

Git Hands on-01

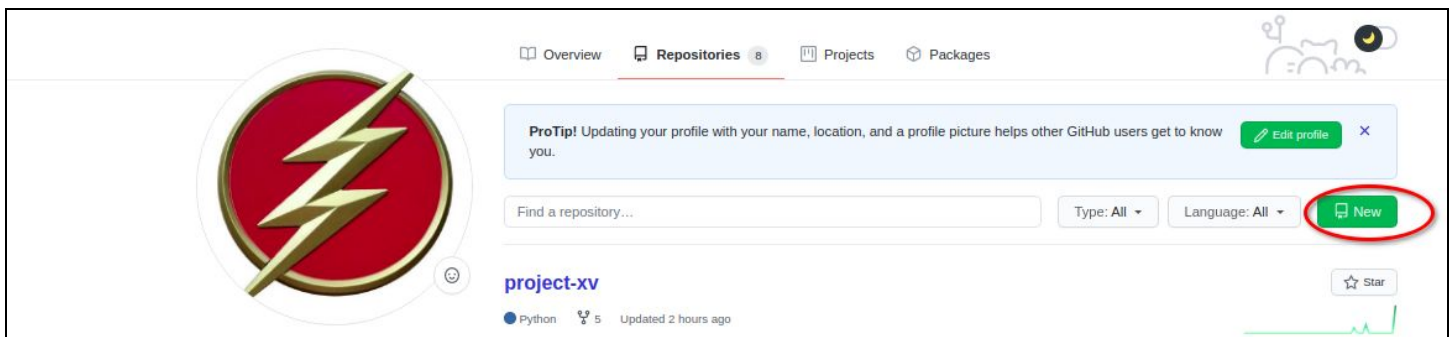
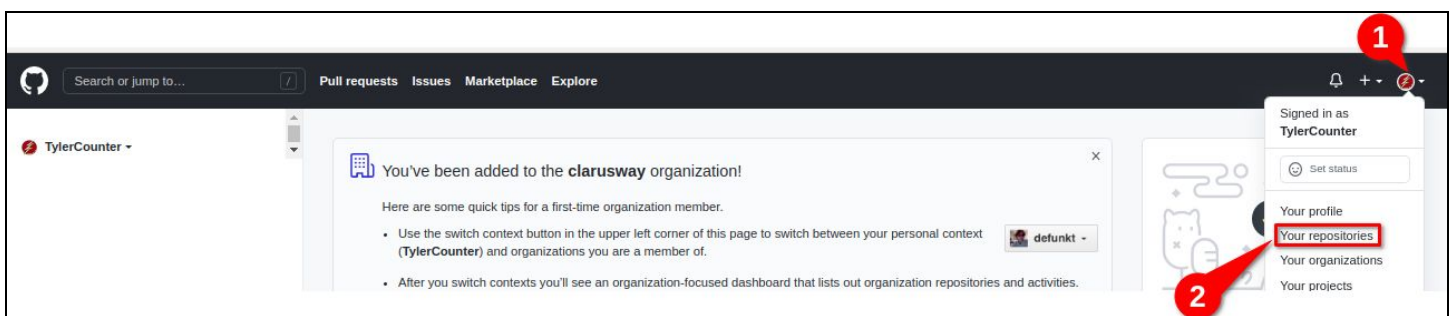


CLARUSWAY©
WAY TO REINVENT YOURSELF

Part 1:

1. Create a public repository in GitHub:

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



Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository.](#)

Repository template

Start your repository with a template repository's contents.

No template ▾

Owner * **Repository name ***

1  TylerCounter ▾ / python-project ✓

Great repository names are short and memorable. Need inspiration? How about [potential-invention?](#)

Description (optional)

2 this repository for my python project

3 ☒ **Public**
Anyone on the internet can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

☐ **Add a README file**
This is where you can write a long description for your project. [Learn more.](#)

☐ **Add .gitignore**
Choose which files not to track from a list of templates. [Learn more.](#)

☐ **Choose a license**
A license tells others what they can and can't do with your code. [Learn more.](#)


4 [Create repository](#)


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

[TylerCounter / python-project](#)

<> Code ⓘ Issues 🔗 Pull requests ⚙️ Actions 📁 Projects 📖 Wiki ⓘ Security 📊 Insights ⚙️ Settings

🔗 main ▾ 🌿 1 branch 🔖 0 tags [Go to file](#) [Add file ▾](#) [Code ▾](#)

 **TylerCounter** Initial commit c5842f7 now ⌚ 1 commit

 **README.md** Initial commit now

README.md

python-project

this repository for my python preject

Part 2:

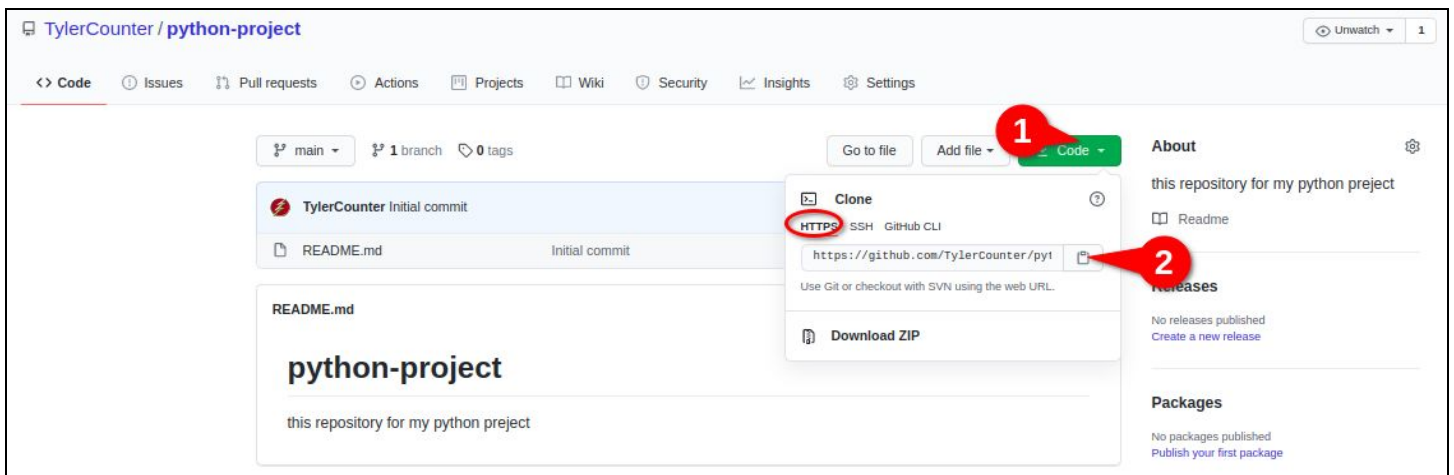
2. Clone your remote repository to your computer:

- 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:

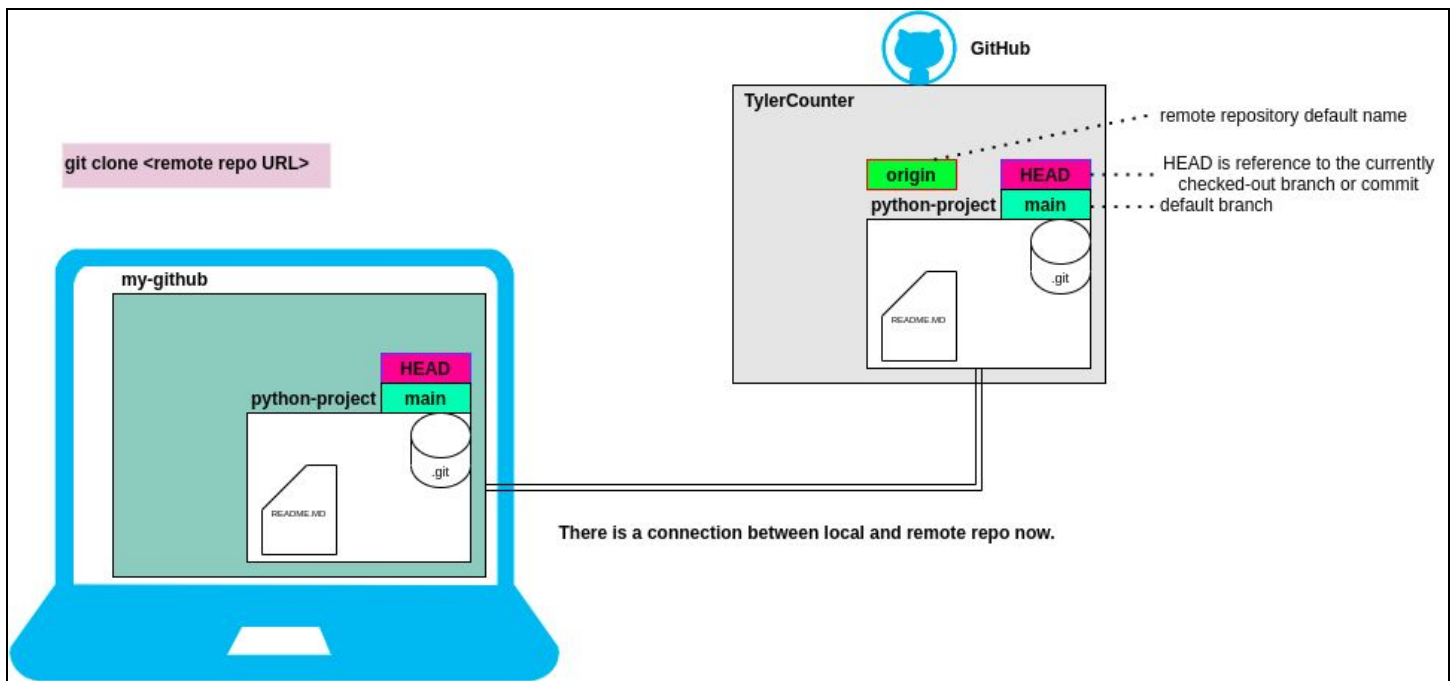
```
Cloning into 'python-project'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
```

- 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.

