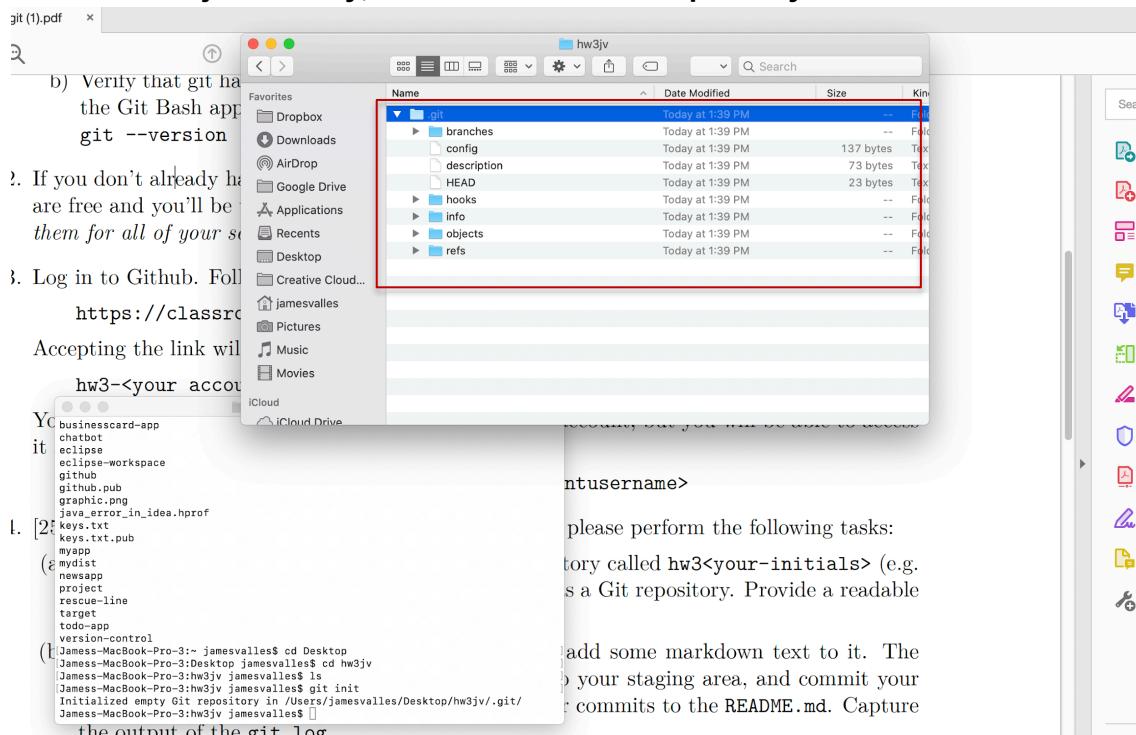


A. Create hw3jv directory, then initialize as Git repository. Screenshots of contents



B.

Create README.md file add test, add file to staging, and commit to local repo. Then capture git log output

```
James-MacBook-Pro-3:hw3jv jamesvalles$ vim README.md
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ git add .
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ git commit -m "Added Course number"
[1] [master ee4a681] Added Course number
  1 file changed, 1 insertion(+), 1 deletion(-)
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ vim README.md
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ vim README.md
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ git add .
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ git commit -m "Added a special note"
[1] [master e56f095] Added a special note
  1 file changed, 1 insertion(+), 1 deletion(-)
[1] [2] James-MacBook-Pro-3:hw3jv jamesvalles$ git log
[1] commit e56f095b168eac8a3774f053795f84df5771d6ff (HEAD -> master)
  Author: James Valles <jamesvallesdotcom@gmail.com>
  Date:  Sun Feb 9 13:49:03 2020 -0600

    Added a special note

  commit ee4a681d24b25a80221294cada0116738179eae2
  Author: James Valles <jamesvallesdotcom@gmail.com>
  Date:  Sun Feb 9 13:48:09 2020 -0600

    Added Course number

  commit 8978deeaee414be95a43d1c373d59b74d1712f6f
  Author: James Valles <jamesvallesdotcom@gmail.com>
  Date:  Sun Feb 9 13:44:52 2020 -0600

    Adding README.md file that includes my name
[1] James-MacBook-Pro-3:hw3jv jamesvalles$
```

