**Lab Reflection**

In this lab session, I explored two essential tools for managing projects and working with code: GitHub and Jupyter Notebooks. The session involved setting up a GitHub account, creating a repository, installing Jupyter Notebook, and completing basic operations within a notebook. Throughout this process, I gained hands-on experience with version control in GitHub and interactive computing in Jupyter, while also addressing a few technical challenges along the way.

The first step was setting up my GitHub account. After creating the account, I navigated through the GitHub interface, familiarizing myself with repositories, pull requests, and issues. I then created a repository named "jupyter-exploration" and initialized it with a README file. Editing the README allowed me to practice making a commit, which was an important step in learning how to document and manage changes using version control. This exercise showed me how GitHub tracks the progress of a project by recording each change.

Next, I moved on to installing Jupyter Notebook. Initially, I encountered a problem where the command to launch Jupyter was not recognized. After troubleshooting the issue, I discovered that Python had not been added to my system’s PATH during installation. Reinstalling Python and ensuring that it was properly configured solved the problem. Once I successfully installed Jupyter, I explored its dashboard and created my first notebook. The interface was easy to use, and I quickly learned how to create Markdown and Code cells. I added a simple text description in the Markdown cell and ran a Python command in the Code cell to print "Hello, World!" The ability to combine text and code in one place made Jupyter Notebooks feel particularly useful for experimenting with code and documenting the results.

The final task was to save the notebook and upload it to my GitHub repository. I uploaded the file to the "jupyter-exploration" repository and committed the changes. Seeing my work versioned in the repository helped me better understand how GitHub keeps track of project progress and enables collaboration.

Through this lab, I learned valuable lessons about version control with GitHub and interactive computing with Jupyter Notebooks. GitHub provided a practical way to manage and document changes in a project, while Jupyter allowed me to write and execute code in a dynamic environment. Despite the technical issue I encountered during the Jupyter installation, the troubleshooting process enhanced my problem-solving skills. This experience has given me confidence in using both GitHub and Jupyter for future projects and academic work.