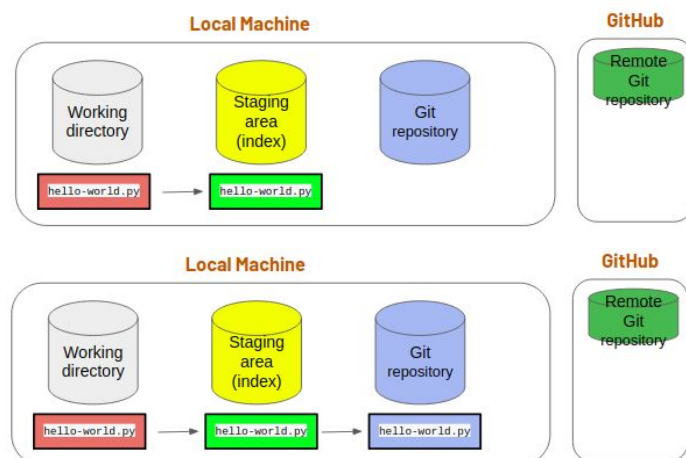
```
vim hello-world.py
```

- 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

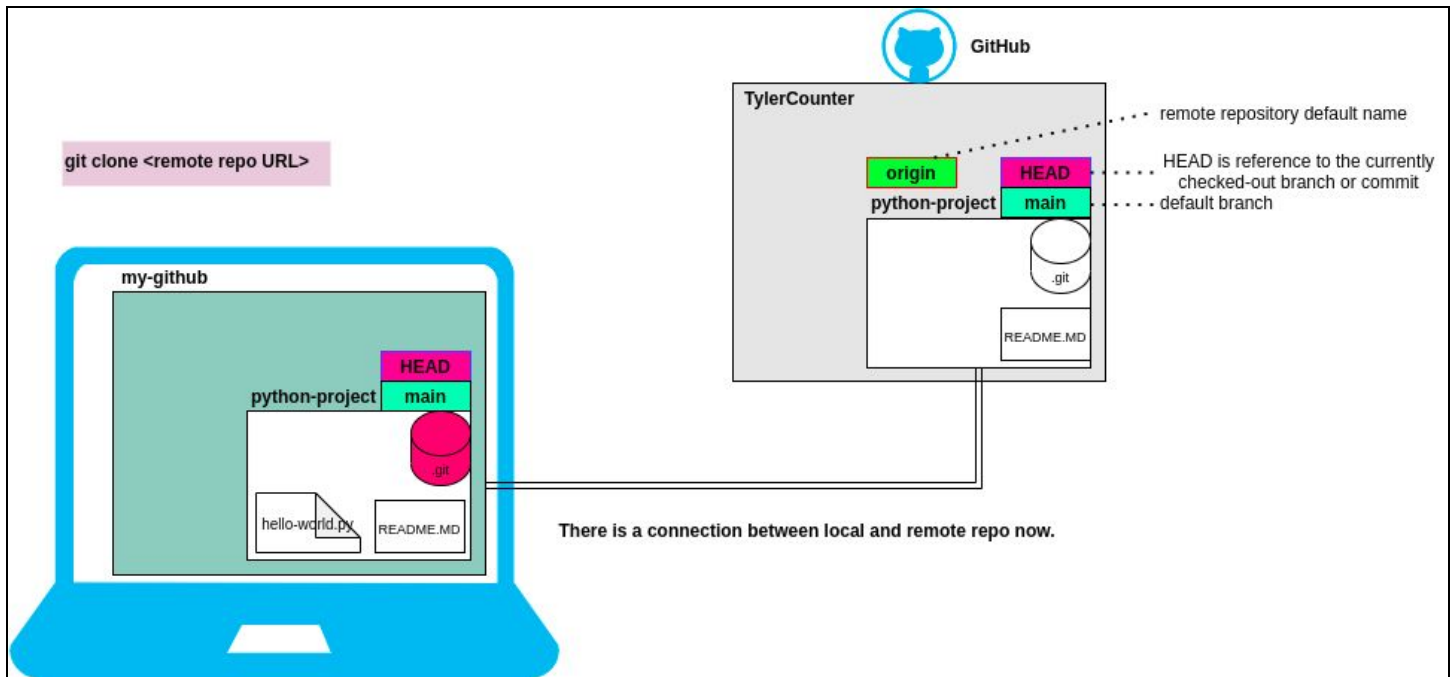
- See the commit history

-

git log

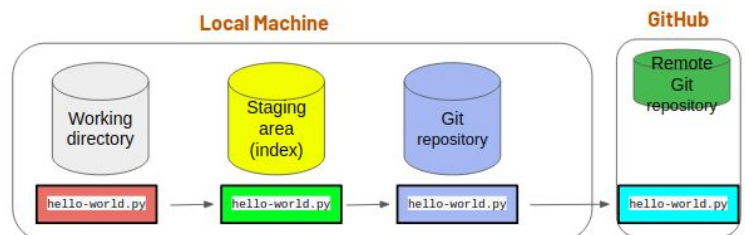
`git log --pretty=oneline`

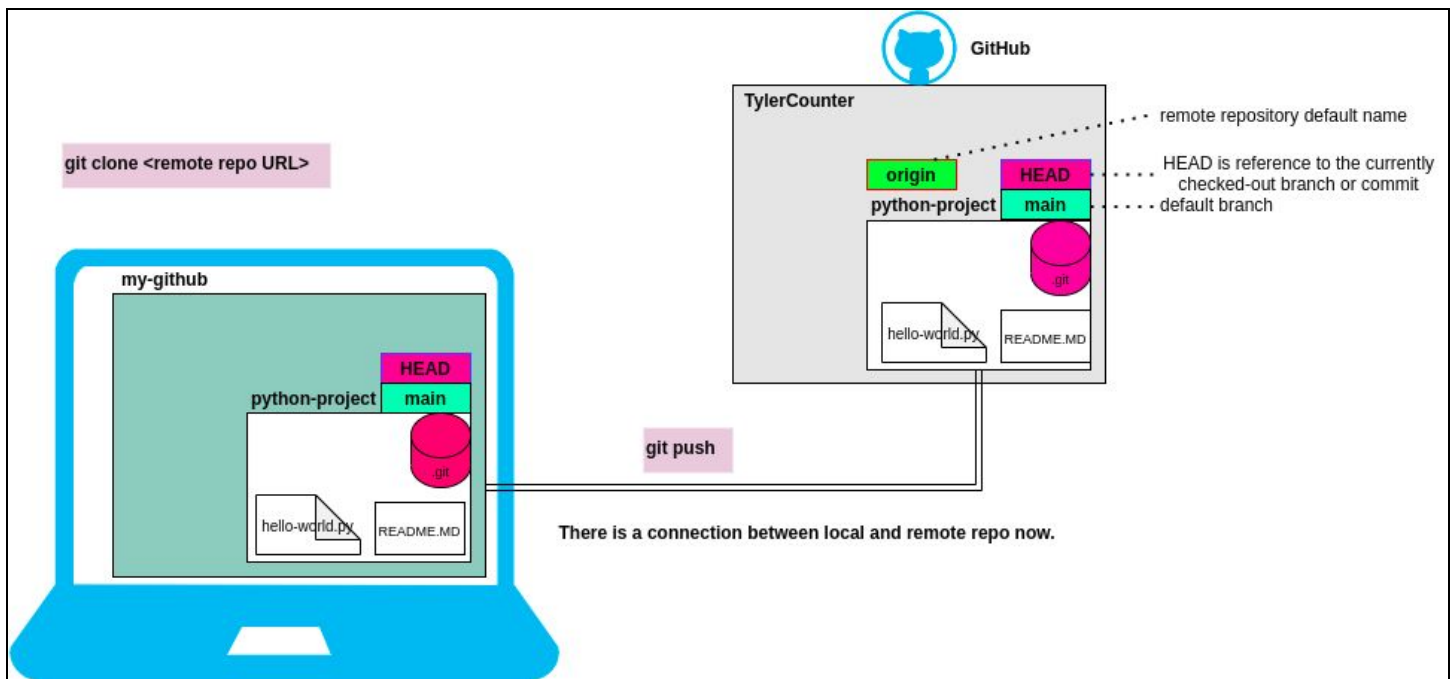
`git log --oneline`



- Then send the changes to your remote repo.

git push





- Go to your GitHub account and see the changes:

TylerCounter / python-project

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main 1 branch 0 tags Go to file Add file Code

TylerCounter created hello-world.py 7ff3ba0 20 seconds ago 2 commits

README.md	Initial commit	now
hello-world.py	created hello-world.py	20 seconds ago