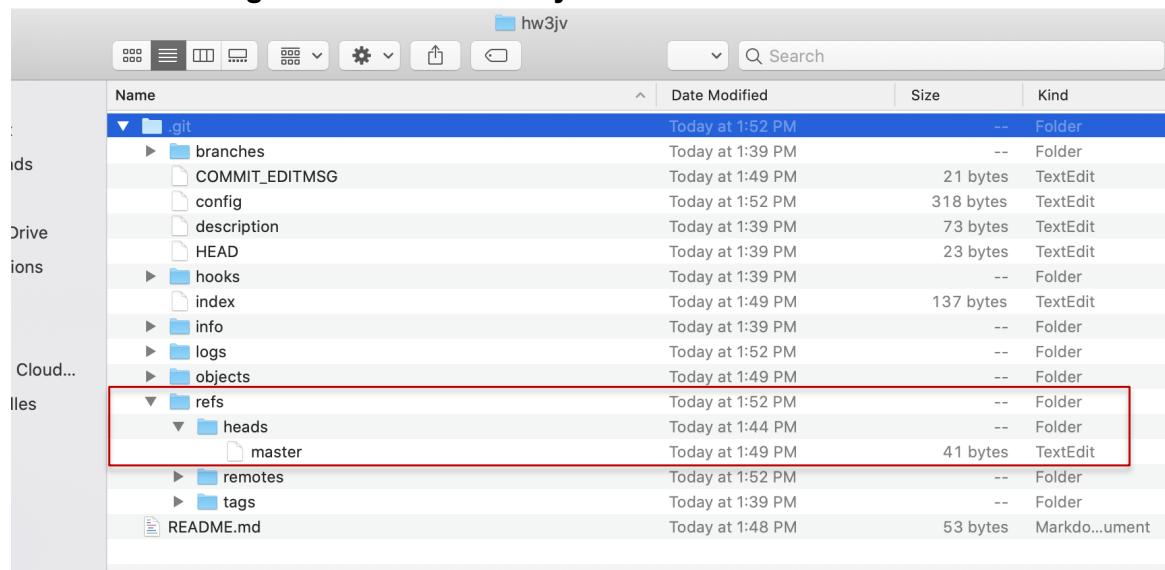
C.

Pushed local repository to Github

```
[James-MacBook-Pro-3:hw3jv jamesvalles$ git remote add origin https://github.com/depaulcdm/hw3-jamesvalles.git
[James-MacBook-Pro-3:hw3jv jamesvalles$ git push --set-upstream origin master
error: src refspec master does not match any
error: failed to push some refs to 'https://github.com/depaulcdm/hw3-jamesvalles.git'
[James-MacBook-Pro-3:hw3jv jamesvalles$ git push --set-upstream origin master
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (9/9), 774 bytes | 774.00 KiB/s, done.
Total 9 (delta 0), reused 0 (delta 0)
To https://github.com/depaulcdm/hw3-jamesvalles.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
James-MacBook-Pro-3:hw3jv jamesvalles$ ]
```

D.

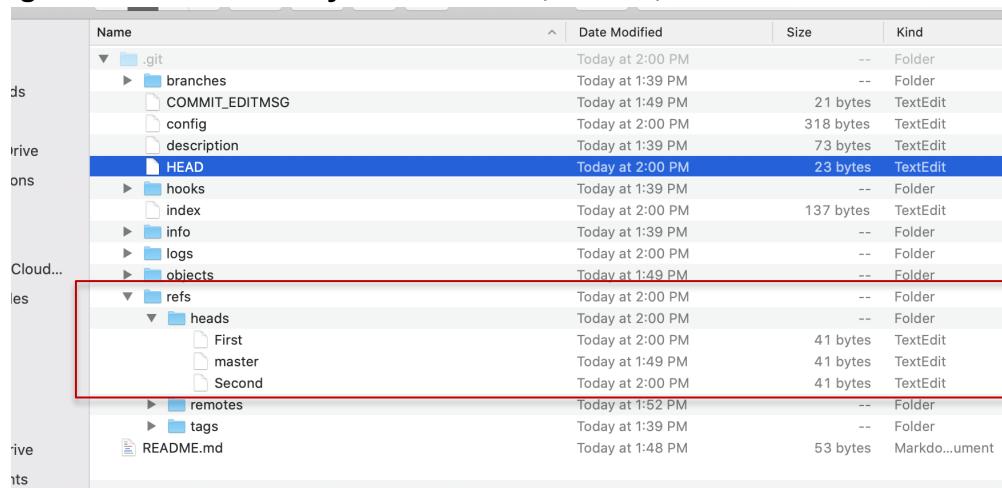
List contents of .git/refs/heads directory contains **master** branch



