

CS445 - Lab 1 Collaborative Git

Practice with all the local repository commands from the slides:

1. `git init`

```
→ lab1 git init
Initialized empty Git repository in /Users/meroneyeram/Documents/github/CS445-Asyncprogramming/lab1/.git/
→ lab1 git:(master) □
```

2. `git status`

```
→ lab1 git:(master) git status
On branch master


No commits yet

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

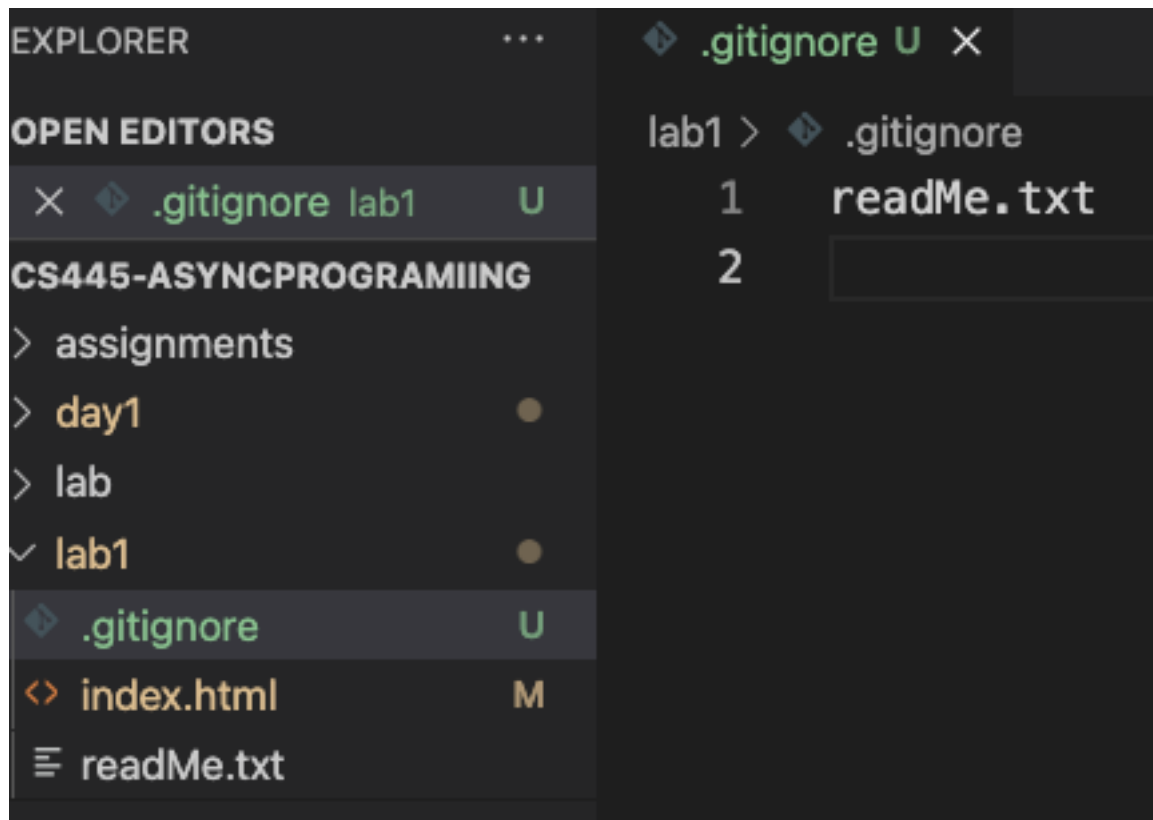
        index.html

nothing added to commit but untracked files present (use "git add" to track)
→ lab1 git:(master) □
```

3. `git diff`

```
diff --git a/index.html b/index.html
index 2a2a0f7..9001e3d 100644
--- a/index.html
+++ b/index.html
@@ -6,6 +6,8 @@
     <title>Document</title>
 </head>
 <body>
-
+   <div class="container">
+   
+   </div>
 </body>
 </html>
\ No newline at end of file
```

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



5. git add

```
➔ lab1 git:(master) ✗ git add index.html
➔ lab1 git:(master) ✗ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   index.html

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

        .gitignore
```