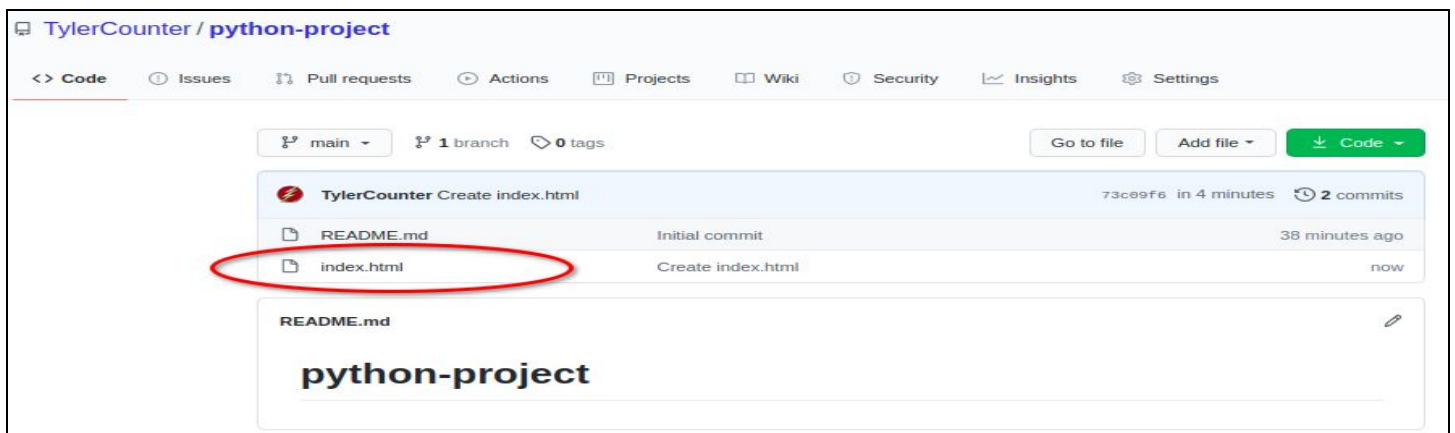
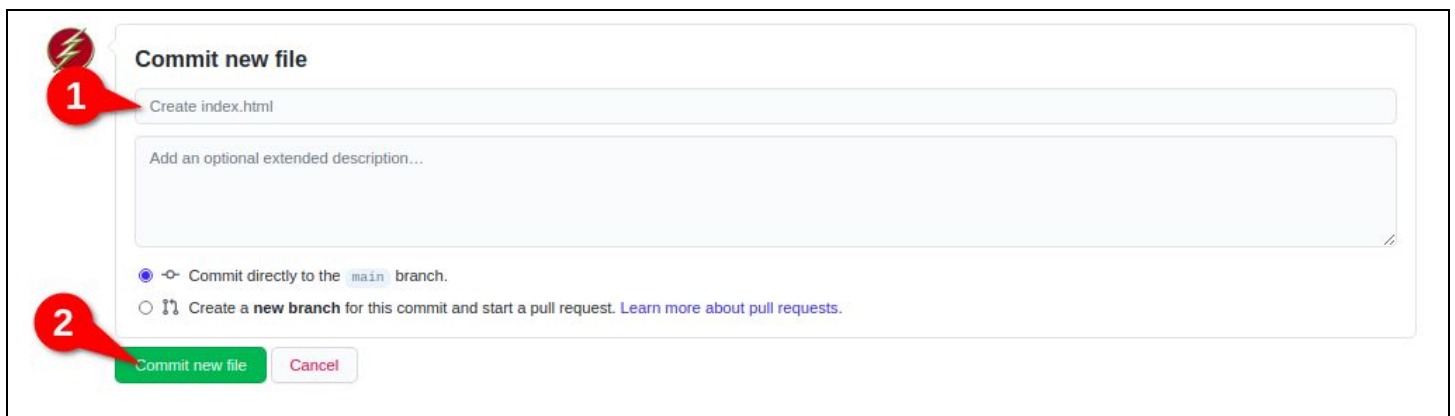
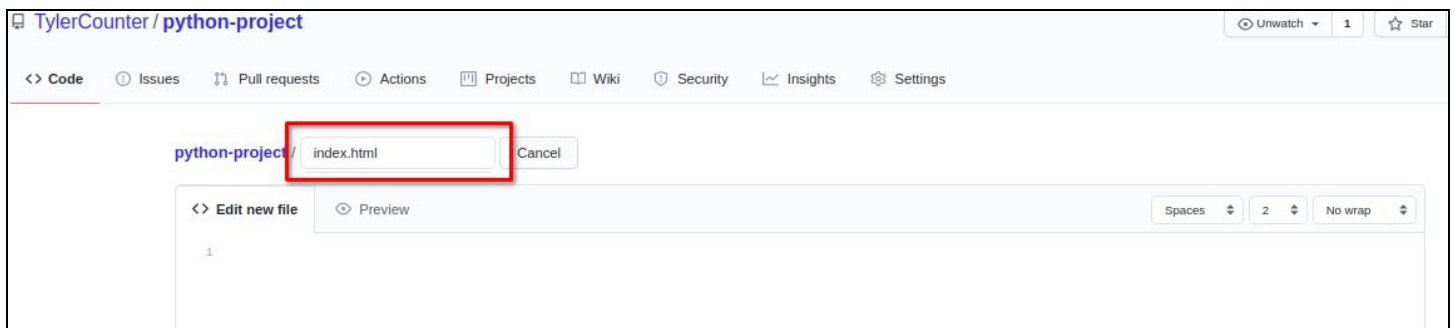
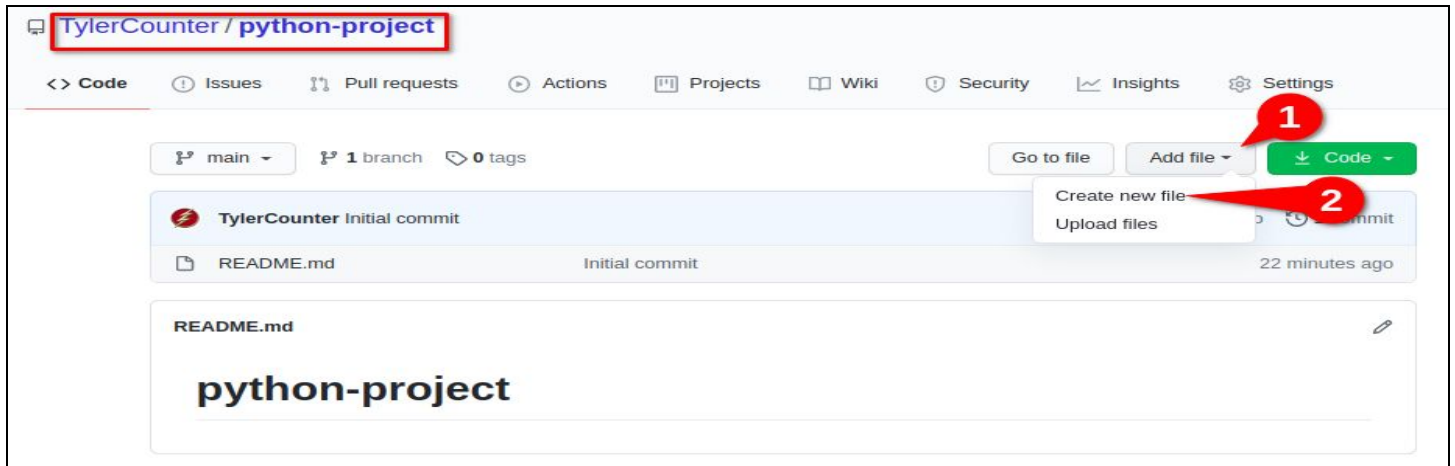
README.md

python-project

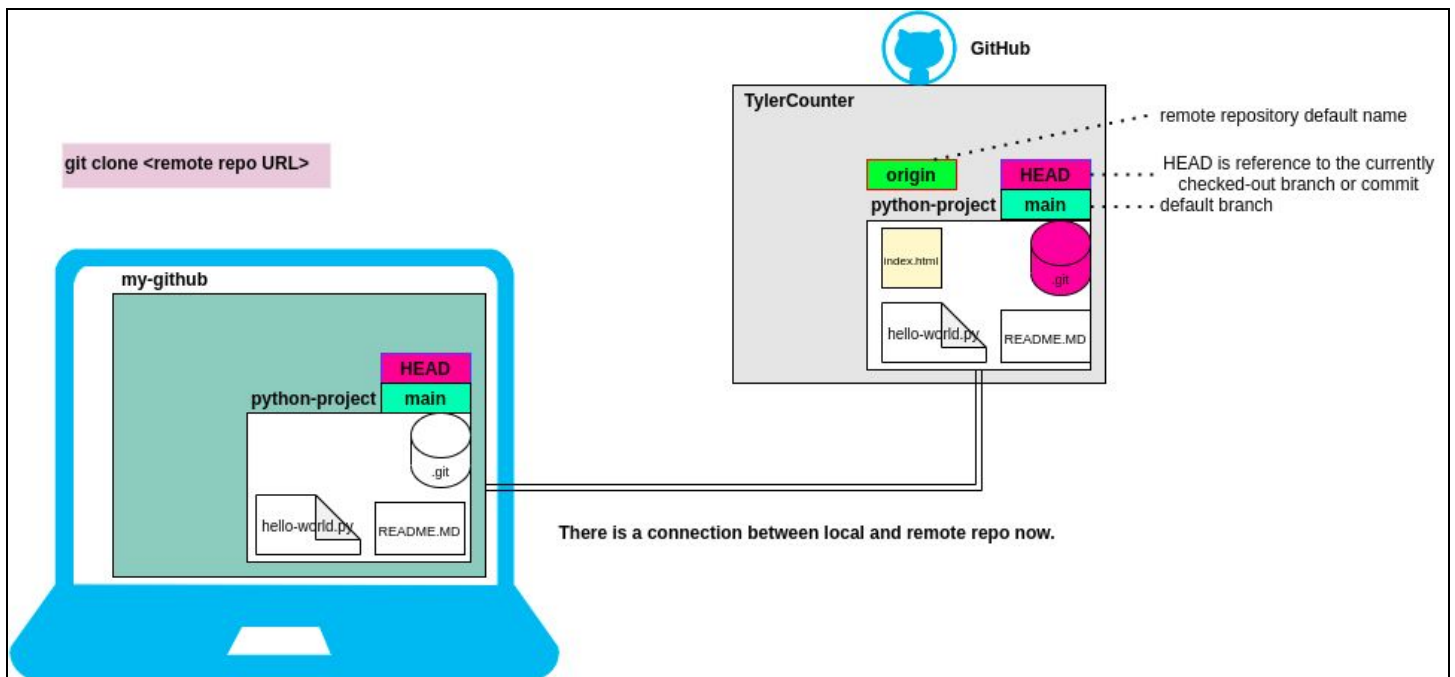
This repository for my python project.

