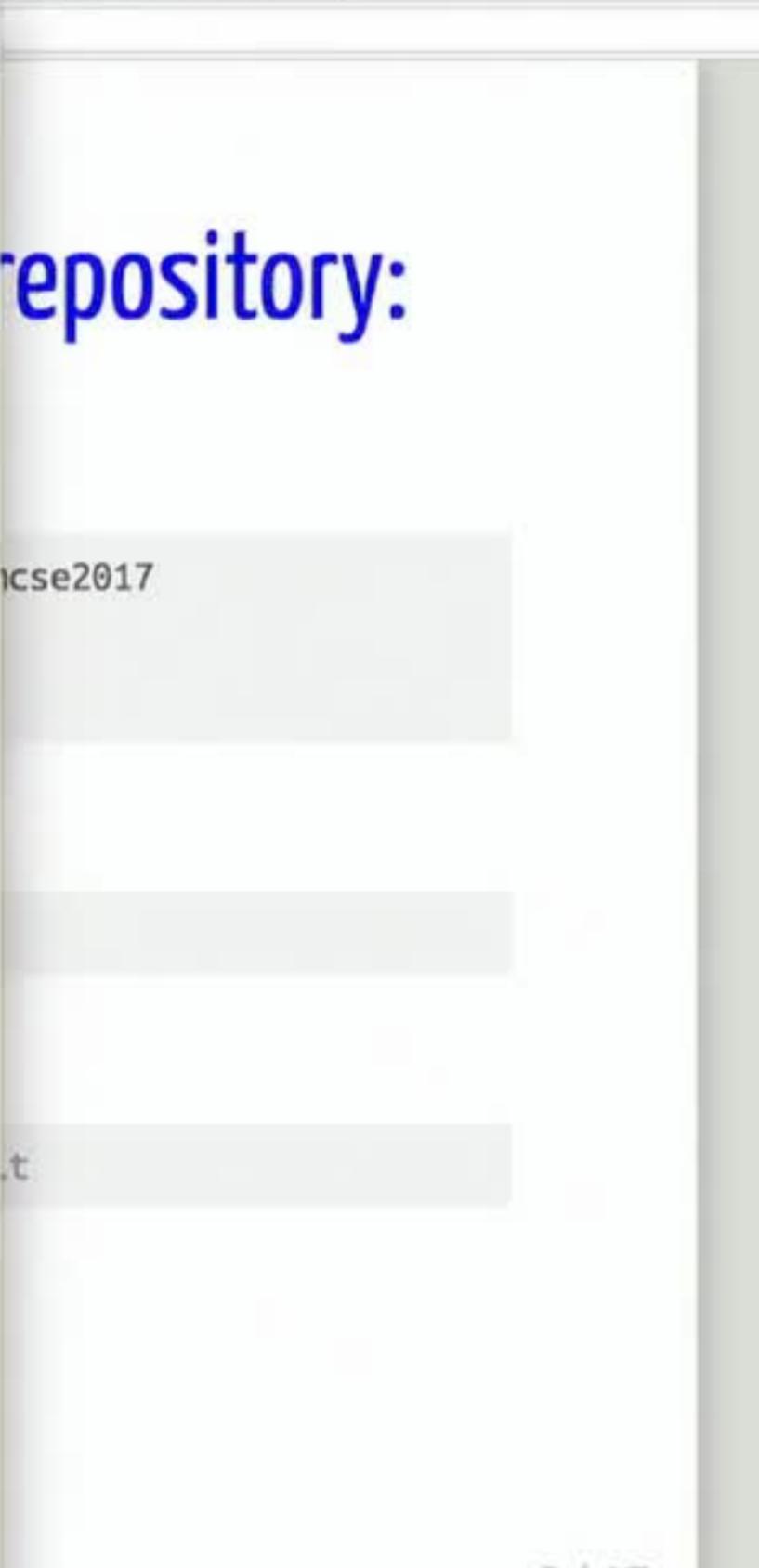


• Know how to use basic command line instructions in a Unix shell, such as cd, ls, etc.
See for example: http://swcarpentry.github.io/shell-novice/

• Have an editor that you know how to use for modifying files. (e.g. nano, vim, emacs,
etc.)

• For Part 2, you should also have a Github account. Create a free account at

```



- git-tutorials-siamcse2017
- git
- slides
 - branching1.png
 - branching2.png
 - branching3.png
 - branching4.png
 - branching5.png
 - branching6.png
 - git-stage.png
 - gitbranch7.png
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```

1
2 ## git-tutorials-siamcse2017
3
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5 • Computational Science and
6 • Engineering
7
8 Under development, to be used in
9 tutorials at the 2017 SIAM CSE
10 Conference:
11
12 - [Version Control with Git -
13 • Parts I and
14 • II] (http://meetings.siam.org/sess/dsp\_programsess.cfm?SESSIONCODE=61491)
15
16 If you clone the repository, you
17 • should be able to open the file
18 `slides/part1.html` for example in
19 • any browser.
20
21 Or you can view directly from these
22 • links:
23
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```

```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and
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Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

• Version Control with Git - Parts I and II

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Software Carpentry instructions below.

If you cloned the repository earlier and want to update with recent changes:

cd git-tutorials-siamcse2017
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See for example: http://swcarpentry.github.io/shell-novice/

• Have an editor that you know how to use for modifying files. (e.g. nano, vim, emacs,
etc.)

• For Part 2, you should also have a Github account. Create a free account at

```

Repository:

cse2017

\$ pwd

- git-tutorials-siamcse2017
 - git
 - slides
 - branching1.png
 - branching2.png
 - branching3.png
 - branching4.png
 - branching5.png
 - branching6.png
 - git-stage.png
 - gitbranch7.png
 - head_attached.png
 - head_detached.png
 - index.html
 - part1.html
 - part2.html
 - README.md
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```

1
2  ## git-tutorials-siamcse2017
3
4  ### 2017 SIAM Conference on
5  * Computational Science and
6  * Engineering
7
8  Under development, to be used in
9  * tutorials at the 2017 SIAM CSE
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11
12 - [Version Control with Git -
13 * Parts I and
14 * II](http://meetings.siam.org/sess/d
15 * sp_programsess.cfm?SESSIONCODE=6149
16 * 1)
17
18 If you clone the repository, you
19 * should be able to open the file
20 * `slides/part1.html` for example in
21 * any browser.
22
23 Or you can view directly from these
24 * links:

```

```

README.md Preview
git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and
Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

  * Version Control with Git - Parts I and II

If you clone the repository, you should be able to open the file slides/part1.html for
example in any browser.

Or you can view directly from these links:

  * Part 1
  * Part 2

Before the tutorial:

Please do the following in preparation for the tutorial:

  * Make sure you have Git installed on your laptop, e.g. by attempting to clone this
    repository via:

    git clone https://github.com/uwescience/git-tutorials-siamcse2017.git

    If you don't have Git installed, see for example Installing Git from the Git Book or the
    Software Carpentry instructions below.

    If you cloned the repository earlier and want to update with recent changes:

    cd git-tutorials-siamcse2017
    git pull

  * Know how to use basic command line instructions in a Unix shell, such as cd, ls, etc.
    See for example: http://swcarpentry.github.io/shell-novice/

  * Have an editor that you know how to use for modifying files. (e.g. nano, vim, emacs,
    etc.)

```

itory:

```
$ pwd
/Users/rjl/git/uwescience
$ ls -a
./
```

Or start by cloning an existing repository:

```

1  ## git-tutorials-siamcse2017
2
3
4  ### 2017 SIAM Conference on
5  Computational Science and
6  Engineering
7
8  Under development, to be used in
9  tutorials at the 2017 SIAM CSE
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13   Parts I and
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16 If you clone the repository, you
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18 `slides/part1.html` for example in
19 any browser.

```

```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and
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```



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Software Carpentry instructions below.

If you cloned the repository earlier and want to update with recent changes:



```
cd git-tutorials-siamcse2017
git pull
```


```

```

$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ ls -a
./          .git/      README.md
../         LICENSE.md slides/
$ ls .git
COMMIT_EDITMSG  description  logs/
FETCH_HEAD     gitk.cache  objects/
HEAD           hooks/      refs/
ORIG_HEAD      index
config         info/
$ atom -n README.md
$ ls
LICENSE.md      README.md   slides/
$ ls slides
README.md      gitbranch7.png
branching1.png head_attached.png
branching2.png head_detached.png
branching3.png index.html
branching4.png part1.html
branching5.png part2.html
branching6.png remark-latest.min.js
git-stage.png
$ cl

```

victino ransitory:

tational Science and
017 SIAM CSE Conference:

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uwescience/git-tutorials-siamcse2017.git

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to update with recent changes:

slides/part1.html for example in
any browser.

git pull

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$ git log
```

Victims repository:

Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

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```
uwescience/git-tutorials-siamcse2017.git
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le Installing Git from the [Git Book](#) or the

to update with recent changes:

11 `slides/part1.html` for example in

- any browser.

```
git pull
```

```
commit 4874e7bfe50c4651ef1862e4e709532d42288f05
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Mon Feb 27 08:47:17 2017 -0500
```

```
demo instructions
```

```
commit 716246866a35d1a486ade1dc393d01761449d150
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Sun Feb 26 17:29:14 2017 -0500
```

```
added new figures for detached head
```

```
commit a4fc59bdbbc39f37f740691076cb892dc7d4a42d0
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Sun Feb 26 09:19:04 2017 -0500
```

```
added links to gitk, atom
```

```
commit fae3f00147845c10df97230e4dedd64f8f27c826
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Sun Feb 26 09:14:08 2017 -0500
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Computational Science and

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Open the file `slides/part1.html` for

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`https://github.com/rjl/ucsc/git-tutorials-siamcse2017.git`

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to update with recent changes:

11 slides/part1.html for example in

any browser.

git pull

```

branching4.png          part1.html
branching5.png          part2.html
branching6.png          remark-latest.min.js
git-stage.png
$ clear

$ git log
commit 4874e7bfe50c4651ef1862e4e709532d42288f05
Author: Randy LeVeque <rjl@uw.edu>
Date:   Mon Feb 27 08:47:17 2017 -0500

    demo instructions

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Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

al:

op, e.g. by attempting to clone this

`uwscience/git-tutorials-siamcse2017.git`

le installing Git from the Git Book or the

to update with recent changes:

```

$ pwd
/Users/rjl/git/uwescience/git-tutorials-siamcse2017
$ ls -a
./          .git/      README.md
../         LICENSE.md  slides/
$ ls .git
COMMIT_EDITMSG  description  logs/
FETCH_HEAD     gitk.cache  objects/
HEAD           hooks/      refs/
ORIG_HEAD      index
config         info/
$ atom -n README.md
$ ls
LICENSE.md      README.md    slides/
$ ls slides
README.md      gitbranch7.png
branching1.png head_attached.png
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branching3.png index.html
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```

victino repository:

Computational Science and
2017 SIAM CSE Conference:

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```

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2017 SIAM CSE Conference:

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victino ransitory:

Computational Science and

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Open the file `slides/part1.html` for

al:

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`uwescience/git-tutorials-siamcse2017.git`

by installing Git from the Git Book or the

to update with recent changes:

Date: Thu Feb 23 13:31:47 2017 -0800

add link to Git Cheat Sheet to both slide decks

```
commit 9136090eb10b0a37ea4275c973955dc2d1731e31
```

```
Author: Randall J. LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:27:23 2017 -0800
```

Update README to thank Github Education

and I included a pointer to their Git cheat sheet.

```
commit dc0e36e659d308d88db7c4bb4585bb34a51e3458
```

```
Author: Randall J. LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:17:40 2017 -0800
```

Update README to include links to slides on website

Note that to update the version of the slides visible at <https://uwescience.github.io/git-tutorials-siamcse2017/slides/>, you need to push changes to the `gh-pages` branch

victino ransitory:

Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

at:

or, e.g. by attempting to clone this

```
uwescience/git-tutorials-siamcse2017.git
```

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to update with recent changes:

Date: Thu Feb 23 13:31:47 2017 -0800

add link to Git Cheat Sheet to both slide decks

```
commit 9136090eb10b0a37ea4275c973955dc2d1731e31
```

```
Author: Randall J. LeVeque <rjl@uw.edu>
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```

```
Author: Randall J. LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:17:40 2017 -0800
```

Update README to include links to slides on website

Note that to update the version of the slides visible at <https://uwescience.github.io/git-tutorials-siamcse2017/slides/>, you need to push changes to the `gh-pages` branch

victino ransitory:

Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

at:

or, e.g. by attempting to clone this

```
uwescience/git-tutorials-siamcse2017.git
```

or by installing Git from the Git Book or the

to update with recent changes:

Date: Thu Feb 23 13:31:47 2017 -0800

add link to Git Cheat Sheet to both slide decks

```
commit 9136090eb10b0a37ea4275c973955dc2d1731e31
```

```
Author: Randall J. LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:27:23 2017 -0800
```

Update README to thank Github Education

and I included a pointer to their Git cheat sheet.

```
commit dc0e36e659d308d88db7c4bb4585bb34a51e3458
```

```
Author: Randall J. LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:17:40 2017 -0800
```

Update README to include links to slides on website

Note that to update the version of the slides visible at <https://uwescience.github.io/git-tutorials-siamcse2017/slides/>, you need to push changes to the `gh-pages` branch

victino ransitory:

Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

at:

or, e.g. by attempting to clone this

```
uwescience/git-tutorials-siamcse2017.git
```

by installing Git from the Git Book or the

to update with recent changes:

```

Date: Thu Feb 9 15:07:12 2017 -0800

    add `git pull` instructions

commit 7768b4c5690eb8c3f91749bbac15d96c327eda86
Author: Randall J. LeVeque <rjl@uw.edu>
Date: Thu Feb 9 08:44:04 2017 -0800

    Suggest creating Github account

commit 97cba23a1a47ccba64396a64aee7708b9efa0493
Author: Randall J. LeVeque <rjl@uw.edu>
Date: Wed Feb 8 18:04:21 2017 -0800

    Add link to Git install instructions

commit 4decc60e421dbfec4da45873e5293b8b7a8a8e6a
Author: Randall J. LeVeque <rjl@uw.edu>
Date: Wed Feb 8 13:55:31 2017 -0800

    Update README.md

commit d68ef310a6a2ba9a5f5183731bf04c9e81ab232e
:

```

victino ransitory:

Computational Science and
2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

al:

op, e.g. by attempting to clone this

uce/git-tutorials-siamcse2017.git

le installing Git from the [Git Book](#) or the

to update with recent changes:

slides/part1.html for example in
any browser.

git pull

Date: Thu Feb 9 15:07:12 2017 -0800

add `git pull` instructions

commit 7768b4c5690eb8c3f91749bbac15d96c327eda86

Author: Randall J. LeVeque <rjl@uw.edu>

Date: Thu Feb 9 08:44:04 2017 -0800

Suggest creating Github account

commit 97cba23a1a47ccba64396a64aee7708b9efa0493

Author: Randall J. LeVeque <rjl@uw.edu>

Date: Wed Feb 8 18:04:21 2017 -0800

Add link to Git install instructions

commit 4decc60e421dbfec4da45873e5293b8b7a8a8e6a

Author: Randall J. LeVeque <rjl@uw.edu>

Date: Wed Feb 8 13:55:31 2017 -0800

Update README.md

commit d68ef310a6a2ba9a5f5183731bf04c9e81ab232e

:

victino repository:

Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

al:

op, e.g. by attempting to clone this

uwescience/git-tutorials-siamcse2017.git

le installing Git from the Git Book or the

to update with recent changes:

11 slides/part1.html for example in

* any browser.

git pull

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 12:55:11 2017 -0800
```

added slides on installation and documentation

```
commit e885b7209f51749c15da79110812525d66df97df
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:56:21 2017 -0800
```

First pass at slides/part1.html and remarkjs file needed to view them

```
commit 6793f268b9b8c8b7151c7640291d4058a3061214
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:20:27 2017 -0800
```

Added CC-BY license

```
commit 02eba6080c561fea283a5a39c24b000535f1b393
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:14:44 2017 -0800
```

Initial commit with minimal README

(END)

victino repository:

Computational Science and

2017 SIAM CSE Conference:

Open the file `slides/part1.html` for

al:

op, e.g. by attempting to clone this

`uwescience/git-tutorials-siamcse2017.git`

le installing Git from the Git Book or the

to update with recent changes:

Author: Randy LeV
Date: Sun Jan 2

added slides

commit e885b72091

Author: Randy LeV
Date: Sun Jan 2

First pass at
ded to view them

commit 6793f268b9

Author: Randy LeV
Date: Sun Jan 2

Added CC-BY 1

commit 02eba6080c

Author: Randy LeV
Date: Sun Jan 2

Initial commi

(END)

Or start by cloning an existing repository:

For example, get these slides via:

```
git clone https://github.com/uwescience/git-tutorials-siamcse2017
cd git-tutorials-siamcse2017
ls -a # list files, including those "hidden" to see .git
```

The clone contains all the history!

```
git log
```

prints all the commits and the commit messages, or:

```
git log --oneline # gives one-line summary of each commit
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 12:55:11 2017 -0800
```

added slides on installation and documentation

```
commit e885b7209f51749c15da79110812525d66df97df
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:56:21 2017 -0800
```

First pass at slides/part1.html and remarkjs file needed to view them

```
commit 6793f268b9b8c8b7151c7640291d4058a3061214
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:20:27 2017 -0800
```

Added CC-BY license

```
commit 02eba6080c561fea283a5a39c24b000535f1b393
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:14:44 2017 -0800
```

Initial commit with minimal README

```
$
```

Existing repository:

t-tutorials-siamcse2017

en" to see .git

essages, or:

ry of each commit

Author: Randy LeV
Date: Sun Jan 2

added slides

commit e885b7209f

Author: Randy LeV
Date: Sun Jan 2

First pass at
ded to view them

commit 6793f268b9

Author: Randy LeV
Date: Sun Jan 2

Added CC-BY 1

commit 02eba6080c

Author: Randy LeV
Date: Sun Jan 2

Initial commi

\$

Or start by cloning an existing repository:

For example, get these slides via:

```
git clone https://github.com/uwescience/git-tutorials-siamcse2017
cd git-tutorials-siamcse2017
ls -a # list files, including those "hidden" to see .git
```

The clone contains all the history!

```
git log
```

prints all the commits and the commit messages, or:

```
git log --oneline # gives one-line summary of each commit
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 12:55:11 2017 -0800
```

added slides on installation and documentation

```
commit e885b7209f51749c15da79110812525d66df97df
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:56:21 2017 -0800
```

First pass at slides/part1.html and remarkjs file needed to view them

```
commit 6793f268b9b8c8b7151c7640291d4058a3061214
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:20:27 2017 -0800
```

Added CC-BY license

```
commit 02eba6080c561fea283a5a39c24b000535f1b393
```

```
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:14:44 2017 -0800
```

Initial commit with minimal README

```
$ cl
```

Existing repository:

t-tutorials-siamcse2017

en" to see .git

essages, or:

ry of each commit

```
$ git log --oneline
```

Existing repository:

```
t-tutorials-siamcse2017
```

```
en" to see .git
```

essages, or:

```
ry of each commit
```

```
4874e7b demo instructions
7162468 added new figures for detached head
a4fc59b added links to gitk, atom
fae3f00 added links to gitk, atom
b85efb9 added link to conference abstract
95899b0 Merge branch 'master' into gh-pages
6f1351d add link to Git Cheat Sheet to both slide decks
9136090 Update README to thank Github Education
dc0e36e Update README to include links to slides on website
aafb298 bare bones index.html
a4d934b cleaned up part1.html
199136a added more to part2.html
89660de Merge pull request #2 from ketch/master
a31d7ba Add branching figures.
5235863 Merge pull request #1 from ketch/master
653058f Add figures and slides on branching.
0088524 updates to part2 slides
345db36 link to github
ccbfcdd update part1.html with some Github links, etc
0f0d6ff Changes to part1.html and addition of some figures
a3aa9a1 fix grammar
$
```

Existing repository:

git-tutorials-siamcse2017

en" to see .git

essages, or:

ry of each commit

```

4874e7b demo inst
7162468 added new
a4fc59b added lir
fae3f00 added lir
b85efb9 added lir
95899b0 Merge bra
6f1351d add link
9136090 Update RE
dc0e36e Update RE
te
aafb298 bare bone
a4d934b cleaned u
199136a added mor
89660de Merge pul
a31d7ba Add bran
5235863 Merge pul
653058f Add figur
0088524 updates t
345db36 link to g
ccbfcdd update pa
0f0d6ff Changes t
s
a3aa9a1 fix gramm
$

```

Or start by cloning an existing repository:

For example, get these slides via:

```

git clone https://github.com/uwescience/git-tutorials-siamcse2017
cd git-tutorials-siamcse2017
ls -a # list files, including those "hidden" to see .git

```

The clone contains all the history!

```
git log
```

prints all the commits and the commit messages, or:

```
git log --oneline # gives one-line summary of each commit
```

Try this now.

Then open `git-tutorials-siamcse2017/slides/part1.html` if you want to view these slides in your browser.

```
4874e7b demo inst
7162468 added nev
a4fc59b added lir
fae3f00 added lir
b85efb9 added lir
95899b0 Merge bra
6f1351d add link
9136090 Update RE
dc0e36e Update RE
te
aafb298 bare bone
a4d934b cleaned u
199136a added mor
89660de Merge pul
a31d7ba Add bran
5235863 Merge pul
653058f Add figur
0088524 updates t
345db36 link to g
ccbfcdd update pa
0f0d6ff Changes t
S
a3aa9a1 fix gramm
$
```

Git commit hash codes

Every time you do a `git commit` you create a new snapshot of the state of all tracked files.

Each commit has a "name" that is a unique 40-character hexadecimal string.

