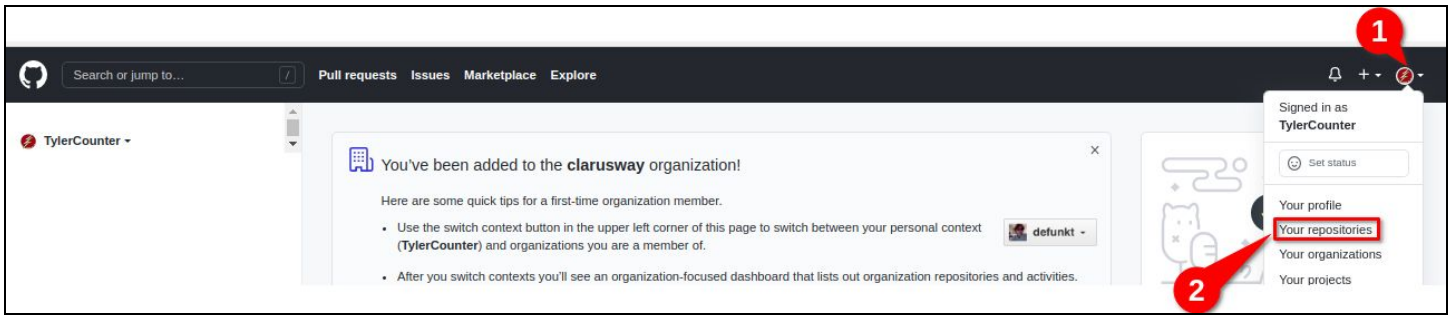
Git Hands on-01

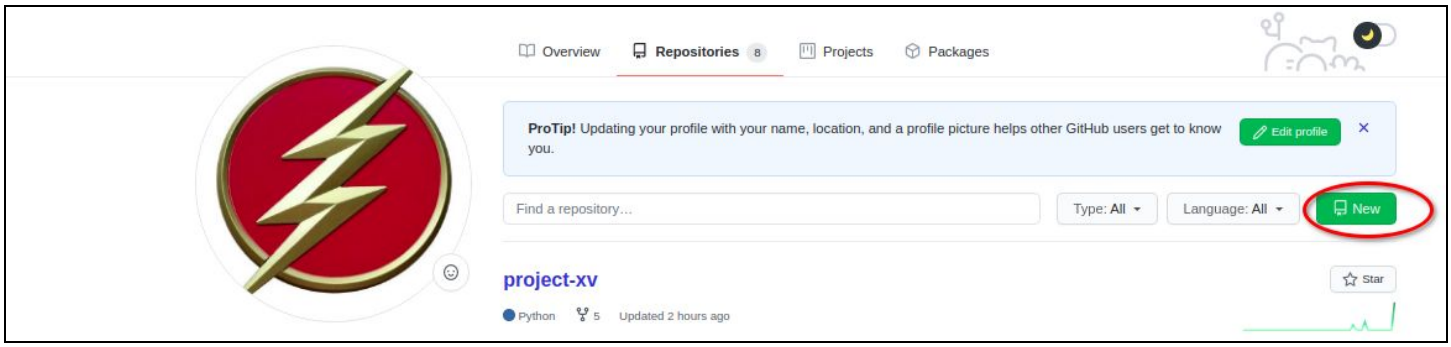
CLARUSWAY©
WAY TO REINVENT YOURSELF

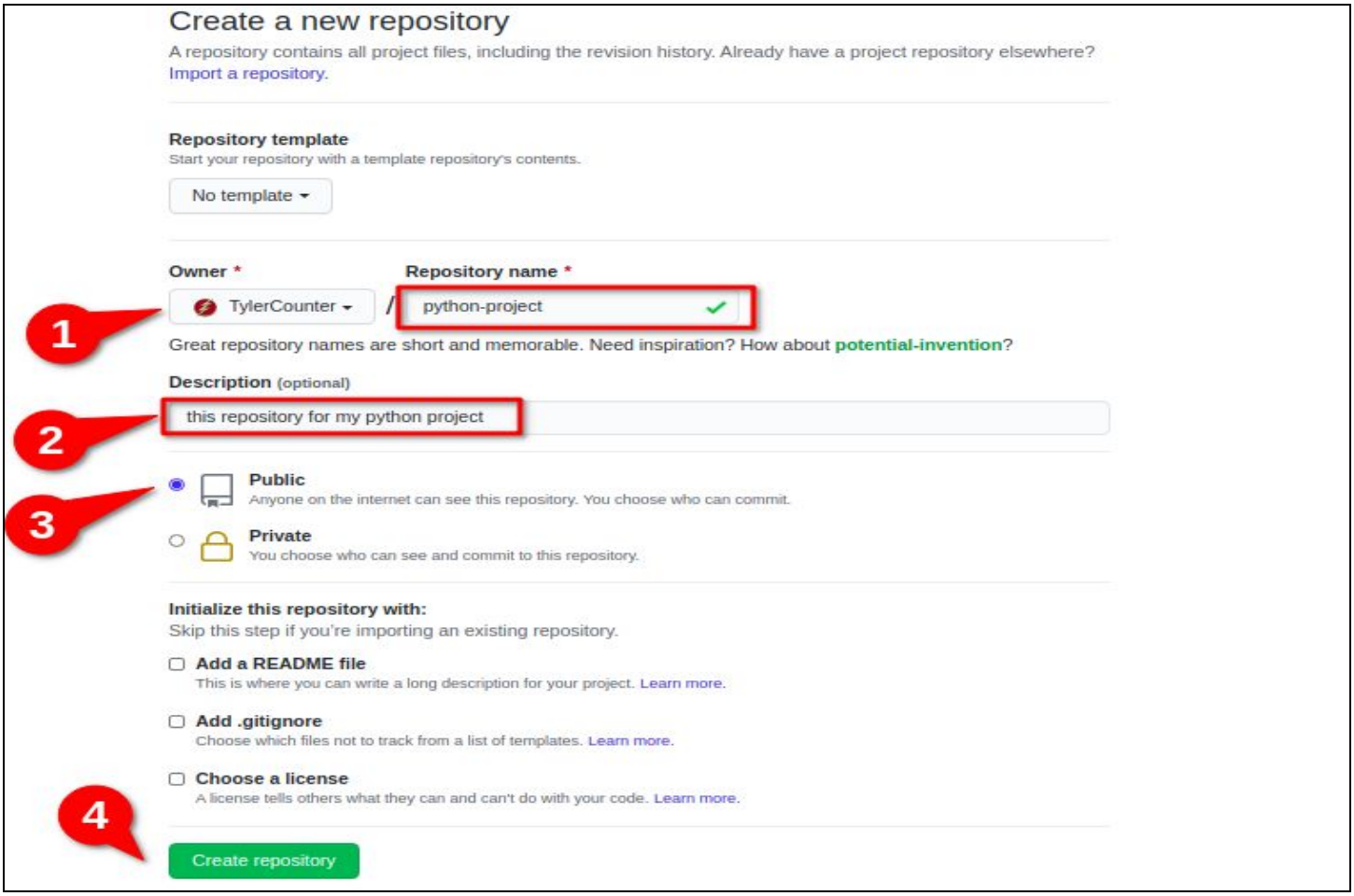
Part 1:

1. Create a public repository in GitHub:

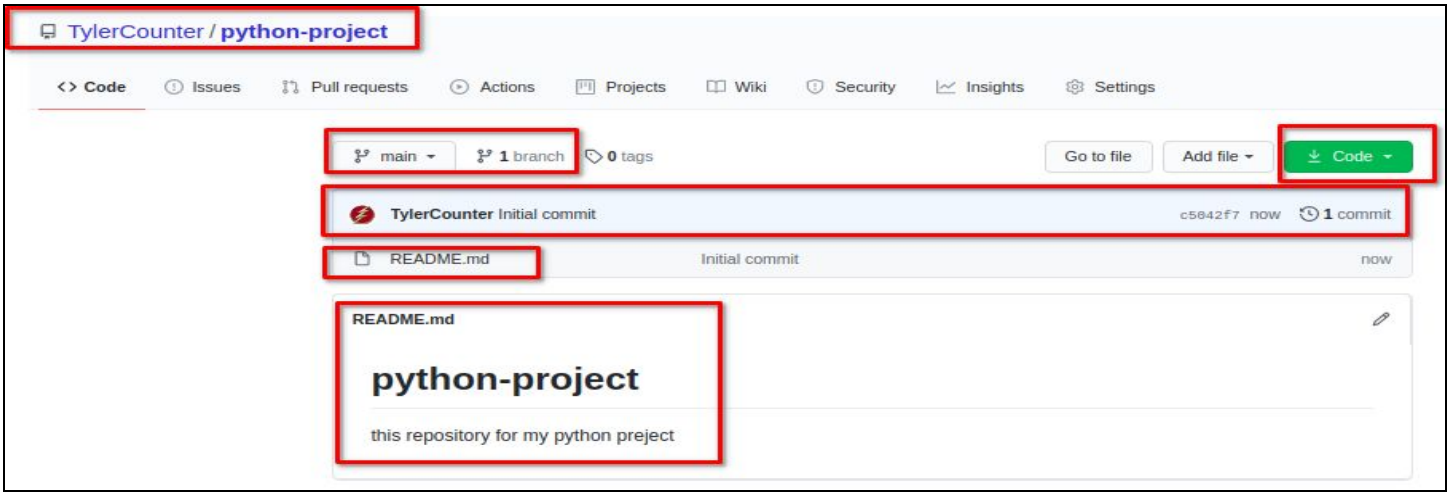
- named python-project
- write a description of your repository
- add README.md file







- After clicking the Create repository. GitHub creates a public repository and led you to the following page.



