Mohammad Sufyaan

Patricia McManus

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My Lab Experience

During the lab session, I started by setting up my GitHub account. I went to GitHub’s website, clicked on "Sign up," and followed the steps to create my account. Once I was logged in, I explored the GitHub interface, familiarizing myself with features like repositories, issues, and pull requests. To create a new repository, I clicked on the "+" icon in the top right corner, selected "New repository," named it "jupyter-exploration," and initialized it with a README file. I then edited the README file, added a brief description of the lab session, and committed the changes by clicking "Commit changes."

For the Jupyter Notebook portion, I already had Jupyter installed from a previous class, so I didn’t need to use the tutorial provided in this lab. During the previous semester, I downloaded Jupyter Notebook using Anaconda. The process involved going to the Anaconda website, downloading the Anaconda distribution, and installing it on my computer. After installation, I used Anaconda Navigator to launch Jupyter Notebook, which opened the notebook dashboard in my browser. This setup allowed me to manage and launch Jupyter easily, with all necessary packages pre-installed. In this lab, I launched Jupyter Notebook from the Anaconda Navigator, just as I had done previously. I then created a new notebook by clicking "New" in the top right corner and selecting "Python 3." I added a new cell, changed the cell type to Markdown using the dropdown menu, and wrote “My first markdown cell in Jupyter.” I also added a Code cell, typed print("Hello, World!"), and ran it by pressing Shift + Enter. I saved the notebook by clicking the floppy disk icon and uploaded it to my GitHub repository. I navigated back to the "jupyter-exploration" repository on GitHub, clicked "Add file," then "Upload files," and selected my My\_First\_Notebook.ipynb file from my computer. I finalized the upload by clicking "Commit changes."

Overall,this lab introduced me to essential concepts and tools, particularly version control with GitHub and interactive computing with Jupyter Notebooks. Through GitHub, I learned how to create and manage repositories, track changes with commits, and explore collaborative features like pull requests and issues. These tools are important for version control, allowing me to efficiently manage and collaborate on projects. In Jupyter Notebook, I realized how versatile it is, particularly in its ability to combine code, visualizations, and narrative text in a single document. This makes it especially useful for data analysis, where presenting results interactively is key. One challenge I encountered was making sure I uploaded the file correctly on GitHub. This prior setup made the process smoother, as I didn’t need to go through the installation again. This experience shows how important it is to have a setup for managing and using different tools effectively. Overall, the lab was really beneficial, giving me practical knowledge of tools that are widely used.

<https://github.com/sufyaan3462/jupyter-exploration..git>