

Software Engineering

Assignment 1: Setting Up Your Developer Environment

1. Selecting an Operating System (OS):

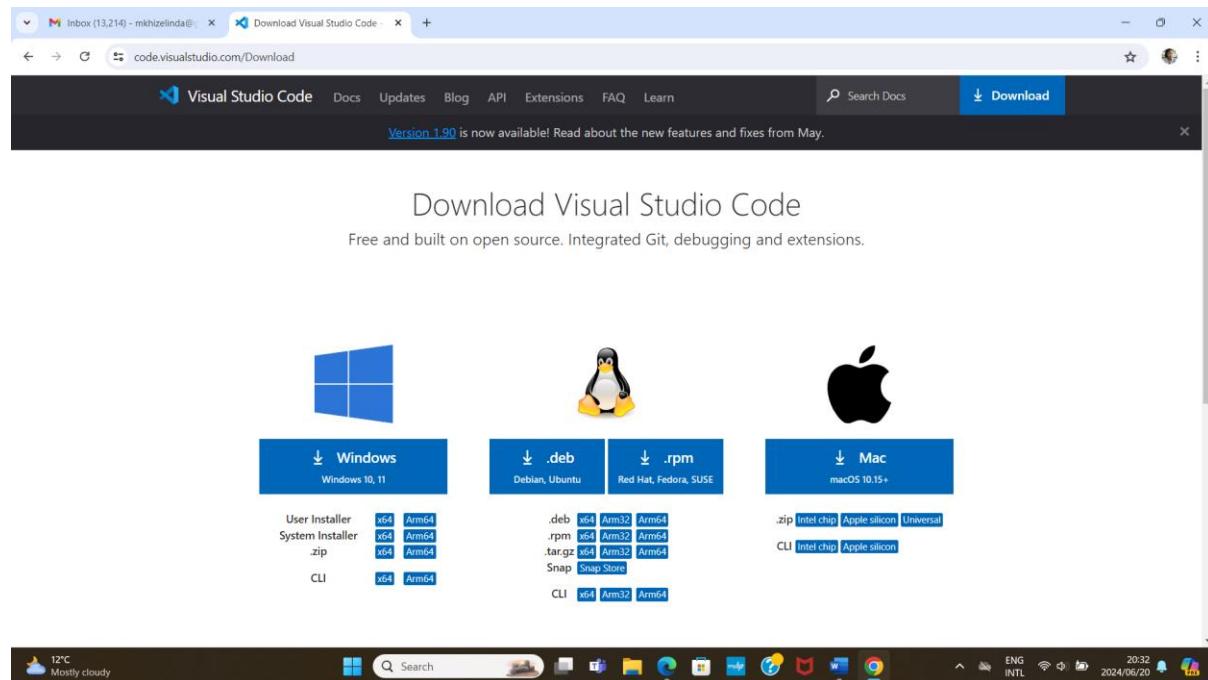
Download and Install Windows 11.

Unfortunately I could not download and install Windows 11 because my laptop is linked to an image that is set up by my organisation which could not allow this installation. I tried to ask for permissions to no avail.