6. git commit

```
→ lab1 git:(master) ✕ git commit -m "add div"
[master 882720f] add div
1 file changed, 3 insertions(+), 1 deletion(-)
```

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

```
→ lab1 git:(master) ✕ git commit --amend -m "added div container"
[master dca9901] added div container
Date: Mon Oct 25 17:25:23 2021 -0500
1 file changed, 3 insertions(+), 1 deletion(-)
```

8. git log

```
lab1 git:(master) ✕ git log

commit dca9901c435351c4a8ddbe431377b5a0287c338a (HEAD -> master)
Author: meroneyeram <merrhaile@gmail.com>
Date: Mon Oct 25 17:25:23 2021 -0500

    added div container

commit 79b78006dcc77cb041efe940db18d8c4b4ac2cf
Author: meroneyeram <merrhaile@gmail.com>
Date: Mon Oct 25 17:00:42 2021 -0500

    created lab1
(END)
```

9. git tag

```
→ lab1 git:(master) ✕ git tag -a tag1 -m "added tag name to the first commit"
" 79b78006dcc77cb041efe940db18d8c4b4ac2cf"
→ lab1 git:(master) ✕ git tag
```

10. git branch

```
→ lab1 git:(master) x git branch newbranch
→ lab1 git:(master) x git checkout newbranch
Switched to branch 'newbranch'
→ lab1 git:(newbranch) x []
```

11.git checkout

```
→ lab1 git:(newbranch) x git checkout master
Switched to branch 'master'
→ lab1 git:(master) x []
```

12.git merge

1. Create a conflict and solve the conflict

```
→ lab1 git:(master) x git add .
→ lab1 git:(master) x git commit -m "added a p tag with some text"
[master eea3263] added a p tag with some text
2 files changed, 2 insertions(+), 1 deletion(-)
create mode 100644 .gitignore
→ lab1 git:(master) git log
→ lab1 git:(master) git checkout newbranch
Switched to branch 'newbranch'
→ lab1 git:(newbranch) x git add .
→ lab1 git:(newbranch) x git commit -m "added a h1 tag with text"
[newbranch 5eee916] added a h1 tag with text
2 files changed, 2 insertions(+), 1 deletion(-)
create mode 100644 readMe.txt
→ lab1 git:(newbranch) git checkout master
Switched to branch 'master'
→ lab1 git:(master) git merge newbranch
Auto-merging index.html
CONFLICT (content): Merge conflict in index.html
Automatic merge failed; fix conflicts and then commit the result.
→ lab1 git:(master) x []
```

```

9      <div class="container">
    Accept Current Change | Accept Incoming Change | Accept Both Changes |
10  <<<<<< HEAD (Current Change)
11      <p>Lorem ipsum dolor sit amet.</p>
12  =====
13      <h1>This is a header</h1>
14  >>>>>> newbranch (Incoming Change)
15  </div>

```

```

→ lab1 git:(master) ✗ git add .
→ lab1 git:(master) ✗ git commit -m "resolved conflict"
[master c0383ac] resolved conflict
→ lab1 git:(master) 

```

```

<> index.html ✕
lab1 > <> index.html > html
8  <body>
9      <div class="container">
10      <h1>This is a header</h1>
11      <p>Lorem ipsum dolor sit amet.</p>
12      </div>
13  </body>
14  </html>

```

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

```

→ lab1 git:(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:   index.js

no changes added to commit (use "git add" and/or "git commit -a")
→ lab1 git:(master) ✗ git add .
→ lab1 git:(master) ✗ git commit -m "executed foo"
[master d8f4397] executed foo
 1 file changed, 3 insertions(+), 1 deletion(-)
→ lab1 git:(master) □

```

```

commit d8f4397acd7fb63e49ecf54573fce54a376632ef (HEAD -> master)
Author: meroneyeram <merrhaile@gmail.com>
Date:   Tue Oct 26 13:22:02 2021 -0500

    executed foo

commit 6d535bc002afc9c20ce7764bddb29ac9bcd95ca8
Author: meroneyeram <merrhaile@gmail.com>
Date:   Tue Oct 26 13:15:06 2021 -0500

    added foo function

```

```

→ lab1 git:(master) git revert HEAD
[master 2132d0d] Revert "executed foo"
 1 file changed, 1 insertion(+), 3 deletions(-)
→ lab1 git:(master) git log

