

Practice with all the local repository commands from the slides:

1. `git init`

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git init
```

Reinitialized existing Git repository in C:/Users/kheli/OneDrive/Desktop/CS445 Lab1/.git/

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>
```

2. `git status`

On branch master

No commits yet

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

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>
```

3. `git diff`

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git diff
```

```
diff --git a/index.html b/index.html
```

```
index 4e253cc..aa03152 100644
```

```
--- a/index.html
```

```
+++ b/index.html
```

```
@@ -7,7 +7,7 @@
```

```
<title>Lab1</title>
```

</head>

<body>

- <p> lab1 </p>

+ <p> lab1 and label 2 </p>

:

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

4. Create .gitignore file, and notice how it works

It is not showing index.js in git status because I tell the git to ignore it.

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git status

On branch master

No commits yet

Untracked files:

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

.gitignore

index.html

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

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

5. git add

see the difference between number 4 above and number 5 (below). Index.html is getting tracked because I added it.

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git add index.html
```

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git status
```

On branch master

No commits yet

Changes to be committed:

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

new file: index.html

Untracked files:

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

.gitignore

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>
```

6. git commit

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git commit -m "adding index.html"
```

```
[master (root-commit) 54e0278] adding index.html
```

```
1 file changed, 12 insertions(+)
```

create mode 100644 index.html

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

7. `git commit -amend` (updating the last commit)

```
adding index.html

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Tue Apr 26 14:34:57 2022 -0400
#
# On branch master
#
# Initial commit
#
# Changes to be committed:
#   new file:   index.html
#
# Untracked files:
#   .gitignore
#   amend.html
#
```

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> `git commit --amend`
"index.html"

hint: Waiting for your editor to close the file...

8. `git log`

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> `git log`
commit 54e027883ca6767a4e07c2bda615f2c3b64a8ca0 (HEAD -> master)
Author: khelifanasir <100175510+khelifanasir@users.noreply.github.com>
Date: Tue Apr 26 14:34:57 2022 -0400

adding index.html

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

9. `git tag`

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git tag v1
```

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout index
```

Note: switching to 'index'.

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 switching back to a branch.

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

```
git switch -c <new-branch-name>
```

Or undo this operation with:

```
git switch -
```

Turn off this advice by setting config variable `advice.detachedHead` to false

HEAD is now at fa7164f adding index.html

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

10. git branch

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git branch hello.js

fatal: a branch named 'hello.js' already exists

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout hello.js

Switched to branch 'hello.js'

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

11. git checkout

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout hello.js

Switched to branch 'hello.js'

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout master

Switched to branch 'master'

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

12. git merge

. **Create a conflict and solve the conflict**

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git merge newbranch

Auto-merging index.html

CONFLICT (content): Merge conflict in index.html

Automatic merge failed; fix conflicts and then commit the result.

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Lab1</title>
</head>
<body>
<<<<<<< HEAD
  <p> lab1 and label 2 </p>
  <p> just </p>
=====
  <p> lab1 </p>

>>>>>>> newbranch
</body>
</html>
```

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git checkout master

Switched to branch 'master'

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git merge newbranch

Auto-merging index.html

CONFLICT (content): Merge conflict in index.html

Automatic merge failed; fix conflicts and then commit the result.

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git add .

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git commit -m "merged from newbranch"

[master d37c7a1] merged from newbranch

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git merge newbranch

Already up to date.

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>

13. Undo changes from a certain commit `git revert`

```
14. Revert "revert"
15.
16. This reverts commit 6bf58c27c0770a7dc43fcbbc41a44f6d97e5223c.
17.
18. # Please enter the commit message for your changes. Lines starting
19. # with '#' will be ignored, and an empty message aborts the commit.
20. #
21. # On branch master
22. # Changes to be committed:
23. #   modified:   index.html
24. #
25.
```

86367ae amend index.html

9edc4ad (newbranch) addign lab1

ec0b373 (tag: hellotag, hello.js) "adding hello.js"

4d9a9b5 (tag: v1) still adding index.html

fa7164f (tag: index) adding index.html

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git reveret 6bf58c2

git: 'reveret' is not a git command. See 'git --help'.

The most similar command is

revert

PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git revert 6bf58c2

hint: Waiting for your editor to close the file...

26. Erase commits with `git reset`