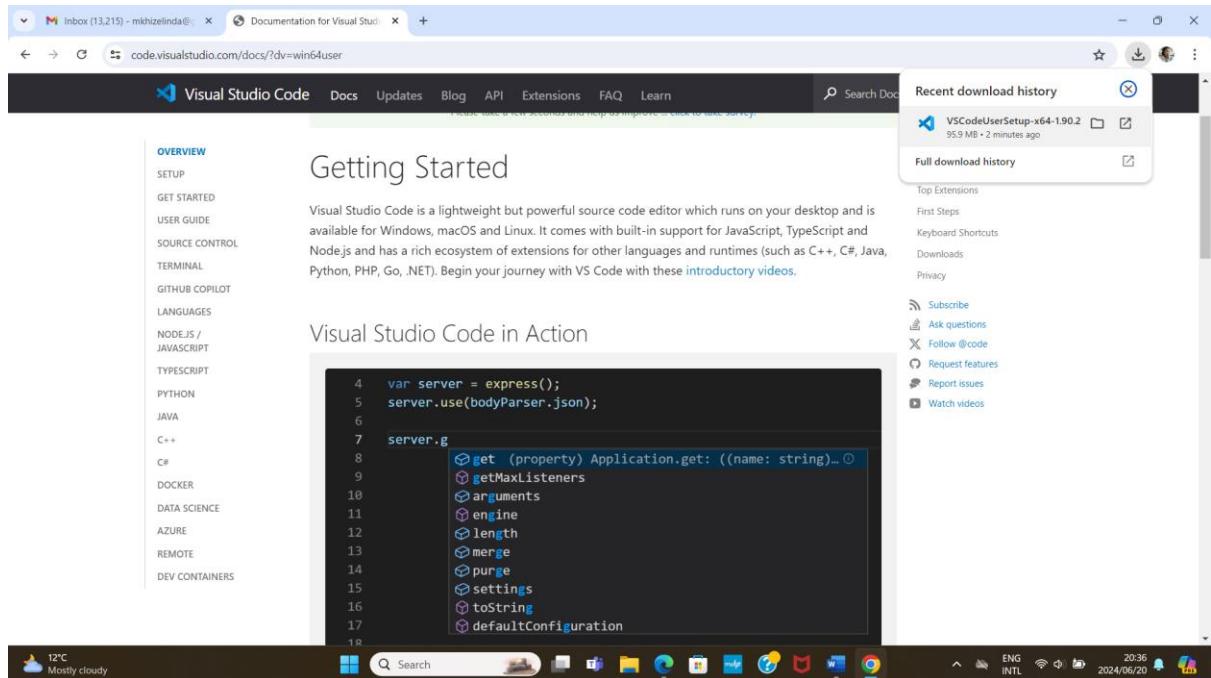
2. Install a Text Editor or Integrated Development Environment (IDE):

Installing Visual Studio Code.

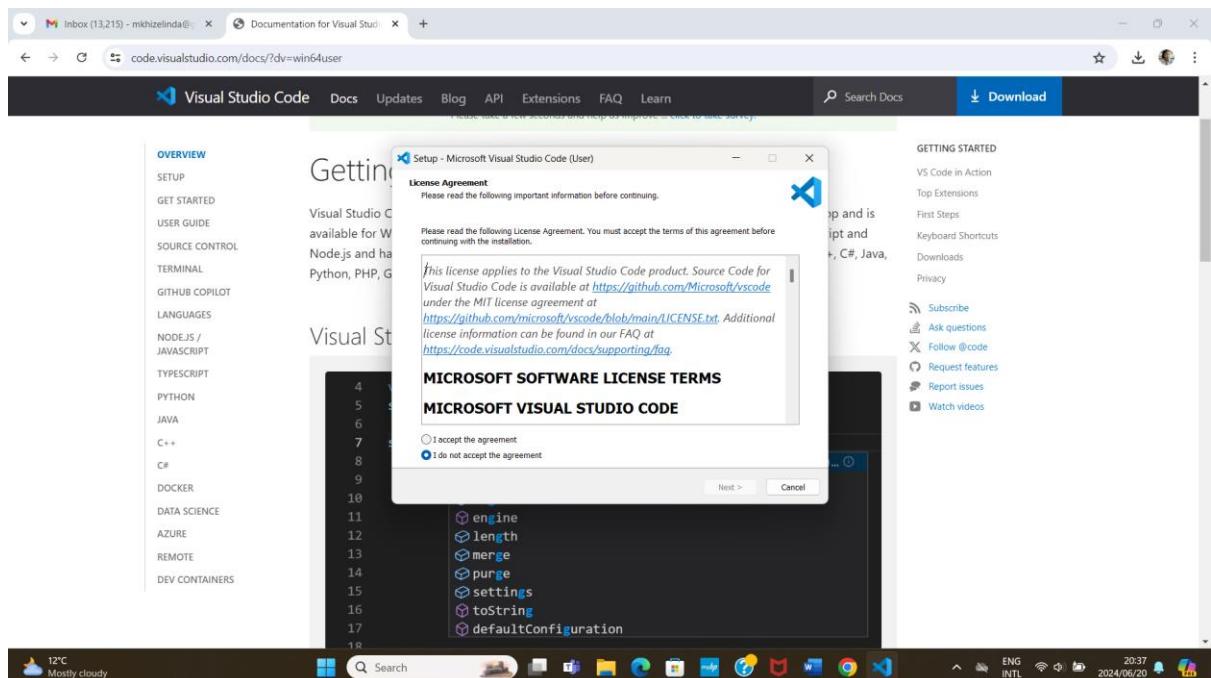
Go to: <https://code.visualstudio.com/Download>