Example:

Scrolling through `git log` to the beginning shows the first 2 commits:

```
commit 6793f268b9b8c8b7151c7640291d4058a3061214
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:20:27 2017 -0800
```

Added CC-BY license

```
commit 02eba6080c561fea283a5a39c24b000535f1b393
Author: Randy LeVeque <rjl@uw.edu>
Date: Sun Jan 29 11:14:44 2017 -0800
```

Initial commit with minimal README

The first 7 characters is usually enough to identify a commit, e.g. `02eba60`.

```
4874e7b demo inst
7162468 added nev
a4fc59b added lir
fae3f00 added lir
b85efb9 added lir
95899b0 Merge bra
6f1351d add link
9136090 Update RE
dc0e36e Update RE
te
aafb298 bare bone
a4d934b cleaned u
199136a added mor
89660de Merge pul
a31d7ba Add bran
5235863 Merge pul
653058f Add figur
0088524 updates t
345db36 link to g
ccbfcdd update pa
0f0d6ff Changes t
s
a3aa9a1 fix gramn
$
```

Reverting to a previous version

Try this:

```
git checkout 02eba60
```

This restores the repository to the state after the first commit, when only one file README.md existed. (confirm this via `ls -a`)

```

4874e7b demo instructions
7162468 added new figures for detached head
a4fc59b added links to gitk, atom
fae3f00 added links to gitk, atom
b85efb9 added link to conference abstract
95899b0 Merge branch 'master' into gh-pages
6f1351d add link to Git Cheat Sheet to both slide decks
9136090 Update README to thank Github Education
dc0e36e Update README to include links to slides on website
aafb298 bare bones index.html
a4d934b cleaned up part1.html
199136a added more to part2.html
89660de Merge pull request #2 from ketch/master
a31d7ba Add branching figures.
5235863 Merge pull request #1 from ketch/master
653058f Add figures and slides on branching.
0088524 updates to part2 slides
345db36 link to github
ccbfcdd update part1.html with some Github links, etc
0f0d6ff Changes to part1.html and addition of some figures
a3aa9a1 fix grammar
$ cle

```

version

After the first commit, when only one
s -a)

```
$ ls
LICENSE.md      README.md      slides/
$ ls slides
README.md      gitbranch7.png
branching1.png head_attached.png
branching2.png head_detached.png
branching3.png index.html
branching4.png part1.html
branching5.png part2.html
branching6.png remark-latest.min.js
git-stage.png
$
```

version

After the first commit, when only one
s -a)

```
$ ls
LICENSE.md
$ ls slides
README.md
branching1.png
branching2.png
branching3.png
branching4.png
branching5.png
branching6.png
git-stage.png
$
```

Reverting to a previous version

Try this:

```
git checkout 02eba60
```

This restores the repository to the state after the first commit, when only one file README.md existed. (confirm this via `ls -a`)

```
$ ls
LICENSE.md      README.md      slides/
$ ls slides
README.md      gitbranch7.png
branching1.png head_attached.png
branching2.png head_detached.png
branching3.png index.html
branching4.png part1.html
branching5.png part2.html
branching6.png remark-latest.min.js
git-stage.png
$ git checkout 02eba60
```

version

After the first commit, when only one
s -a)

```

branching4.png      part1.html
branching5.png      part2.html
branching6.png      remark-latest.min.js
git-stage.png
$ git checkout 02eba60
Note: checking out '02eba60'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits
you make in this state without impacting any branches by performing another
checkout.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -b with the checkout command again. Example:

  git checkout -b <new-branch-name>

HEAD is now at 02eba60... Initial commit with minimal README
$ █

```

version

After the first commit, when only one
-a)

```
branching3.png      index.html
branching4.png      part1.html
branching5.png      part2.html
branching6.png      remark-latest.min.js
git-stage.png
```

```
$ git checkout 02eba60
```

```
Note: checking out '02eba60'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 02eba60... Initial commit with minimal README
```

```
$
```

```
LICENSE.md      README.md      slides/
$ ls slides
README.md      gitbranch7.png
branching1.png head_attached.png
branching2.png head_detached.png
branching3.png index.html
branching4.png part1.html
branching5.png part2.html
branching6.png remark-latest.min.js
git-stage.png
$ git checkout 02eba60
Note: checking out '02eba60'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -b with the checkout command again. Example:

    git checkout -b <new-branch-name>

HEAD is now at 02eba60... Initial commit with minimal README
$ ls
```

one

```

README.md
branching1.png
branching2.png
branching3.png
branching4.png
branching5.png
branching6.png
git-stage.png
gitbranch7.png
head_attached.png
head_detached.png
index.html
part1.html
part2.html
remark-latest.min.js

```

```

$ git checkout 02eba60
Note: checking out '02eba60'.

```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```

HEAD is now at 02eba60... Initial commit with minimal README
$ ls
README.md
$ ls -a

```

one

```
branching2.png      head_detached.png  
branching3.png      index.html  
branching4.png      part1.html  
branching5.png      part2.html  
branching6.png      remark-latest.min.js  
git-stage.png
```

```
$ git checkout 02eba60  
Note: checking out '02eba60'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 02eba60... Initial commit with minimal README
```

```
$ ls  
README.md  
$ ls -a  
./          ../          .git/       README.md  
$
```

one

Reverting to a previous version

Try this:

```
git checkout 02eba60
```

This restores the repository to the state after the first commit, when only one file README.md existed. (confirm this via `ls -a`)

```
branching2.png
branching3.png
branching4.png
branching5.png
branching6.png
git-stage.png
$ git checkout 02
Note: checking ou

You are in 'detac
changes and commi
state without imp

If you want to cr
do so (now or lat

git checkout -t

HEAD is now at 02
$ ls
README.md
$ ls -a
./
$
```

```
branching2.png      head_detached.png
branching3.png      index.html
branching4.png      part1.html
branching5.png      part2.html
branching6.png      remark-latest.min.js
git-stage.png
```

```
$ git checkout 02eba60
Note: checking out '02eba60'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 02eba60... Initial commit with minimal README
```

```
$ ls
README.md
```

```
$ ls -a
```

```
./          ../          .git/       README.md
$
```

```
branching2.png
branching3.png
branching4.png
branching5.png
branching6.png
git-stage.png
$ git checkout 02
Note: checking out
...
You are in 'detached HEAD' state.
changes and commit messages are
state without impacting any
...
If you want to create a branch
do so (now or later) by
...
git checkout -b
...
HEAD is now at 02
$ ls
README.md
$ ls -a
./
$
```

Reverting to a previous version

Try this:

```
git checkout 02eba60
```

This restores the repository to the state after the first commit, when only one file README.md existed. (confirm this via `ls -a`)

To get back to the most recent snapshot:

```
git checkout master
```

(We are on the master branch, more about branches later)

Try this and confirm that all files are restored.

```

branching2.png      head_detached.png
branching3.png      index.html
branching4.png      part1.html
branching5.png      part2.html
branching6.png      remark-latest.min.js
git-stage.png

```

```

$ git checkout 02eba60
Note: checking out '02eba60'.

```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 02eba60... Initial commit with minimal README
```

```

$ ls
README.md
$ ls -a
./          ../          .git/       README.md
$ cle

```

one

```
$ ls -a
./          ../          .git/       README.md
$ git checkout master
Previous HEAD position was 02eba60... Initial commit with minimal README
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.
$ ls -a
./          .git/       README.md
../         LICENSE.md  slides/
$
```

one

slide
any br

```
$ ls -a
./
$ git checkout ma
Previous HEAD pos
Switched to bran
Your branch is up
$ ls -a
./
../
$
```

Reverting to a previous version

Try this:

```
git checkout 02eba60
```

This restores the repository to the state after the first commit, when only one file README.md existed. (confirm this via `ls -a`)

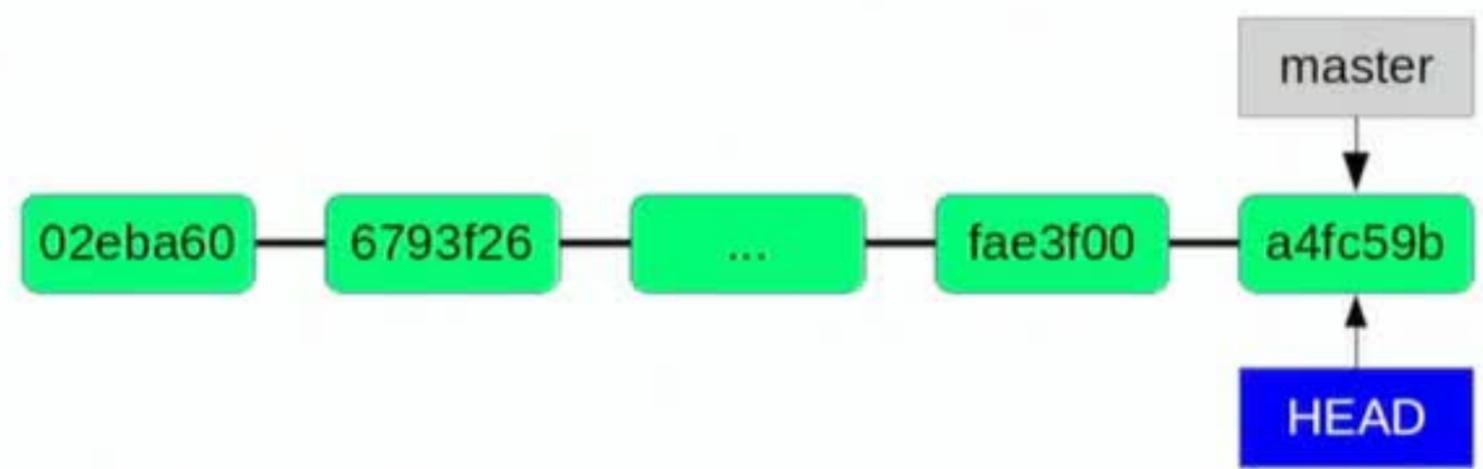
To get back to the most recent snapshot:

```
git checkout master
```

(We are on the master branch, more about branches later)

Try this and confirm that all files are restored.

```
$ ls -a
./
$ git checkout ma
Previous HEAD pos
Switched to bran
Your branch is up
$ ls -a
./
./
$
```



- HEAD refers to the commit that is currently checked out
- Usually at the tip of a branch
- Otherwise HEAD is "detached"

```
$ ls -a
./          ../          .git/       README.md
$ git checkout master
Previous HEAD position was 02eba60... Initial commit with minimal README
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.
$ ls -a
./          .git/       README.md
../        LICENSE.md  slides/
$ git log HEAD~4
```

```
commit b85efb98bca7ea67ace08f59ddc72e691d2de4f8
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:34:11 2017 -0800
```

```
added link to conference abstract
```

```
commit 95899b013ffb16e065e09a4e537eaf4df175736d
```

```
Merge: aafb298 6f1351d
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:31:56 2017 -0800
```

```
Merge branch 'master' into gh-pages
```

```
add Git Cheat sheet links
```

```
* master:
```

```
add link to Git Cheat Sheet to both slide decks
```

```
Update README to thank Github Education
```

```
Update README to include links to slides on website
```

```
commit 6f1351ddebaee75320b88e2d02b14613232f6a93
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Thu Feb 23 13:31:47 2017 -0800
```

```
$
```

```
commit b85efb98bc
Author: Randy LeV
Date: Thu Feb 2

added link to

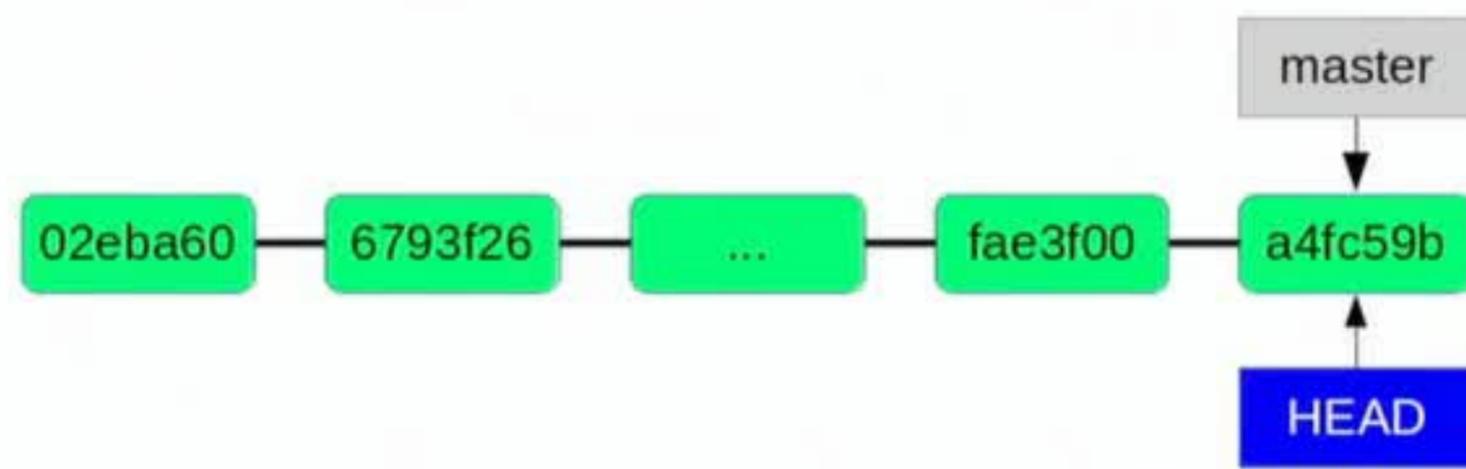
commit 95899b0131
Merge: aafb298 6f1
Author: Randy LeV
Date: Thu Feb 2

Merge branch

add Git Cheat

* master:
  add link to
  Update README
  Update README

commit 6f1351ddet
Author: Randy LeV
Date: Thu Feb 2
$
```



- HEAD refers to the commit that is currently checked out
- Usually at the tip of a branch
- Otherwise HEAD is "detached"

```

commit b85efb98bc
Author: Randy LeV
Date: Thu Feb 2

added link to

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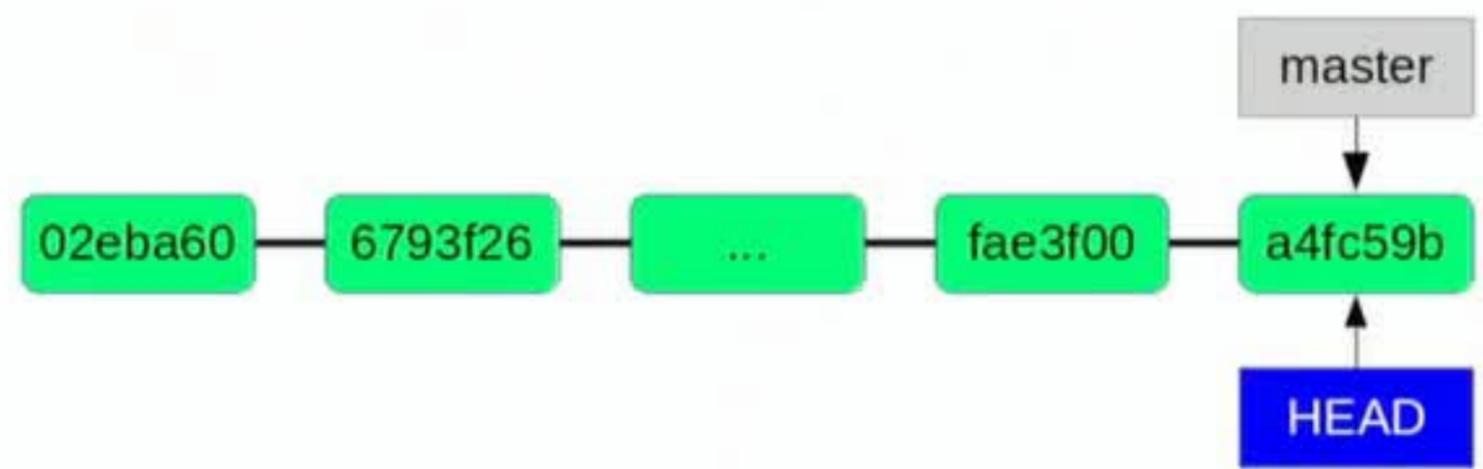
Merge branch

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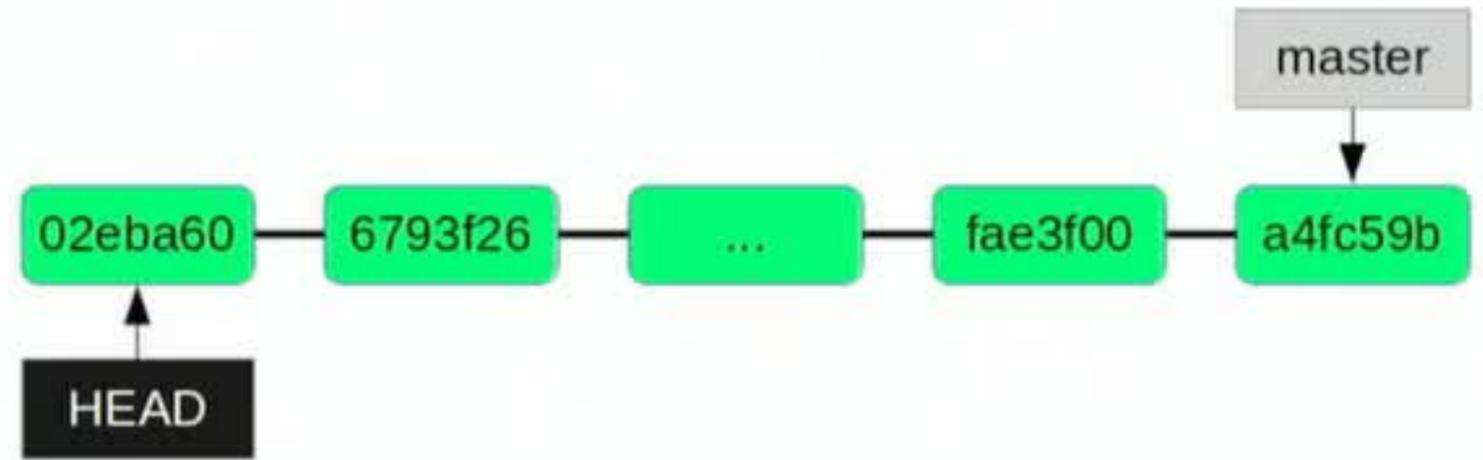
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- HEAD refers to the commit that is currently checked out
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See: <https://git-scm.com/book/en/v1/Git-Branching-What-a-Branch-Is>

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Update READ
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Git diff

Compare files between two different snapshots, e.g.

```
git diff --stat 02eba60 master # show which files changed
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Determine if there are changes in your working directory via

```
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```

```
commit b85efb98bca7ea67ace08f59ddc72e691d2de4f8
```

```
Author: Randy LeVeque <rjl@uw.edu>  
Date: Thu Feb 23 13:34:11 2017 -0800
```

```
added link to conference abstract
```

```
commit 95899b013ffb16e065e09a4e537eaf4df175736d
```

```
Merge: aafb298 6f1351d  
Author: Randy LeVeque <rjl@uw.edu>  
Date: Thu Feb 23 13:31:56 2017 -0800
```

```
Merge branch 'master' into gh-pages
```

```
add Git Cheat sheet links
```

- * master:
 - add link to Git Cheat Sheet to both slide decks
 - Update README to thank Github Education
 - Update README to include links to slides on website

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Update READ
```

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```

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Author: Randy LeVeque <rjl@uw.edu>

Date: Thu Feb 23 13:31:47 2017 -0800

\$ git diff --stat 02eba60 master

LICENSE.md		5	+	
README.md		47	++++-	
slides/README.md		8	+	
slides/branching1.png		Bin 0	->	3507 bytes
slides/branching2.png		Bin 0	->	4219 bytes
slides/branching3.png		Bin 0	->	4050 bytes
slides/branching4.png		Bin 0	->	5812 bytes
slides/branching5.png		Bin 0	->	5742 bytes
slides/branching6.png		Bin 0	->	7229 bytes
slides/git-stage.png		Bin 0	->	7305 bytes
slides/gitbranch7.png		Bin 0	->	94147 bytes
slides/head_attached.png		Bin 0	->	15402 bytes
slides/head_detached.png		Bin 0	->	15795 bytes
slides/index.html		12	++	
slides/part1.html		355	+++++	
slides/part2.html		410	+++++	
slides/remark-latest.min.js		14	++	

17 files changed, 848 insertions(+), 3 deletions(-)

\$ clear

ou

```

part1.html - /var/folders/_s/dx0xgftn3_x04rdx0_w5nq7w0000gn/T
part1.html - /Users/rj/git/uwescience/git-tutorials-siamcse2017/slides

... git status
---
# .blue[Staging files for commit]

[Figure from https://git-scm.com/about/staging-area]
---
# .blue[Create a new repository]
Now let's try making a new repository.
From here we will follow:
- http://swcarpentry.github.io/git-novice/03-create/
???
Switch to working through in a terminal window with a new repo
- Illustrate 'git init, git add, git commit'
- Illustrate 'git status, git diff'
- Explain difference between untracked, clean, unstaged, staged
- Illustrate checking out a single file
- Reverting this file with a new commit
<!-- ## End of slides ## -->
</textarea>
<!-- ## this only works when connected to internet:
<script
src="https://gnab.github.io/remark/downloads/remark-latest.min.js">
</script>
-->
<!-- ## The lines below can be used to view without internet connection,
provided you have the file remark-latest.min.js
-->
<script
src="remark-latest.min.js">
</script>
<!-- ## Create the slide show: -->
<script>
var slideshow = remark.create();

```

```

$ git d
slides
1 file
$ git d
$

```

```

... git status
---
# .blue[Staging files for commit]

[Figure from https://git-scm.com/about/staging-area]
---
# .blue[Create a new repository]
Now let's try making a new repository.
From here we will do a live demo, please follow along.]
For some instructions to do this on your own, see:
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Switch to working through in a terminal window with a new repo
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</script>
-->
<!-- ## The lines below can be used to view without internet connection,
provided you have the file remark-latest.min.js
-->
<script
src="remark-latest.min.js">
</script>
<!-- ## Create the slide show: -->