```

```

commit 2132d0d4a4f4018204d00f01f32ddb3e59bae38d (HEAD -> master)
Author: meroneyeram <merrhaile@gmail.com>
Date:   Tue Oct 26 13:24:33 2021 -0500

    Revert "executed foo"

    This reverts commit d8f4397acd7fb63e49ecf54573fce54a376632ef.

commit d8f4397acd7fb63e49ecf54573fce54a376632ef
Author: meroneyeram <merrhaile@gmail.com>
Date:   Tue Oct 26 13:22:02 2021 -0500

    executed foo

```

14. Erase commits with git reset

```
→ lab1 git:(master) git add .
→ lab1 git:(master) x git commit -m "add console.log "
[master 21befe4] add console.log
1 file changed, 3 insertions(+), 1 deletion(-)
```

```
commit 21befe47343b2c2ebe031cf56a114a5f8e5e34db (HEAD -> master)
Author: meroneyeram <merrhaile@gmail.com>
Date: Tue Oct 26 13:36:16 2021 -0500

    add console.log
```

```
→ lab1 git:(master) git reset 2132d0d4a4f4018204d00f01f32ddb3e59bae38d
Unstaged changes after reset:
M    index.js
→ lab1 git:(master) x git log
→ lab1 git:(master) x git reset 6d535bc002afc9c20ce7764bddb29ac9bcd95ca8
Unstaged changes after reset:
M    index.js
```

```
commit 6d535bc002afc9c20ce7764bddb29ac9bcd95ca8 (HEAD -> master)
Author: meroneyeram <merrhaile@gmail.com>
Date: Tue Oct 26 13:15:06 2021 -0500

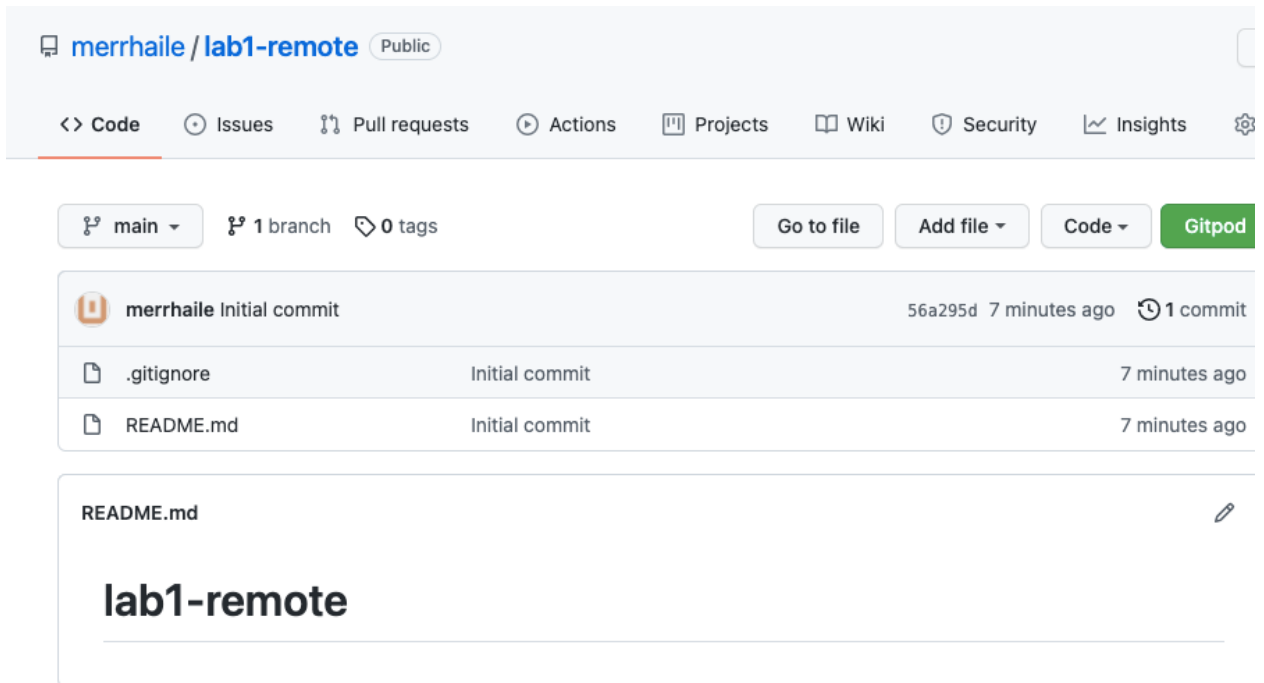
    added foo function

commit c0383ace200245636970f078adefa0b48930a56f
Merge: eea3263 5eee916
Author: meroneyeram <merrhaile@gmail.com>
Date: Tue Oct 26 13:09:44 2021 -0500

    resolved conflict
```