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

The screenshot shows the GitHub repository page for 'TylerCounter / python-project'. The 'Code' tab is selected. The repository has 1 branch (main) and 0 tags. The commit history shows three commits:

Commit	Author	Message	Time
f226e7f	TylerCounter	Create index.html	in 2 minutes
7ff3ba8	TylerCounter	created hello-world.py	5 minutes ago
a2011b7	TylerCounter	Initial commit	4 minutes ago

The screenshot shows the commit history page for the repository. It displays three commits on Dec 17, 2020:

Commit	Author	Message	Time
f226e7f	TylerCounter	Create index.html	in 1 minute
7ff3ba8	TylerCounter	created hello-world.py	6 minutes ago
a2011b7	TylerCounter	Initial commit	5 minutes ago

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

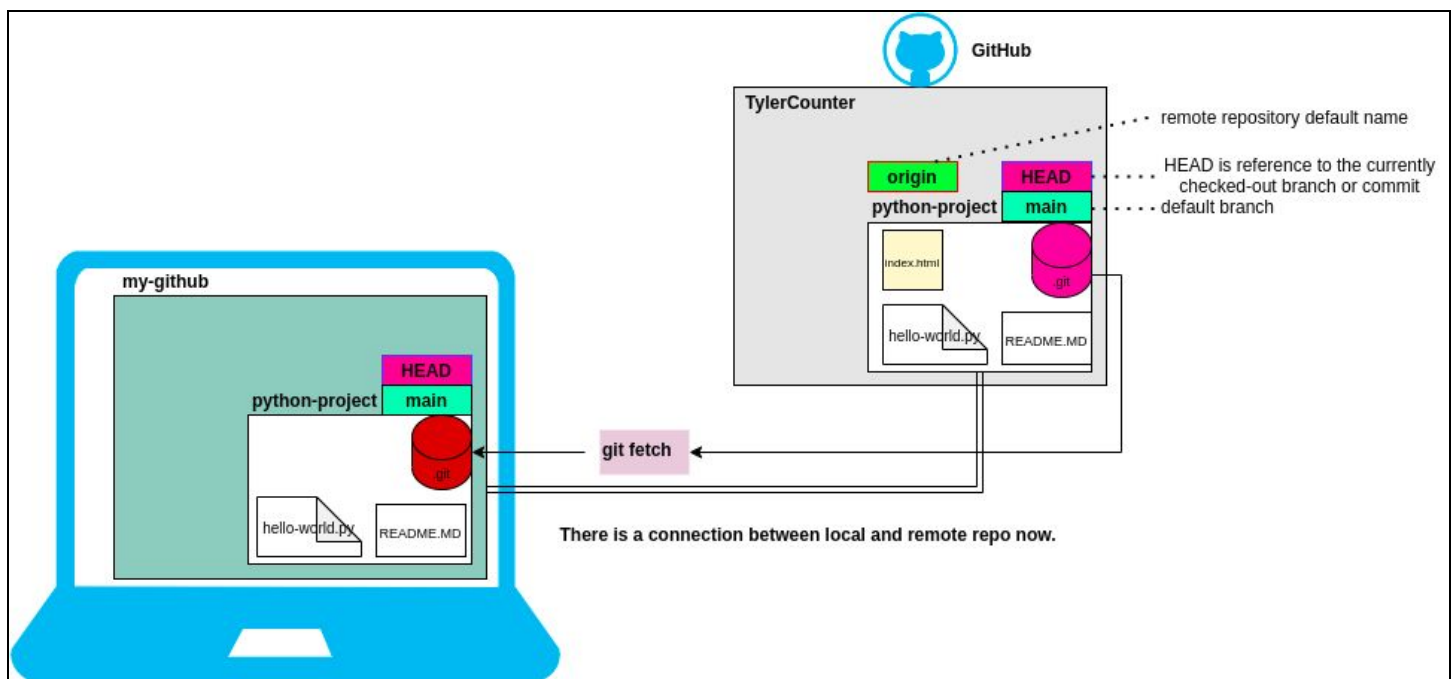
    created hello-world.py

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

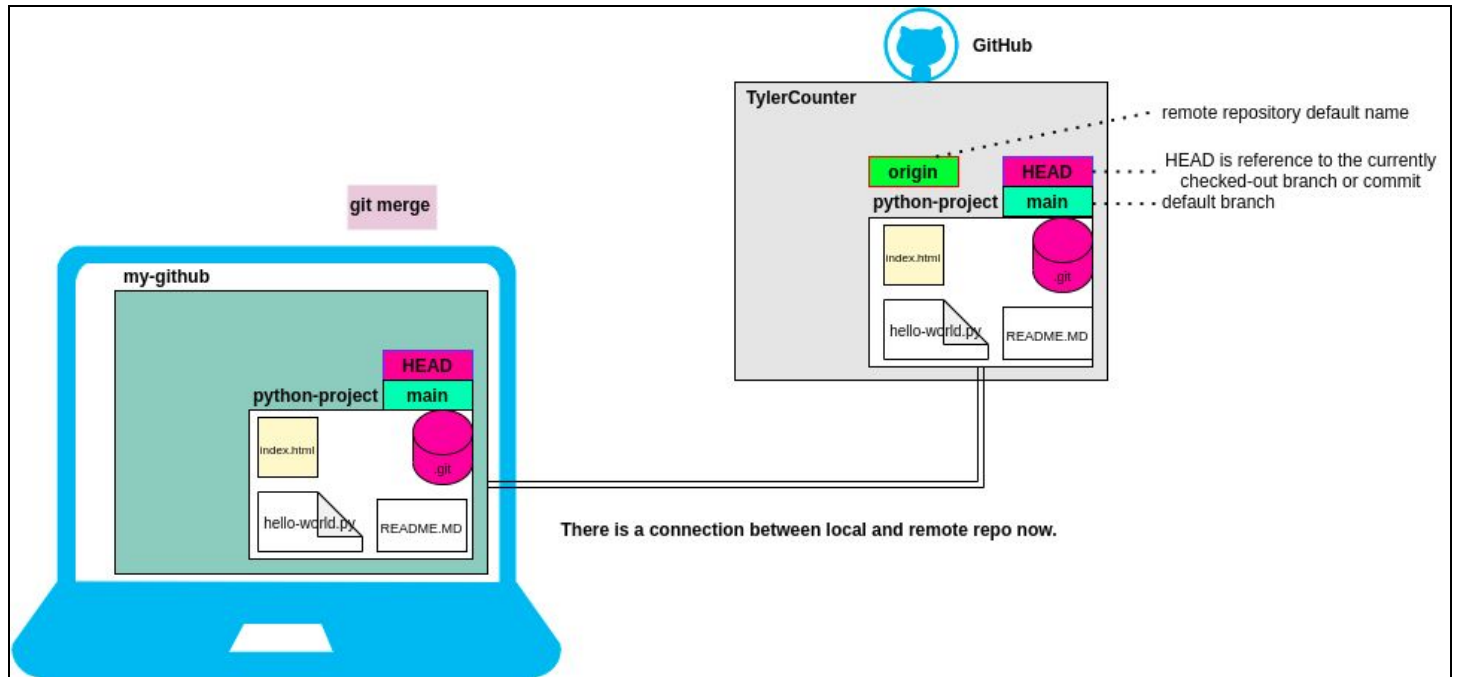
`git diff main origin/main`