```

status: 2 differences

Actions

```

11 slide
any br

```

```
$ git diff --stat HEAD~1
slides/part1.html | 8 ++++++-----
1 file changed, 5 insertions(+), 3 deletions(-)
$ git diff HEAD~1 -- slides/part1.html
$
```

ou

```
$ git diff --stat  
slides/part1.htm  
1 file changed,  
$ git diff HEAD~1  
$  
$
```

Git diff

Compare files between two different snapshots, e.g.

```
git diff --stat 02eba60 master # show which files changed  
git diff 02eba60 master -- README.md # show diff in particular file
```

If you have made changes to a file but not committed the changes, then you can see the difference in file from the snapshot HEAD via

```
git diff README.md
```

Git status

Determine if there are changes in your working directory via

```
git status
```

```
$ git diff --stat HEAD~1
slides/part1.html | 8 +++++-----
1 file changed, 5 insertions(+), 3 deletions(-)
$ git diff HEAD~1 -- slides/part1.html
```

```
git-tutorials-siamcse2017
├── git
├── slides
├── LICENSE.md
└── README.md

1
2 ## git-tutorials-siamcse2017
3
4 ### 2017 SIAM Conference on
5 Computational Science and
6 Engineering
7
8 Under development, to be used in
9 tutorials at the 2017 SIAM CSE
10 Conference:
11
12 - [Version Control with Git -
13 Parts I and
14 II](http://meetings.siam.org/sess/d
15 sp_programsess.cfm?SESSIONCODE=6149
16 1)
17
18 If you clone the repository, you
19 should be able to open the file
20 `slides/part1.html` for example in
21 any browser.
```

```
README.md Preview
git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and
Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

- Version Control with Git - Parts I and II

If you clone the repository, you should be able to open the file slides/part1.html for
example in any browser.

Or you can view directly from these links:

- Part 1
- Part 2

Before the tutorial:

Please do the following in preparation for the tutorial:

- Make sure you have Git installed on your laptop, e.g. by attempting to clone this
repository via:



```
git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
```



If you don't have Git installed, see for example Installing Git from the Git Book or the
Software Carpentry instructions below.

If you cloned the repository earlier and want to update with recent changes:



```
cd git-tutorials-siamcse2017
git pull
```


```

ou

```
$ git diff --stat HEAD~1
slides/part1.html | 8 +++++-----
1 file changed, 5 insertions(+), 3 deletions(-)
$ git diff HEAD~1 -- slides/part1.html
$ git status
```

ou

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git pull

```
$ git diff --stat HEAD~1
slides/part1.html | 8 ++++++----
1 file changed, 5 insertions(+), 3 deletions(-)
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$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md

no changes added to commit (use "git add" and/or "git commit -a")
$
```

```
$ git diff --stat
slides/part1.htm
1 file changed,
$ git diff HEAD~1
$ git status
On branch master
Your branch is up
Changes not stage
(use "git add <
(use "git check

modified:

no changes added
$
```

Git diff

Compare files between two different snapshots, e.g.

```
git diff --stat 02eba60 master # show which files changed
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no changes added to commit (use "git add" and/or "git commit -a")
$ git diff
```

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```

vpLXob_README.md - /var/folders/_s/dx0xgftn3_x04rdx0_w5nq7w0000gn/T
README.md - /Users/rjl/git/uwescience/git-tutorials-siamcse2017

## git-tutorials-siamcse2017
### 2017 SIAM Conference on Computational Science and Engineering
Under development, to be used in tutorials at the 2017 SIAM CSE Conference:
- [Version Control with Git - Parts I and II](http://meetings.siam.org/sess/dsp_programsess.cfm?SESSI
If you clone the repository, you should be able to open the file
'slides/part1.html' for example in any browser.
Or you can view directly from these links:
- [Part 1](https://uwescience.github.io/git-tutorials-siamcse2017/slides/part1.html)
- [Part 2](https://uwescience.github.io/git-tutorials-siamcse2017/slides/part2.html)
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git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
If you don't have Git installed, see for example [Installing Git](https://git-scm.com/book/en/v2/Ge
If you cloned the repository earlier and want to update with recent changes:
...
cd git-tutorials-siamcse2017
git pull
...
- Know how to use basic command line instructions in a Unix shell, such as 'cd', 'ls', etc.
See for example: http://swcarpentry.github.io/shell-novice/
- Have an editor that you know how to use for modifying files. (e.g. nano, vim, emacs, etc.)
- For Part 2, you should also have a Github account. Create a free account at https://github.com/
## Tips:
- See http://installation.software-carpentry.org/ for the software recommended for [Software Carpentr
- If you have a MacBook, you will need to install Xcode in order for command line tools to work.
- The file 'slides/part1.html' in this repository also contains some hints.
These tutorials are supported in part by [Github Education](https://education.github.com/), who kindly

## git-tutorials-siamcse2017
# Something new
### 2017 SIAM Conference on Computational Science and Engineering
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```

status: 1 difference Actions

\$ git d
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1 file
\$ git d
\$ git s
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(use

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\$ git d
\$

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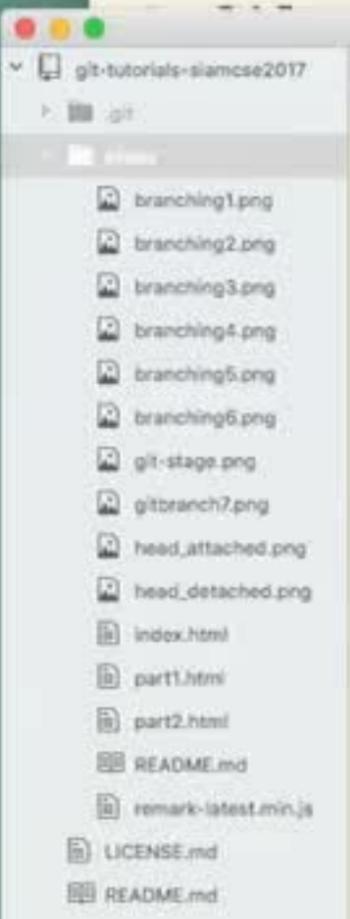
```
Terminal Shell Edit View Window Help
Git Tutorial 1 x Conference Program Online x uwescience/git-tutorials-siam x Git Tutorial 2 x Pull Requests - rjleveque/git x
git-tutorials-siamcse2017 - bash - 79x24

$ git diff --stat HEAD~1
slides/part1.html | 8 ++++++-----
1 file changed, 5 insertions(+), 3 deletions(-)
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Your branch is up-to-date with 'origin/master'.
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       modified:   README.md

no changes added to commit (use "git add" and/or "git commit -a")
$ git diff
$ git checkout -- README.md
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
nothing to commit, working tree clean
$
```

```
$ git diff --stat HEAD~1
slides/part1.html | 8 +++++-----
```



```
1
2 ## git-tutorials-siamcse2017
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modified:

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no changes added  
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$
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Compare files between two different snapshots, e.g.

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Determine if there are changes in your working directory via

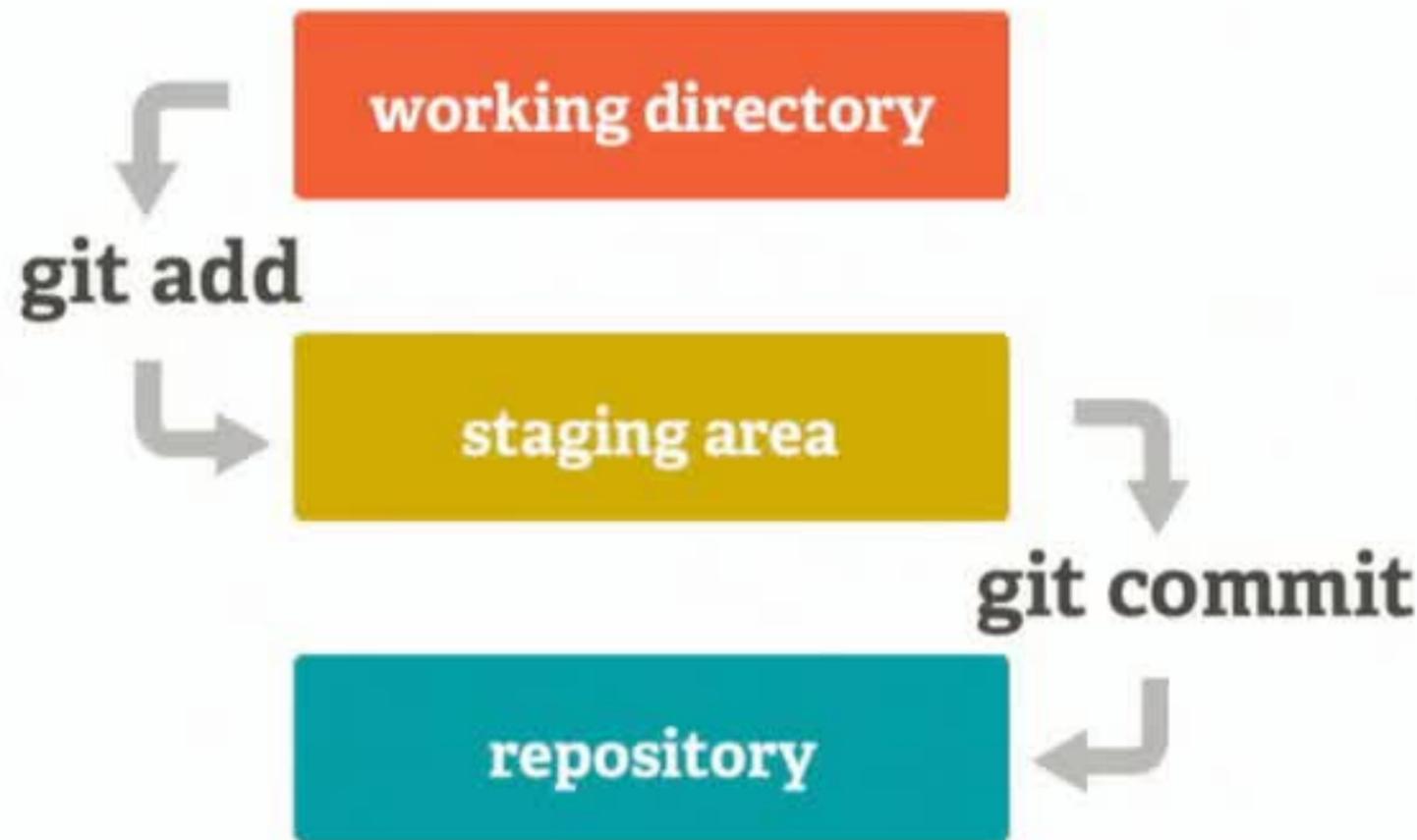
```
git status
```

```
$ git diff --stat
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1 file changed,
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(use "git add <
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modified:

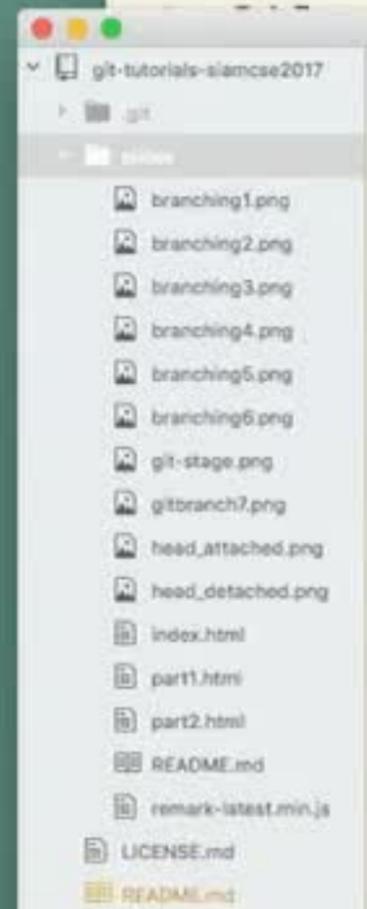
no changes added
$ git diff
$ git checkout --
$ git status
On branch master
Your branch is up
nothing to commit
$
```

Staging files for commit



[Figure from <https://git-scm.com/about/staging-area>]

```
$ git diff --stat slides/part1.htm
```



```

47 - If you have a MacBook, you will
   • need to install Xcode in order for
   • command line tools to work.
48 - The file `slides/part1.html` in
   • this repository also contains some
   • hints.
49
50
51 These tutorials are supported in
   • part by [Github
   • Education](https://education.github.
   • com/), who kindly provided some
   • materials such as [Git cheat
   • sheets](https://education.github.com
   • /git-cheat-sheet-education.pdf)
   • that will be distributed during the
   • tutorial. See their webpage for
   • other resources, or if you are
   • interested in getting such
   • materials or private repositories
   • for a class you are teaching.
52
53

```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and Engineering

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- Version Control with Git - Parts I and II

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- Make sure you have Git installed on your laptop, e.g. by attempting to clone this repository via:


```
git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
```

If you don't have Git installed, see for example [Installing Git from the Git Book](#) or the [Software Carpentry instructions](#) below.

If you cloned the repository earlier and want to update with recent changes:

```
cd git-tutorials-siamcse2017
git pull
```

- Know how to use basic command line instructions in a Unix shell, such as `cd`, `ls`, etc. See for example: <http://swcarpentry.github.io/shell-novice/>
- Have an editor that you know how to use for modifying files. (e.g. `nano`, `vim`, `emacs`)

```
$ git diff --stat HEAD~1
slides/part1.html | 8 ++++++----
1 file changed, 5 insertions(+), 3 deletions(-)
$ git diff HEAD~1 -- slides/part1.html
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md

no changes added to commit (use "git add" and/or "git commit -a")
$ git diff
$ git checkout -- README.md
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
nothing to commit, working tree clean
$ git sta
```

```
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
$ git diff
```

```
$ git checkout -- README.md
```

```
$ git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
nothing to commit, working tree clean
```

```
$ git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Changes not staged for commit:
```

```
  (use "git add <file>..." to update what will be committed)
```

```
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
$
```

```
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
$ git add README.md
```

```
$ git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Changes to be committed:
```

```
  (use "git reset HEAD <file>..." to unstage)
```

```
    modified:   README.md
```

```
$ touch file1.txt
```

```
$ ls
```

```
LICENSE.md      README.md      file1.txt      slides/
```

```
$ cle
```

```
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

       modified:   README.md

Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

```
file1.txt
```

```
$ git add file1.txt
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
```

```
       modified:   README.md
       new file:   file1.txt
```

```
$
```

```
$ git status
On branch master
```

- git-tutorials-siamcse2017
- git
- branches
- branching1.png
- branching2.png
- branching3.png
- branching4.png
- branching5.png
- branching6.png
- git-stage.png
- gitbranch7.png
- head_attached.png
- head_detached.png
- index.html
- part1.html
- part2.html
- README.md
- remark-latest.min.js
- file1.txt
- LICENSE.md
- README.md

```

48  • need to install Xcode in order for
49  • command line tools to work.
50  • - The file `slides/part1.html` in
51  • this repository also contains some
52  • hints.
53  •
54  • These tutorials are supported in
  • part by [Github
  • Education](https://education.github.
  • com/), who kindly provided some
  • materials such as [Git cheat
  • sheets](https://education.github.com
  • /git-cheat-sheet-education.pdf)
  • that will be distributed during the
  • tutorial. See their webpage for
  • other resources, or if you are
  • interested in getting such
  • materials or private repositories
  • for a class you are teaching.
```

git-tutorials-siamcse2017

2017 SIAM Conference on Computational Science and Engineering

Under development, to be used in tutorials at the 2017 SIAM CSE Conference:

- Version Control with Git - Parts I and II

If you clone the repository, you should be able to open the file `slides/part1.html` for example in any browser.

Or you can view directly from these links:

- Part 1
- Part 2

Before the tutorial:

Please do the following in preparation for the tutorial:

- Make sure you have Git installed on your laptop, e.g. by attempting to clone this repository via:


```
git clone https://github.com/uwescience/git-tutorials-siamcse2017.git
```
- If you don't have Git installed, see for example [Installing Git](#) from the [Git Book](#) or the [Software Carpentry](#) instructions below.
- If you cloned the repository earlier and want to update with recent changes:


```
cd git-tutorials-siamcse2017
git pull
```
- Know how to use basic command line instructions in a Unix shell, such as `cd`, `ls`, etc. See for example: <http://swcarpentry.github.io/shell-novice/>
- Have an editor that you know how to use for modifying files. (e.g. `nano`, `vim`, `emacs`)

```
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

       modified:   README.md

Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

```
       file1.txt
```

```
$ git add file1.txt
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
```

```
       modified:   README.md
       new file:   file1.txt
```

```
$ c
```

```
Terminal Shell Edit View Window Help
Git Tutorial 1 x Conference Program Online x uwescience/git-tutorials-siam x Git Tutorial 2 x Pull Requests · r/leveque/git · x
git-tutorials-siamcse2017 — -bash — 79x24

$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

       modified:   README.md
       new file:   file1.txt

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

       modified:   README.md

$ git add -u .
$ git stat
```

Your branch is up-to-date with 'origin/master'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md
new file: file1.txt

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

\$ git add -u .

\$ git status

On branch master

Your branch is up-to-date with 'origin/master'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md
new file: file1.txt

\$

```
Your branch is up  
Changes to be com  
(use "git reset
```

```
modified:  
new file:
```

```
Changes not stage  
(use "git add <  
(use "git check
```

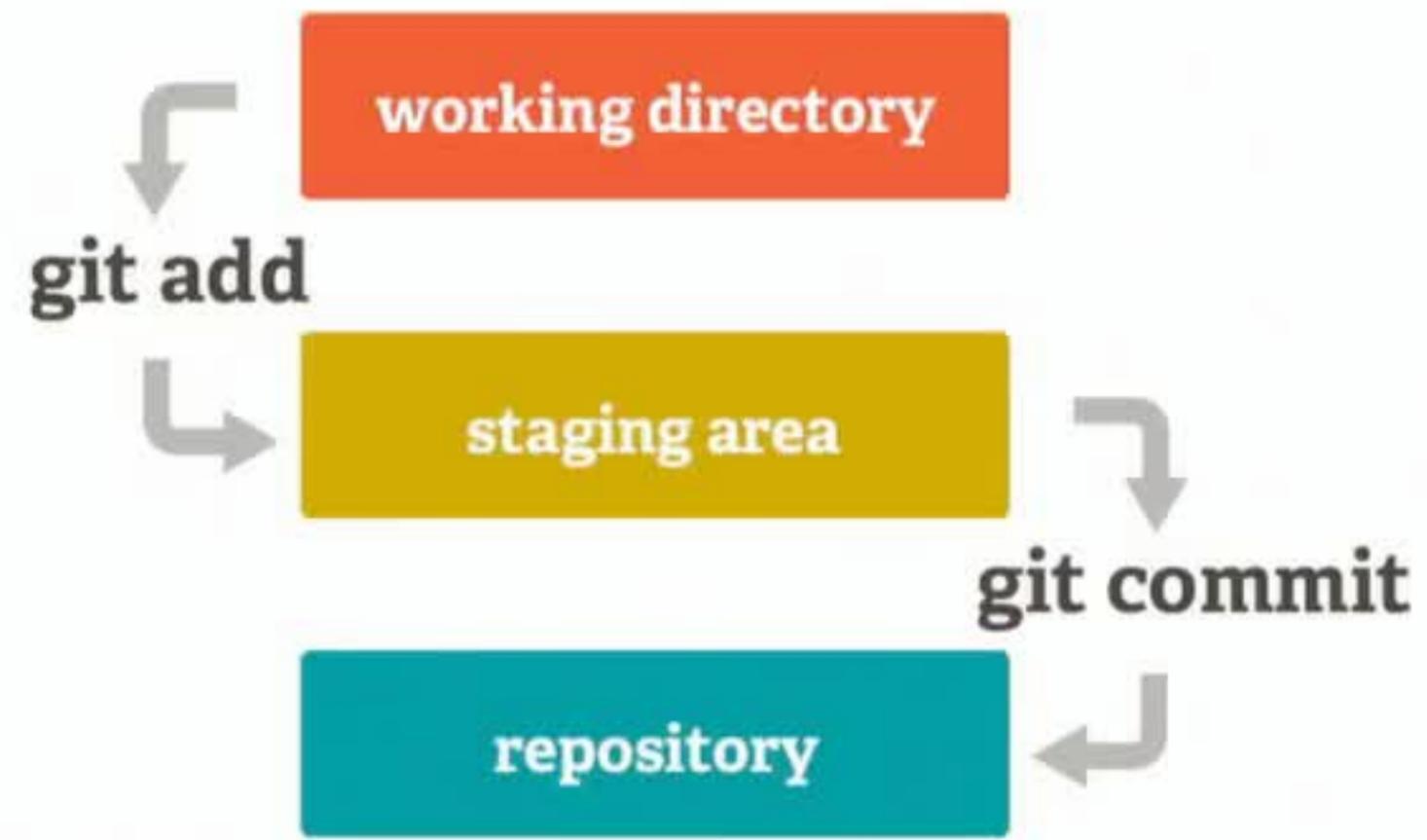
```
modified:
```

```
$ git add -u  
$ git status  
On branch master  
Your branch is up  
Changes to be com  
(use "git reset
```

```
modified:  
new file:
```

```
$
```

Staging files for commit



[Figure from <https://git-scm.com/about/staging-area>]

Your branch is up-to-date with 'origin/master'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md
new file: file1.txt

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

```
$ git add -u .
```

```
$ git status
```

On branch master

Your branch is up-to-date with 'origin/master'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md
new file: file1.txt

```
$ git reset HEAD file1.txt
```

```
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
```

```
    modified:   README.md
    new file:   file1.txt
```

```
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
$ git add -u .
```

```
$ git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Changes to be committed:
```

```
  (use "git reset HEAD <file>..." to unstage)
```

```
    modified:   README.md
    new file:   file1.txt
```

```
$ git reset HEAD file1.txt
```

```
$ git sta
```

```
Terminal Shell Edit View Window Help
Git Tutorial 1 Conference Program Online uwescience/git-tutorials-siamcse2017 - bash - 79x24 Git Tutorial 2 Pull Requests - rjleveque/git-...
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

       modified:   README.md
       new file:   file1.txt

$ git reset HEAD file1.txt
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

       modified:   README.md

Untracked files:
  (use "git add <file>..." to include in what will be committed)

       file1.txt

$ git commit -m "added blank lines in demo"
```

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