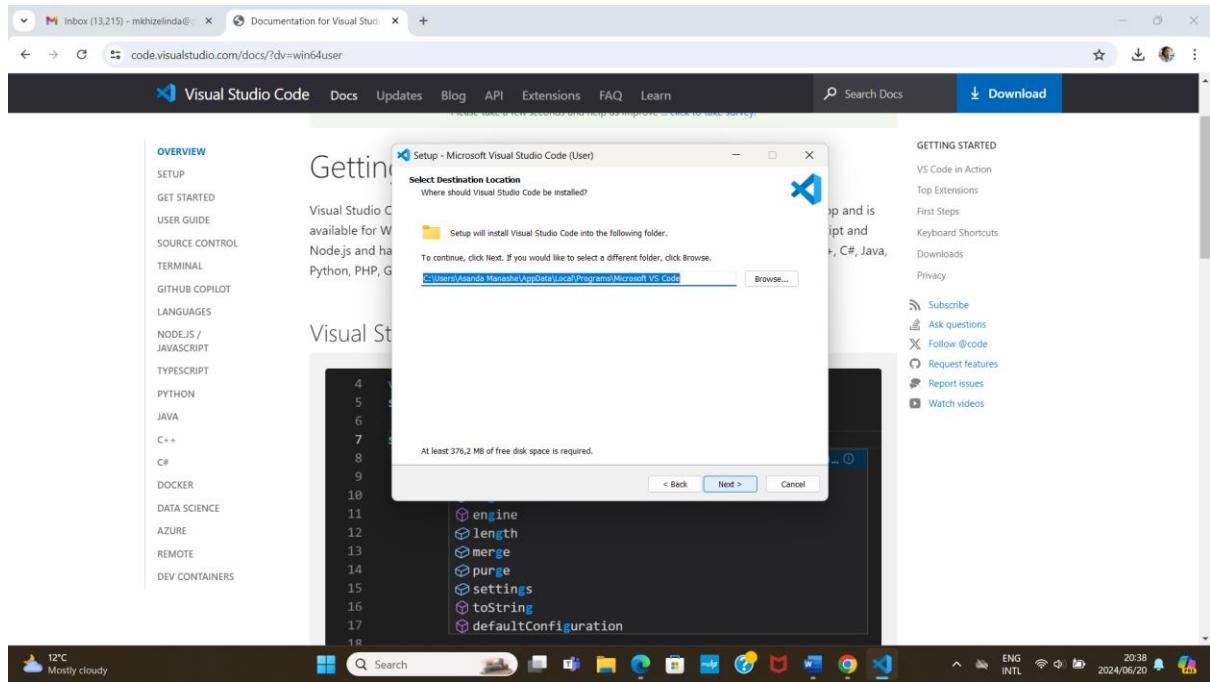
Download installation file



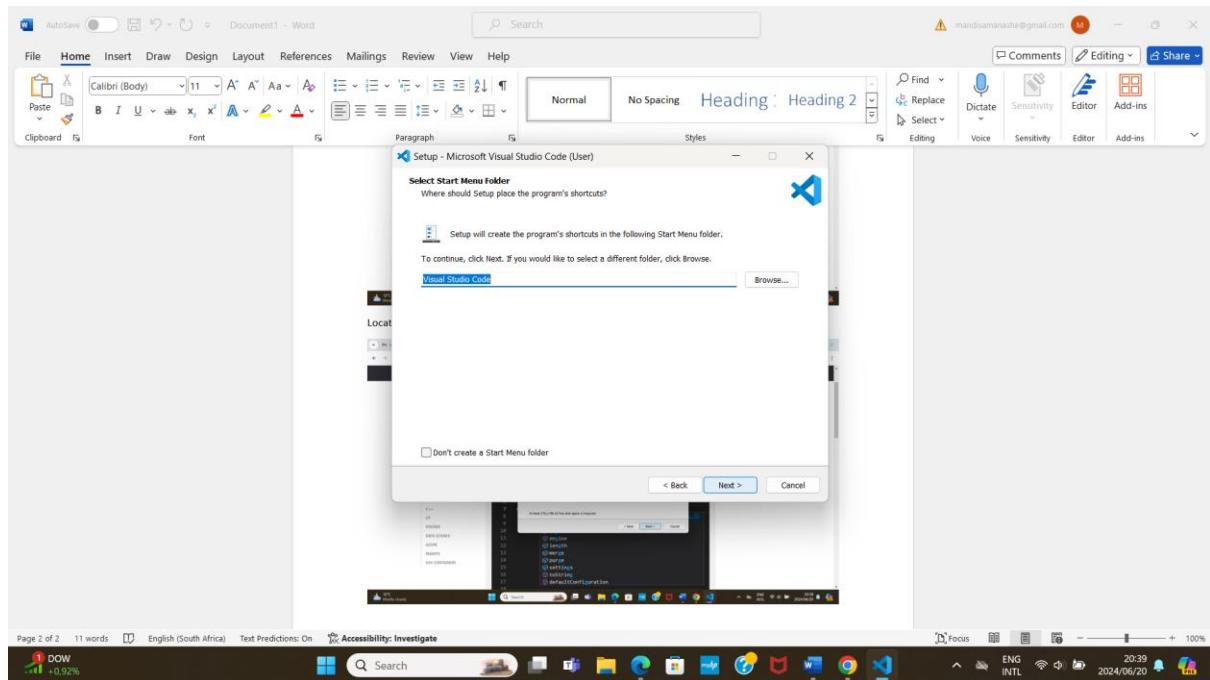
Accept terms