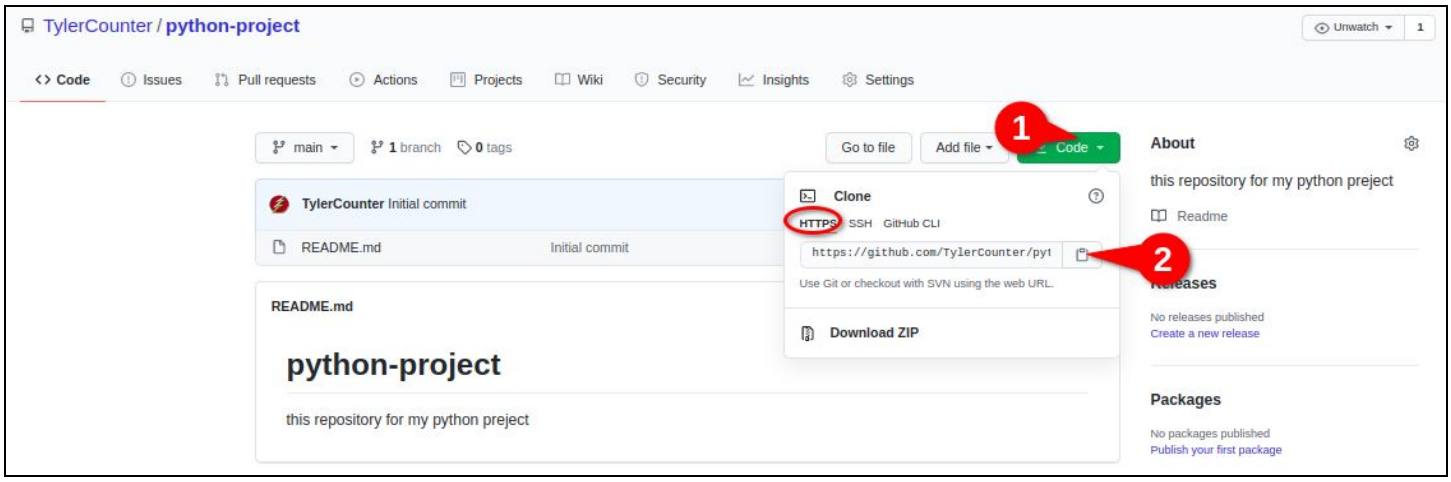
Part 2:

2. Clone your remote repository to your computer:

- Open your terminal (for Windows, run "Git Bash")
  - Make a directory named git-lesson under the desktop directory and cd into it.

    mkdir git-lesson
    cd git-lesson

- Clone your remote repository (Syntax: git clone <remote-url>)
  - Copy your remote repository URL



  - run the following command

    git clone https://github.com/TylerCounter/python-project.git **(→ use your remote repo URL)**

    Output:

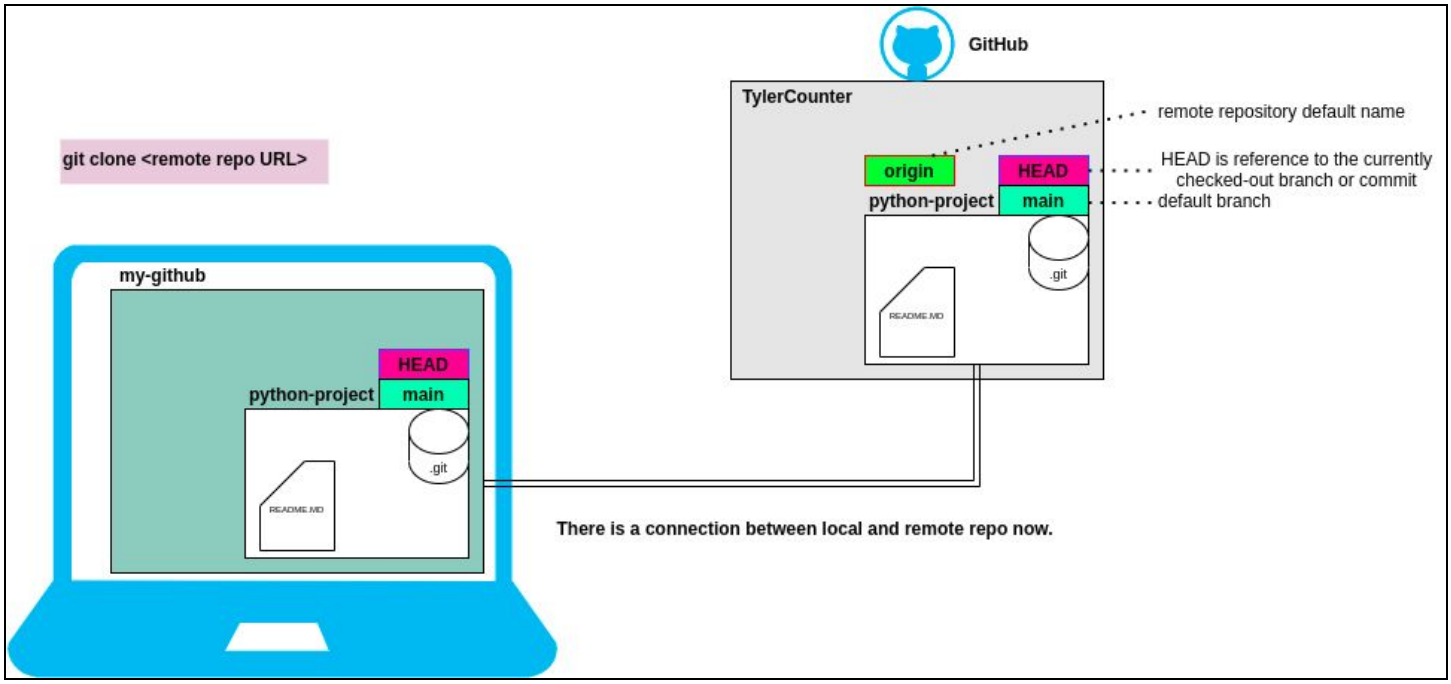
```
Cloning into 'python-project'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
```

  - See the current state of the project:

    git status

```
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
```



Part 3:

- Create a file named hello-world.py

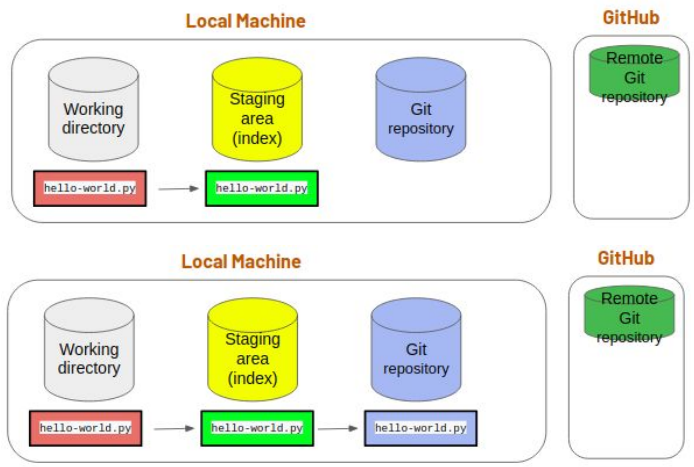
  touch hello-world.py

- stage it

  git add hello-world.py

- store it in the local repository

  git commit -m "created hello-world.py"



- open hello-world.py and add a line, then save and close.