```
modified: README.md
new file: file1.txt
```

```
$ git reset HEAD file1.txt
```

```
$ git status
```

On branch master

Your branch is up-to-date with 'origin/master'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

```
modified: README.md
```

Untracked files:

(use "git add <file>..." to include in what will be committed)

```
file1.txt
```

```
$ git commit -m "added blank lines in demo"
```

```
[master a98f979] added blank lines in demo
```

```
1 file changed, 2 insertions(+)
```

```
$ git log
```

```
commit a98f979b44792335b2bb4972bcad9530a8809ebe
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Mon Feb 27 10:59:11 2017 -0500
```

```
added blank lines in demo
```

```
commit 4874e7bfe50c4651ef1862e4e709532d42288f05
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Mon Feb 27 08:47:17 2017 -0500
```

```
demo instructions
```

```
commit 716246866a35d1a486ade1dc393d01761449d150
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Sun Feb 26 17:29:14 2017 -0500
```

```
added new figures for detached head
```

```
commit a4fc59bdbc39f37f740691076cb892dc7d4a42d0
```

```
Author: Randy LeVeque <rjl@uw.edu>
```

```
Date: Sun Feb 26 09:19:04 2017 -0500
```

```
added links to gitk, atom
```

```
:
```

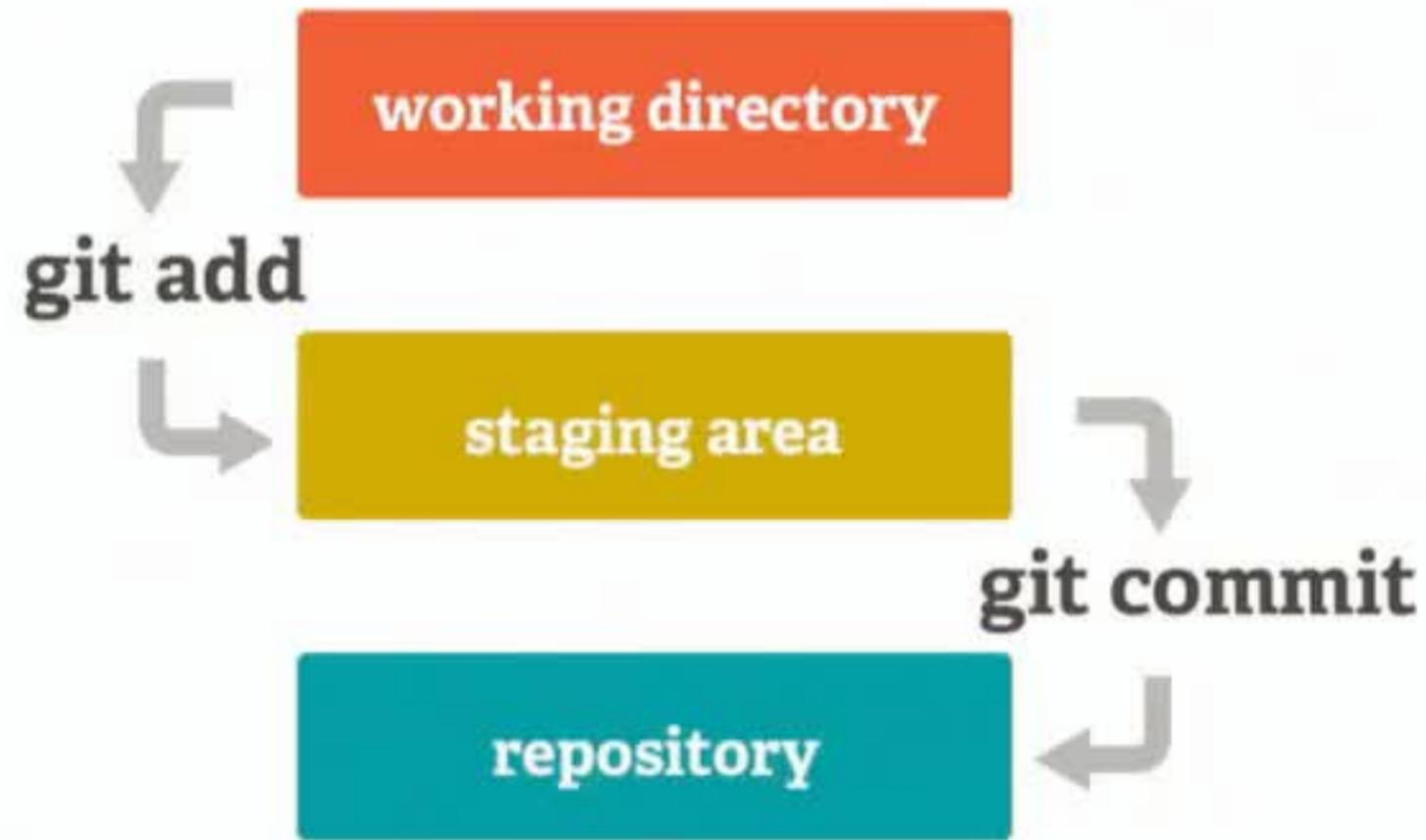
```
commit a98f979b44
Author: Randy LeV
Date: Mon Feb 2
    added blank 1

commit 4874e7bfe5
Author: Randy LeV
Date: Mon Feb 2
    demo instruct

commit 716246866a
Author: Randy LeV
Date: Sun Feb 2
    added new fig

commit a4fc59bdbc
Author: Randy LeV
Date: Sun Feb 2
    added links t
```

Staging files for commit



[Figure from <https://git-scm.com/about/staging-area>]

```
commit a98f979b44
Author: Randy LeV
Date: Mon Feb 2
    added blank 1

commit 4874e7bfe5
Author: Randy LeV
Date: Mon Feb 2
    demo instruct

commit 716246866a
Author: Randy LeV
Date: Sun Feb 2
    added new fig

commit a4fc59bdbc
Author: Randy LeV
Date: Sun Feb 2
    added links t
:

```

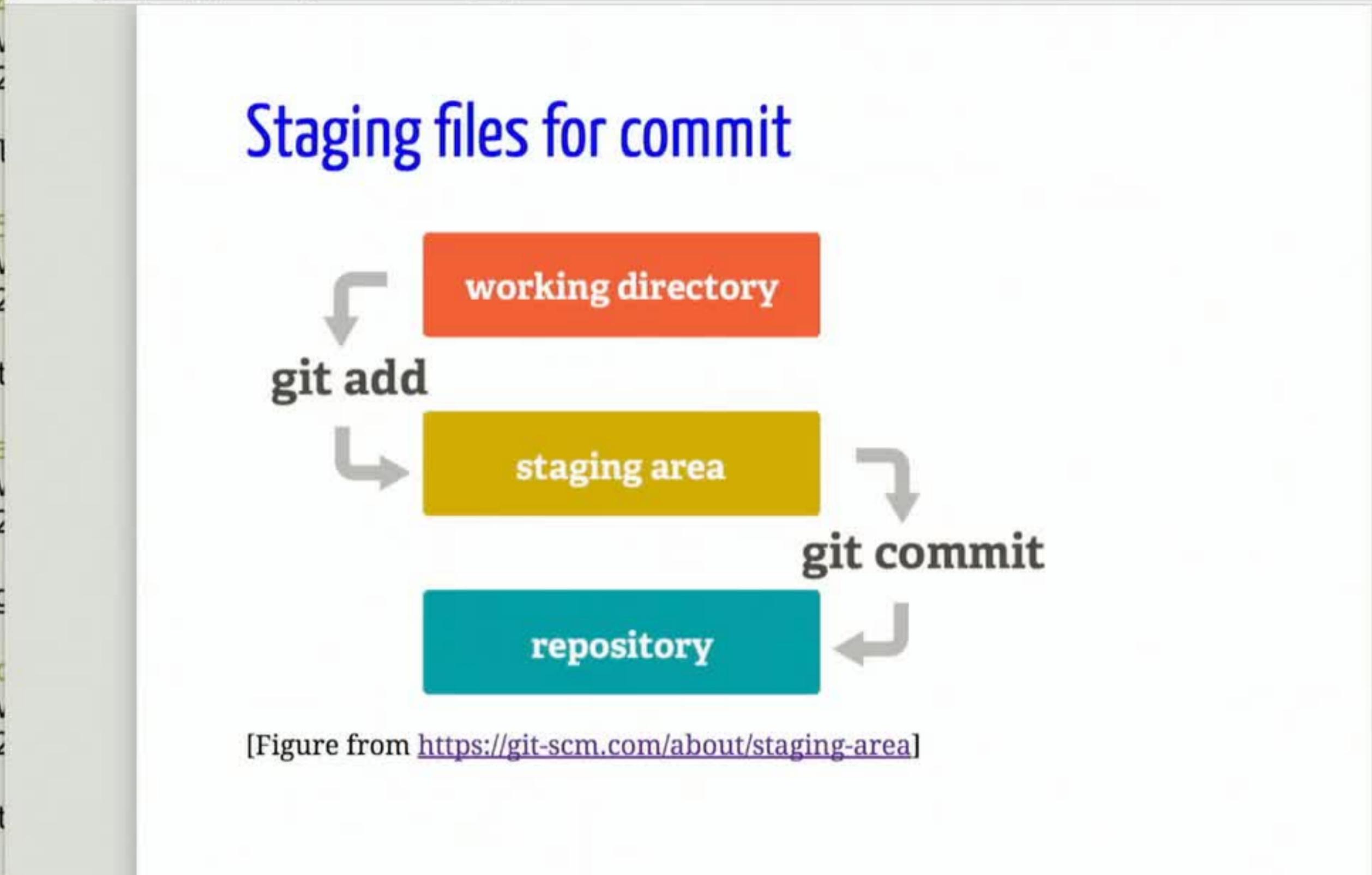
Create a new repository

Now let's try making a new repository.

From here we will do a live demo, please follow along

For some instructions to do this on your own, see:

- <http://swcarpentry.github.io/git-novice/03-create/>



[Figure from <https://git-scm.com/about/staging-area>]

```
commit a98f979b44
Author: Randy LeV
Date: Mon Feb 2

added blank 1

commit 4874e7bfe5
Author: Randy LeV
Date: Mon Feb 2

demo instruct

commit 716246866a
Author: Randy LeV
Date: Sun Feb 2

added new fig

commit a4fc59bdbc
Author: Randy LeV
Date: Sun Feb 2

added links t
:
54
```

```
commit a98f979b44
Author: Randy LeV
Date: Mon Feb 2

added blank 1

commit 4874e7bfe5
Author: Randy LeV
Date: Mon Feb 2

demo instruct

commit 716246866a
Author: Randy LeV
Date: Sun Feb 2

added new fig

commit a4fc59bdbc
Author: Randy LeV
Date: Sun Feb 2

added links t
: □
```

Create a new repository

Now let's try making a new repository.

From here we will do a live demo, please follow along

For some instructions to do this on your own, see:

- <http://swcarpentry.github.io/git-novice/03-create/>

~ >> cd █



~ >> cd █

~ >> cd █

ed
7.1...
7.9...
7.5...
7.1...
7.7...
7.3...
(6,7...
(6,7...

.pdf
.pdf

~ >> cd █

Intosh HD

Site Modified

- ib 17, 2017, 1...
- ib 7, 2017, 9...
- in 19, 2017, 5...
- in 19, 2017, 1...
- in 15, 2017, 7...
- in 11, 2017, 3...
- ec 21, 2016, 7...
- ec 21, 2016, 7...

8. tail (tail)

modstemp git diff git status

ls

█

```
~ >> cd  
~ >> cd
```



modstemp

- git new
- git status
- modify readme
- git diff
- git status

ls

```
~ >> cd
```



git rm
git status
modify readme
git diff
git status

```
ls
```



```
~ >> cd  
~ >> cd
```

Preferences

General Colors Text Window Terminal Session Keys Advanced

Basic Colors

Foreground Selection
Background Selected Text
Bold Badge
Links Tab Color

Minimum contrast:

Cursor Colors

Cursor Cursor Guide
Cursor Text Smart Cursor Color
Cursor Boost:

ANSI Colors

	Normal	Bright
Black	<input type="color" value="black"/>	<input type="color" value="gray"/>
Red	<input type="color" value="red"/>	<input type="color" value="lightcoral"/>
Green	<input type="color" value="green"/>	<input type="color" value="lightgreen"/>
Yellow	<input type="color" value="yellow"/>	<input type="color" value="gold"/>
Blue	<input type="color" value="blue"/>	<input type="color" value="mediumslateblue"/>
Magenta	<input type="color" value="magenta"/>	<input type="color" value="lightpink"/>
Cyan	<input type="color" value="cyan"/>	<input type="color" value="lightcyan"/>
White	<input type="color" value="white"/>	<input type="color" value="white"/>

Color Presets...

tail (tail)

```
ls
```

```
~ >> cd  
~ >> cd
```

Preferences

General Colors Text Window Terminal Session Keys Advanced

Basic Colors

Foreground Selection
Background Selected Text
Bold Badge
Links Tab Color

Minimum contrast:

Cursor Colors

Cursor Cursor Guide
Cursor Text Smart Cursor Color
Cursor Boost:

ANSI Colors

	Normal	Bright
Black	<input type="color" value="black"/>	<input type="color" value="gray"/>
Red	<input type="color" value="red"/>	<input type="color" value="red"/>
Green	<input type="color" value="green"/>	<input type="color" value="green"/>
Yellow	<input type="color" value="yellow"/>	<input type="color" value="yellow"/>
Blue	<input type="color" value="blue"/>	<input type="color" value="blue"/>
Magenta	<input type="color" value="magenta"/>	<input type="color" value="magenta"/>
Cyan	<input type="color" value="cyan"/>	<input type="color" value="cyan"/>
White	<input type="color" value="white"/>	<input type="color" value="white"/>

Color Presets...

- Dark Background
- ✓ Light Background
- Pastel (Dark Background)
- Solarized Dark
- Solarized Light
- Tango Dark
- Tango Light

Import...
Export...
Delete Preset...
Visit Online Gallery

6. tail (tail)

```
ls
```

```
~ » cd
```

Preferences

General Colors Text Window Terminal Session Keys Advanced

Basic Colors

Foreground [grey swatch] Selection [light blue swatch]
 Background [black swatch] Selected Text [black swatch]
 Bold [white swatch] Badge [orange swatch]
 Links [blue swatch] Tab Color [diagonal lines swatch]

Minimum contrast: [slider]

Cursor Colors

Cursor [grey swatch] Cursor Guide [checkbox] [swatch]
 Cursor Text [white swatch] Smart Cursor Color [checkbox checked]
 Cursor Boost: [slider]

ANSI Colors

	Normal	Bright
Black	[black swatch]	[dark grey swatch]
Red	[red swatch]	[bright red swatch]
Green	[green swatch]	[bright green swatch]
Yellow	[yellow swatch]	[bright yellow swatch]
Blue	[blue swatch]	[bright blue swatch]
Magenta	[magenta swatch]	[bright magenta swatch]
Cyan	[cyan swatch]	[bright cyan swatch]
White	[light grey swatch]	[white swatch]

Color Presets... [dropdown]

6. tail (tail)

```
ls
```

```
~ » mkdir git_yer_git_on
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in /Users/ketch/git_yer_git_on/.git/
~/git_yer_git_on - [master] » ls .git
HEAD          branches      config        description  hooks         info          objects       refs
~/git_yer_git_on - [master] » ls
~/git_yer_git_on - [master] » git status
On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)
~/git_yer_git_on - [master] »
```

```
ls
mkdir git_yer_git_on
cd git_yer_git_on
git init
ls .git
ls
git status
```

```
ITerm2 Shell Edit View Profiles Toolbelt Window Help
5: ~/git_yer_git_on (zsh)
~ » mkdir git_yer_git_on
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in /Users/ketch/git_yer_git_on/.git/
~/git_yer_git_on - [master] » ls .git
HEAD      branches  config    description hooks      info       objects    refs
~/git_yer_git_on - [master] » ls
~/git_yer_git_on - [master] » git status
On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)
~/git_yer_git_on - [master] »
```

```
ls
mkdir git_yer_git_on
cd git_yer_git_on
git init
ls .git
ls
git status
```

```
iTerm2 Shell Edit View Profiles Toolbelt Window Help 5. ~/git_yer_git_on (zsh)
~ » mkdir git_yer_git_on
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in /Users/ketch/git_yer_git_on/.git/
~/git_yer_git_on - [master] » ls .git
HEAD          branches      config        description  hooks         info          objects       refs
~/git_yer_git_on - [master] » ls
~/git_yer_git_on - [master] » git status
On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)
~/git_yer_git_on - [master] » mvim README.md
```

```
ls
mkdir git_yer_git_on
cd git_yer_git_on
git init
ls .git
ls
git status
```

```
~ » mkdir git_yer_git_on
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in /U
~/git_yer_git_on - [master] » ls .git
HEAD      branches  config    de
~/git_yer_git_on - [master] » ls
~/git_yer_git_on - [master] » git stat
On branch master

Initial commit

nothing to commit (create/copy files o
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] »
```

```
README.md (~/git_yer_git_on) - VIM1
"README.md" [New File]
0,0-1 All
```

```
refs
```

```
mkdir git_yer_git_on
cd git_yer_git_on
git init
ls .git
ls
git status
mvim README.md
```

```
~ » mkdir git_yer_git_on
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in /U
~/git_yer_git_on - [master] » ls .git
HEAD      branches  config    de
~/git_yer_git_on - [master] » ls
~/git_yer_git_on - [master] » git stat
On branch master

Initial commit

nothing to commit (create/copy files o
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] »
```

```
README.md (~/git_yer_git_on) - VIM1
"README.md" [New File]
0,0-1 All
```

```
refs
```

```
mkdir git_yer_git_on
cd git_yer_git_on
git init
ls .git
ls
git status
mvim README.md
```

```

~ » mkdir git_yer_git_on
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in /U
~/git_yer_git_on - [master] » ls .git
HEAD      branches  config    de
~/git_yer_git_on - [master] » ls
~/git_yer_git_on - [master] » git stat
On branch master

Initial commit

nothing to commit (create/copy files o
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] » █

```



```

mkdir git_yer_git_on
cd git_yer_git_on
git init
ls .git
ls
git status
mvim README.md
█

```

```
~ » mkdir git_yer_git
~ » cd git_yer_git_on
~/git_yer_git_on » git init
Initialized empty Git repository in
~/git_yer_git_on - [master]
HEAD
branches
~/git_yer_git_on - [master]
~/git_yer_git_on - [master]
On branch master

Initial commit

nothing to commit (create an initial commit)
~/git_yer_git_on - [master]
~/git_yer_git_on - [master]
```

```
This is the amazing readme.
```

```
mkdir git
cd git_ye
git init
ls .git
ls
git statu
mvim READ

```

```
:wq
```

On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » git status
```

On branch master

Initial commit

Untracked files:

(use "git add <file>..." to include in what will be committed)

README.md

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] »
```

```
cd git_yer_git_on
```

```
git init
```

```
ls .git
```

```
ls
```

```
git status
```

```
mvim README.md
```

```
git status
```

On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)

~/git_yer_git_on - [master] » `mvim README.md`

~/git_yer_git_on - [master] » `git status`

On branch master

Initial commit

Untracked files:

(use "git add <file>..." to include in what will be committed)

README.md

nothing added to commit but untracked files present (use "git add" to track)

~/git_yer_git_on - [master•] »

`cd git_yer_git_on`

`git init`

`ls .git`

`ls`

`git status`

`mvim README.md`

`git status`

`█`

Initial commit

nothing to commit (create/copy files and use "git add" to track)

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » git status
```

On branch master

Initial commit

Untracked files:

(use "git add <file>..." to include in what will be committed)

README.md

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master] » git add README.md
```

```
~/git_yer_git_on - [master] » git stat
```

```
git init
```

```
ls .git
```

```
ls
```

```
git status
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
█
```

Untracked files:

(use "git add <file>..." to include in what will be committed)

README.md

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master] » git status
```

On branch master

Initial commit

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md

```
~/git_yer_git_on - [master] » git commit
```

```
ls .git
```

```
ls
```

```
git status
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

Starting the README.

I could put more information
in this message.