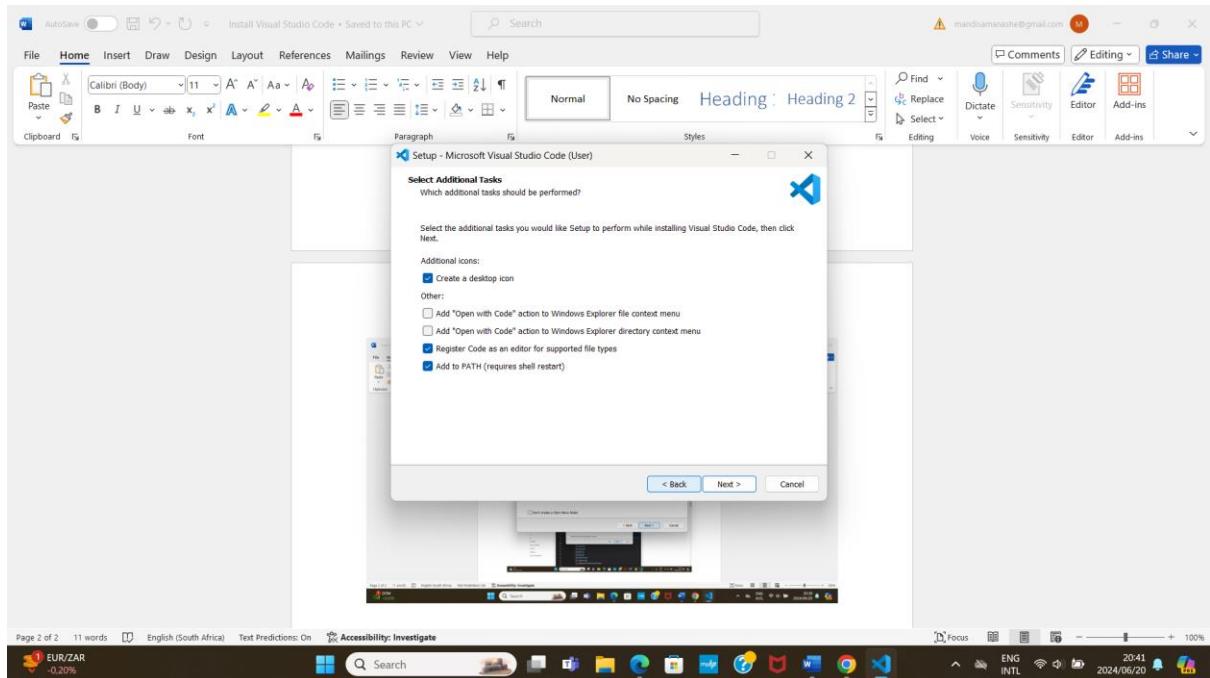
Locate file destination



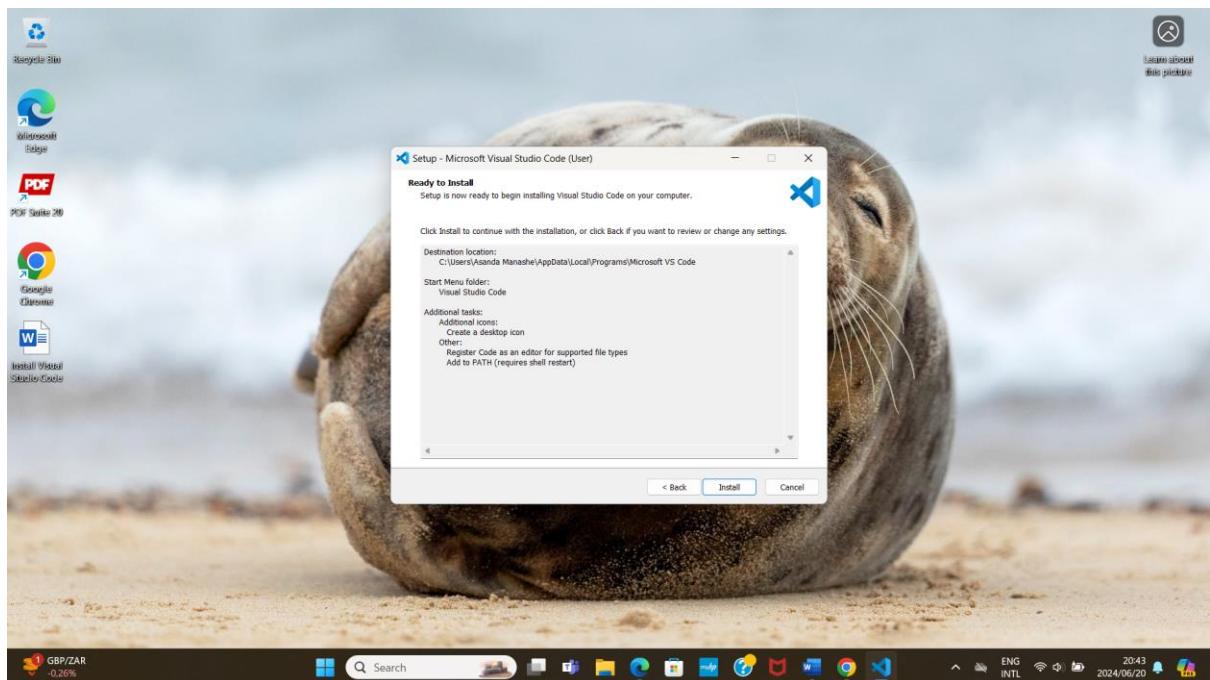
Select start Menu folder