Practice with all the remote repository commands from the slides:

1. Create a remote repository



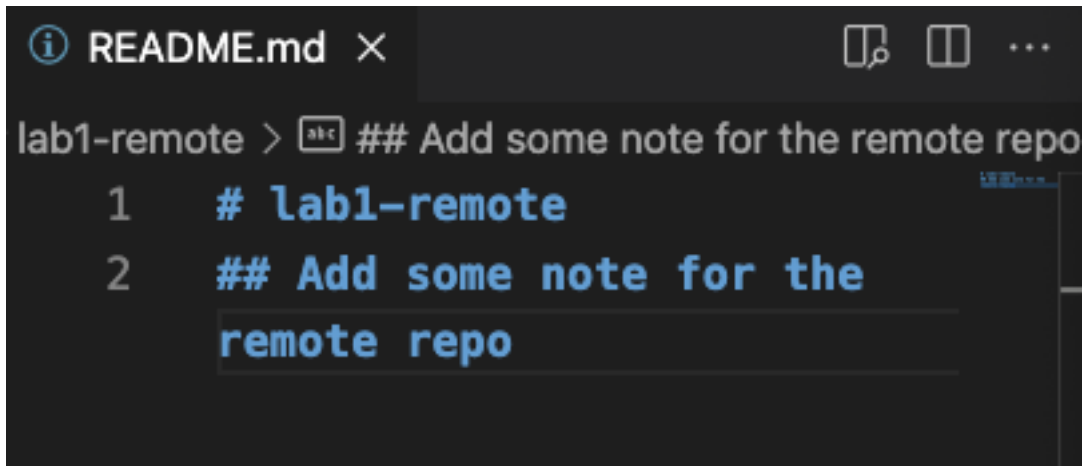
2. git clone

```
→ lab1 git:(master) ✗ git clone https://github.com/merrhaile/lab1-remote.git
Cloning into 'lab1-remote'...
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), done.
→ lab1 git:(master) ✗
```

3. git remote

```
→ lab1-remote git:(main) git remote
origin
```

4. git push



```
lab1-remote > ## Add some note for the remote repo
```

```
1 # lab1-remote
```

```
2 ## Add some note for the
```

```
   remote repo
```

```
→ lab1-remote git:(main) git add .
→ lab1-remote git:(main) ✗ git status
On branch main
Your branch is up to date with 'origin/main'.

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

       modified:   README.md

→ lab1-remote git:(main) ✗ git commit -m "added notes on readme"
[main ea099a5] added notes on readme
 1 file changed, 2 insertions(+), 1 deletion(-)
→ lab1-remote git:(main) git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 325 bytes | 108.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/merrhaile/lab1-remote.git
 56a295d..ea099a5  main -> main
→ lab1-remote git:(main) 
```

main lab1-remote / README.md Go to

merrhaile added notes on readme Latest commit ea099a5 2

1 contributor

2 lines (2 sloc) | 50 Bytes

lab1-remote

Add some note for the remote repo


5. git fetch

```
→ lab1-remote git:(main) git fetch
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 5 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (5/5), done.
From https://github.com/merrhaile/lab1-remote
   ea099a5..5b6285a  main      -> origin/main
→ lab1-remote git:(main) git status
On branch main
Your branch is behind 'origin/main' by 2 commits, and can be fast-forwarded.
  (use "git pull" to update your local branch)

nothing to commit, working tree clean
→ lab1-remote git:(main) git log
→ lab1-remote git:(main) git merge
Updating ea099a5..5b6285a
Fast-forward
 index.html | 7 ++++++
 1 file changed, 7 insertions(+)
 create mode 100644 index.html
→ lab1-remote git:(main) █
```