```
# Please enter the commit message for your changes. Lines starting  
# with '#' will be ignored, and an empty message aborts the commit.
```

```
# On branch master
```

```
#
```

```
# Initial commit
```

```
#
```

```
# Changes to be committed:
```

```
#   new file:   README.md
```

```
#
```

```
:wq\
```

```
ls  
git status  
mvim README.md  
git status  
git add README.md  
git status  
git commit
```

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master] » git add README.md
```

```
~/git_yer_git_on - [master] » git status
```

On branch master

Initial commit

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md

```
~/git_yer_git_on - [master] » git commit
```

```
[master (root-commit) 5719bdd] Starting the README.
```

```
1 file changed, 1 insertion(+)
```

```
create mode 100644 README.md
```

```
~/git_yer_git_on - [master] »
```

```
ls
```

```
git status
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
git commit
```

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master] » git add README.md
```

```
~/git_yer_git_on - [master] » git status
```

On branch master

Initial commit

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md

```
~/git_yer_git_on - [master] » git commit
```

```
[master (root-commit) 5719bdd] Starting the README.
```

```
1 file changed, 1 insertion(+)
```

```
create mode 100644 README.md
```

```
~/git_yer_git_on - [master] »
```

```
ls
```

```
git status
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
git commit
```

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master] » git add README.md
```

```
~/git_yer_git_on - [master] » git status
```

On branch master

Initial commit

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md

```
~/git_yer_git_on - [master] » git commit
```

```
[master (root-commit) 5719bdd] Starting the README.
```

```
1 file changed, 1 insertion(+)
```

```
create mode 100644 README.md
```

```
~/git_yer_git_on - [master] » git status
```

```
ls
```

```
git status
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
git commit
```

```
~/git_yer_git_on - [master] » git commit
[master (root-commit) 5719bdd] Starting the README.
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
~/git_yer_git_on - [master] » git status
On branch master
nothing to commit, working directory clean
~/git_yer_git_on - [master] » git log
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.
~/git_yer_git_on - [master] »
```

```
mvim README.md
git status
git add README.md
git status
git commit
git status
git log
```

```
~/git_yer_git_on - [master] » git commit
[master (root-commit) 5719bdd] Starting the README.
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
~/git_yer_git_on - [master] » git status
On branch master
nothing to commit, working directory clean
~/git_yer_git_on - [master] » git log
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.
~/git_yer_git_on - [master] »
```

```
mvim README.md
git status
git add README.md
git status
git commit
git status
git log
```

```
~/git_yer_git_on - [master] » git commit
[master (root-commit) 5719bdd] Starting the README.
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
~/git_yer_git_on - [master] » git status
On branch master
nothing to commit, working directory clean
~/git_yer_git_on - [master] » git log
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [master] »
```

```
mvim README.md
git status
git add README.md
git status
git commit
git status
git log
```

```
~/git_yer_git_on - [master] » git commit
[master (root-commit) 5719bdd] Starting the README.
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
~/git_yer_git_on - [master] » git status
On branch master
nothing to commit, working directory clean
~/git_yer_git_on - [master] » git log
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [master] »
```

```
mvim README.md
git status
git add README.md
git status
git commit
git status
git log
```

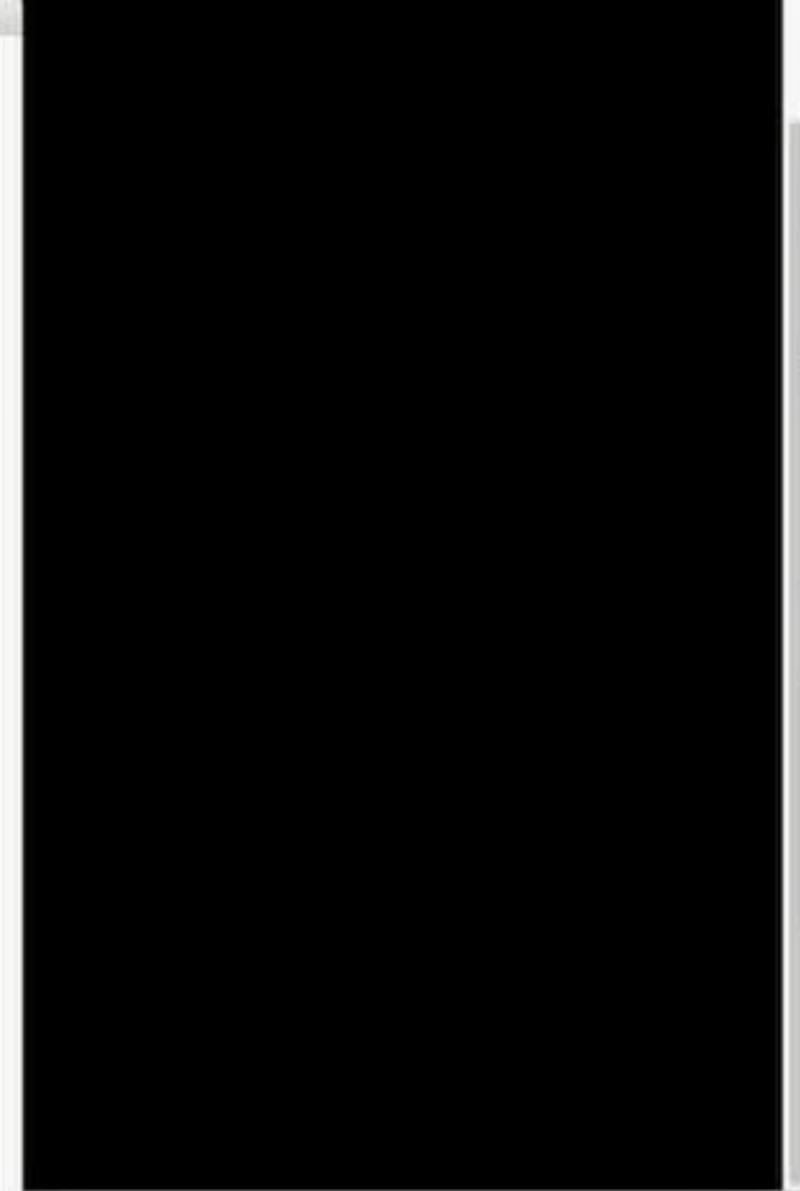
```
~/git_yer_git_on - [master] » mvim README.md
```

```
git status  
git add README.md  
git status  
git commit  
git status  
git log  
git log --oneline  
█
```

```
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] »
```

```
README.md (~/git_yer_git_on) - VIM1
this is the amazing readme.

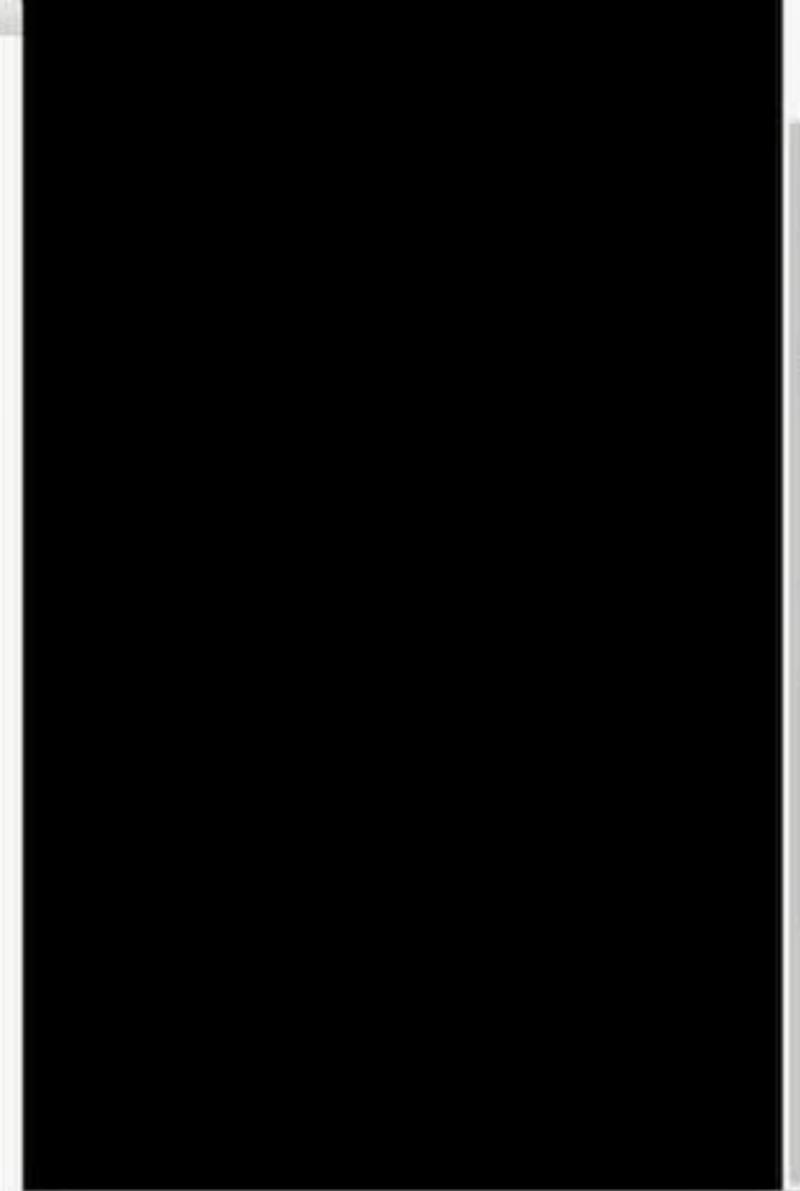
"README.md" 1L, 28C 1,1 All
```



```
git add README.md
git status
git commit
git status
git log
git log --oneline
mvim README.md
```

```
~/git_yer_git_on - [master] » mvim REA  
~/git_yer_git_on - [master] »
```

```
README.md (~/git_yer_git_on) - VIM1  
this is the amazing readme.  
"README.md" 1L, 28C 1,1 All
```



```
git add README.md  
git status  
git commit  
git status  
git log  
git log --oneline  
mvim README.md
```

```
~/git_yer_git_on - [master] » mvim REA  
~/git_yer_git_on - [master] »
```

```
README.md (~/.git_yer_git_on) - VIM1  
this is the amazing readme.  
  
1,1 All
```

```
git add README.md  
git status  
git commit  
git status  
git log  
git log --oneline  
mvim README.md
```

```
~/git_yer_git_on - [master] » mvim REA  
~/git_yer_git_on - [master] »
```

```
This is the amazing readme.  
Here's some more information about my project.
```

```
git add README.md  
git status  
git commit  
git status  
git log  
git log --oneline  
mvim README.md
```

:wq

```
~/git_yer_git_on - [master] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
(use "git add <file>..." to update what will be committed)
```

```
(use "git checkout -- <file>..." to discard changes in working directory)
```

```
modified: README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git status
```

```
On branch master
```

```
Changes to be committed:
```

```
(use "git reset HEAD <file>..." to unstage)
```

```
modified: README.md
```

```
~/git_yer_git_on - [master•] »
```

```
git status
```

```
git log
```

```
git log --oneline
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
~/git_yer_git_on - [master] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
(use "git add <file>..." to update what will be committed)
```

```
(use "git checkout -- <file>..." to discard changes in working directory)
```

```
modified: README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git status
```

```
On branch master
```

```
Changes to be committed:
```

```
(use "git reset HEAD <file>..." to unstage)
```

```
modified: README.md
```

```
~/git_yer_git_on - [master•] »
```

```
git status
```

```
git log
```

```
git log --oneline
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
█
```

```
~/git_yer_git_on - [master] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
(use "git add <file>..." to update what will be committed)
```

```
(use "git checkout -- <file>..." to discard changes in working directory)
```

```
modified: README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git status
```

```
On branch master
```

```
Changes to be committed:
```

```
(use "git reset HEAD <file>..." to unstage)
```

```
modified: README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
git status
```

```
git log
```

```
git log --oneline
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
(use "git add <file>..." to update what will be committed)
(use "git checkout -- <file>..." to discard changes in working directory)
```

```
modified: README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git status
```

```
On branch master
```

```
Changes to be committed:
```

```
(use "git reset HEAD <file>..." to unstage)
```

```
modified: README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M README.md
```

```
~/git_yer_git_on - [master•] » git status
```

```
git log
git log --oneline
mvim README.md
git status
git add README.md
git status
git reset HEAD README.md
```

```
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
```

```
    modified:   README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M       README.md
```

```
~/git_yer_git_on - [master•] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
  (use "git add <file>..." to update what will be committed)
```

```
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master•] » mvim R
```

```
git log --oneline
mvim README.md
git status
git add README.md
git status
git reset HEAD README.md
git status
```

(use "git reset HEAD <file>..." to unstage)

modified: README.md

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

Unstaged changes after reset:

M README.md

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

```
~/git_yer_git_on - [master•] » mvim README.md
```

```
~/git_yer_git_on - [master•] » █
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git status
```

```
mvim README.md
```

```
█
```

```

(use "git reset HEAD <file>..." to u
modified: README.md

~/git_yer_git_on - [master•] » git res
Unstaged changes after reset:
M README.md
~/git_yer_git_on - [master•] » git sta
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update w
  (use "git checkout -- <file>..." to
modified: README.md

no changes added to commit (use "git c
~/git_yer_git_on - [master•] » mvim RE
~/git_yer_git_on - [master•] » █

```

```

README.md (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.

"README.md" 3L, 76C 3,1 All

```



```

mvim README.md
git status
git add README.md
git status
git reset HEAD README.md
git status
mvim README.md
█

```

```

(use "git reset HEAD <file>..." to u
modified: README.md

~/git_yer_git_on - [master•] » git res
Unstaged changes after reset:
M README.md
~/git_yer_git_on - [master•] » git sta
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update w
  (use "git checkout -- <file>..." to
modified: README.md

no changes added to commit (use "git c
~/git_yer_git_on - [master•] » mvim RE
~/git_yer_git_on - [master•] » █

```

```

README.md (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.

3,1 All

```

```

mvim README.md
git status
git add README.md
git status
git reset HEAD README.md
git status
mvim README.md
█

```

```
(use "git reset HEAD <file>..." to u
modified: README.md

~/git_yer_git_on - [master•] » git res
Unstaged changes after reset:
M README.md
~/git_yer_git_on - [master•] » git sta
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update w
  (use "git checkout -- <file>..." to

modified: README.md

no changes added to commit (use "git c
~/git_yer_git_on - [master•] » mvim RE
~/git_yer_git_on - [master•] »
```

```
This is the amazing readme.
There's some more information about my project.

3,1 All
```

```
mvim README.md
git status
git add README.md
git status
git reset HEAD README.md
git status
mvim README.md
```

```

(use "git reset HEAD <file>..."
modified: README.md

~/git_yer_git_on - [master•] » git
Unstaged changes after reset:
M README.md
~/git_yer_git_on - [master•] » git
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update
  (use "git checkout -- <file>..."

modified: README.md

no changes added to commit (use "g
~/git_yer_git_on - [master•] » mvi
~/git_yer_git_on - [master•] » █

```

```

README.md (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.

```

```

mvim README.md
git status
git add README.md
git status
git reset HEAD README.
git status
mvim README.md
█

```

```

:q

```

(use "git reset HEAD <file>..." to unstage)

modified: README.md

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

Unstaged changes after reset:

M README.md

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

```
~/git_yer_git_on - [master•] » mvim README.md
```

```
~/git_yer_git_on - [master•] » git add R
```

```
mvim README.md
```

```
git status
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git status
```

```
mvim README.md
```

modified: README.md

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

Unstaged changes after reset:

M README.md

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

```
~/git_yer_git_on - [master•] » mvim README.md
```

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git commit
```

```
git status
git add README.md
git status
git reset HEAD README.md
git status
mvim README.md
git add README.md
```

```
5. git (git)
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch master
# Changes to be committed:
#   modified:   README.md
#
```

```
:q
```

```
git add README.md
git status
git reset HEAD README.md
git status
mvim README.md
git add README.md
git commit
```

```
~/git_yer_git_on - [master●] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M      README.md
```

```
~/git_yer_git_on - [master●] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
  (use "git add <file>..." to update what will be committed)
```

```
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master●] » mvim README.md
```

```
~/git_yer_git_on - [master●] » git add README.md
```

```
~/git_yer_git_on - [master●] » git commit
```

```
Aborting commit due to empty commit message.
```

```
~/git_yer_git_on - [master●] » █
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git status
```

```
mvim README.md
```

```
git add README.md
```

```
git commit
```

```
█
```

```
~/git_yer_git_on - [master●] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M      README.md
```

```
~/git_yer_git_on - [master●] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
(use "git add <file>..." to update what will be committed)
```

```
(use "git checkout -- <file>..." to discard changes in working directory)
```

```
modified: README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master●] » mvim README.md
```

```
~/git_yer_git_on - [master●] » git add README.md
```

```
~/git_yer_git_on - [master●] » git commit
```

```
Aborting commit due to empty commit message.
```

```
~/git_yer_git_on - [master●] »
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git status
```

```
mvim README.md
```

```
git add README.md
```

```
git commit
```

```
~/git_yer_git_on - [master●] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M      README.md
```

```
~/git_yer_git_on - [master●] » git status
```

```
On branch master
```

```
Changes not staged for commit:
```

```
  (use "git add <file>..." to update what will be committed)
```

```
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
~/git_yer_git_on - [master●] » mvim README.md
```

```
~/git_yer_git_on - [master●] » git add README.md
```

```
~/git_yer_git_on - [master●] » git commit
```

```
Aborting commit due to empty commit message.
```

```
~/git_yer_git_on - [master●] » git log
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git status
```

```
mvim README.md
```

```
git add README.md
```

```
git commit
```

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

```
~/git_yer_git_on - [master•] » mvim README.md
```

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git commit
```

Aborting commit due to empty commit message.

```
~/git_yer_git_on - [master•] » git log
```

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [master•] » git commit -m "add to the readme." |
```

```
git status
```

```
git reset HEAD README.md
```

```
git status
```

```
mvim README.md
```

```
git add README.md
```

```
git commit
```

```
git log
```

```
|
```

On branch master

nothing to commit, working directory clean

~/git_yer_git_on - [master] » `git log`

```
commit 3b0b260f6186e4821e388c0e176636303ed1eb32
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:26:08 2017 -0500
```

```
add to the readme.
```

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:15:11 2017 -0500
```

```
Starting the README.
```

```
I could put more information
```

```
in this message.
```

```
~/git_yer_git_on - [master] » git checkout 3b0b260f6
```

```
mvim README.md
```

```
git add README.md
```

```
git commit
```

```
git log
```

```
git commit -m "add to the readme."
```

```
git status
```

```
git log
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [master] » git checkout 3b0b260f6
```

```
Note: checking out '3b0b260f6'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 3b0b260... add to the readme.
```

```
~/git_yer_git_on - [3b0b260...] » mvim R
```

```
git add README.md
git commit
git log
git commit -m "add to the readme."
git status
git log
git checkout 3b0b260f6
```

I could put more information
in this message.

```
~/git_yer_git_on - [master] » git checkout 3b0b260f6
```

```
Note: checking out '3b0b260f6'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 3b0b260... add to the readme.
```

```
~/git_yer_git_on - [3b0b260...] » mvim README.md
```

```
~/git_yer_git_on - [3b0b260...] »
```

```
git commit
git log
git commit -m "add to the readme."
git status
git log
git checkout 3b0b260f6
mvim README.md
```

I could put more information
in this message.

```
~/git_yer_git_on - [master] » git checkout 3b0b260f6  
Note: checking out '3b0b260f6'.
```

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using `-b` with the checkout command again. Example:

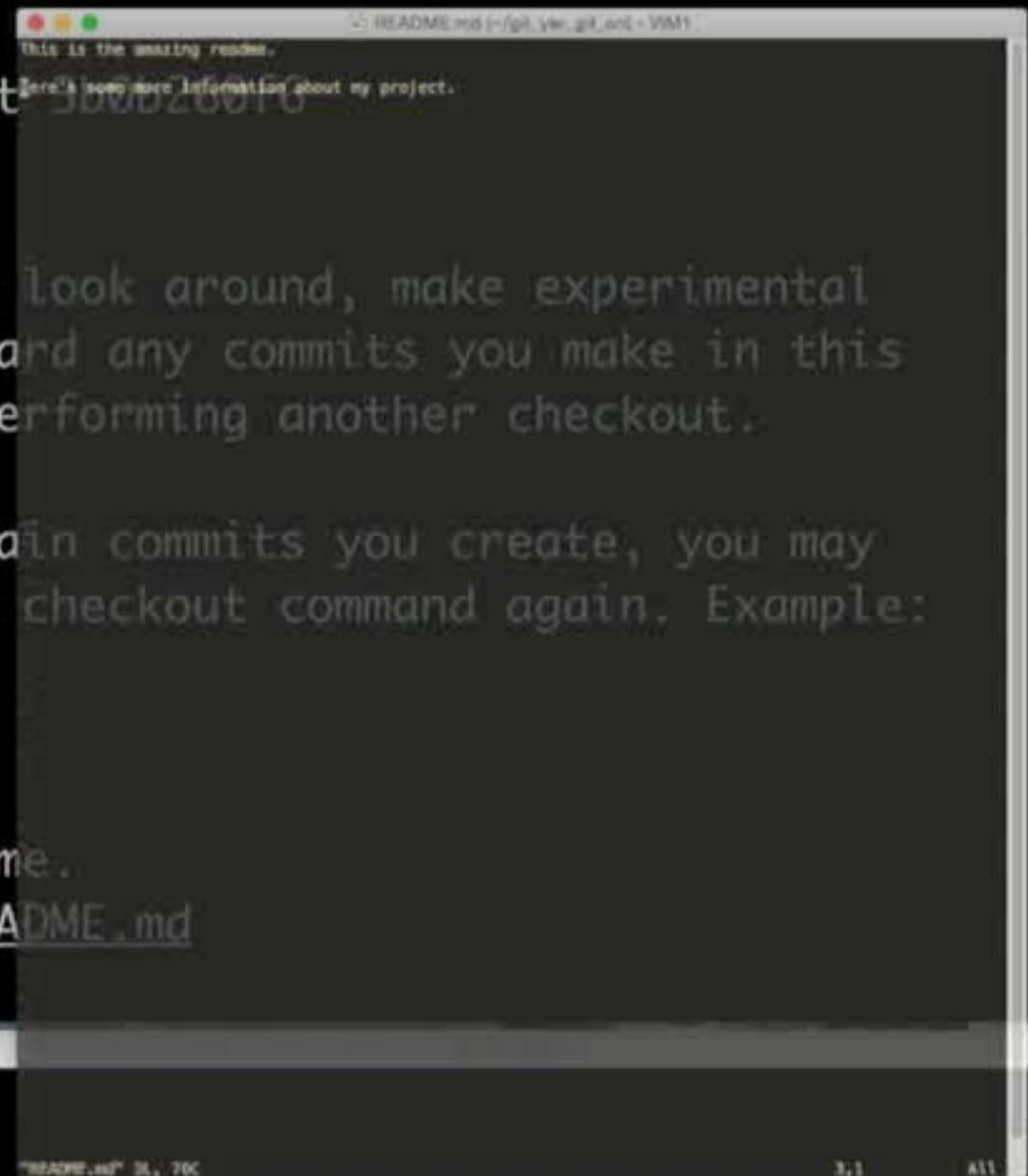
```
git checkout -b <new-branch-name>
```

HEAD is now at 3b0b260... add to the readme.

```
~/git_yer_git_on - [3b0b260...] » mvim README.md  
~/git_yer_git_on - [3b0b260...] »
```

```
git commit  
git log  
git commit -m "add to the readme."  
git status  
git log  
git checkout 3b0b260f6  
mvim README.md  

```



```

I could put more information
in this message.
~/git_yer_git_on - [master] » git check
Note: checking out '3b0b260f6'.

You are in 'detached HEAD' state. You
changes and commit them, and you can c
state without impacting any branches b

If you want to create a new branch to
do so (now or later) by using -b with

git checkout -b <new-branch-name>

HEAD is now at 3b0b260... add to the r
~/git_yer_git_on - [3b0b260...] » mvin
~/git_yer_git_on - [3b0b260...] » 

```

```

This is the amazing readme.

Here's some more information about my project.