  vim hello-world.py

- check the status of the folder

  git status

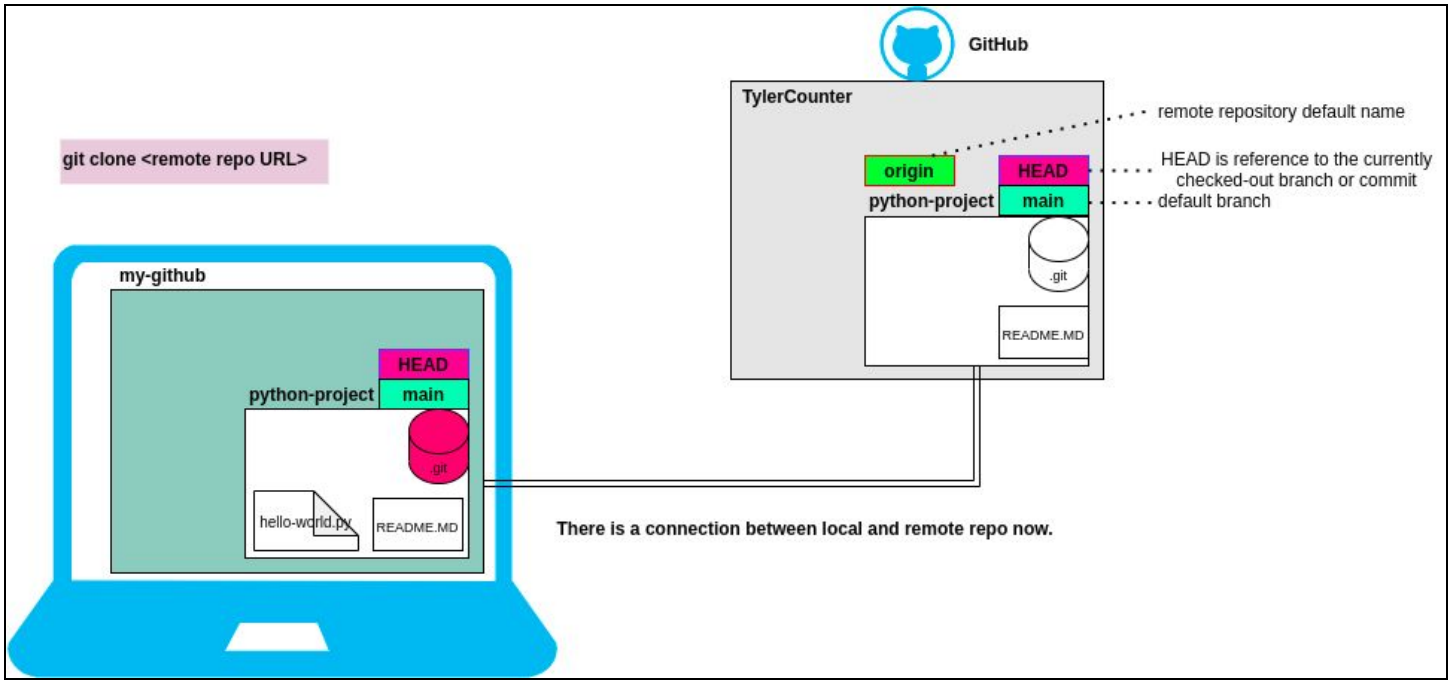
- store it to local repository, and check the state of the folder

  git commit -am "updated hello world.py"

git status

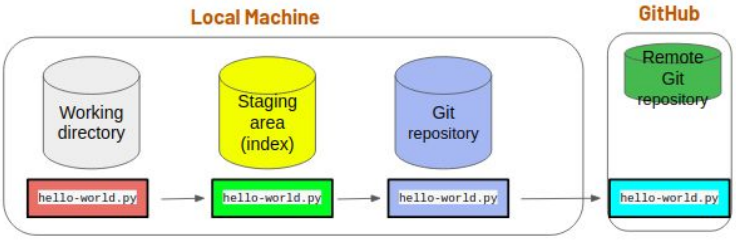
- See the commit history
-

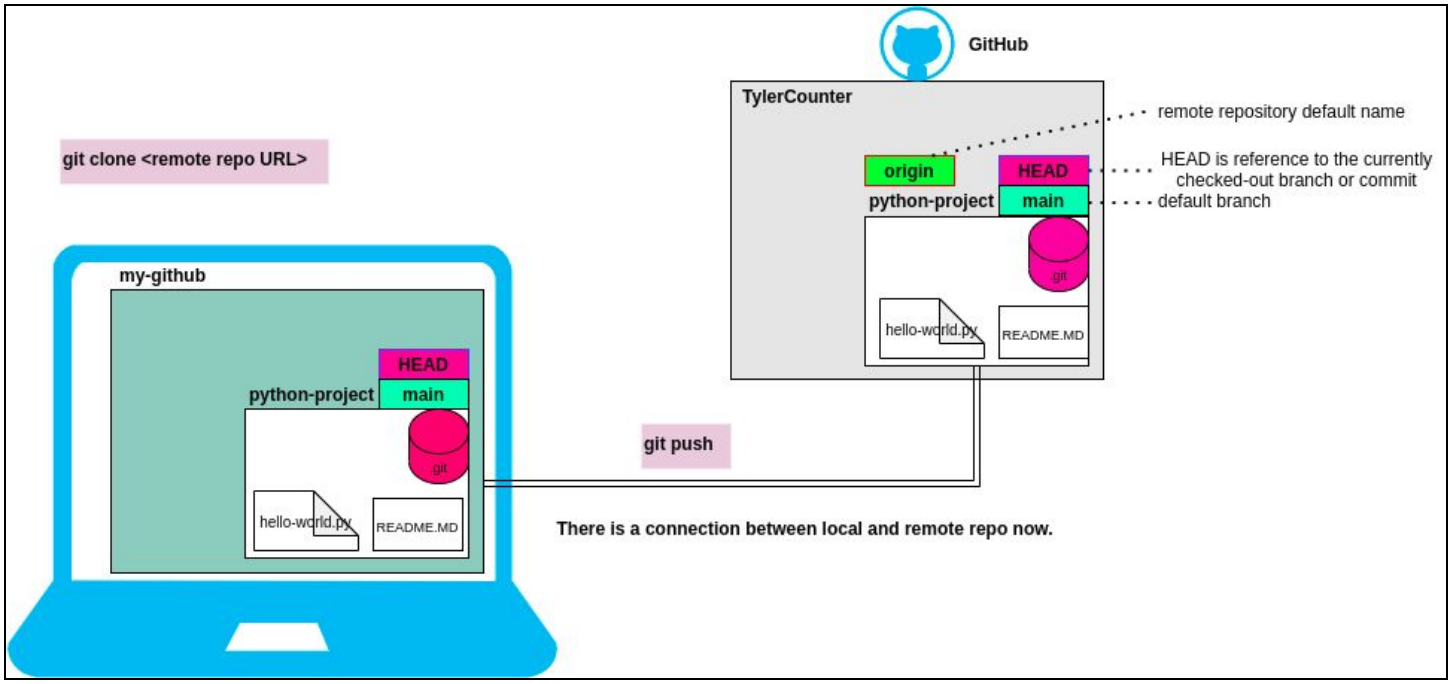
git log
git log --pretty=oneline
git log --oneline



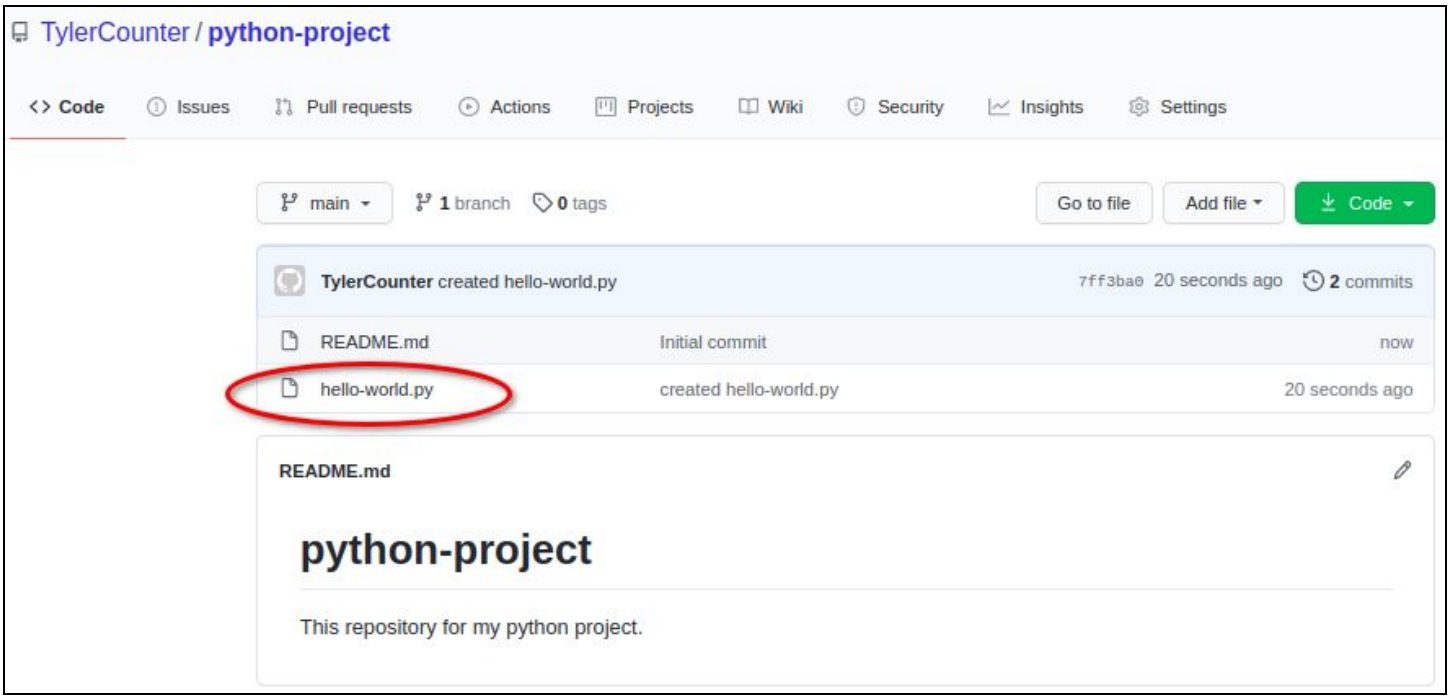
- Then send the changes to your remote repo.