6. git pull

main lab1-remote / index.html Go 1

 merrhaile Added div container with text Latest commit 01d5f9d

1 contributor

9 lines (9 sloc) | 113 Bytes Raw

```
1 <html>
2   <head>
3 </head>
4   <div class="container" >
5     This is a container
6   </div>
7 <body>
8 </body>
9 </html>
```

```
→ lab1-remote git:(main) git pull
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/merrhaile/lab1-remote
   5b6285a..01d5f9d  main      -> origin/main
Updating 5b6285a..01d5f9d
Fast-forward
 index.html | 4 +++-
 1 file changed, 3 insertions(+), 1 deletion(-)
→ lab1-remote git:(main) █
```

```
lab1-remote > <> index.html > html
1  <html>
2    <head>
3  </head>
4    <div class="container" >
5      This is a container
6    </div>
7  <body>
8  </body>
9  </html>
10
```

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

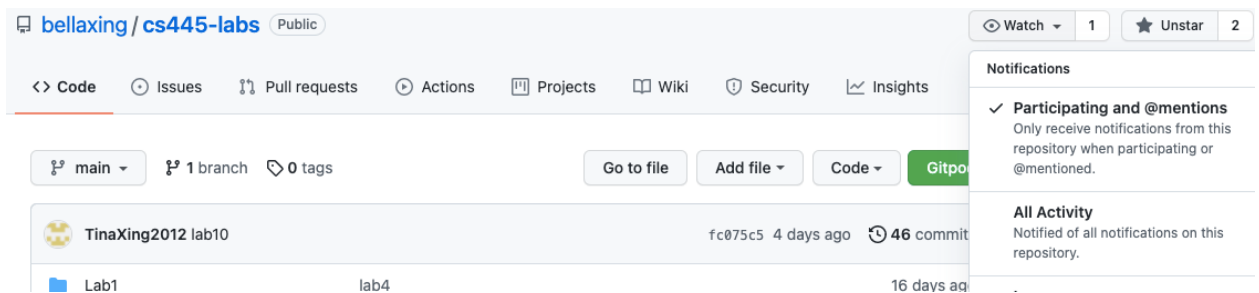
Assume we are working with the following

upstream: <https://github.com/bellaxing/cs445-labs>

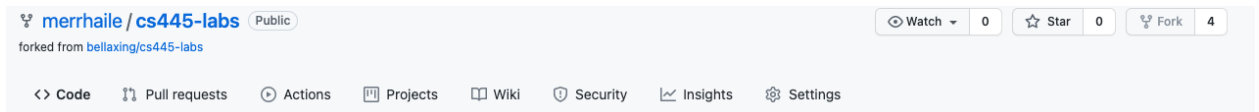
1. Star the repository



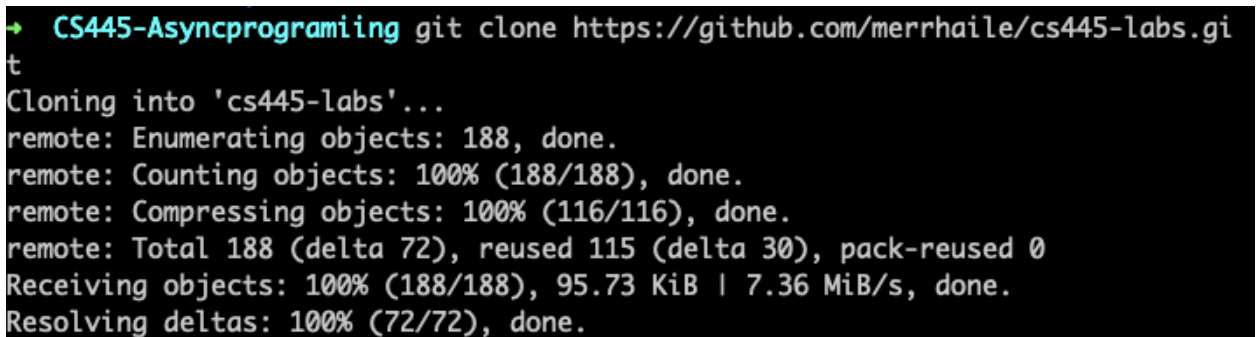
2. Watch the repository for any changes



3. Fork the repository



4. Clone your forked repository into your local machine



```
→ cs445-labs git:(main) git remote -v
origin https://github.com/merrhaile/cs445-labs.git (fetch)
origin https://github.com/merrhaile/cs445-labs.git (push)
```