```

```

git commit
git log
git commit -m "add to the
git status
git log
git checkout 3b0b260f6
mvim README.md

```

```
I could put more information
in this message.
~/git_yer_git_on - [master] » git check
Note: checking out '3b0b260f6'.

You are in 'detached HEAD' state. You
changes and commit them, and you can c
state without impacting any branches b

If you want to create a new branch to
do so (now or later) by using -b with

git checkout -b <new-branch-name>

HEAD is now at 3b0b260... add to the r
~/git_yer_git_on - [3b0b260...] » mvin
~/git_yer_git_on - [3b0b260...] »
```

```
README.md (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.
```

```
git commit
git log
git commit -m "add to the
git status
git log
git checkout 3b0b260f6
mvim README.md
```

```

I could put more information
in this message.
~/git_yer_git_on - [master]
Note: checking out '3b0b260f'

You are in 'detached HEAD' state.
You can create a new branch from
changes and commit them, and
state without impacting any
existing files.

If you want to create a new
branch to work on (now or later)
you can do so (now or later) by
using the following command to
create a new branch from this
detached HEAD state and
switch to it:

    git checkout -b <new-branch-name>

HEAD is now at 3b0b260... ad
~/git_yer_git_on - [3b0b260]
~/git_yer_git_on - [3b0b260]

```

This is the amazing readme.
 Here's some more information about my project.

```

git commit
git log
git commit -m "o
git status
git log
git checkout 3b0
mvim README.md

```

I could put more information
in this message.

```
~/git_yer_git_on - [master] » git checkout 3b0b260f6
```

```
Note: checking out '3b0b260f6'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 3b0b260... add to the readme.
```

```
~/git_yer_git_on - [3b0b260...] » mvim README.md
```

```
~/git_yer_git_on - [3b0b260...] » git █
```

```
git commit
```

```
git log
```

```
git commit -m "add to the readme."
```

```
git status
```

```
git log
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
█
```

```
HEAD is now at 3b0b260... add to the readme.  
~/git_yer_git_on - [3b0b260...] » mvim README.md  
~/git_yer_git_on - [3b0b260...] » git log  
commit 3b0b260f6186e4821e388c0e176636303ed1eb32  
Author: David Ketcheson <dketch@gmail.com>  
Date: Mon Feb 27 11:26:08 2017 -0500
```

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a  
Author: David Ketcheson <dketch@gmail.com>  
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
```

```
git log  
git commit -m "add to the readme."  
git status  
git log  
git checkout 3b0b260f6  
mvim README.md  
git log  
█
```

```
commit 3b0b260f6186e4821e388c0e176636303ed1eb32
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:26:08 2017 -0500
```

```
add to the readme.
```

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:15:11 2017 -0500
```

```
Starting the README.
```

```
I could put more information  
in this message.
```

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
```

```
Previous HEAD position was 3b0b260... add to the readme.
```

```
HEAD is now at 5719bdd... Starting the README.
```

```
~/git_yer_git_on - [5719bdd...] » mvim R
```

```
git commit -m "add to the readme."
```

```
git status
```

```
git log
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:26:08 2017 -0500
```

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
Previous HEAD position was 3b0b260... add to the readme.
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd...] » mvim README.md
~/git_yer_git_on - [5719bdd...] » █
```

```
git status
git log
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
█
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:26:08 2017 -0500
```

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information in this message.

```
~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] »
```

```
README.md (~/git_yer_git_on) - VIM1
This is the amazing readme.
"README.md" 1L, 28C 1,27 All
```

```
git status
git log
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:26:08 2017 -0500
```

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information in this message.

```
~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] »
```

This is the amazing readme

```
git status
git log
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:26:08 2017 -0500
```

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information in this message.

```
~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] »
```

README.md (~/.git_yer_git_on) - VIM1
This is the amazing readme

```
git status
git log
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
```

```
Author: David Ketcheson <dketch@gmail.com>  
Date: Mon Feb 27 11:26:08 2017 -0500
```

This is the amazing readme.

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7  
Author: David Ketcheson <dketch@gmail.com>  
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git  
Previous HEAD position was 3b0b260...  
HEAD is now at 5719bdd... Starting the  
~/git_yer_git_on - [5719bdd...] » mvim  
~/git_yer_git_on - [5719bdd...] »
```

```
git status  
git log  
git checkout 3b0b260f6  
mvim README.md  
git log  
git checkout 5719bdd8  
mvim README.md
```

:q

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:26:08 2017 -0500
```

add to the readme.

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
Previous HEAD position was 3b0b260... add to the readme.
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd...] » mvim README.md
~/git_yer_git_on - [5719bdd...] » git checkout master
```

```
git status
git log
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
```

add to the readme.

commit 5719bdd819257b2ca64320529eed9c7bc6f4044a

Author: David Ketcheson <dketch@gmail.com>

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.

~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8

Previous HEAD position was 3b0b260... add to the readme.

HEAD is now at 5719bdd... Starting the README.

~/git_yer_git_on - [5719bdd...] » mvim README.md

~/git_yer_git_on - [5719bdd...] » git checkout master

Previous HEAD position was 5719bdd... Starting the README.

Switched to branch 'master'

~/git_yer_git_on - [master] »

```
git log
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
```

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:15:11 2017 -0500
```

```
Starting the README.
```

```
I could put more information  
in this message.
```

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
```

```
Previous HEAD position was 3b0b260... add to the readme.
```

```
HEAD is now at 5719bdd... Starting the README.
```

```
~/git_yer_git_on - [5719bdd...] » mvim README.md
```

```
~/git_yer_git_on - [5719bdd...] » git checkout master
```

```
Previous HEAD position was 5719bdd... Starting the README.
```

```
Switched to branch 'master'
```

```
~/git_yer_git_on - [master] » git checkout master
```

```
Already on 'master'
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
git log
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
mvim README.md
```

```
git checkout master
```

```
commit 5719bdd819257b2ca64320529eed9c7bc6f4044a
```

```
Author: David Ketcheson <dketch@gmail.com>
```

```
Date: Mon Feb 27 11:15:11 2017 -0500
```

```
Starting the README.
```

```
I could put more information  
in this message.
```

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
```

```
Previous HEAD position was 3b0b260... add to the readme.
```

```
HEAD is now at 5719bdd... Starting the README.
```

```
~/git_yer_git_on - [5719bdd...] » mvim README.md
```

```
~/git_yer_git_on - [5719bdd...] » git checkout master
```

```
Previous HEAD position was 5719bdd... Starting the README.
```

```
Switched to branch 'master'
```

```
~/git_yer_git_on - [master] » git checkout master
```

```
Already on 'master'
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
git log
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
mvim README.md
```

```
git checkout master
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git commit -m "this is the amazing readme."
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd...] » mvim README.md
~/git_yer_git_on - [5719bdd...] » git commit -m "Here's some more information about my project."
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git checkout 3b0b260f6
Already on 'master'
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] »
```

```
README.md (-/git_yer_git_on) - VIM1
this is the amazing readme.
Here's some more information about my project.
```

```
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md
```

```
README.md 3L, 76C 1,1 All
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information in this message.

```
~/git_yer_git_on - [3b0b260...] » git commit -m "this is the amazing readme."
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd...] » mvim README.md
~/git_yer_git_on - [5719bdd...] » git commit -m "Here's some more information about my project."
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git checkout 3b0b260f6
Already on 'master'
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] »
```

```
~/git_yer_git_on /2017/
README.md (~/git_yer_git_on) - VIM1
this is the amazing readme.
Here's some more information about my project.
```

```
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md
```

```
Author: David Ketcheson <dketch@gmail.com>
Date: Mon Feb 27 11:15:11 2017 -0500
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git commit -m "this is the amazing readme."
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd...] » mvim README.md
~/git_yer_git_on - [5719bdd...] » git commit -m "Here's some more information about my project."
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git checkout 3b0b260f6
Already on 'master'
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] »
```

```
~/git_yer_git_on (2017)
README.md (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.
```

```
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md
```

Author: David Ketcheson <dke
Date: Mon Feb 27 11:15:11

This is the amazing readme.
Here's some more information about my project.

Starting the README.

I could put more informa
in this message.

```
~/git_yer_git_on - [3b0b260.  
Previous HEAD position was 3  
HEAD is now at 5719bdd... St  
~/git_yer_git_on - [5719bdd.  
~/git_yer_git_on - [5719bdd.  
Previous HEAD position was 5  
Switched to branch 'master'  
~/git_yer_git_on - [master]  
Already on 'master'  
~/git_yer_git_on - [master]  
~/git_yer_git_on - [master]
```

```
git checkout 3b0  
mvim README.md  
git log  
git checkout 571  
mvim README.md  
git checkout mas  
mvim README.md  
█
```

Author: David Ketcheson <dketch@gmail.com>

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
```

Previous HEAD position was 3b0b260... add to the readme.

HEAD is now at 5719bdd... Starting the README.

```
~/git_yer_git_on - [5719bdd...] » mvim README.md
```

```
~/git_yer_git_on - [5719bdd...] » git checkout master
```

Previous HEAD position was 5719bdd... Starting the README.

Switched to branch 'master'

```
~/git_yer_git_on - [master] » git checkout master
```

Already on 'master'

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » mvim
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8  
Previous HEAD position was 3b0b260... add to the readme.  
HEAD is now at 5719bdd... Starting the README.
```

```
~/git_yer_git_on - [5719bdd...] » mvim README.md
```

```
~/git_yer_git_on - [5719bdd...] » git checkout master  
Previous HEAD position was 5719bdd... Starting the README.
```

Switched to branch 'master'

```
~/git_yer_git_on - [master] » git checkout master
```

Already on 'master'

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] »
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.
~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] » git
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git chec
Already on 'master'
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] »

```

```

README.md + (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.
Some
-- INSERT --
6,6 All

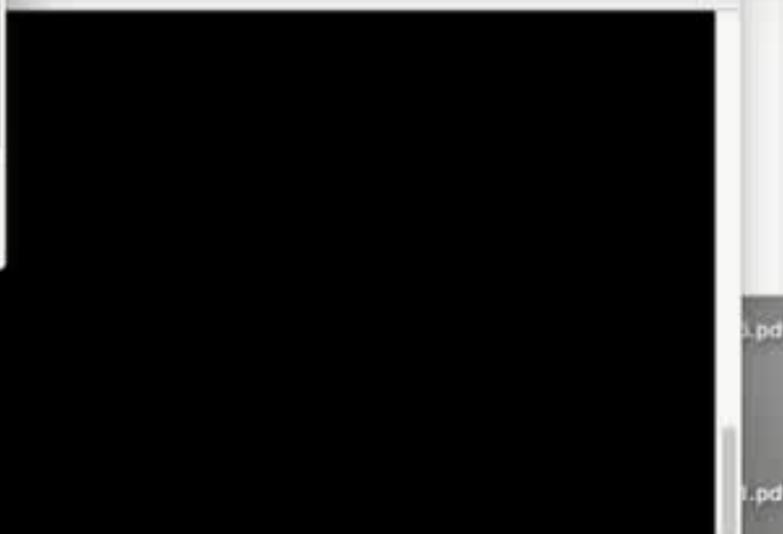
```



```

git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md

```



```

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.
~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] » git
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git chec
Already on 'master'
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] »

```

```

README.md + (~/git_yer_git_on) - VIM1
This is the amazing readme.
Here's some more information about my project.
Some
-- INSERT --
6,6 All

```

```

git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md

```

```

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.

~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] » git
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git chec
Already on 'master'
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] » 

```

```

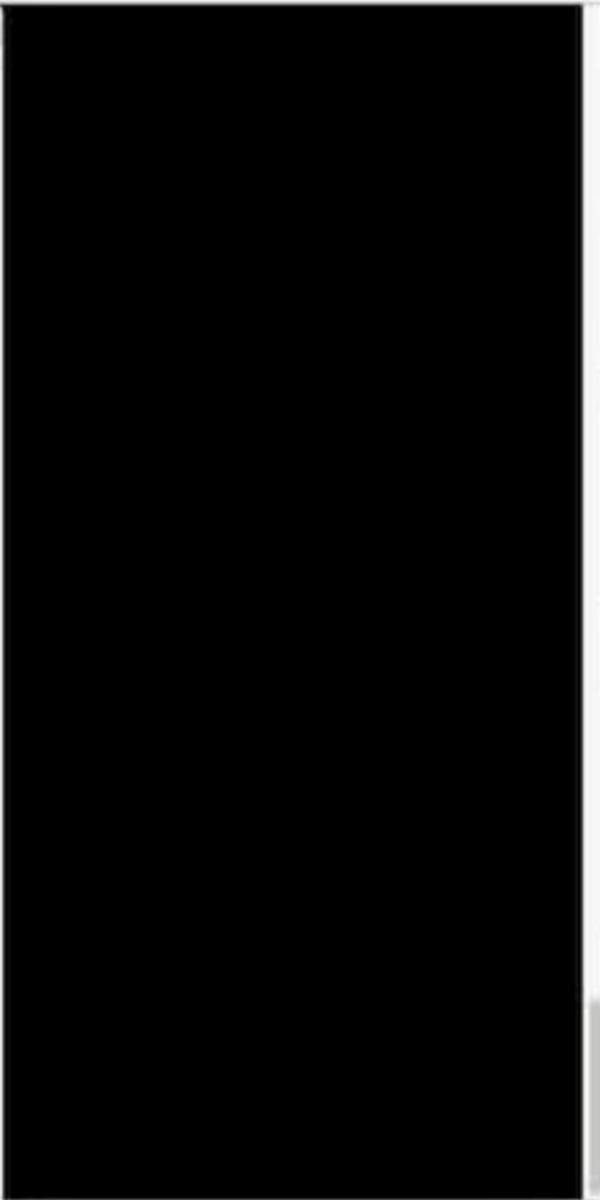
README.md + (~/git_yer_git_on) - VIM1
This is the amazing readme.

Here's some more information about my project.

Some |

-- INSERT --
6,6 ALL

```



```

git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md

```

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information in this message.

```
~/git_yer_git_on - [3b0b260...] » git
Previous HEAD position was 3b0b260...
HEAD is now at 5719bdd... Starting the
~/git_yer_git_on - [5719bdd...] » mvim
~/git_yer_git_on - [5719bdd...] » git
Previous HEAD position was 5719bdd...
Switched to branch 'master'
~/git_yer_git_on - [master] » git chec
Already on 'master'
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] » mvim REA
~/git_yer_git_on - [master] »
```

This is the amazing readme.
Here's some more information about my project.

Some |

```
git checkout 3b0b260f6
mvim README.md
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md
```

--- INSERT ---

Date: Mon Feb 27 11:15:11

Starting the README.

I could put more information in this message.

```
~/git_yer_git_on - [3b0b260]
Previous HEAD position was 3b0b260
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd]
~/git_yer_git_on - [5719bdd]
Previous HEAD position was 5719bdd
Switched to branch 'master'
~/git_yer_git_on - [master]
Already on 'master'
~/git_yer_git_on - [master]
~/git_yer_git_on - [master]
~/git_yer_git_on - [master]
```

This is the incredible readme.
Here's some more information about my project.
Some more information.
Lots of great stuff.

```
git checkout 3b0b260
mvim README.md
git log
git checkout 5719bdd
mvim README.md
git checkout master
mvim README.md
:wa
```

Date: Mon Feb 27 11:15:11 2017 -0500

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8  
Previous HEAD position was 3b0b260... add to the readme.  
HEAD is now at 5719bdd... Starting the README.
```

```
~/git_yer_git_on - [5719bdd...] » mvim README.md
```

```
~/git_yer_git_on - [5719bdd...] » git checkout master  
Previous HEAD position was 5719bdd... Starting the README.
```

Switched to branch 'master'

```
~/git_yer_git_on - [master] » git checkout master
```

Already on 'master'

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » git add README.md
```

```
git checkout 3b0b260f6
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

Starting the README.

I could put more information
in this message.

```
~/git_yer_git_on - [3b0b260...] » git checkout 5719bdd8
```

```
Previous HEAD position was 3b0b260... add to the readme.
```

```
HEAD is now at 5719bdd... Starting the README.
```

```
~/git_yer_git_on - [5719bdd...] » mvim README.md
```

```
~/git_yer_git_on - [5719bdd...] » git checkout master
```

```
Previous HEAD position was 5719bdd... Starting the README.
```

```
Switched to branch 'master'
```

```
~/git_yer_git_on - [master] » git checkout master
```

```
Already on 'master'
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » git add README.md
```

```
~/git_yer_git_on - [master•] » git st
```

```
mvim README.md
```

```
git log
```

```
git checkout 5719bdd8
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
HEAD is now at 5719bdd... Starting the README.
~/git_yer_git_on - [5719bdd...] » mvim README.md
~/git_yer_git_on - [5719bdd...] » git checkout master
Previous HEAD position was 5719bdd... Starting the README.
Switched to branch 'master'
~/git_yer_git_on - [master] » git checkout master
Already on 'master'
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] » git add README.md
~/git_yer_git_on - [master•] » git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    modified:   README.md

~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
git log
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md
git add README.md
git status
```

```
Previous HEAD position was 5719bdd... Starting the README.
Switched to branch 'master'
~/git_yer_git_on - [master] » git checkout master
Already on 'master'
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] » git add README.md
~/git_yer_git_on - [master•] » git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    modified:   README.md

~/git_yer_git_on - [master•] » git reset HEAD README.md
Unstaged changes after reset:
M       README.md
~/git_yer_git_on - [master•] » git add -p README.md
```

```
git checkout 5719bdd8
mvim README.md
git checkout master
mvim README.md
git add README.md
git status
git reset HEAD README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M      README.md
```

```
~/git_yer_git_on - [master•] » git add -p README.md
```

```
diff --git a/README.md b/README.md
```

```
index e2d144c..defbe32 100644
```

```
--- a/README.md
```

```
+++ b/README.md
```

```
@@ -1,3 +1,7 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
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~/git_yer_git_on - [master•] » git add -p README.md
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```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
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git checkout master
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```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
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```

```
~/git_yer_git_on - [master•] » git add -p README.md
```

```
diff --git a/README.md b/README.md
```

```
index e2d144c..defbe32 100644
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```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M      README.md
```

```
~/git_yer_git_on - [master•] » git add -p README.md
```

```
diff --git a/README.md b/README.md
```

```
index e2d144c..defbe32 100644
```

```
--- a/README.md
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```
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```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
~/git_yer_git_on - [master•] » git reset HEAD README.md
```

```
Unstaged changes after reset:
```

```
M      README.md
```

```
~/git_yer_git_on - [master•] » git add -p README.md
```

```
diff --git a/README.md b/README.md
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index e2d144c..defbe32 100644
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```
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```

```
+
```

```
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```

```
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```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

Stage this hunk [y,n,q,a,d,/s,e,?]? ?

y - stage this hunk

n - do not stage this hunk

q - quit; do not stage this hunk or any of the remaining ones

a - stage this hunk and all later hunks in the file

d - do not stage this hunk or any of the later hunks in the file

g - select a hunk to go to

/ - search for a hunk matching the given regex

j - leave this hunk undecided, see next undecided hunk

J - leave this hunk undecided, see next hunk

k - leave this hunk undecided, see previous undecided hunk

K - leave this hunk undecided, see previous hunk

s - split the current hunk into smaller hunks

e - manually edit the current hunk

? - print help

@@ -1,3 +1,7 @@

-This is the amazing readme.

+This is the incredible readme.

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

Stage this hunk [y,n,q,a,d,/s,e,?]? ?

y - stage this hunk

n - do not stage this hunk

q - quit; do not stage this hunk or any of the remaining ones

a - stage this hunk and all later hunks in the file

d - do not stage this hunk or any of the later hunks in the file

g - select a hunk to go to

/ - search for a hunk matching the given regex

j - leave this hunk undecided, see next undecided hunk

J - leave this hunk undecided, see next hunk

k - leave this hunk undecided, see previous undecided hunk

K - leave this hunk undecided, see previous hunk

s - split the current hunk into smaller hunks

e - manually edit the current hunk

? - print help

@@ -1,3 +1,7 @@

-This is the amazing readme.

+This is the incredible readme.

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

Stage this hunk [y,n,q,a,d,/s,e,?]? ?

y - stage this hunk

n - do not stage this hunk

q - quit; do not stage this hunk or any of the remaining ones

a - stage this hunk and all later hunks in the file

d - do not stage this hunk or any of the later hunks in the file

g - select a hunk to go to

/ - search for a hunk matching the given regex

j - leave this hunk undecided, see next undecided hunk

J - leave this hunk undecided, see next hunk

k - leave this hunk undecided, see previous undecided hunk

K - leave this hunk undecided, see previous hunk

s - split the current hunk into smaller hunks

e - manually edit the current hunk

? - print help

@@ -1,3 +1,7 @@

-This is the amazing readme.

+This is the incredible readme.

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
q - quit; do not stage this hunk or any of the remaining ones
a - stage this hunk and all later hunks in the file
d - do not stage this hunk or any of the later hunks in the file
g - select a hunk to go to
/ - search for a hunk matching the given regex
j - leave this hunk undecided, see next undecided hunk
J - leave this hunk undecided, see next hunk
k - leave this hunk undecided, see previous undecided hunk
K - leave this hunk undecided, see previous hunk
s - split the current hunk into smaller hunks
```

```
e - manually edit the current hunk
```

```
? - print help
```

```
@@ -1,3 +1,7 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
mvim README.md
git checkout master
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
```

```
/ - search for a hunk matching the given regex
j - leave this hunk undecided, see next undecided hunk
J - leave this hunk undecided, see next hunk
k - leave this hunk undecided, see previous undecided hunk
K - leave this hunk undecided, see previous hunk
s - split the current hunk into smaller hunks
```

```
e - manually edit the current hunk
```

```
? - print help
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```
@@ -1,3 +1,7 @@
```

```
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```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
git checkout master
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
```

```
/ - search for a hunk matching the given regex
j - leave this hunk undecided, see next undecided hunk
J - leave this hunk undecided, see next hunk
k - leave this hunk undecided, see previous undecided hunk
K - leave this hunk undecided, see previous hunk
s - split the current hunk into smaller hunks
e - manually edit the current hunk
? - print help
```

```
@@ -1,3 +1,7 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
git checkout master
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
```

```
5. git (git)
/ - search for a hunk matching the given regex
j - leave this hunk undecided, see next undecided hunk
J - leave this hunk undecided, see next hunk
k - leave this hunk undecided, see previous undecided hunk
K - leave this hunk undecided, see previous hunk
```

```
s - split the current hunk into smaller hunks
```

```
e - manually edit the current hunk
```

```
? - print help
```

```
@@ -1,3 +1,7 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]?
```

```
mvim README.md
git checkout master
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
```

```
? - print help
```

```
@@ -1,3 +1,7 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]? s
```

```
Split into 2 hunks.
```

```
@@ -1,3 +1,3 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme. |
```

```
Here's some more information about my project.
```

```
Stage this hunk [y,n,q,a,d,/,j,J,g,e,?]? █
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
█
```

```
? - print help
```

```
@@ -1,3 +1,7 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
Stage this hunk [y,n,q,a,d,/,s,e,?]? s
```

```
Split into 2 hunks.
```

```
@@ -1,3 +1,3 @@
```

```
-This is the amazing readme.
```

```
+This is the incredible readme.
```

```
I
```

```
Here's some more information about my project.
```

```
Stage this hunk [y,n,q,a,d,/,j,J,g,e,?]? █
```

```
mvim README.md
```

```
git checkout master
```

```
mvim README.md
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
█
```

+Some more information.