git push



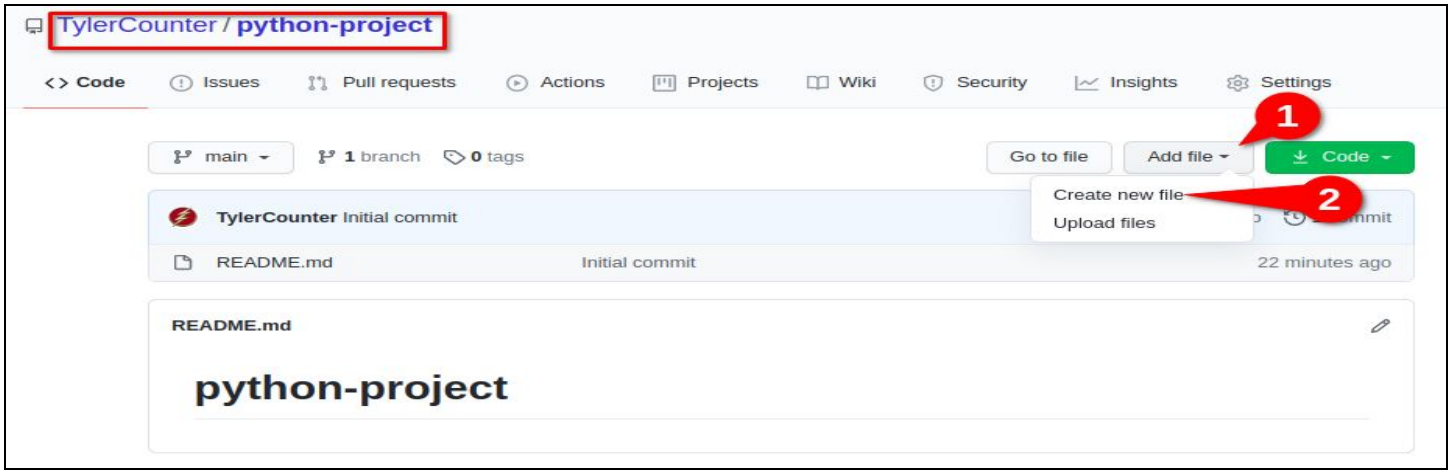


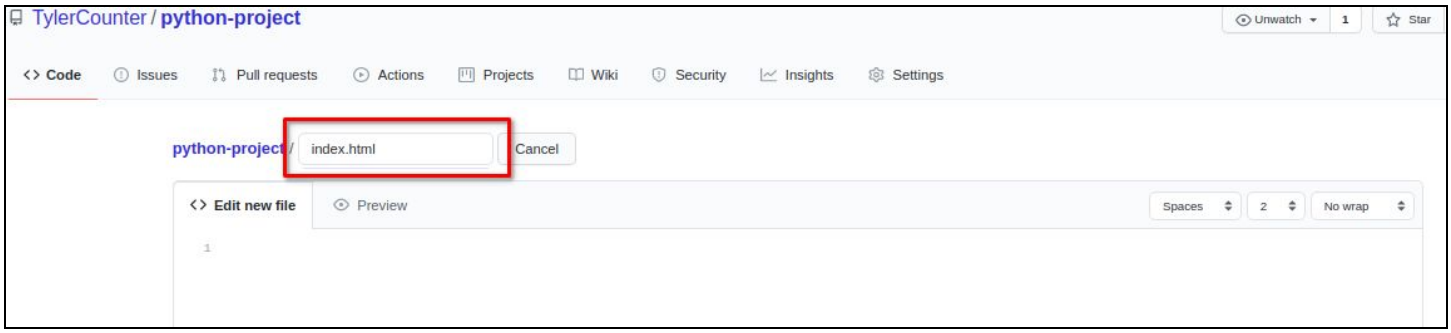
- Go to your GitHub account and see the changes:

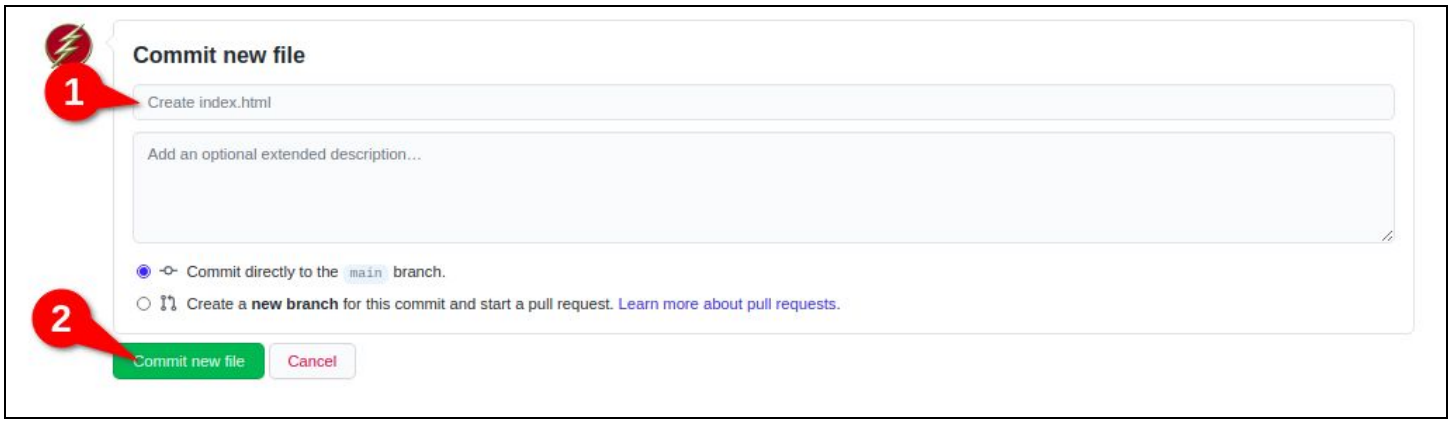


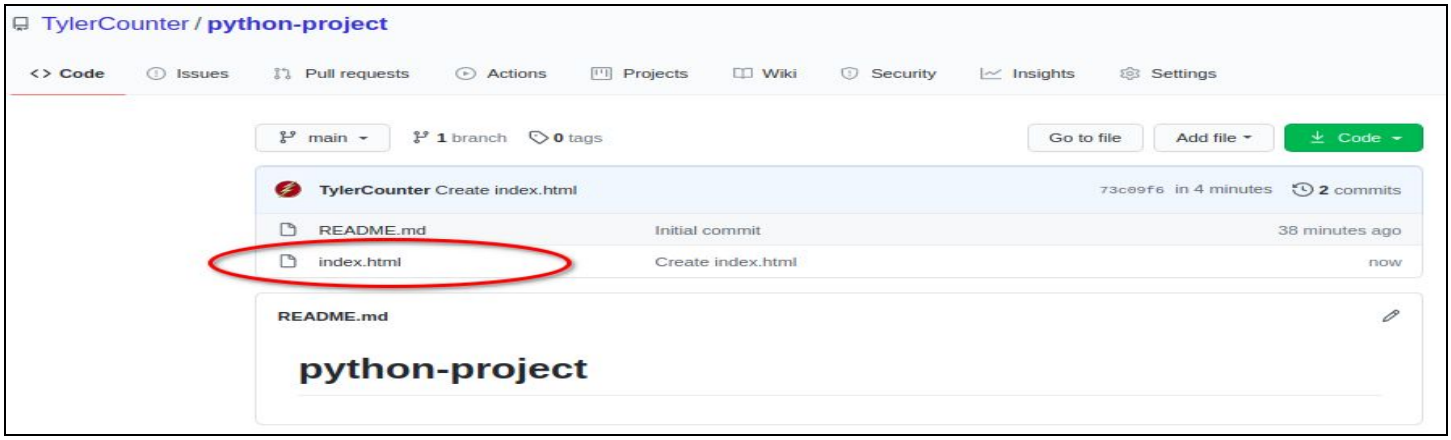
Part 4:

- Create a new file named index.html in the python-project repository by using GitHub.