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

```
→ cs445-labs git:(main) git branch 112875-MeronEyeram
→ cs445-labs git:(main) git branch
```

```
112875-MeronEyeram
* main
(END)
```

6. Checkout your new branch

```
→ cs445-labs git:(main) git checkout 112875-MeronEyeram
Switched to branch '112875-MeronEyeram'
→ cs445-labs git:(112875-MeronEyeram)
```

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

```
→ cs445-labs git:(112875-MeronEyeram) git status
On branch 112875-MeronEyeram
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    meron.js

nothing added to commit but untracked files present (use "git add" to track)
→ cs445-labs git:(112875-MeronEyeram) x git add .
→ cs445-labs git:(112875-MeronEyeram) x git status
On branch 112875-MeronEyeram
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    new file:   meron.js

→ cs445-labs git:(112875-MeronEyeram) x
```

8. Commit the changes

```
→ cs445-labs git:(112875-MeronEyeram) ✗ git commit -m "added meron.js"
[112875-MeronEyeram 424d559] added meron.js
1 file changed, 1 insertion(+)
create mode 100644 meron.js
→ cs445-labs git:(112875-MeronEyeram) □
```

```
commit 424d559e55711683b91234d43f0f80921cc7da65 (HEAD -> 112875-MeronEyeram)
Author: meroneyeram <merrhaile@gmail.com>
Date: Tue Oct 26 17:36:48 2021 -0500

    added meron.js
```

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




```
→ cs445-labs git:(112875-MeronEyeram) git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)
→ cs445-labs git:(main) git merge 112875-MeronEyeram
Updating a0d37b0..424d559
Fast-forward
 meron.js | 1 +
1 file changed, 1 insertion(+)
create mode 100644 meron.js
→ cs445-labs git:(main) □
```

```
commit 424d559e55711683b91234d43f0f80921cc7da65 (HEAD -> main, 112875-MeronEyeram)
Author: meroneyeram <merrhaile@gmail.com>
Date: Tue Oct 26 17:36:48 2021 -0500

    added meron.js
```

10. Push your changes to the remote repo

```
→ cs445-labs git:(main) git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 291 bytes | 291.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/merrhaile/cs445-labs.git
   fc075c5..390ad4e  main -> main
```

 .gitignore	Initial commit	16 days ago
 README.md	lab 9 and 10	7 days ago
 meron.js	added meron.js	8 minutes ago

11. Create a new Pull Request to the upstream repo

added meron.js #2

 Open merrhaile wants to merge 1 commit into [bellaxing:main](#) from [merrhaile:main](#) 

 Conversation **0**  Commits **1**  Checks **0**  Files changed **1**



merrhaile commented now



Checkout my file

 added meron.js

390ad4e

Add more commits by pushing to the **main** branch on [merrhaile/cs445-labs](#).



This branch has no conflicts with the base branch

Only those with [write access](#) to this repository can merge pull requests.

bellaxing / cs445-labs
Public
Watch 1
Unstar 2
Fork 4

Code
Issues
Pull requests 1
Actions
Projects
Wiki
Security
Insights

Filters
is:pr is:open
Labels 9
Milestones 0
New pull request

1 Open
1 Closed
Author
Label
Projects
Milestones
Reviews
Assignee
Sort

added meron.js
#2 opened 2 minutes ago by merrhaile
1

The below is Optional homework if you're interested in. This is self study part, not going to lecture. If you have questions, please ask TA.

main
markDownPrcts / README.md
Go to file
Gitpod

merrhaile Update README.md
Latest commit f0777d4 now
History

1 contributor

18 lines (14 sloc) | 290 Bytes
Raw
Blame

Mark Down Practice

This line is to test **bold text**

Js function

```
function helloWorld() {
  console.log("Hello World");
}
```

computer languages

- JAVA
- JAVASCRIPT
- PYTHON
- R

[Link to README](#)