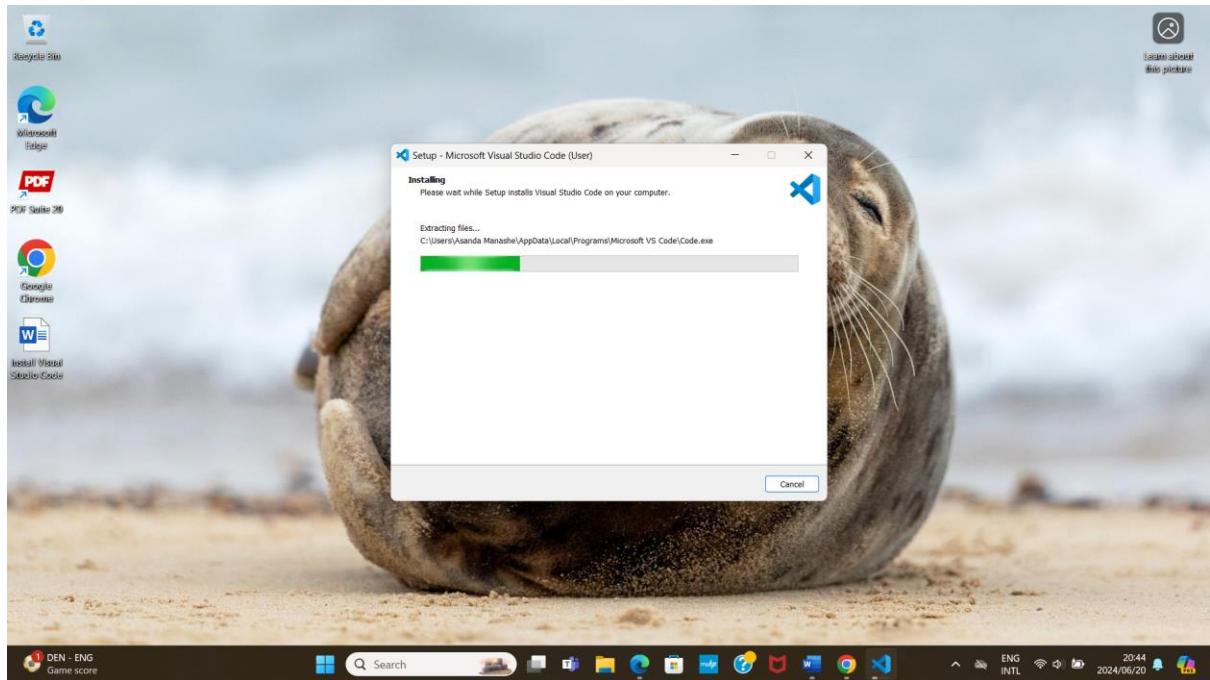
Select additional tasks



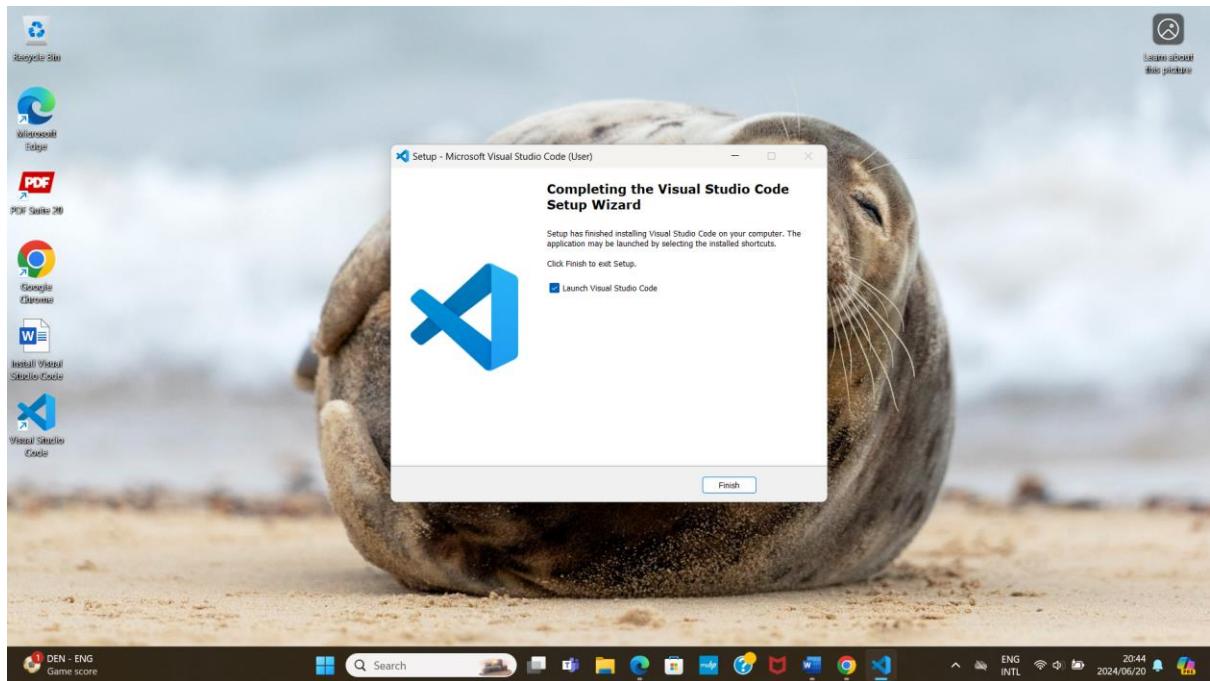
Do the installation