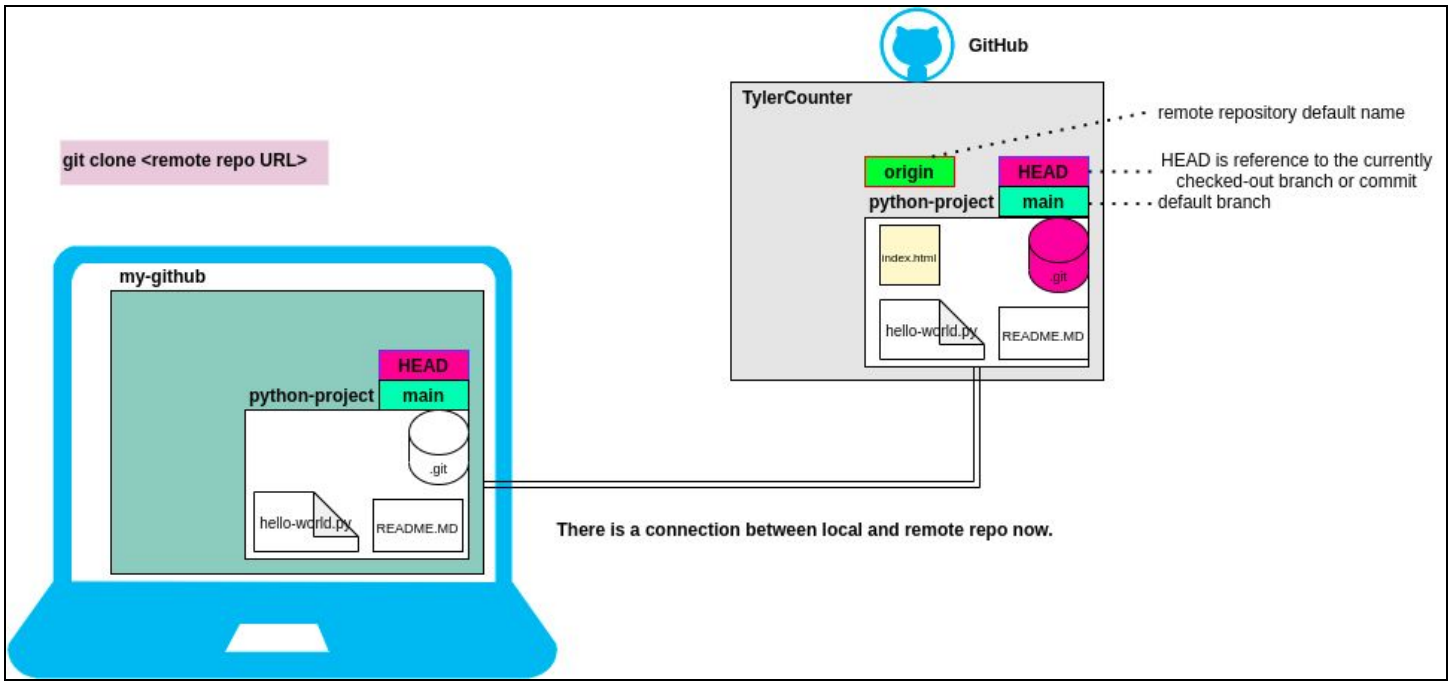






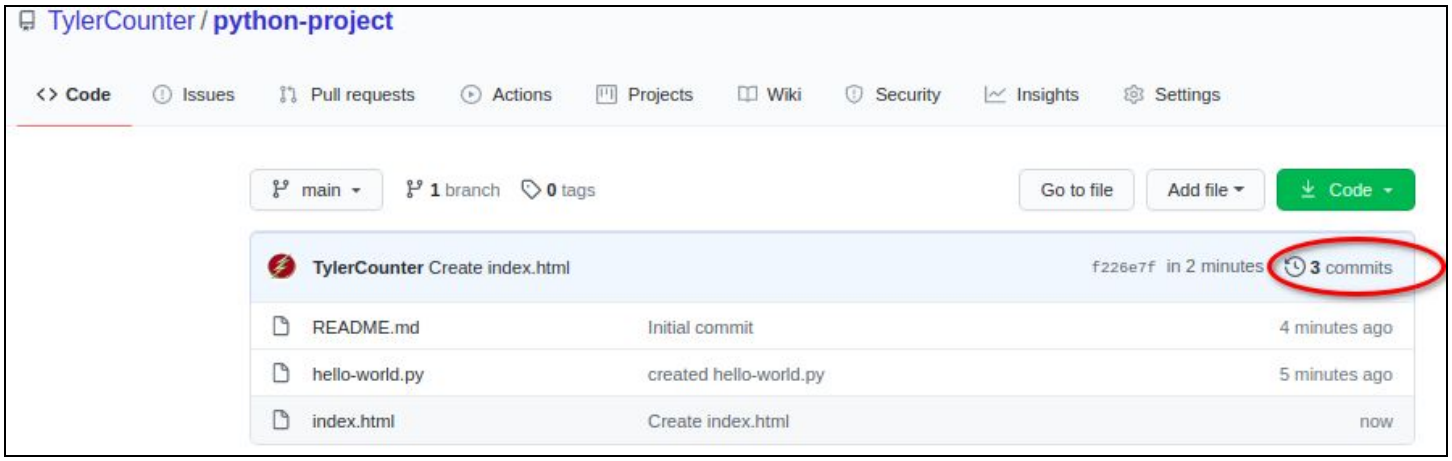


- The current state of our project:



- At GitHub check the commits: (click commits)

  You will see the three commits



Part 5:

- Go to the terminal and see the commit history
  git log

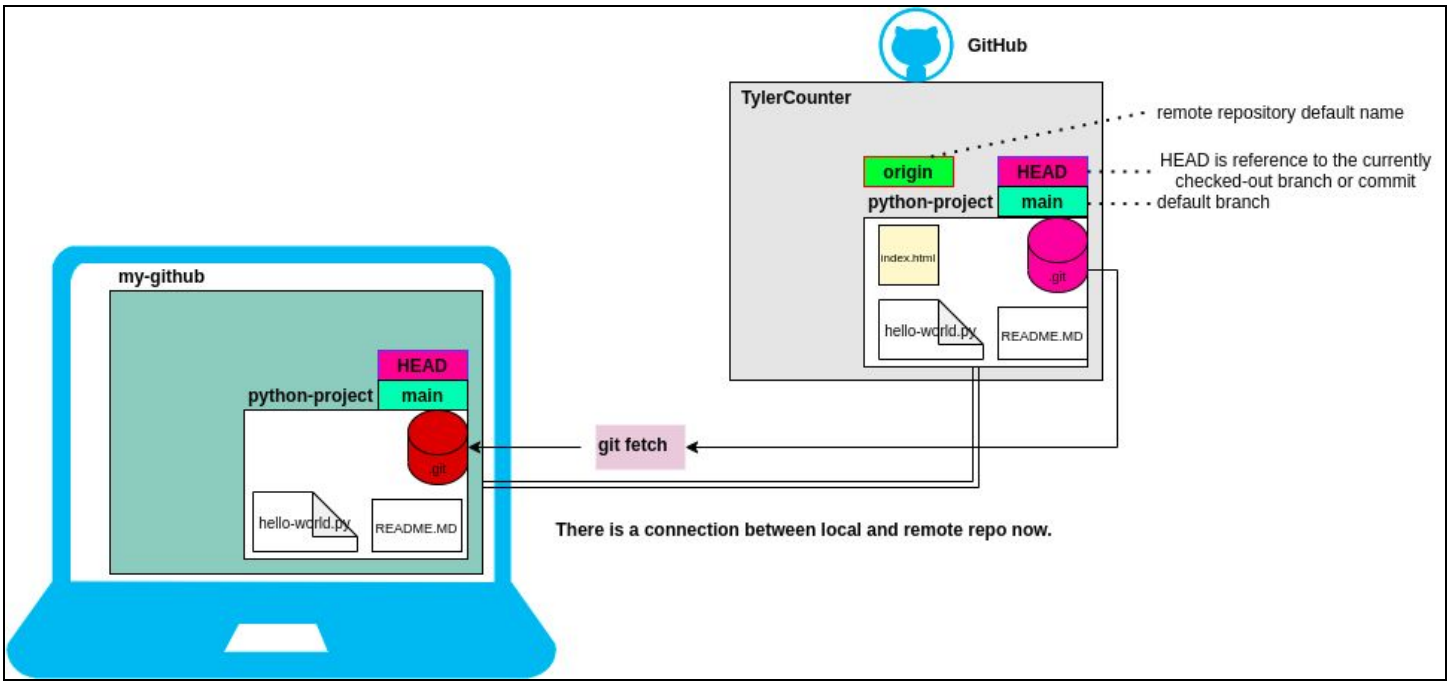
```
ubuntu:~/Desktop/my-github/python-project(main)
$ git log
commit 7ff3ba066178a6556f002816ee1770172e38e227 (HEAD -> main, origin/main, origin/HEAD)
Author: TylerCounter <"tyler@clarusway.com">
Date:   Thu Dec 17 04:59:31 2020 -0500

    created hello-world.py

commit a2011b756e457212ab810e7635fb6e0c71d80766
Author: TylerCounter <63177502+TylerCounter@users.noreply.github.com>
Date:   Thu Dec 17 05:00:50 2020 -0500

    Initial commit
```

