Version Control System

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Contents

1 Introduction

Name of the system: Git/GitHub

Advantages: The advantages would include that, if used properly, there would be a full history of pushes/commits that the user can revert to if the user were to 'mess up' at any point in their workflow. Also I think another big advantage to using Git/GitHub is the teamwork/collaboration aspect to it where team members can 'merge' their branches and the version control system will resolve conflicts if they are not major changes.

Disadvantages: The disadvantages would have be that the user is confined to the Git/GitHub ecosystem and must learn command line syntax that corresponds to its system. Another disadvantage potentially could be that user(s) may run into many conflict i.e. merge errors if the user is semi-new to the GitHub command ecosystem and try to do commands that will not work; it is overwhelming for new users to learn and can be very frustrating to resolve these errors at times.

2 Proof of Commits

Screenshots of commit history:

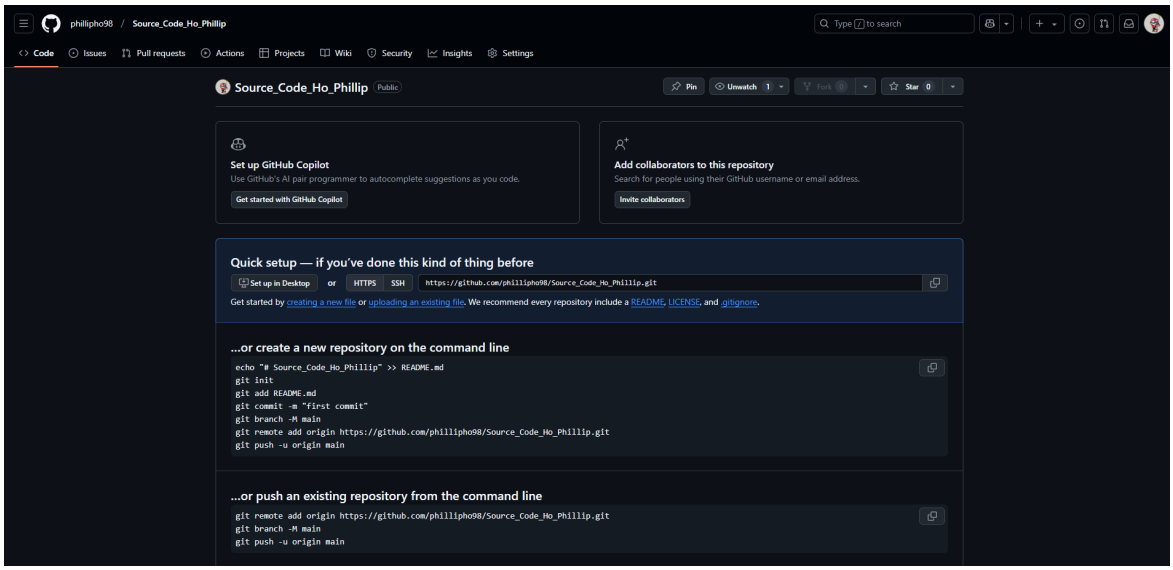

Figure 1: Initial repository setup on GitHub

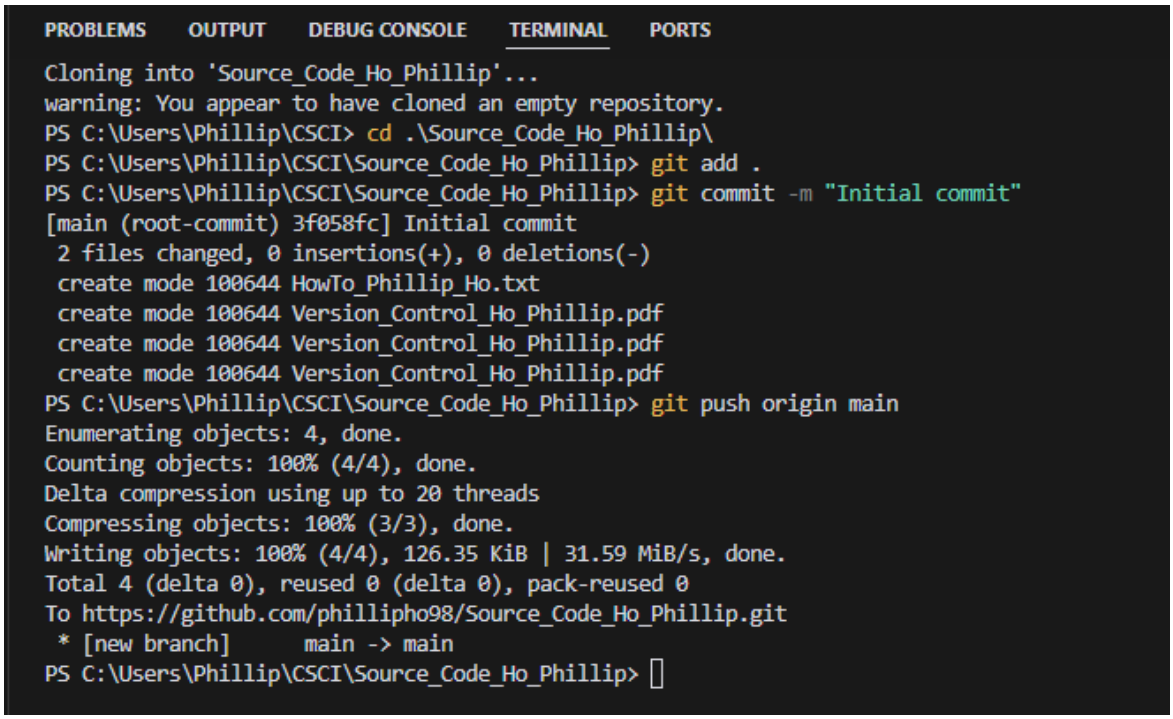