Name	Date Modified	Size	Kind
.git	Today at 1:52 PM	--	Folder
branches	Today at 1:39 PM	--	Folder
COMMIT_EDITMSG	Today at 1:49 PM	21 bytes	TextEdit
config	Today at 1:52 PM	318 bytes	TextEdit
description	Today at 1:39 PM	73 bytes	TextEdit
HEAD	Today at 1:39 PM	23 bytes	TextEdit
hooks	Today at 1:39 PM	--	Folder
index	Today at 1:49 PM	137 bytes	TextEdit
info	Today at 1:39 PM	--	Folder
logs	Today at 1:52 PM	--	Folder
objects	Today at 1:49 PM	--	Folder
refs	Today at 1:52 PM	--	Folder
heads	Today at 1:44 PM	--	Folder
master	Today at 1:49 PM	41 bytes	TextEdit
remotes	Today at 1:52 PM	--	Folder
tags	Today at 1:39 PM	--	Folder
README.md	Today at 1:48 PM	53 bytes	Markdown

E.

Create two branches off the **master** branch. Created **First** and **Second**. Contents of .git/refs/heads directory include : **First, master, Second**



Name	Date Modified	Size	Kind
.git	Today at 2:00 PM	--	Folder
branches	Today at 1:39 PM	--	Folder
COMMIT_EDITMSG	Today at 1:49 PM	21 bytes	TextEdit
config	Today at 2:00 PM	318 bytes	TextEdit
description	Today at 1:39 PM	73 bytes	TextEdit
HEAD	Today at 2:00 PM	23 bytes	TextEdit
hooks	Today at 1:39 PM	--	Folder
index	Today at 2:00 PM	137 bytes	TextEdit
info	Today at 1:39 PM	--	Folder
logs	Today at 2:00 PM	--	Folder
objects	Today at 1:49 PM	--	Folder
refs	Today at 2:00 PM	--	Folder
heads	Today at 2:00 PM	--	Folder
First	Today at 2:00 PM	41 bytes	TextEdit
master	Today at 1:49 PM	41 bytes	TextEdit
Second	Today at 2:00 PM	41 bytes	TextEdit
remotes	Today at 1:52 PM	--	Folder
tags	Today at 1:39 PM	--	Folder
README.md	Today at 1:48 PM	53 bytes	Markdown

F. Change to first branch update commit change to README.md. Merge to master. Git log

```
[ACK] [> git checkout master
ice [>
[> "
[First 83745ff] Made a change to README.md in First branch. git checkout master
1 (3
orth [Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git checkout master
refer Switched to branch 'master'
Your branch is up to date with 'origin/master'.
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git merge First
Updating e56f095..83745ff
Fast-forward
 README.md | 2 ++
 1 file changed, 1 insertion(+), 1 deletion(-)
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git log
commit 83745ff0b53f26ad5b414d6f344fb46c1efe190 (HEAD -> master, First)
Author: James Valles <jamesvallesdotcom@gmail.com>
Date:   Sun Feb 9 17:38:40 2020 -0600

    Made a change to README.md in First branch.
    git checkout master

commit e56f095b168eac8a3774f053795f84df5771d6ff (origin/master, Second)
Author: James Valles <jamesvallesdotcom@gmail.com>
Date:   Sun Feb 9 13:49:03 2020 -0600

    Added a special note

commit ee4a681d24b25a80221294cada0116738179eae2
Author: James Valles <jamesvallesdotcom@gmail.com>
Date:   Sun Feb 9 13:48:09 2020 -0600

    Added Course number

commit 8978deeaee414be95a43d1c373d59b74d1712f6f
Author: James Valles <jamesvallesdotcom@gmail.com>
Date:   Sun Feb 9 13:44:52 2020 -0600

    Adding README.md file that includes my name
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ ]
```