- Download the changes from the remote repository to your local repository
  git fetch



- See the changes in local repository

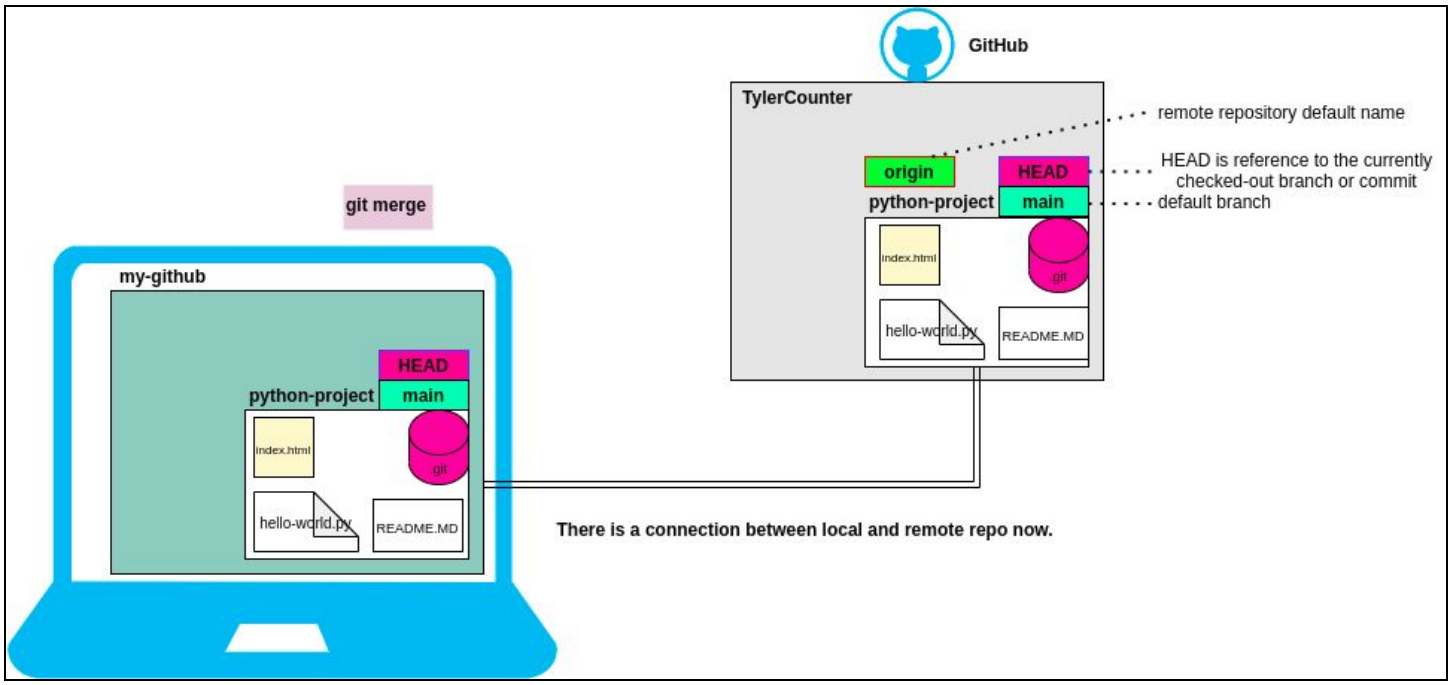
  git diff main origin/main

- Combine main and origin/main

  git merge

- Then list the files in your working directory

```
ls
```

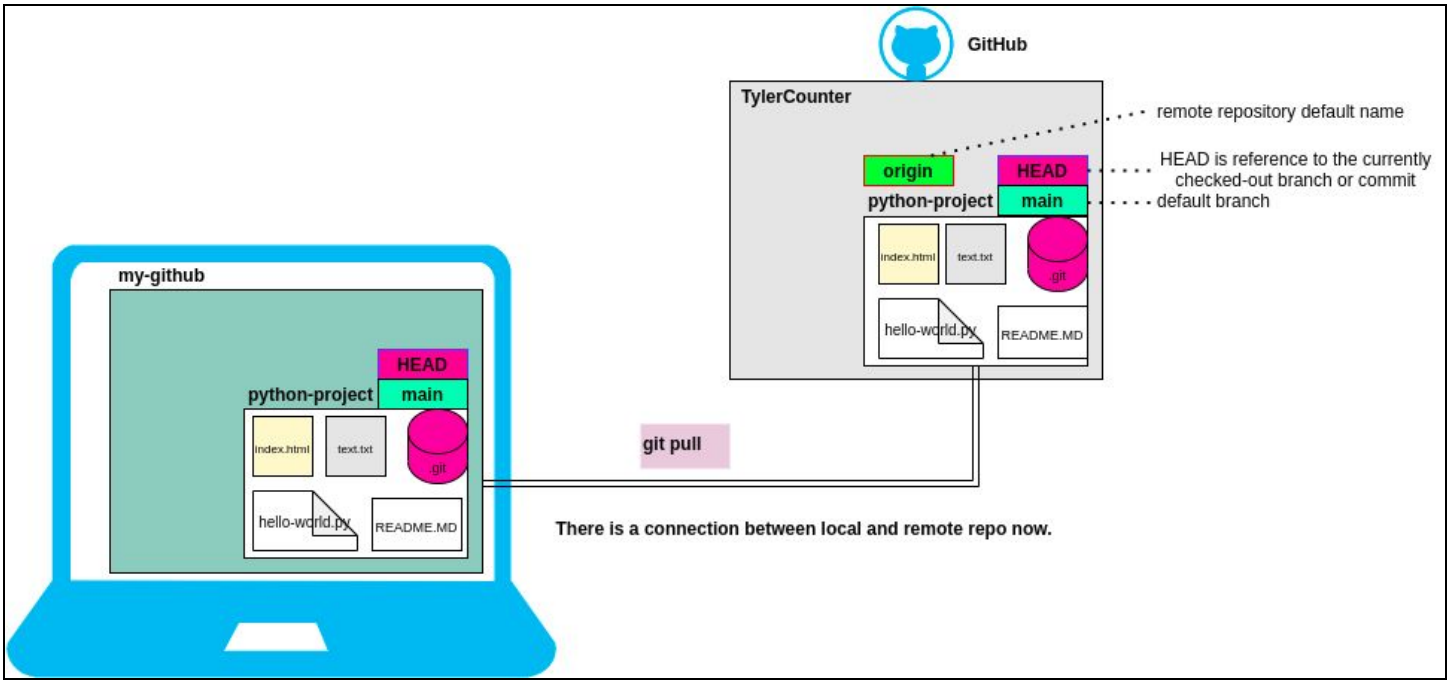


Part 5:

- At GitHub, create a new file named **test.txt**

- Download all changes to your computer (terninal)

  (that perform **git fetch** + **git merge** automatically)



- See the commit history

  git log --oneline

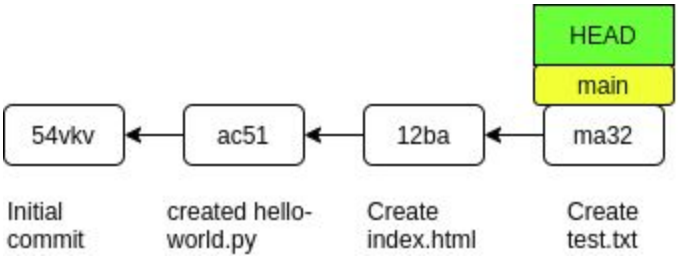
```
2fa656d (HEAD -> main, origin/main, origin/HEAD) Create test.txt
f226e7f Create index.html
7ff3ba0 created hello-world.py
a2011b7 Initial commit
```

- Lets go the first commit, and see the changes in the working directory

  git checkout <commitID>

- Switch the last commit again. (main)

  git checkout main



Part 6:

- Create a new branch named **front-end**

  git branch front-end

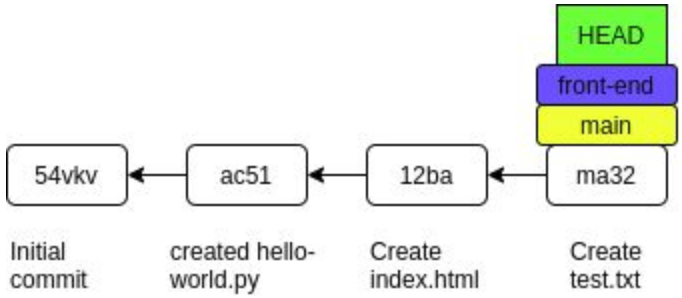
- See branches

  git branch (show local branchs)
  git branch -r (show remote branchs)
  git branch -a (show all local and remote branchs)

```
  front-end
* main
  remotes/origin/HEAD -> origin/main
  remotes/origin/main
```

- Switch to **front-end** branch

```
git checkout front-end
```



- List the files and check the status of the working directory

```
ls
git status
```

- Make some changes in the **test.txt** file, and check the status

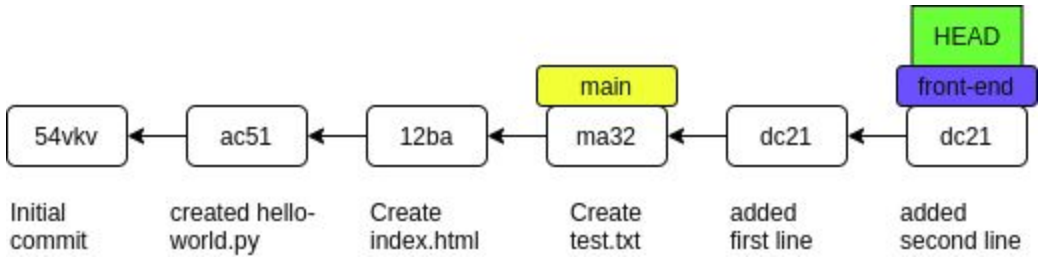
```
vim test.txt
git status
```

- Store the changes to the repo and check the status

```
git commit -am "added first line"
git  status
```

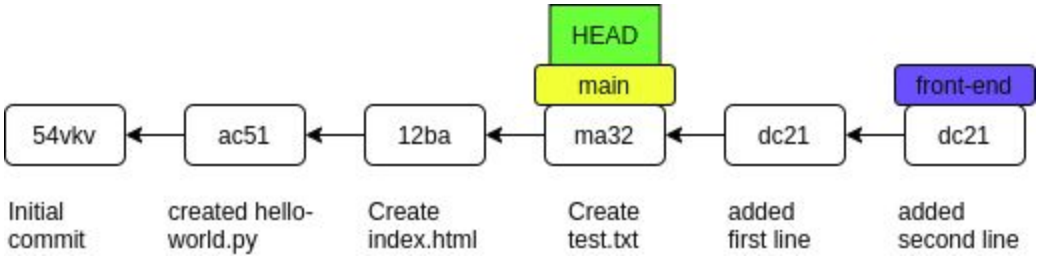
- Add another line to **test.txt** and store it to the local repo.

```
vim test.txt
git commit -am "added second line"
```



- Switch the main branch and see the content of the **test.txt**

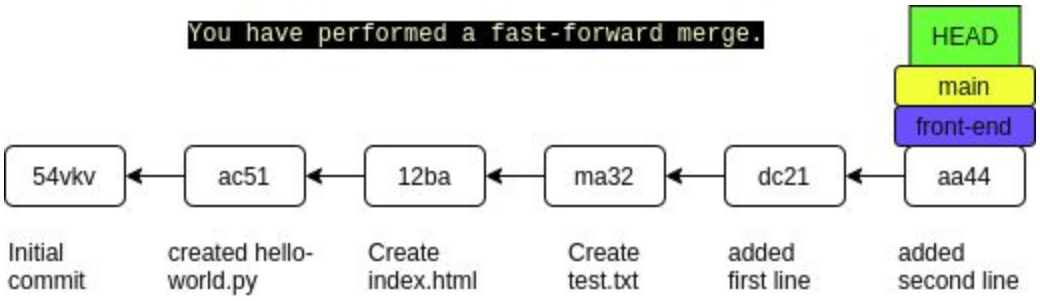
```
git checkout main
cat text.txt
```



- Merge front-end branch to **main** branch.

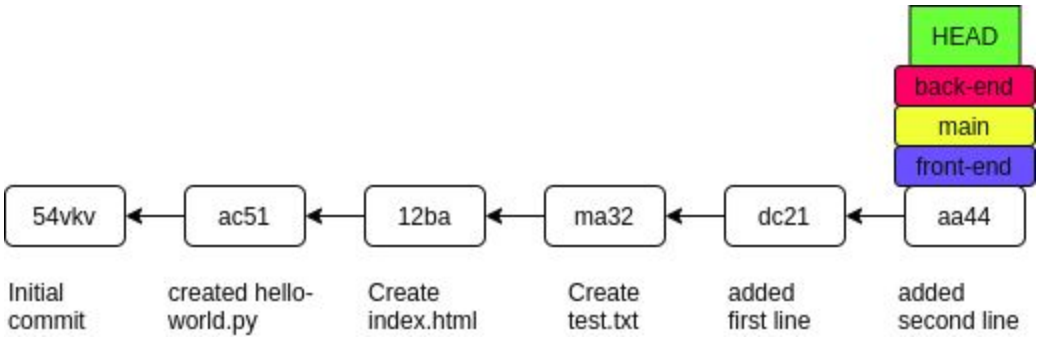
```
git merge

cat test.tst
```



- Create a new branch named **back-end** and switch to it

```
git checkout -b back-end
```

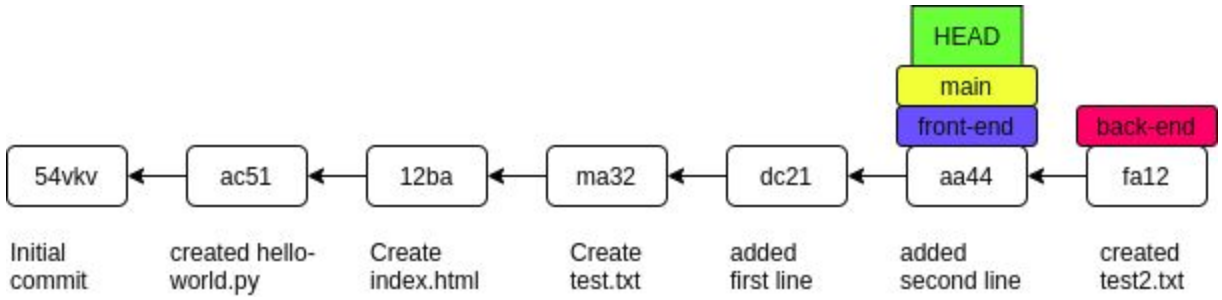


- Create a new file named **test2.txt** and store the changes to repo.

```
touch test2.txt
git add .
git commit -m “created text2.txt”
```

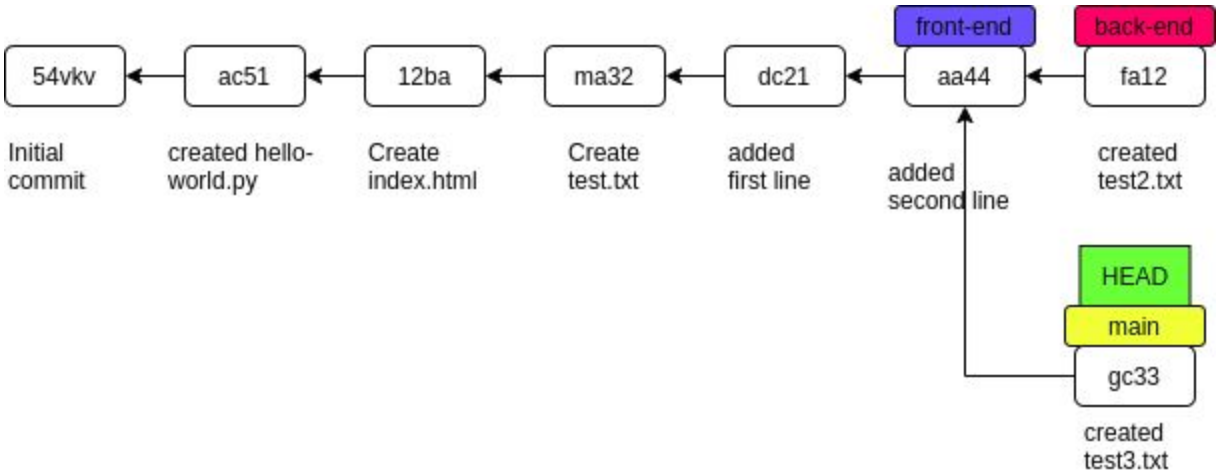
- Switch the main branch again

```
git checkout main
```