- Combine main and origin/main

`git merge`

- Then list the files in your working directory

S

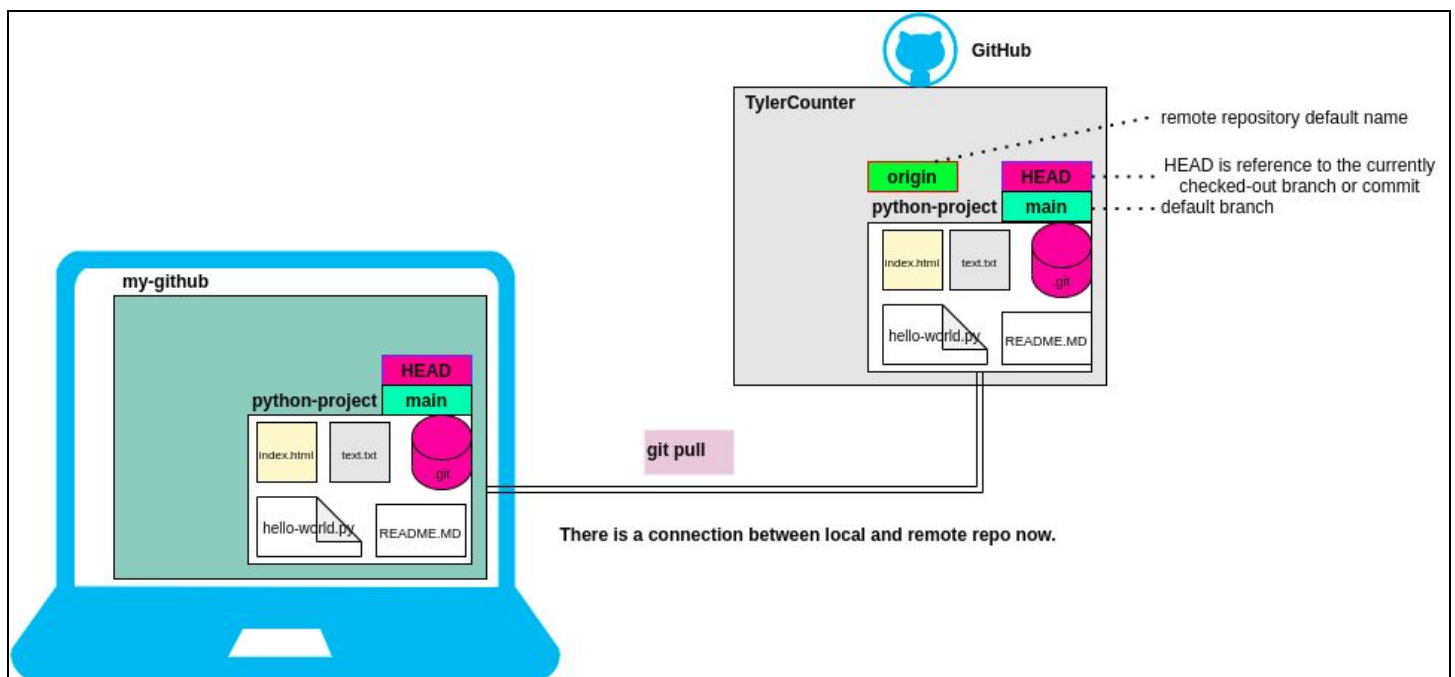


Part 5:

- At GitHub, create a new file named **test.txt**
- Download all changes to your computer (terminal)



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



- See the commit history

```
git log --oneline
```

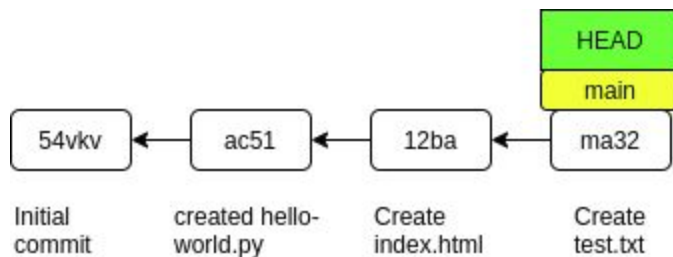
```
2fa656d (HEAD -> main, origin/main, origin/HEAD) Create test.txt
f226e7f Create index.html
7ff3ba0 created hello-world.py
a2011b7 Initial commit
```

- 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 branches)
```

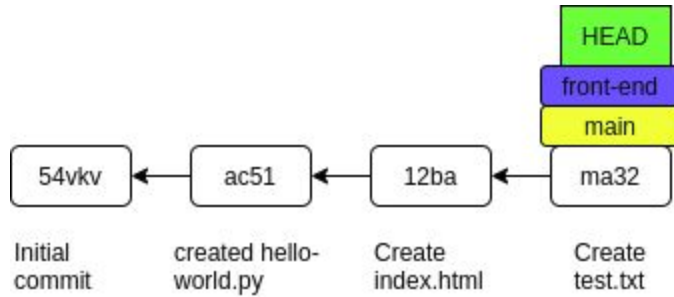
```
git branch -r (show remote branches)
```

```
git branch -a (show all local and remote branches)
```

```
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

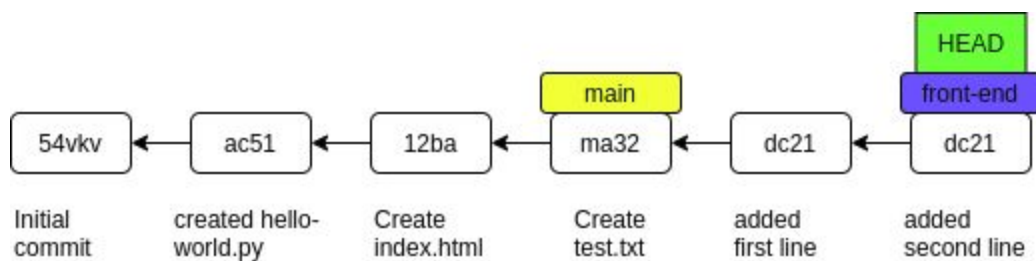
```
vim test.txt
git status
```

- 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.