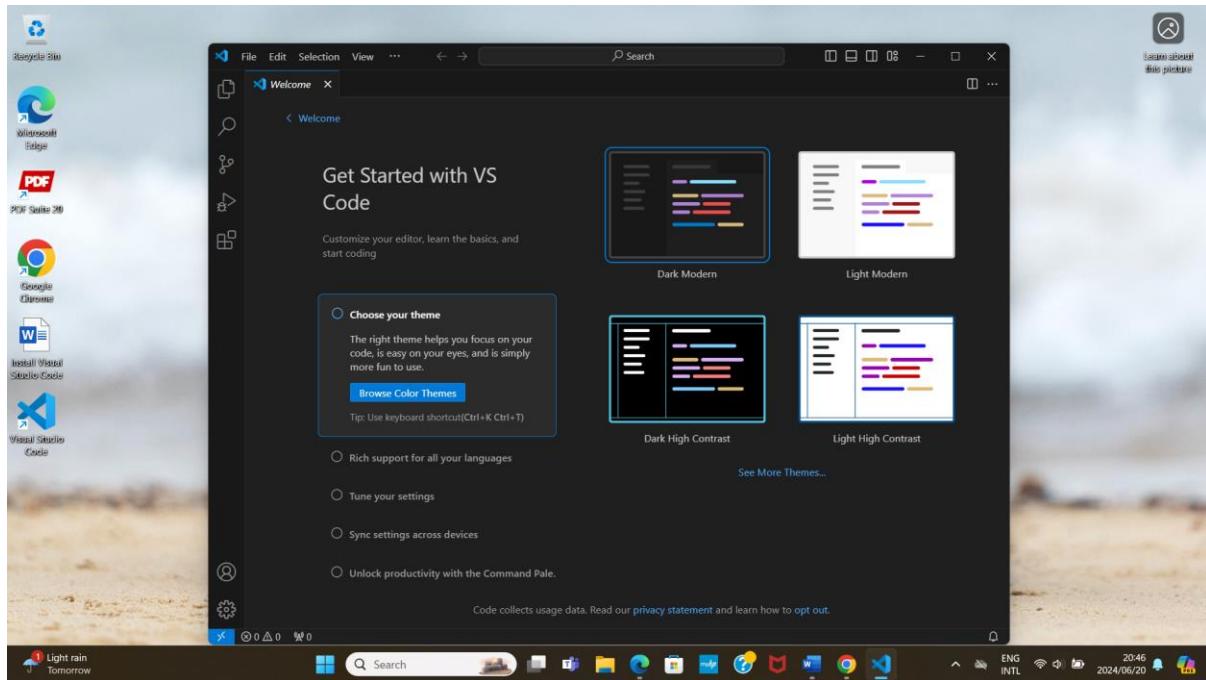
Installation in progress



Complete installation and launch Visual Studio