+Lots of great stuff.

Stage this hunk [y,n,q,a,d,/,K,g,e,?]? n

~/git_yer_git_on - [master●●] » git status

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

~/git_yer_git_on - [master●●] » mvim README.md

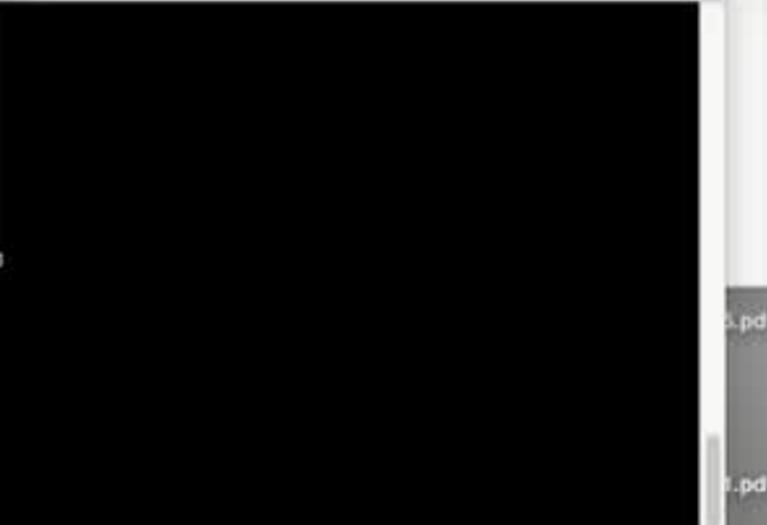
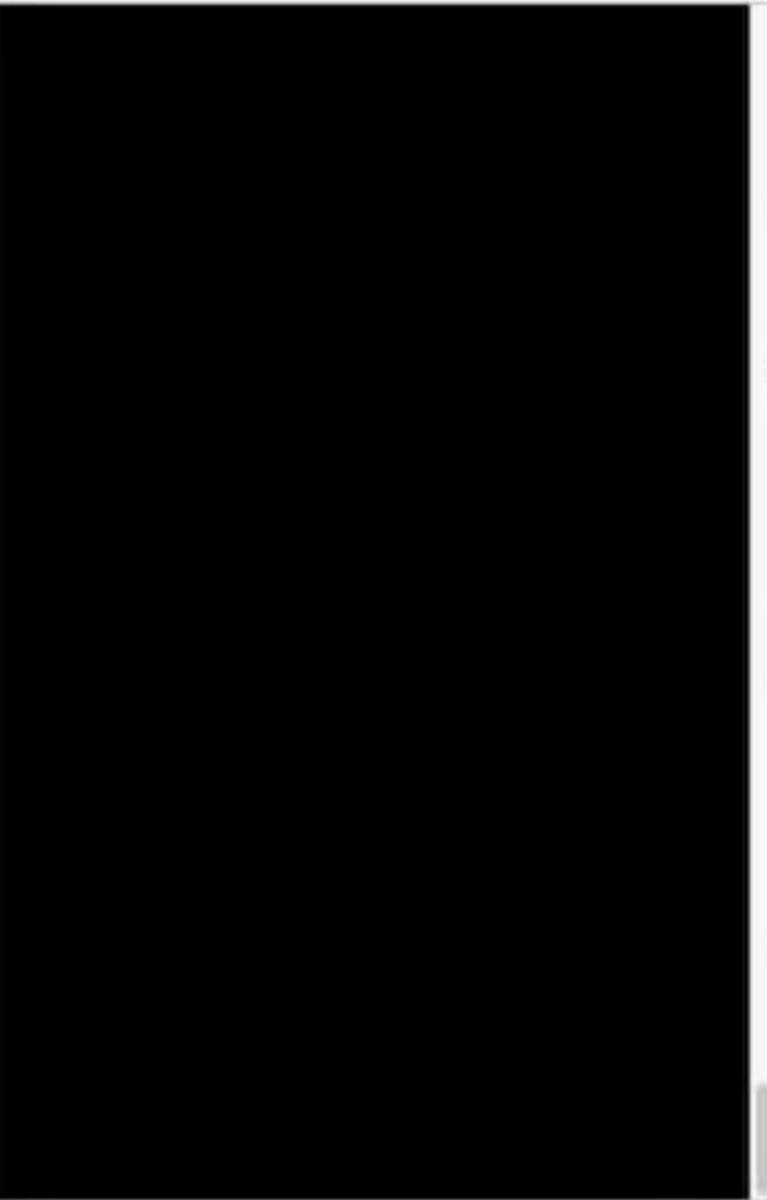
```
git checkout master
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
git status
```

```
+Lots of great stuff.  
Stage this hunk [y,n,q,a,d,/,K,g,e,?]?  
  
~/git_yer_git_on - [master●●] » git st  
On branch master  
Changes to be committed:  
  (use "git reset HEAD <file>..." to u  
  
    modified:   README.md  
  
Changes not staged for commit:  
  (use "git add <file>..." to update w  
  (use "git checkout -- <file>..." to  
  
    modified:   README.md  
  
~/git_yer_git_on - [master●●] » mvim R  
~/git_yer_git_on - [master●●] »
```

```
mvim README.md  
git add README.md  
git status  
git reset HEAD README.md  
git add -p README.md  
git status  
mvim README.md  

```

```
README.md (~/git_yer_git_on) - VIM1  
This is the incredible readme.  
Here's some more information about my project.  
  
Some more information.  
Lots of great stuff.  
  
"README.md" 7L, 125C  
1,1 All
```



```
+Lots of great stuff.  
Stage this hunk [y,n,q,a,d,/,K,g,e,?]?  
  
~/git_yer_git_on - [master●●] » git st  
On branch master  
Changes to be committed:  
  (use "git reset HEAD <file>..." to u  
  
    modified:   README.md  
  
Changes not staged for commit:  
  (use "git add <file>..." to update w  
  (use "git checkout -- <file>..." to  
  
    modified:   README.md  
  
~/git_yer_git_on - [master●●] » mvim R  
~/git_yer_git_on - [master●●] »
```

```
this is the incredible readme.  
Here's some more information about my project.  
  
Some more information.  
Lots of great stuff.
```

```
mvim README.md  
git add README.md  
git status  
git reset HEAD README.md  
git add -p README.md  
git status  
mvim README.md  
█
```

```

+Lots of gr
Stage this
~/git_yer_g
On branch m
Changes to
  (use "git
    mod

Changes not
  (use "git
  (use "git
    mod

~/git_yer_g
~/git_yer_g

```

```

This is the incredible readme.
Here's some more information about my project.

Some more information.
Lots of great stuff.

```

This is the incredible readme.
Here's some more information about my project.

Some more information.
Lots of great stuff.

```
+Lots of great stuff.
Stage this hunk [y,n,q,a,d,/,K,g,e,?]? n

~/git_yer_git_on - [master●●] » git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

       modified:   README.md

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

       modified:   README.md

~/git_yer_git_on - [master●●] » mvim README.md
~/git_yer_git_on - [master●●] »
```

```
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
git status
mvim README.md
```

```
README.md (-/git_yer_git_on) - VIM1
This is the incredible readme.
Here's some more information about my project.

Some more information.
Lots of great stuff.
```

+Lots of great stuff.

Stage this hunk [y,n,q,a,d,/,K,g,e,?]? n

~/git_yer_git_on - [master●●] » git status

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

~/git_yer_git_on - [master●●] » mvim README.md

~/git_yer_git_on - [master●●] » git commit -m "Change first line of readme"

```
mvim README.md
git add README.md
git status
git reset HEAD README.md
git add -p README.md
git status
mvim README.md
```

```
~/git_yer_git_on - [master●●] » git status
```

```
On branch master
```

```
Changes to be committed:
```

```
(use "git reset HEAD <file>..." to unstage)
```

```
    modified:   README.md
```

```
Changes not staged for commit:
```

```
(use "git add <file>..." to update what will be committed)
```

```
(use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   README.md
```

```
~/git_yer_git_on - [master●●] » mvim README.md
```

```
~/git_yer_git_on - [master●●] » git commit -m "Change first line of readme"
```

```
[master f1c2f3c] Change first line of readme
```

```
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
~/git_yer_git_on - [master●] » git statu
```

```
git add README.md
```

```
git status
```

```
git reset HEAD README.md
```

```
git add -p README.md
```

```
git status
```

```
mvim README.md
```

```
git commit -m "Change first line
```

```
~/git_yer_git_on - [master•] » git diff
diff --git a/README.md b/README.md
index a6eec96..defbe32 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1,7 @@
 This is the incredible readme.

 Here's some more information about my project.
+
+
+Some more information.
+Lots of great stuff.
~/git_yer_git_on - [master•] » git checkout README.md
~/git_yer_git_on - [master•] » git status
```

```
git reset HEAD README.md
git add -p README.md
git status
mvim README.md
git commit -m "Change first line"
git status
git diff
```

```
This is the incredible readme.  
  
Here's some more information about my project.  
+  
+  
+Some more information.  
+Lots of great stuff.  
~/git_yer_git_on - [master•] » git checkout README.md  
~/git_yer_git_on - [master•] » git status  
On branch master  
Changes not staged for commit:  
  (use "git add <file>..." to update what will be committed)  
  (use "git checkout -- <file>..." to discard changes in working directory)  
  
      modified:   README.md  
  
no changes added to commit (use "git add" and/or "git commit -a")  
~/git_yer_git_on - [master•] » git add README.md
```

```
git add -p README.md  
git status  
mvim README.md  
git commit -m "Change first line"  
git status  
git diff  
git status
```

Here's some more information about my project.

+
+
+Some more information.
+Lots of great stuff.

~/git_yer_git_on - [master•] » git checkout README.md

~/git_yer_git_on - [master•] » git status

On branch master

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

~/git_yer_git_on - [master•] » git add README.md

~/git_yer_git_on - [master•] » git diff

```
git status
mvim README.md
git commit -m "Change first line"
git status
git diff
git status
git add README.md
```

Here's some more information about my project.

+
+
+Some more information.
+Lots of great stuff.

~/git_yer_git_on - [master●] » git checkout README.md

~/git_yer_git_on - [master●] » git status

On branch master

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

~/git_yer_git_on - [master●] » git add README.md

~/git_yer_git_on - [master●] » git diff

~/git_yer_git_on - [master●] » git diff --cached

```
mvim README.md
git commit -m "Change first line"
git status
git diff
git status
git add README.md
git diff
```

no changes added to commit (use "git add" and/or "git commit -a")

```
~/git_yer_git_on - [master•] » git add README.md
```

```
~/git_yer_git_on - [master•] » git diff
```

```
~/git_yer_git_on - [master•] » git diff --cached
```

```
diff --git a/README.md b/README.md
```

```
index a6eec96..defbe32 100644
```

```
--- a/README.md
```

```
+++ b/README.md
```

```
@@ -1,3 +1,7 @@
```

```
 This is the incredible readme.
```

```
 Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
~/git_yer_git_on - [master•] » git commit
```

```
git commit -m "Change first line"
```

```
git status
```

```
git diff
```

```
git status
```

```
git add README.md
```

```
git diff
```

```
git diff --cached
```

Add 4 new lines.

```
# Please enter the commit message for your changes. Lines starting  
# with '#' will be ignored, and an empty message aborts the commit.  
# On branch master  
# Changes to be committed:  
#   modified:   README.md  
#
```

```
git status  
git diff  
git status  
git add README.md  
git diff  
git diff --cached  
git commit
```

```
~/git_yer_git_on - [master•] » git diff
~/git_yer_git_on - [master•] » git diff --cached
diff --git a/README.md b/README.md
index a6eec96..defbe32 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1,7 @@
 This is the incredible readme.

 Here's some more information about my project.
+
+
+Some more information.
+Lots of great stuff.
~/git_yer_git_on - [master•] » git commit
[master 3fe553a] Add 4 new lines.
1 file changed, 4 insertions(+)
~/git_yer_git_on - [master] » mvim README.md
```

```
git status
git diff
git status
git add README.md
git diff
git diff --cached
git commit
```

```
~/git_yer_git_on - [master•] » git diff --cached
diff --git a/README.md b/README.md
index a6eec96..defbe32 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1,7 @@
 This is the incredible readme.

 Here's some more information about my project.
+
+
+Some more information.
+Lots of great stuff.
~/git_yer_git_on - [master•] » git commit
[master 3fe553a] Add 4 new lines.
1 file changed, 4 insertions(+)
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] »
```

```
git diff
git status
git add README.md
git diff
git diff --cached
git commit
mvim README.md
```

```
~/git_yer_git_on - [master•] » git diff --cached
diff --git a/README.md b/README.md
index a6eec96..defbe32 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1,7 @@
 This is the incredible readme.

Here's some more information about my project
+
+
+Some more information.
+Lots of great stuff.
~/git_yer_git_on - [master•] » git commit
[master 3fe553a] Add 4 new lines.
1 file changed, 4 insertions(+)
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] »
```

VIM - ATTENTION
 Swap file '~/.vim/tmp/README.md.swp' already exists!

Abort Quit Recover Edit anyway **Open Read-Only**

```

ERROR: ATTENTION
Found a swap file by the name "~/.vim/tmp/README.md.swp"
  owned by: ketch   dated: Mon Feb 27 11:34:50 2017
  file name: ~/ketch/git_yer_git_on/README.md
  modified: no
  user name: ketch  host name: kl-14845
  process ID: 28716 (still running)
While opening file "README.md"
  dated: Mon Feb 27 11:30:20 2017

(1) Another program may be editing the same file.  If this is the case,
    be careful not to end up with two different instances of the same
    file when making changes.  Quit, or continue with caution.
(2) An edit session for this file crashed.
    If this is the case, use ":recover" or "vim -r README.md"
    to recover the changes (see ":help recovery").
    If you did this already, delete the swap file "~/.vim/tmp/README.md.swp"
    to avoid this message.
```

```
git diff
git status
git add README.md
git diff
git diff --cached
git commit
mvim README.md
```

```
~/git_yer_git_on - [master•] » git diff --ca
diff --git a/README.md b/README.md
index a6eec96..defbe32 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1,7 @@
 This is the incredible readme.

Here's some more information about my projec
+
+
+Some more information.
+Lots of great stuff.
~/git_yer_git_on - [master•] » git commit
[master 3fe553a] Add 4 new lines.
1 file changed, 4 insertions(+)
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] »
```

```
README.md (-/git_yer_git_on) - VIM1
This is the incredible readme.
Here's some more information about my project.
Some more information.
Lots of great stuff.
7,20
ALL
```

```
git diff
git status
git add README.md
git diff
git diff --cached
git commit
mvim README.md
```

```
index a6eec96..defbe32 100644
```

```
--- a/README.md
```

```
+++ b/README.md
```

```
@@ -1,3 +1,7 @@
```

```
This is the incredible readme.
```

```
Here's some more information about my project.
```

```
+
```

```
+
```

```
+Some more information.
```

```
+Lots of great stuff.
```

```
~/git_yer_git_on - [master•] » git commit
```

```
[master 3fe553a] Add 4 new lines.
```

```
1 file changed, 4 insertions(+)
```

```
~/git_yer_git_on - [master] » mvim README.md
```

```
~/git_yer_git_on - [master] » git HEAD~1
```

```
git: 'HEAD~1' is not a git command. See 'git --help'.
```

```
~/git_yer_git_on - [master] » git checkout HEAD~1
```

```
git status
```

```
git add README.md
```

```
git diff
```

```
git diff --cached
```

```
git commit
```

```
mvim README.md
```

```
git HEAD~1
```

```
1 file changed, 4 insertions(+)  
~/git_yer_git_on - [master] » mvim README.md  
~/git_yer_git_on - [master] » git HEAD~1  
git: 'HEAD~1' is not a git command. See 'git --help'.  
~/git_yer_git_on - [master] » git checkout HEAD~1  
Note: checking out 'HEAD~1'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

HEAD is now at f1c2f3c... Change first line of readme

```
~/git_yer_git_on - [f1c2f3c...] »
```

```
git add README.md  
git diff  
git diff --cached  
git commit  
mvim README.md  
git HEAD~1  
git checkout HEAD~1
```

```

1 file changed, 4 insertions(+)
~/git_yer_git_on - [master] » mvim README.md
~/git_yer_git_on - [master] » git HEAD~1
git: 'HEAD~1' is not a git command. See 'git
~/git_yer_git_on - [master] » git checkout H
Note: checking out 'HEAD~1'.

You are in 'detached HEAD' state. You can lo
changes and commit them, and you can discard
state without impacting any branches by perf

If you want to create a new branch to retain
do so (now or later) by using -b with the ch

git checkout -b <new-branch-name>

HEAD is now at f1c2f3c... Change first line o
~/git_yer_git_on - [f1c2f3c...] »

```

```

This is the incredible readme.

Here's some more information about my project.

"README.md" 3L, 79C
1,20 ALL

```

```

git add README.md
git diff
git diff --cached
git commit
mvim README.md
git HEAD~1
git checkout HEAD~1

```

```
1 file changed, 4 insertions(+)  
~/git_yer_git_on - [master] » mvim README.md  
~/git_yer_git_on - [master] » git HEAD~1  
git: 'HEAD~1' is not a git command. See 'git --help'.  
~/git_yer_git_on - [master] » git checkout HEAD~1  
Note: checking out 'HEAD~1'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at f1c2f3c... Change first line of readme  
~/git_yer_git_on - [f1c2f3c...] » git checkout master
```

```
git add README.md  
git diff  
git diff --cached  
git commit  
mvim README.md  
git HEAD~1  
git checkout HEAD~1
```

"README.md" 3L, 79C

1,20

ALL

```
git: 'HEAD~1' is not a git command. See 'git --help'.
```

```
~/git_yer_git_on - [master] » git checkout HEAD~1
```

```
Note: checking out 'HEAD~1'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at f1c2f3c... Change first line of readme
```

```
~/git_yer_git_on - [f1c2f3c...] » git checkout master
```

```
Previous HEAD position was f1c2f3c... Change first line of readme
```

```
Switched to branch 'master'
```

```
~/git_yer_git_on - [master] »
```

```
git diff
```

```
git diff --cached
```

```
git commit
```

```
mvim README.md
```

```
git HEAD~1
```

```
git checkout HEAD~1
```

```
git checkout master
```

git: 'HEAD~1' is not a git command. See 'git --help'.

