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ITAI 1378 Assignment 3 Lab

In this lab, we were introduced to GitHub and registered for an account to make a repository on Jupyter Notebook and JupyterLab. After creating the account on GitHub, I created a new repository and named it “Jupyter-exploration”. On GitHub, you are allowed to create repositories that contain all of the project’s files, revision history, and collaborator discussions. I made the repository public so it could be seen by other developers and collaborators. Making the repository public allows for anyone on the internet to see the repository; but making it private limits the amount of users who can see and commit to it.

The README profile was then created and it appears at the top of the page on the GitHub profile. I commited the README to the repository and it created a Branch which has the Notebook and the README available. I used Anaconda to launch JupyterLab and Jupyter Notebook, and then created a Markdown text, then a code. After I wrote the Markdown text and code, I ran the code in JupyterLab. After the code was ran, I saved the Notebook in JupyterLab and Jupyter Notebook. I named the Notebook “My\_First\_Notebook.ipynb” and uploaded it to the jupyter-exploration repository in GitHub.

Repositories are project containers that stores all of its project’s files including code, documentation and configuration files. Each repository has a history of changes made to the files. Commits are sevel snapshots of the repository at a given time. Each commit saves the current state of the codebase with a unique ID and message describing the changes made. Branches are parallel versions of the main codebase that allow developers to work on different features and fixes without changing the main code. Once changes are made, the branches can then be merged back into the main branch. Pull requests are methods for proposing changes to the repository. When work is finished on a branch, a developer can then open a pull request to have their changes reviewed and discussed before merging them into another branch or the main branch (Git & GitHub Concepts).

Merging is when a developer infuses changed from one branch into another. Usually, this is done when a pull request is approved and the new changes from the feature branch are then interwoven into the main branch. Markdown is used for formatting text within files. Forking creates a personal copy of another person’s repository. Other users are allowed to fork projects, make changes, and then submit a pull request. Cloning is when a developer copies a GitHub repository to your local machine. Issues are a way to track bugs, feature requests, and tasks in a project. Developers and users can create issues to communicate problems or new prospectives. GitHub is built on Git, which is a distributed verson control system. Git tracks changes in files, making it easy to collaborate on projects and revert to previous versions if needed (Git & GitHub Concepts).

The only problems that I ran into were trying to run the code because I was trying to run it on Jupyter Notebook. After I ran the code on the JupyterLab the code ran smoothly with no issues. In this lab, I was able to gain a thorough understanding of GitHub and how it works in regards to sharing and creating repositories.

Works Cited

V., Abhijeet. "Git & GitHub Concepts." Medium, 26 Aug. 2018, [https://medium.com/@abhijeetv007/git-github-concepts-e233adf17dba](https://medium.com/@abhijeetv007/git-github-concepts-e233adf17dba" \t "/Users/jonathansmith/Desktop/HOUSTON COMMUNITY COLLEGE/Fall 2024/Natural Language Processing/x/_new). Accessed 8 Sept

(Git & GitHub Concepts)