G. Change to second branch. Update/Commit change to README.md, commit change merge to master. Resolve merge conflicts. Push master branch to Github.

```
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git commit -m "Making changes from the second branch."
[Second 9a53612] Making changes from the second branch.
 1 file changed, 1 insertion(+), 1 deletion(-)
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git checkout master
Switched to branch 'master'
* Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git merge Second
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
Automatic merge failed; fix conflicts and then commit the result.
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ vim README.md
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git merge Second
error: Merging is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git add .
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ ls
 README.md
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ vim README.md
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git commit -m "Merge conflicts resolved"
[master 317ac38] Merge conflicts resolved
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ git push origin master
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (9/9), 875 bytes | 875.00 KiB/s, done.
Total 9 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/depaulcdm/hw3-jamesvalles.git
  e56f095..317ac38  master -> master
[Jamess-MacBook-Pro-3:hw3jv jamesvalles$ ]
```

H.

Screenshot from Github Code page, difference between current and prior version of README.md

The screenshot shows a GitHub repository page for 'depaulcdm / hw3-jamesvalles'. The 'Code' tab is selected. A message box at the top says 'Merge conflicts resolved'. Below it, a commit by 'James Valles' is shown, committed 4 minutes ago. The commit message is: 'James Valles - SE 441 - I am in the first branch and made this change. :)'. The commit hash is 317ac383837c5757986194826324f3288d16a89a. The commit has 2 parents: 83745ff + 9a53612. The commit file is README.md. The diff shows a conflict: the first line is '@@ -1 +1 @@' followed by two lines of code. The first line is red and the second is green. The first line contains the commit message, and the second line contains the commit hash. Below the commit, there are 0 comments and a 'Lock conversation' button.

For git diff, I got nothing.

```
lpc-depaulsecure-200-227:hw3jv jamesvalles$ git diff  
lpc-depaulsecure-200-227:hw3jv jamesvalles$
```

Then tried git diff 83745ff 9a53612 and received the same results as github

A terminal window titled 'hw3jv — bash — 115x39' is shown. The command 'git diff 83745ff 9a53612' is run. The output shows a merge conflict in README.md. The conflict is identical to the one shown in the GitHub screenshot, with the first line being '@@ -1 +1 @@' followed by two lines of code, one red and one green, containing the commit message and hash respectively.

I. Create new file jv.md and added some content. Git status

A terminal window titled 'hw3jv — bash — 115x39' is shown. The user creates a new file 'jv.md' and adds some content. Then they run 'git status'. The output shows that 'jv.md' is an untracked file. The user then runs 'git add jv.md' and 'git status' again, which shows that 'jv.md' is now tracked and ready to be committed.

J. Add new file to local repo using git add, do not commit, then do git status

```
James-MacBook-Pro-3:hw3jv jamesvalles$ git add .
James-MacBook-Pro-3:hw3jv jamesvalles$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:  jv.md

James-MacBook-Pro-3:hw3jv jamesvalles$ git diff
```

K.

Perform a mixed reset. Capture out of git status

```
James-MacBook-Pro-3:hw3jv jamesvalles$ git reset --mixed
James-MacBook-Pro-3:hw3jv jamesvalles$ 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)
    jv.md

nothing added to commit but untracked files present (use "git add" to track)
James-MacBook-Pro-3:hw3jv jamesvalles$ git diff
```

It removed the file **jv.md** from staging area back to working area (git add . from step J undone). Index was cleared

L. Read file to local directory using **git add**, do not commit, capture using **git status**

```
James-MacBook-Pro-3:hw3jv jamesvalles$ git add .
James-MacBook-Pro-3:hw3jv jamesvalles$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:  jv.md

James-MacBook-Pro-3:hw3jv jamesvalles$ git diff
```

M. Execute a hard reset. Capture output using **git status**

```
James-MacBook-Pro-3:hw3jv jamesvalles$ git reset --hard
HEAD is now at 317ac38 Merge conflicts resolved
James-MacBook-Pro-3:hw3jv jamesvalles$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
James-MacBook-Pro-3:hw3jv jamesvalles$ git diff
```

This completely removes all local changes. The index is cleared along with the local file. Bye-bye