Get started with VS Code



End.

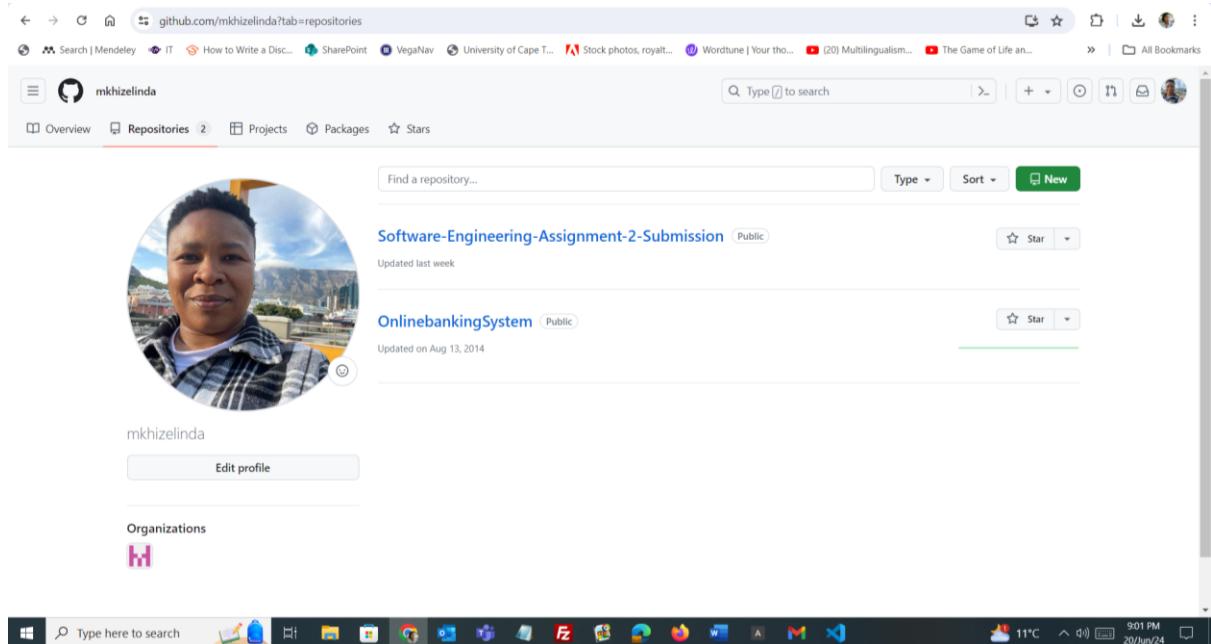
3. Set Up Version Control System:

Create a GitHub account.