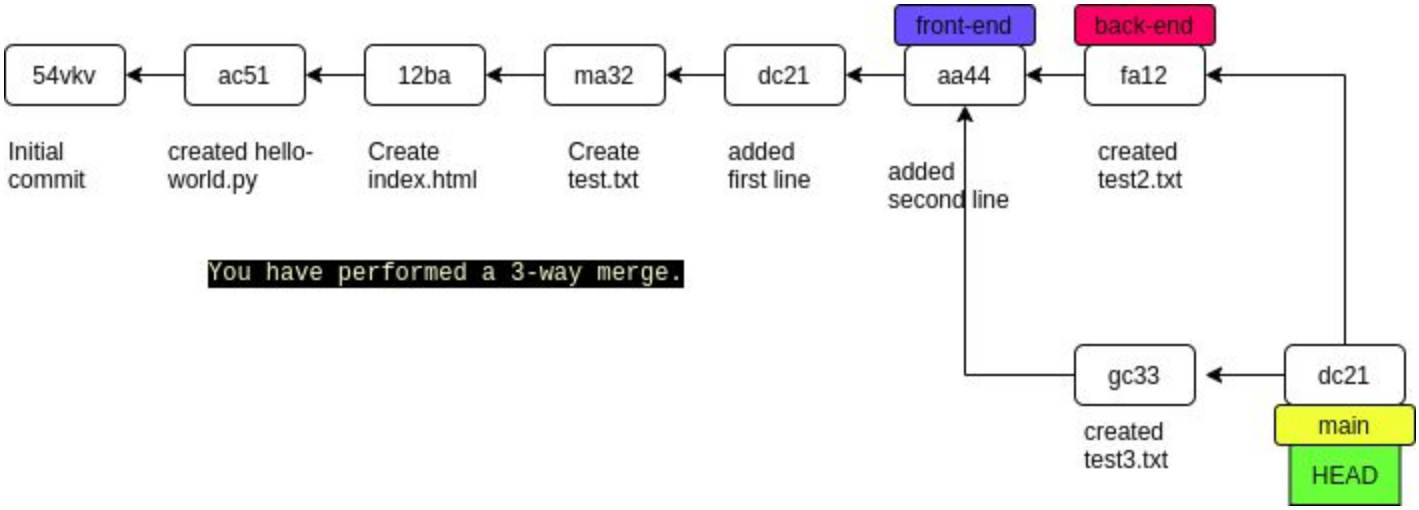
- Create a new file **test3.txt** and send the changes to local repo.

```
touch test3.txt
git add .
git commit -m “created text3.txt”
```



- Merge **main** branch with **back-end** branch

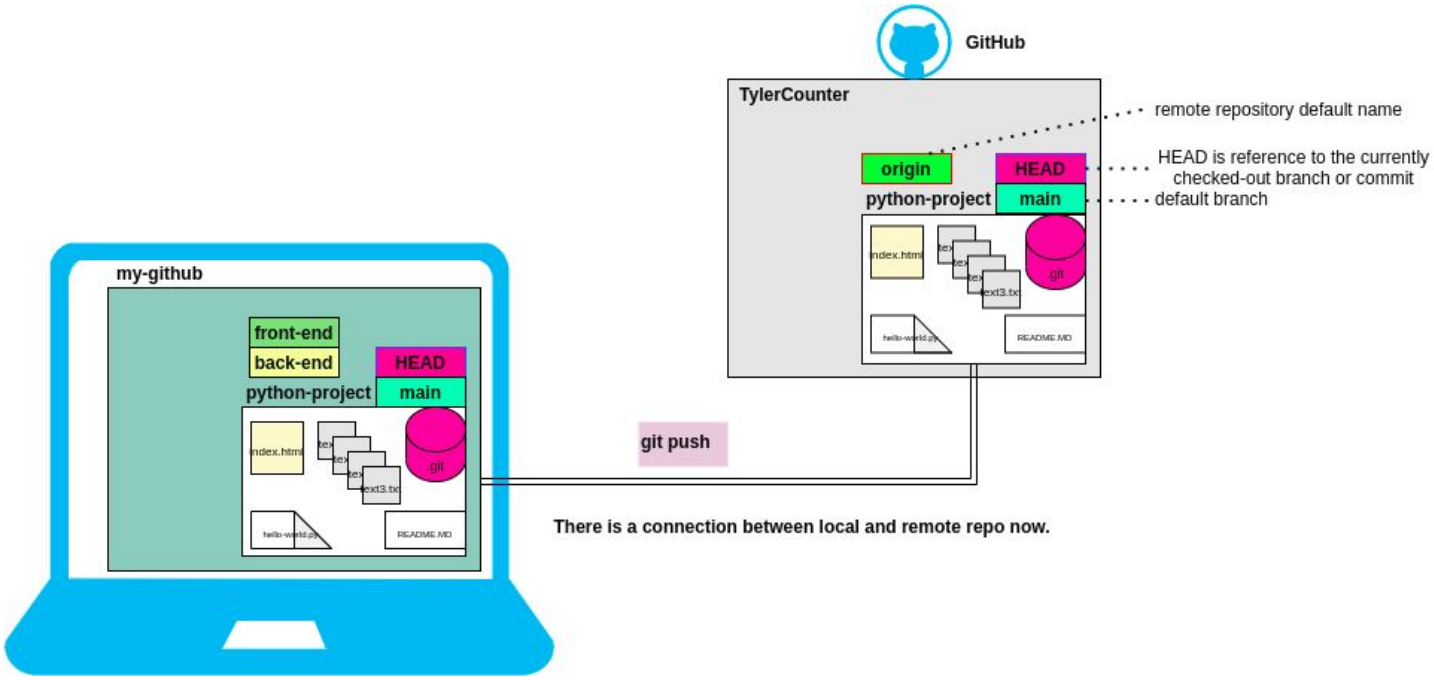
```
git merge back-end
```



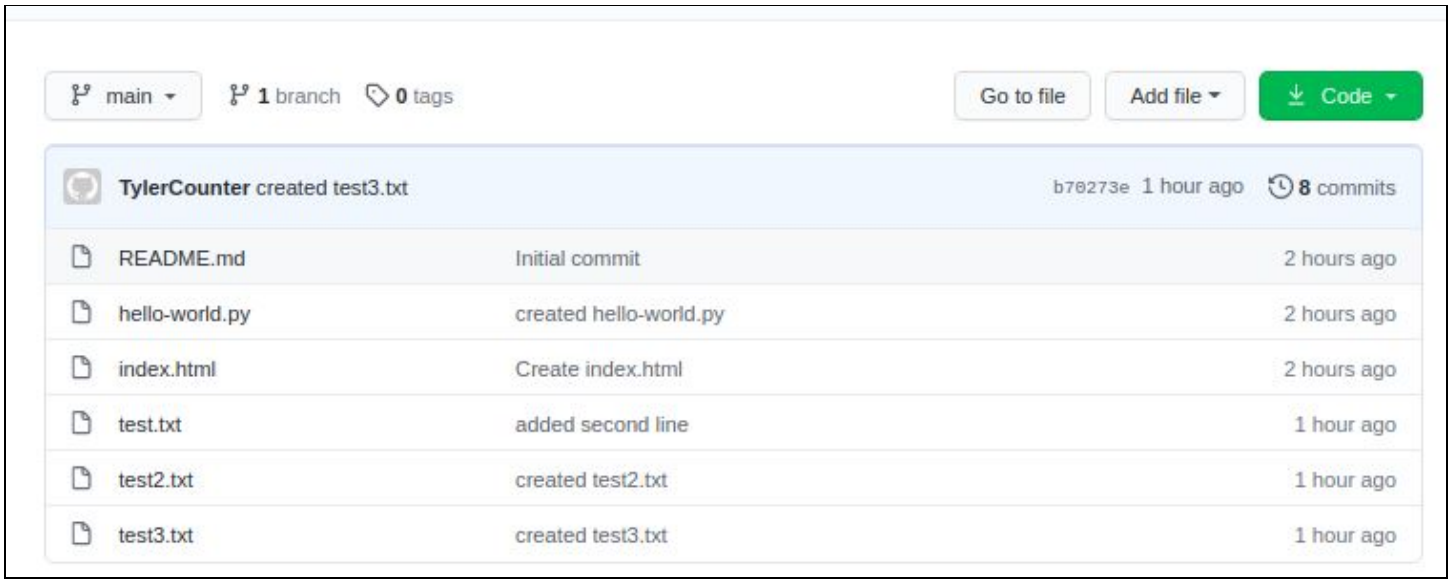
Part 7:

- Send the changes to the remote repository

```
git push
```



- Go and check the remote repository



Part 7:

- Go to the terminal and delete the branches named **front-end** and **back-end**

  git branch -d front-end
  git branch -D back-end

- List the all branches

  git branch -a