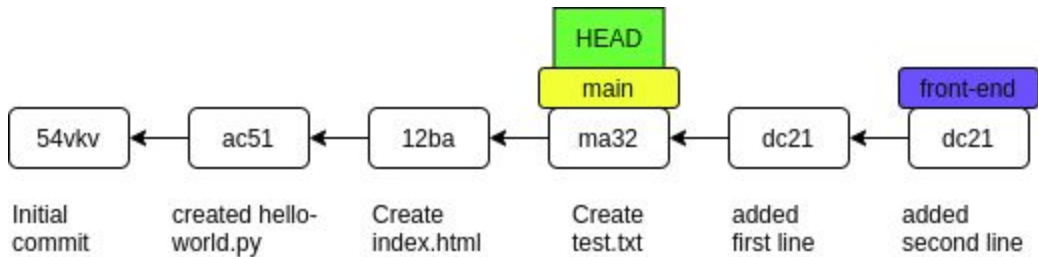
```
vim test.txt
git commit -am "added second line"
```



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

```
git checkout main
```

```
cat test.txt
```

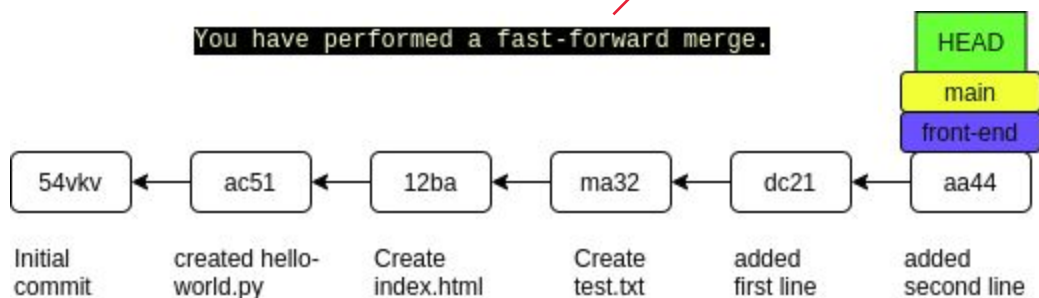


- Merge front-end branch to **main** branch.

```
git merge
```

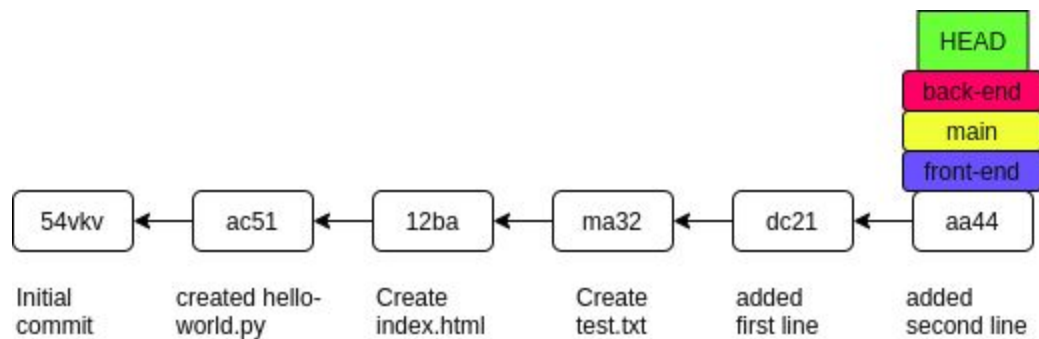
```
cat test.txt
```

You have performed a fast-forward merge.



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

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

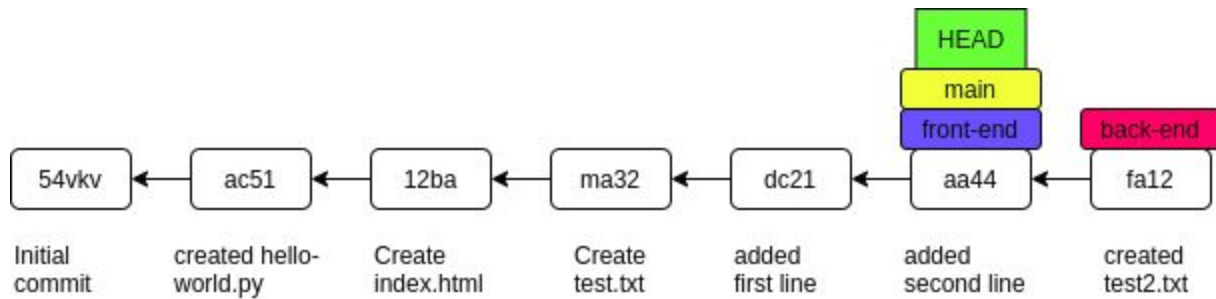


- Create a new file named **test2.txt** and store the changes to repo.

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

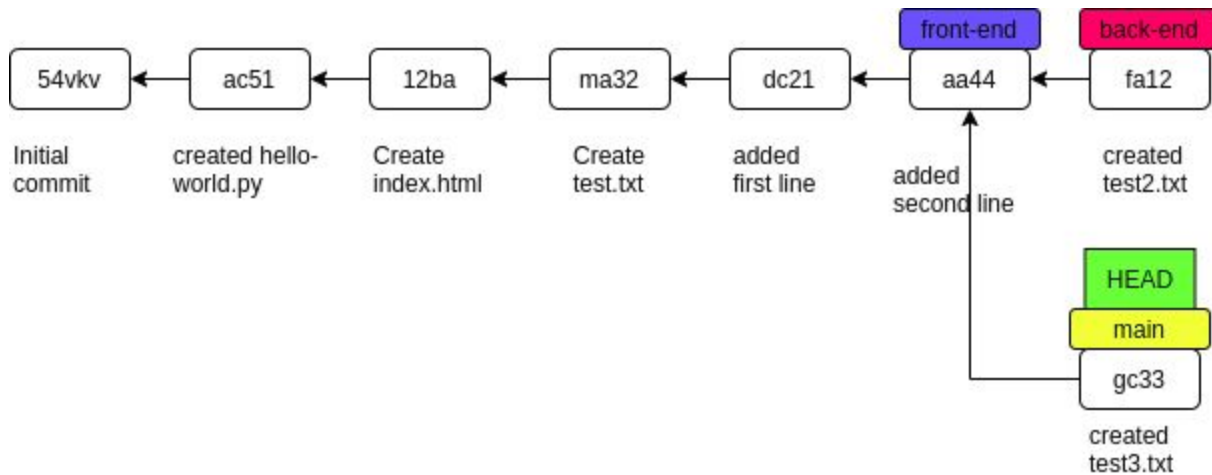
- Switch the main branch again

```
git checkout main
```