```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git log --oneline
```

```
d37c7a1 merged from newbranch
```

```
5fb333d console
```

```
646e166 second
```

```
0c8dc51 second commit
```

```
86367ae amend index.html
```

```
9edc4ad (newbranch) addign lab1
```

```
ec0b373 (tag: hellotag, hello.js) "adding hello.js"
```

```
4d9a9b5 (tag: v1) still adding index.html
```

```
fa7164f (tag: index) adding index.html
```

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git reset d37c7a1
```

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1> git log --oneline
```

```
d37c7a1 (HEAD -> master) merged from newbranch
```

```
5fb333d console
```

```
646e166 second
```

```
0c8dc51 second commit
```

```
86367ae amend index.html
```

```
9edc4ad (newbranch) addign lab1
```

```
ec0b373 (tag: hellotag, hello.js) "adding hello.js"
```

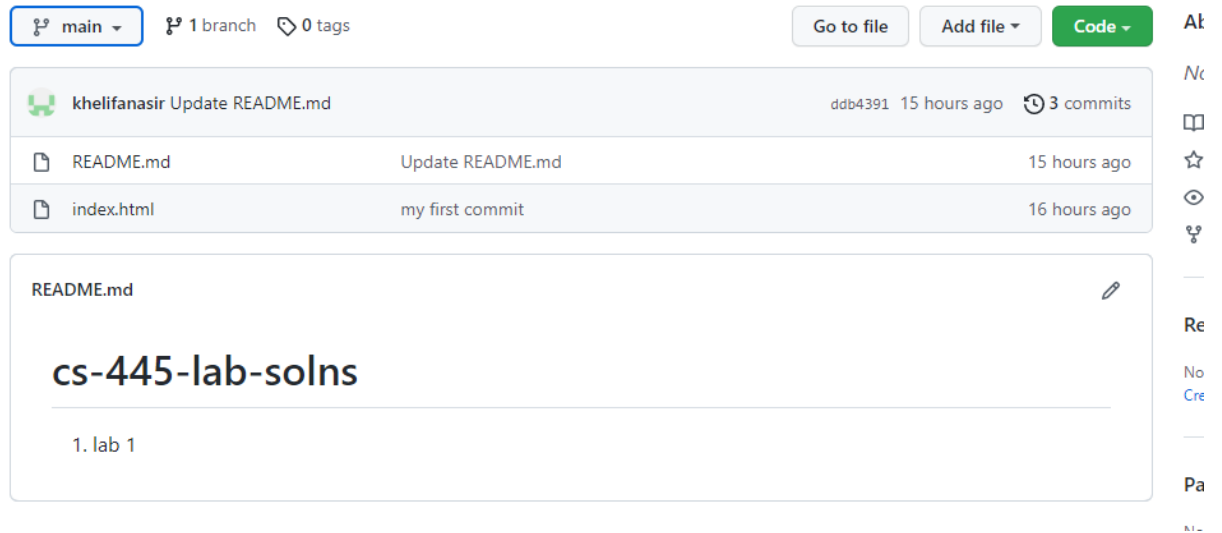
```
4d9a9b5 (tag: v1) still adding index.html
```

```
fa7164f (tag: index) adding index.html
```

```
PS C:\Users\kheli\OneDrive\Desktop\CS445 Lab1>
```

Practice with all the remote repository commands from the slides:

1. Create a remote repository



2. git clone

```
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns> git clone https://github.com/khelifanasir/cs-445-lab-solns.git
Cloning into 'cs-445-lab-solns'...
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 9 (delta 0), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (9/9), done.
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns>
```

3. git remote


```
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns> git remote
origin
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns>
```




4. git push

```


PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns> git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 363 bytes | 363.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/khelifanasir/cs-445-lab-solns.git
ddb4391..10d5cc8  main -> main
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns>

```


khelifanasir lab2
10d5cc8 18 seconds ago 4 commits

	cs-445-lab-solns	lab2	18 seconds ago
	README.md	lab2	18 seconds ago
	index.html	my first commit	16 hours ago

README.md



cs-445-lab-solns

- lab 1
- lab 2

5. git fetch

```

PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns> git fetch
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 744 bytes | 57.00 KiB/s, done.
From https://github.com/khelifanasir/cs-445-lab-solns
 10d5cc8..aa6d998  main      -> origin/main
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns>

```

6. git pull