Figure 2: Cloning of repo on local machine

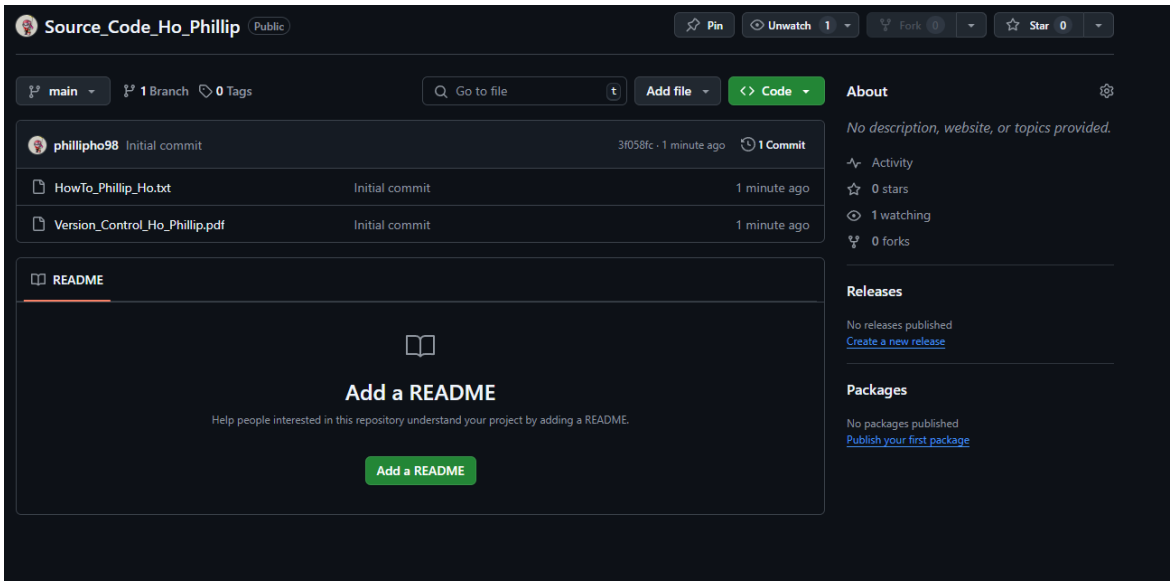

Figure 3: Initial push to GitHub

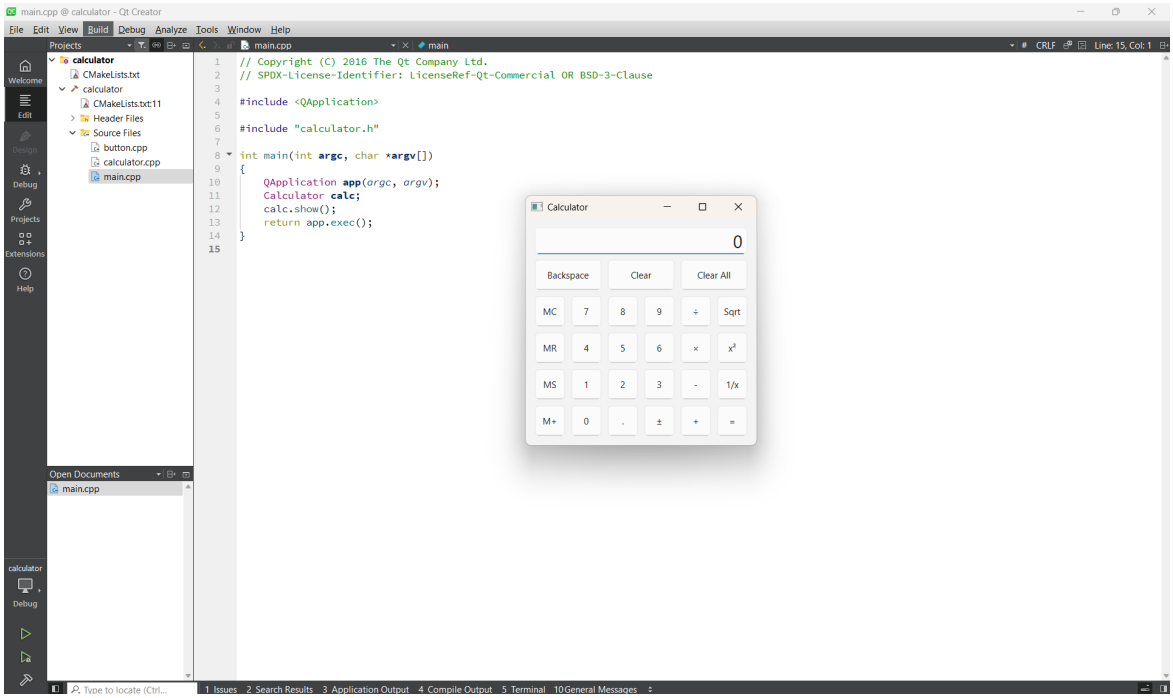

Figure 4: Example model to be modified created through Qt Creator

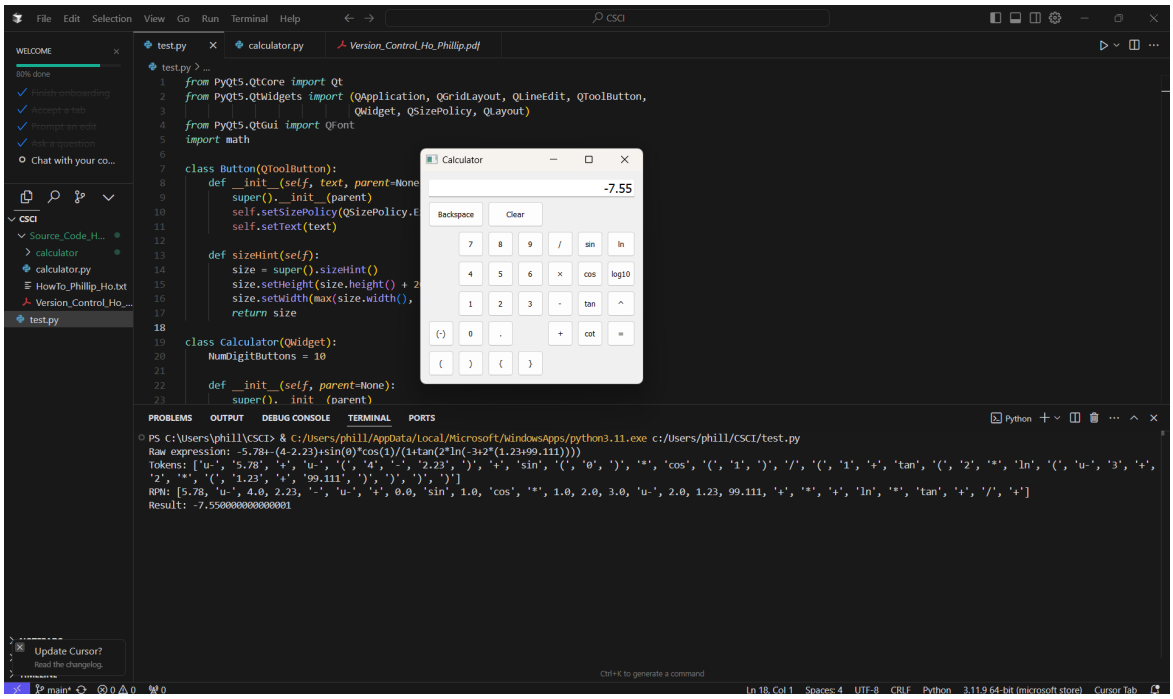

Figure 5: Finished modified calculator with accurate test case as provided in lab requirements (-5.78+-(4-2.23)+sin(0)*cos(1)/(1+tan(2*ln(-3+2*(1.23+99.111))))=)

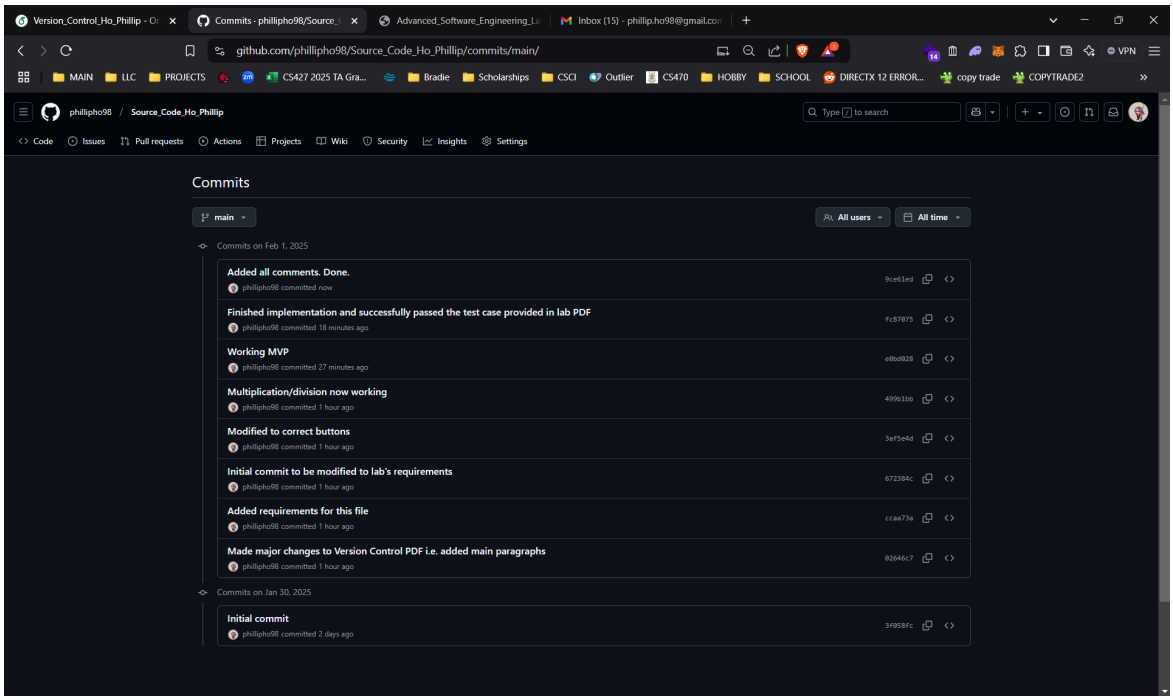

Figure 6: Full GitHub commit history

3 Version Control Workflow Explanation

How I used the system: I first went to https://github.com/ and signed into my account. After successfully logging in I created a public repository via the web browser and got to the screen that provided the HTTPS/SSH links to copy the repository onto my local machine. I then used the git clone command with the HTTPS link as a parameter on a powershell terminal on my local machine to copy the repository into my IDE. Afterwards I would start coding and creating my files, remembering to git add, git commit, and git push when needed to create a version history on GitHub.

Tools used: Git, GitHub, Qt Creator, LaTeX, Cursor IDE integrated with Deekseek