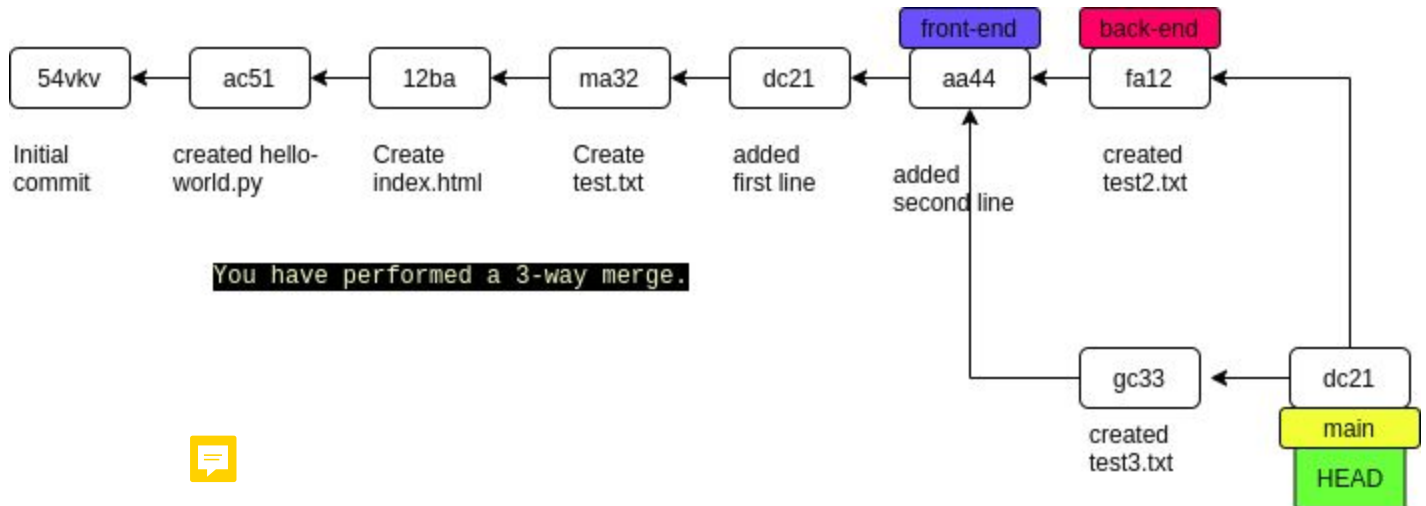
- Create a new file **test3.txt** and send the changes to local repo.

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



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

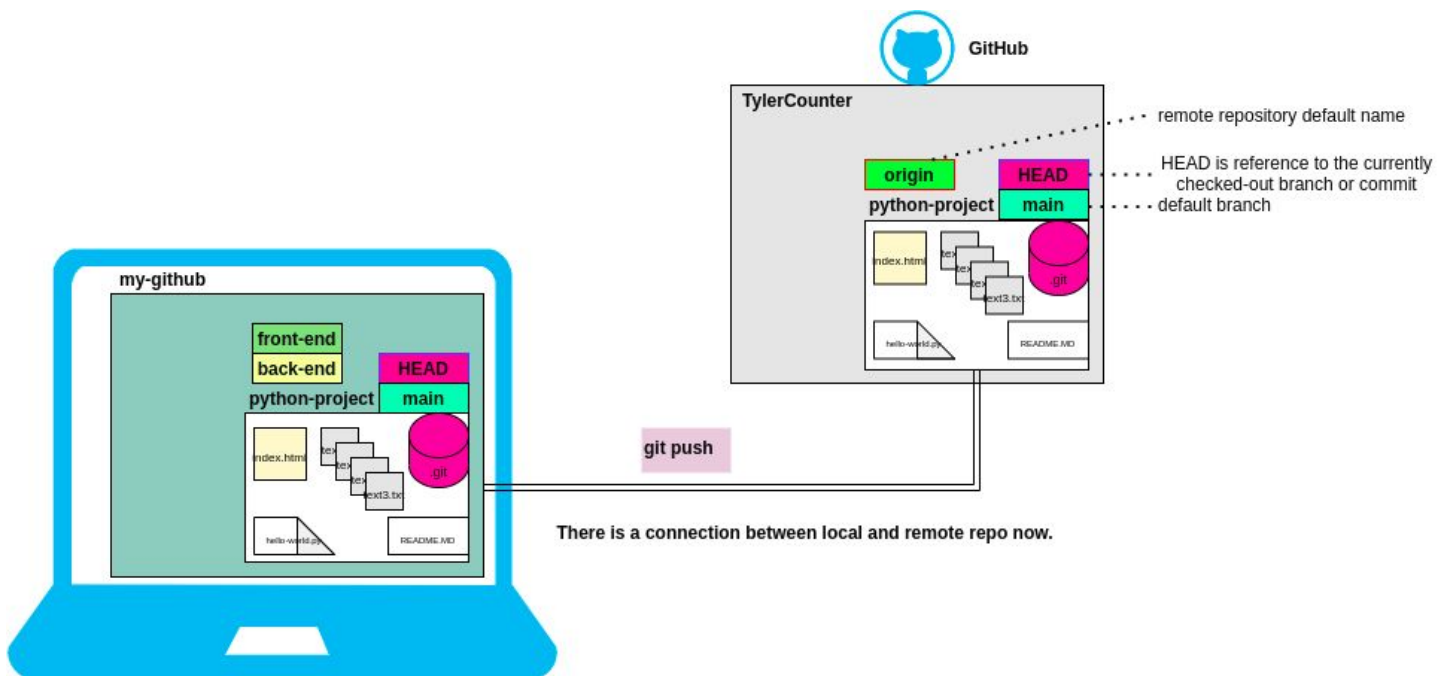
`git merge back-end`



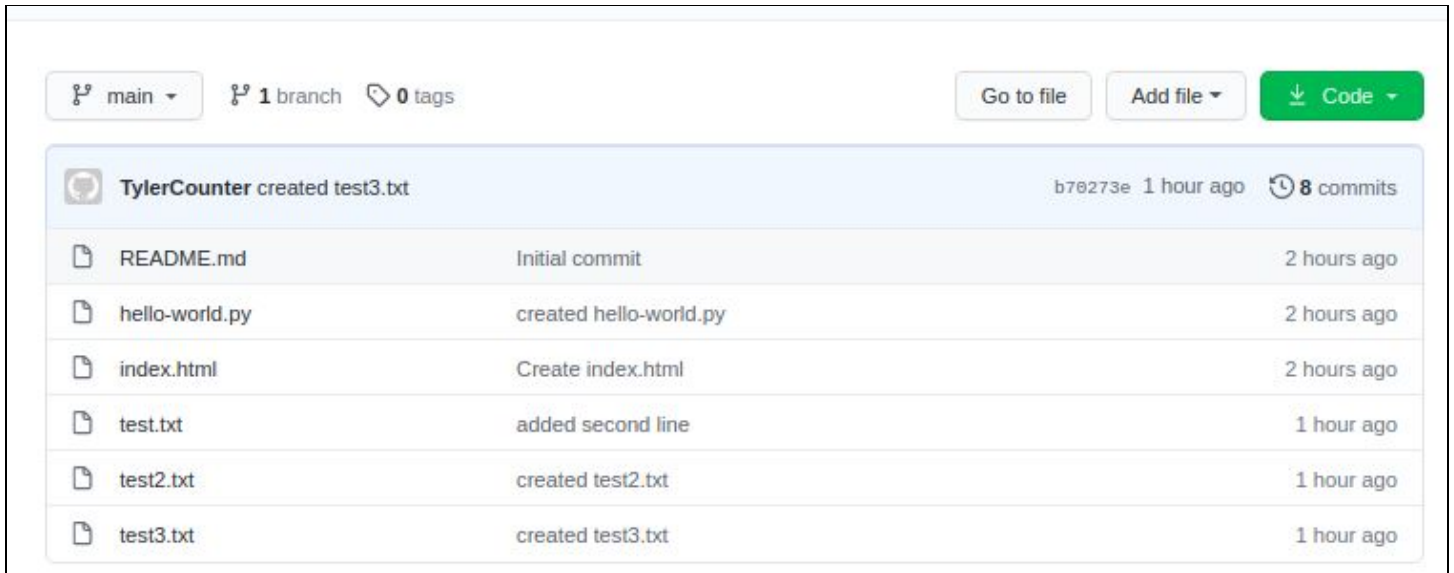
Part 7:

- 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