```
1 # cs-445-lab-solns
2
3 1. lab 1
4
5 2. lab 2
6
7 3. lab 3
8
```

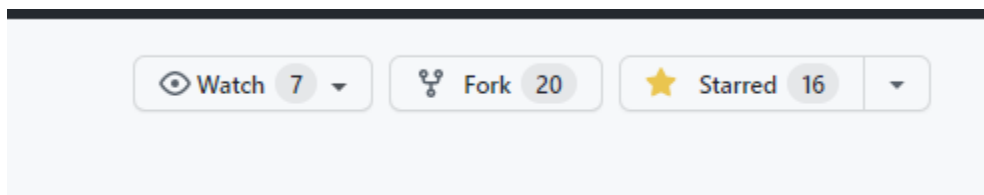
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 744 bytes | 57.00 KiB/s, done.
From https://github.com/khelifanasir/cs-445-lab-solns
   10d5cc8..aa6d998  main      -> origin/main
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns> git merge
Updating 10d5cc8..aa6d998
Fast-forward
 README.md | 4 +++-
 1 file changed, 3 insertions(+), 1 deletion(-)
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns> git pull
Already up to date.
PS C:\Users\kheli\OneDrive\Desktop\cs-445-lab-solns>
```

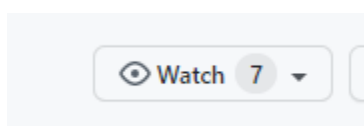
Practice with all the third party repositories commands from the slides:

Assume we are working with the following
upstream: <https://github.com/bellaxing/cs445-labs>

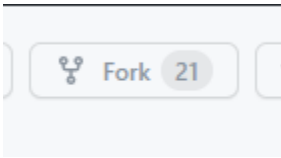
1. Star the repository



2. Watch the repository for any changes



3. Fork the repository



4. Clone your forked repository into your local machine

```
PS C:\Users\kheli\OneDrive\Desktop> git clone https://github.com/khelifanasir/cs445-labs.git
Cloning into 'cs445-labs'...
remote: Enumerating objects: 231, done.
remote: Counting objects: 100% (73/73), done.
remote: Compressing objects: 100% (40/40), done.
remote: Total 231 (delta 40), reused 26 (delta 25), pack-reused 158
Receiving objects: 100% (231/231), 108.18 KiB | 1.48 MiB/s, done.
Resolving deltas: 100% (84/84), done.
PS C:\Users\kheli\OneDrive\Desktop>
```

5. Create a new topic branch using studentId-studentName format, For example:
610001-JohnSmith

```
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git branch 610001-JohnSmith
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git branch
610001-JohnSmith
* main
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs>
```

6. Checkout your new branch

```
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git checkout 610001-JohnSmith
Switched to branch '610001-JohnSmith'
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs>
```

7. Add a new file with your name, example: hello.js

```
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git checkout 610001-JohnSmith
Switched to branch '610001-JohnSmith'
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git add .
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git status
On branch 610001-JohnSmith
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   kh.js
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs>
```

8. Commit the changes

```
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git commit -m "adding hell.js"
[610001-JohnSmith f804640] adding hell.js
1 file changed, 1 insertion(+)
create mode 100644 kh.js
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs>
```

9. Merge your studentId-studentName branch with the main branch

```
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git merge 610001-JohnSmith
Updating 1c32ce1..f804640
Fast-forward
 kh.js | 1 +
1 file changed, 1 insertion(+)
create mode 100644 kh.js
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs>
```

10. Push your changes to the remote repo

```
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs> git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 303 bytes | 303.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/khelifanasir/cs445-labs.git
1c32ce1..f804640 main -> main
PS C:\Users\kheli\OneDrive\Desktop\cs445-labs>
```

11. Create a new Pull Request to the upstream repo

Conversation 0

Commits 1

Checks 0

Files changed 1

khelifanasir commented in 1 hour

No description provided.

adding hell.js

f804640

Add more commits by pushing to the **main** branch on **khelifanasir/cs445-labs**.

✓

This branch has no conflicts with the base branch
Only those with [write access](#) to this repository can merge pull requests.

Write

Preview

H B I ≡ <> 🔗 ☰ ≡ ☑ @ ↗ ↶

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Close pull request

Comment

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

ProTip! Add [.patch](#) or [.diff](#) to the end of URLs for Git's plaintext views.

Reviewers

No reviews

Still in progress

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Successfully merged issues.

None yet

Notification

What you need to submit:

Copy and paste your github link of this lab to Sakai.