```
~/git_yer_git_on - [master] » git checkout HEAD~1
```

Note: checking out 'HEAD~1'.

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

HEAD is now at f1c2f3c... Change first line of readme

```
~/git_yer_git_on - [f1c2f3c...] » git checkout master
```

Previous HEAD position was f1c2f3c... Change first line of readme

Switched to branch 'master'

```
~/git_yer_git_on - [master] » touch paper.tex
```

```
~/git_yer_git_on - [master] » git checkout HEAD~1
```

```
Note: checking out 'HEAD~1'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at f1c2f3c... Change first line of readme
```

```
~/git_yer_git_on - [f1c2f3c...] » git checkout master
```

```
Previous HEAD position was f1c2f3c... Change first line of readme
```

```
Switched to branch 'master'
```

```
~/git_yer_git_on - [master] » touch paper.tex
```

```
~/git_yer_git_on - [master•] » touch paper.aux
```

```
touch paper.tex
```

Note: checking out 'HEAD~1'.

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using `-b` with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

HEAD is now at f1c2f3c... Change first line of readme

```
~/git_yer_git_on - [f1c2f3c...] » git checkout master
```

Previous HEAD position was f1c2f3c... Change first line of readme

Switched to branch 'master'

```
~/git_yer_git_on - [master] » touch paper.tex
```

```
~/git_yer_git_on - [master•] » touch paper.aux
```

```
~/git_yer_git_on - [master•] » git status
```

```
touch paper.tex
```

```
touch paper.aux
```

```
git checkout -b <new-branch-name>
```

```
HEAD is now at f1c2f3c... Change first line of readme
```

```
~/git_yer_git_on - [f1c2f3c...] » git checkout master
```

```
Previous HEAD position was f1c2f3c... Change first line of readme
```

```
Switched to branch 'master'
```

```
~/git_yer_git_on - [master] » touch paper.tex
```

```
~/git_yer_git_on - [master•] » touch paper.aux
```

```
~/git_yer_git_on - [master•] » git status
```

```
On branch master
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
paper.tex
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
~/git_yer_git_on - [master•] »
```

```
touch paper.tex
```

```
touch paper.aux
```

```
git status
```

```
HEAD is now at f1c2f3c... Change first line of readme
~/git_yer_git_on - [f1c2f3c...] » git checkout master
Previous HEAD position was f1c2f3c... Change first line of readme
Switched to branch 'master'
~/git_yer_git_on - [master] » touch paper.tex
~/git_yer_git_on - [master•] » touch paper.aux
~/git_yer_git_on - [master•] » git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

paper.tex

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
~/git_yer_git_on - [master•] » ls
README.md paper.aux paper.tex
~/git_yer_git_on - [master•] » mvim .gitignore
```

```
touch paper.tex
touch paper.aux
git status
ls

```

```
HEAD is now at f1c2f3c... Change first line of readme
~/git_yer_git_on - [f1c2f3c...] » git checkout master
Previous HEAD position was f1c2f3c... Change first line of readme
Switched to branch 'master'
~/git_yer_git_on - [master] » touch paper.tex
~/git_yer_git_on - [master•] » touch paper.aux
~/git_yer_git_on - [master•] » git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

paper.tex

```
nothing added to commit but untracked files present (use "git add" to track)
~/git_yer_git_on - [master•] » ls
README.md paper.aux paper.tex
~/git_yer_git_on - [master•] » mvim .gitignore
~/git_yer_git_on - [master•] »
```

```
touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore

```

```
HEAD is now at f1c2f3c... Change first line of
~/git_yer_git_on - [f1c2f3c...] » git checkout
Previous HEAD position was f1c2f3c... Change f
Switched to branch 'master'
~/git_yer_git_on - [master] » touch paper.tex
~/git_yer_git_on - [master•] » touch paper.aux
~/git_yer_git_on - [master•] » git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what

    paper.tex

nothing added to commit but untracked files pr
~/git_yer_git_on - [master•] » ls
README.md paper.aux paper.tex
~/git_yer_git_on - [master•] » mvim .gitignore
~/git_yer_git_on - [master•] »
```

```
touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore

```

".gitignore" [New File]

0,0-1

All

```
HEAD is now at f1c2f3c... Change first line of readme
~/git_yer_git_on - [f1c2f3c...] » git checkout master
Previous HEAD position was f1c2f3c... Change first line of readme
Switched to branch 'master'
~/git_yer_git_on - [master] » touch paper.tex
~/git_yer_git_on - [master•] » touch paper.aux
~/git_yer_git_on - [master•] » git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

paper.tex

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
~/git_yer_git_on - [master•] » ls
README.md paper.aux paper.tex
~/git_yer_git_on - [master•] » mvim .gitignore
~/git_yer_git_on - [master•] » mvim ~/.g
```

```
touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore

```

```
Previous HEAD position was f1c2f3c... Change first line of readme
Switched to branch 'master'
~/git_yer_git_on - [master] » touch paper.tex
~/git_yer_git_on - [master•] » touch paper.aux
~/git_yer_git_on - [master•] » git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

paper.tex

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
~/git_yer_git_on - [master•] » ls
README.md paper.aux paper.tex
~/git_yer_git_on - [master•] » mvim .gitignore
~/git_yer_git_on - [master•] » mvim ~/.gitignore
```

```
touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore

```

Previous HEAD position was
Switched to branch 'master'
~/git_yer_git_on - [master] \$
~/git_yer_git_on - [master] \$
~/git_yer_git_on - [master] \$
On branch master
Untracked files:
 (use "git add <file>" to track)

paper.tex

nothing added to commit but untracked files present (use "git add" to track)
~/git_yer_git_on - [master] \$
README.md paper.aux paper.tex
~/git_yer_git_on - [master] \$
~/git_yer_git_on - [master] \$
~/git_yer_git_on - [master] \$

*.pyc
.DS_Store
*_build
*.o
*.aux
*.dvi

touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore
mvim ~/.gitignore
[]

```

Previous HEAD position was f*.tex
Switched to branch 'master'
~/git_yer_git_on - [master]
~/git_yer_git_on - [master•]
~/git_yer_git_on - [master•]
On branch master
Untracked files:
  (use "git add <file>..." to add to the commit)

        paper.tex

nothing added to commit but
~/git_yer_git_on - [master•]
README.md paper.aux paper.te
~/git_yer_git_on - [master•]
~/git_yer_git_on - [master•]
~/git_yer_git_on - [master•]

```

```

touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore
mvim ~/.gitignor

```

".gitignore" [New] 1L, 6C written

```
Previous HEAD position was f1c2f3c... Change first line of readme
Switched to branch 'master'
~/git_yer_git_on - [master] » touch paper.tex
~/git_yer_git_on - [master•] » touch paper.aux
~/git_yer_git_on - [master•] » git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

paper.tex

```
nothing added to commit but untracked files present (use "git add" to track)
~/git_yer_git_on - [master•] » ls
README.md paper.aux paper.tex
~/git_yer_git_on - [master•] » mvim .gitignore
~/git_yer_git_on - [master•] » mvim ~/.gitignore
~/git_yer_git_on - [master•] » git status
```

```
touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore
mvim ~/.gitignor
```

".gitignore" [New] 1L, 6C written

1,5

All

(use "git add <file>..." to include in what will be committed)

paper.tex

nothing added to commit but untracked files present (use "git add" to track)

~/git_yer_git_on - [master•] » ls

README.md paper.aux paper.tex

~/git_yer_git_on - [master•] » mvim .gitignore

~/git_yer_git_on - [master•] » mvim ~/.gitignore

~/git_yer_git_on - [master•] » git status

On branch master

Untracked files:

(use "git add <file>..." to include in what will be committed)

.gitignore

nothing added to commit but untracked files present (use "git add" to track)

~/git_yer_git_on - [master•] » git add .gitignore

```
touch paper.tex
touch paper.aux
git status
ls
mvim .gitignore
mvim ~/.gitignor
git status
```

".gitignore" [New] 1L, 6C written

paper.tex

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] » ls  
README.md paper.aux paper.tex  
~/git_yer_git_on - [master•] » mvim .gitignore  
~/git_yer_git_on - [master•] » mvim ~/.gitignore  
~/git_yer_git_on - [master•] » git status
```

On branch master
Untracked files:
 (use "git add <file>..." to include in what will be committed)

.gitignore

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] » git add .gitignore  
~/git_yer_git_on - [master•] » git stat
```

```
touch paper.aux  
git status  
ls  
mvim .gitignore  
mvim ~/.gitignore  
git status  
git add .gitignore
```

".gitignore" [New] 1L, 6C written

```
~/git_yer_git_on - [master•] » mvim ~/.gitignore
```

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Untracked files:

(use "git add <file>..." to include in what will be committed)

.gitignore

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] » git add .gitignore
```

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

new file: .gitignore

```
~/git_yer_git_on - [master•] » git add paper.tex
```

```
git status
ls
mvim .gitignore
mvim ~/.gitignore
git status
git add .gitignore
git status
```

".gitignore" [New] 1L, 6C written

(use "git add <file>..." to include in what will be committed)

.gitignore

nothing added to commit but untracked files present (use "git add" to track)

~/git_yer_git_on - [master•] » git add .gitignore

~/git_yer_git_on - [master•] » git status

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

new file: .gitignore

~/git_yer_git_on - [master•] » git add paper.tex

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

~/git_yer_git_on - [master•] » git add -f paper.tex

```
ls
mvim .gitignore
mvim ~/.gitignore
git status
git add .gitignore
git status
git add paper.tex
```

```

".gitignore" [New] 1L, 6C written
1,5 All
```

.gitignore

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] » git add .gitignore
```

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

new file: .gitignore

```
~/git_yer_git_on - [master•] » git add paper.tex
```

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

```
~/git_yer_git_on - [master•] » git add -f paper.tex
```

```
~/git_yer_git_on - [master•] » cd
```

```
mvim .gitignore
mvim ~/.gitignore
git status
git add .gitignore
git status
git add paper.tex
git add -f paper
```

".gitignore" [New] 1L, 6C written

nothing added to commit but untracked files present (use "git add" to track)

```
~/git_yer_git_on - [master•] » git add .gitignore
```

```
~/git_yer_git_on - [master•] » git status
```

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

new file: .gitignore

```
~/git_yer_git_on - [master•] » git add paper.tex
```

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

```
~/git_yer_git_on - [master•] » git add -f paper.tex
```

```
~/git_yer_git_on - [master•] » cd ~/Teaching/git-tutorials-siamcse2017
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
mvim ~/.gitignore
```

```
git status
```

```
git add .gitignore
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

".gitignore" [New] 1L, 6C written

new file: .gitignore

~/git_yer_git_on - [master•] » git add paper.tex

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

~/git_yer_git_on - [master•] » git add -f paper.tex

~/git_yer_git_on - [master•] » cd ~/Teaching/git-tutorials-siamcse2017

Teaching/git-tutorials-siamcse2017 - [master•] » git status

On branch master

Your branch is up-to-date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)

Teaching/git-tutorials-siamcse2017 - [master•] »

```
git status
git add .gitignore
git status
git add paper.tex
git add -f paper.tex
cd ~/Teaching/git-tutorials-siamcse2017
git status
```

".gitignore" [New] 1L, 6C written

new file: .gitignore

```
~/git_yer_git_on - [master•] » git add paper.tex
```

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

```
~/git_yer_git_on - [master•] » git add -f paper.tex
```

```
~/git_yer_git_on - [master•] » cd ~/Teaching/git-tutorials-siamcse2017
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

On branch master

Your branch is up-to-date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)

```
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
git add .gitignore
git status
git add paper.tex
git add -f paper.tex
cd ~/Teaching/git-tutorials-siamcse2017
git status
```

".gitignore" [New] 1L, 6C written

new file: .gitignore

~/git_yer_git_on - [master•] » git add paper.tex

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

~/git_yer_git_on - [master•] » git add -f paper.tex

~/git_yer_git_on - [master•] » cd ~/Teaching/git-tutorials-siamcse2017

Teaching/git-tutorials-siamcse2017 - [master•] » git status

On branch master

Your branch is up-to-date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)

Teaching/git-tutorials-siamcse2017 - [master•] » git remote

```
git status
git add .gitignore
git status
git add paper.tex
git add -f paper.tex
cd ~/Teaching/git-tutorials-siamcse2017
git status
```

".gitignore" [New] 1L, 6C written

The following paths are ignored by one of your .gitignore files:

paper.tex

Use -f if you really want to add them.

```
~/git_yer_git_on - [master•] » git add -f paper.tex
```

```
~/git_yer_git_on - [master•] » cd ~/Teaching/git-tutorials-siamcse2017
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

On branch master

Your branch is up-to-date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

slides/haier vol1.pdf

nothing added to commit but untracked files present (use "git add" to track)

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
```

ketch

origin

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
```

```
git add .gitignore
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

```
git status
```

```
git remote
```

".gitignore" [New] 1L, 6C written

Teaching/git-tutorials-siamcse2017 - [master•] » git status

On branch master

Your branch is up-to-date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

slides/haierer voll.pdf

nothing added to commit but untracked files present (use "git add" to track)

Teaching/git-tutorials-siamcse2017 - [master•] » git remote

ketch

origin

Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v

ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)

ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)

origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)

origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)

Teaching/git-tutorials-siamcse2017 - [master•] »

```
git status
git add paper.tex
git add -f paper.tex
cd ~/Teaching/git-tutorials-siamcse2017
git status
git remote
git remote -v
```

".gitignore" [New] 1L, 6C written

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
slides/haierer voll.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
```

```
ketch
```

```
origin
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

```
git status
```

```
git remote
```

```
git remote -v
```

```
".gitignore" [New] 1L, 6C written
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
slides/haierer voll.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
```

```
ketch
```

```
origin
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

```
git status
```

```
git remote
```

```
git remote -v
```

```
".gitignore" [New] 1L, 6C written
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
slides/haierer voll.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
```

```
ketch
```

```
origin
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

```
git status
```

```
git remote
```

```
git remote -v
```

```
".gitignore" [New] 1L, 6C written
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
slides/haierer voll.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
```

```
ketch
```

```
origin
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

```
git status
```

```
git remote
```

```
git remote -v
```

```
".gitignore" [New] 1L, 6C written
```

```
1,5
```

```
All
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is up-to-date with 'origin/master'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
ketch
origin
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
git add paper.te
git add -f paper
cd ~/Teaching/gi
git status
git remote
git remote -v
```

".gitignore" [New] 1L, 6C written

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
slides/haierer voll.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
```

```
ketch
```

```
origin
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
```

```
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
```

```
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git st
```

```
git status
```

```
git add paper.tex
```

```
git add -f paper.tex
```

```
cd ~/Teaching/git-tutorials-siamcse2017
```

```
git status
```

```
git remote
```

```
git remote -v
```

```
".gitignore" [New] 1L, 6C written
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git remote
ketch
origin
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is up-to-date with 'origin/master'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » touch fi
```

```
git add paper.te
git add -f paper
cd ~/Teaching/gi
git status
git remote
git remote -v
git status
".gitignore" [New] 1L, 6C written
```

```
ketch
origin
Teaching/git-tutorials-siamcse2017 - [master•] » git remote -v
ketch https://github.com/ketch/git-tutorials-siamcse2017 (fetch)
ketch https://github.com/ketch/git-tutorials-siamcse2017 (push)
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (fetch)
origin https://github.com/uwescience/git-tutorials-siamcse2017.git (push)
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is up-to-date with 'origin/master'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » touch file1.txt
Teaching/git-tutorials-siamcse2017 - [master•] » git st
```

```
git add -f paper
cd ~/Teaching/gi
git status
git remote
git remote -v
git status
touch file1.txt
".gitignore" [New] 1L, 6C written
```

```
Untracked files:  
(use "git add <file>..." to include in what will be committed)
```

```
slides/haierer voll1.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » touch file1.txt
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:  
(use "git add <file>..." to include in what will be committed)
```

```
file1.txt  
slides/haierer voll1.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git add
```

```
cd ~/Teaching/gi  
git status  
git remote  
git remote -v  
git status  
touch file1.txt  
git status
```

```
".gitignore" [New] 1L, 6C written
```

```
slides/haier vol1.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » touch file1.txt
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
On branch master
```

```
Your branch is up-to-date with 'origin/master'.
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
file1.txt
```

```
slides/haier vol1.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git add
```

```
Nothing specified, nothing added.
```

```
Maybe you wanted to say 'git add .'?
```

```
Teaching/git-tutorials-siamcse2017 - [master•] » git add file1.txt
```

```
git status  
git remote  
git remote -v  
git status  
touch file1.txt  
git status  
git add
```

```
".gitignore" [New] 1L, 6C written
```

```
1,5
```

```
All
```

nothing added to commit but untracked files present (use "git add" to track)

Teaching/git-tutorials-siamcse2017 - [master•] » touch file1.txt

Teaching/git-tutorials-siamcse2017 - [master•] » git status

On branch master

Your branch is up-to-date with 'origin/master'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

file1.txt
slides/haierer voll.pdf

nothing added to commit but untracked files present (use "git add" to track)

Teaching/git-tutorials-siamcse2017 - [master•] » git add

Nothing specified, nothing added.

Maybe you wanted to say 'git add .'?

Teaching/git-tutorials-siamcse2017 - [master•] » git add file1.txt

Teaching/git-tutorials-siamcse2017 - [master••] » git commit

```
git remote
git remote -v
git status
touch file1.txt
git status
git add
git add file1.t
```

".gitignore" [New] 1L, 6C written

Add an empty file.

```
# Please enter the commit message for your changes. Lines starting  
# with '#' will be ignored, and an empty message aborts the commit.
```

```
# On branch master
```

```
# Your branch is up-to-date with 'origin/master'.
```

```
#
```

```
# Changes to be committed:
```

```
#   new file:   file1.txt
```

```
#
```

```
# Untracked files:
```

```
#   slides/haier vol1.pdf
```

```
#
```

```
:wq
```

```
git remote -v  
git status  
touch file1.txt  
git status  
git add  
git add file1.t  
git commit
```

```
".gitignore" [New] 1L, 6C written
```

```
On branch master
Your branch is up-to-date with 'origin/master'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)

file1.txt
slides/haired vol1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » git add
Nothing specified, nothing added.
Maybe you wanted to say 'git add .' ?
Teaching/git-tutorials-siamcse2017 - [master•] » git add file1.txt
Teaching/git-tutorials-siamcse2017 - [master••] » git commit
[master d3e543e] Add an empty file.
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1.txt
Teaching/git-tutorials-siamcse2017 - [master•] » git status
```

```
git remote -v
git status
touch file1.txt
git status
git add
git add file1.t
git commit
```

".gitignore" [New] 1L, 6C written

```
Nothing specified, nothing added.
Maybe you wanted to say 'git add .'
Teaching/git-tutorials-siamcse2017 - [master•] » git add file1.txt
Teaching/git-tutorials-siamcse2017 - [master••] » git commit
[master d3e543e] Add an empty file.
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file1.txt
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
Untracked files:
  (use "git add <file>..." to include in what will be committed)

  slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
touch file1.txt
git status
git add
git add file1.t
git commit
git status
```

".gitignore" [New] 1L, 6C written

```
Nothing specified, nothing added.
Maybe you wanted to say 'git add .'
Teaching/git-tutorials-siamcse2017 - [master•] » git add file1.txt
Teaching/git-tutorials-siamcse2017 - [master••] » git commit
[master d3e543e] Add an empty file.
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1.txt
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
(use "git push" to publish your local commits)
Untracked files:
(use "git add <file>..." to include in what will be committed)

slides/haired voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] »
```

```
git status
touch file1.txt
git status
git add
git add file1.txt
git commit
git status
```

".gitignore" [New] 1L, 6C written

```
Nothing specified, nothing added.
Maybe you wanted to say 'git add .'
Teaching/git-tutorials-siamcse2017 - [master•] » git add file1.txt
Teaching/git-tutorials-siamcse2017 - [master••] » git commit
[master d3e543e] Add an empty file.
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file1.txt
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
Untracked files:
  (use "git add <file>..." to include in what will be committed)

  slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » git push ketch master
```

```
git status
touch file1.txt
git status
git add
git add file1.t
git commit
git status
```

".gitignore" [New] 1L, 6C written

```
Maybe you wanted to say 'git add .'?
```

```
Teaching/git-tutorials-siamcse2017 - [master●] » git add file1.txt
```

```
Teaching/git-tutorials-siamcse2017 - [master●●] » git commit
```

```
[master d3e543e] Add an empty file.
```

```
1 file changed, 0 insertions(+), 0 deletions(-)
```

```
create mode 100644 file1.txt
```

```
Teaching/git-tutorials-siamcse2017 - [master●] » git status
```

```
On branch master
```

```
Your branch is ahead of 'origin/master' by 1 commit.
```

```
(use "git push" to publish your local commits)
```

```
Untracked files:
```

```
(use "git add <file>..." to include in what will be committed)
```

```
slides/haired voll1.pdf
```

```
nothing added to commit but untracked files present (use "git add" to track)
```

```
Teaching/git-tutorials-siamcse2017 - [master●] » git push ketch master
```

```
touch file1.txt
```

```
git status
```

```
git add
```

```
git add file1.txt
```

```
git commit
```

```
git status
```

```
git push ketch m
```

```
".gitignore" [New] 1L, 6C written
```

```
1,5
```

```
All
```

```

create mode 100644 file1.txt
Teaching/git-tutorials-siamcse2017 - [master•] » git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
Untracked files:
  (use "git add <file>..." to include in what will be committed)

```

```

slides/haierer voll.pdf

```

```

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » git push ketch master
Counting objects: 49, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (48/48), done.
Writing objects: 100% (49/49), 34.97 KiB | 0 bytes/s, done.
Total 49 (delta 29), reused 0 (delta 0)

```

```

touch file1.txt
git status
git add
git add file1.t>
git commit
git status
git push ketch m

```

".gitignore" [New] 1L, 6C written

```
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
Untracked files:
  (use "git add <file>..." to include in what will be committed)

  slides/haierer voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)
Teaching/git-tutorials-siamcse2017 - [master•] » git push ketch master
Counting objects: 49, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (48/48), done.
Writing objects: 100% (49/49), 34.97 KiB | 0 bytes/s, done.
Total 49 (delta 29), reused 0 (delta 0)
remote: Resolving deltas: 100% (29/29), completed with 5 local objects.
To https://github.com/ketch/git-tutorials-siamcse2017
   a31d7ba..d3e543e  master -> master
Teaching/git-tutorials-siamcse2017 - [master•] » git fetch origin
```

```
touch file1.txt
git status
git add
git add file1.txt
git commit
git status
git push ketch m
```

".gitignore" [New] 1L, 6C written

(use "git push" to publish your local commits)
Untracked files:
(use "git add <file>..." to include in what will be committed)

slides/haireder voll1.pdf

nothing added to commit but untracked files present (use "git add" to track)

Teaching/git-tutorials-siamcse2017 - [master•] » git push ketch master

Counting objects: 49, done.

Delta compression using up to 8 threads.

Compressing objects: 100% (48/48), done.

Writing objects: 100% (49/49), 34.97 KiB | 0 bytes/s, done.

Total 49 (delta 29), reused 0 (delta 0)

remote: Resolving deltas: 100% (29/29), completed with 5 local objects.

To https://github.com/ketch/git-tutorials-siamcse2017

a31d7ba..d3e543e master -> master

Teaching/git-tutorials-siamcse2017 - [master•] » git fetch origin

```
git status
git add
git add file1.txt
git commit
git status
git push ketch m
git fetch origin
```

".gitignore" [New] 1L, 6C written

1,5

All