<https://github.com/mkhizelinda>:

A screenshot of a GitHub user profile page for "mkhizelinda". The profile picture shows a person with short dark hair. The top navigation bar has "mkhizelinda" selected. Below the profile picture, there are tabs for "Overview", "Repositories", "Projects", "Packages", and "Stars". The "Overview" tab is active. On the left, there's a sidebar for "Organizations" with a pink square icon. The main content area shows "Popular repositories" with "OnlinebankingSystem" and "Software-Engineering-Assignment-2-Submission". It features a "Contribution activity" chart for the year 2024, showing contributions from June 2023 to June 2024. The chart indicates 1 contribution in the last year. Below the chart, it says "Created 1 repository" with a link to "mkhizelinda/Software-Engineering-Assigmen...". The right side of the page shows a vertical timeline of contributions from 2015 to 2024, with a note at the bottom right indicating the date as "Thursday, June 20, 2024".

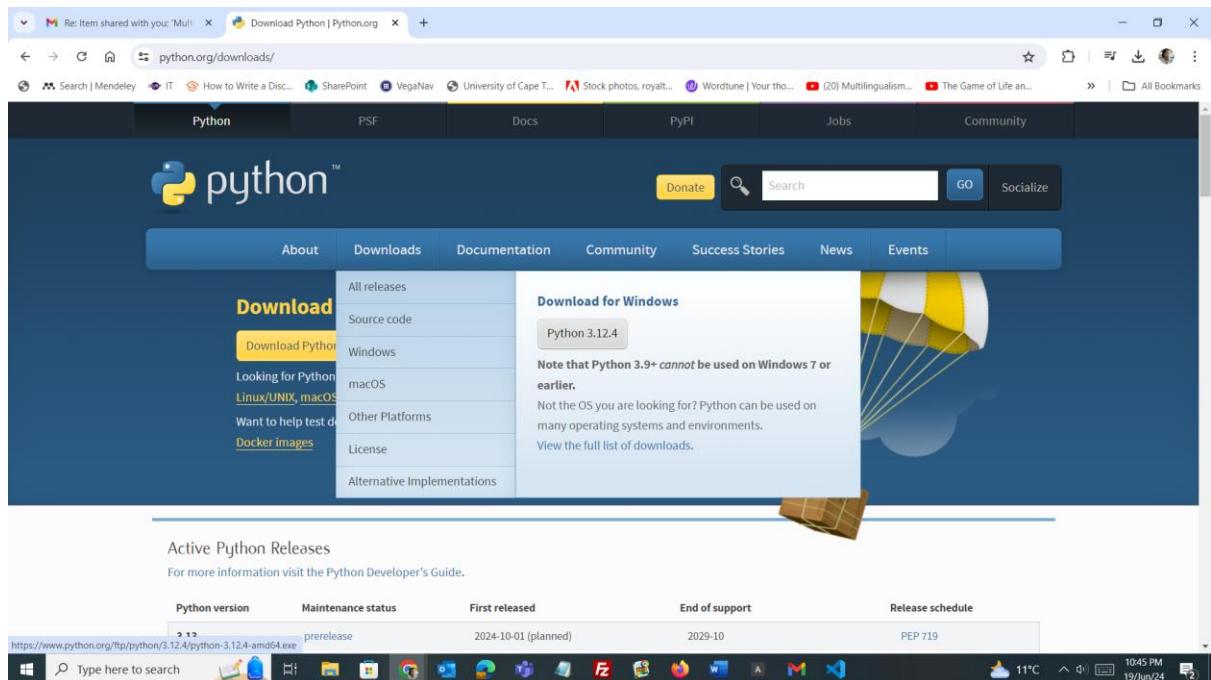
Initialized Git repository.



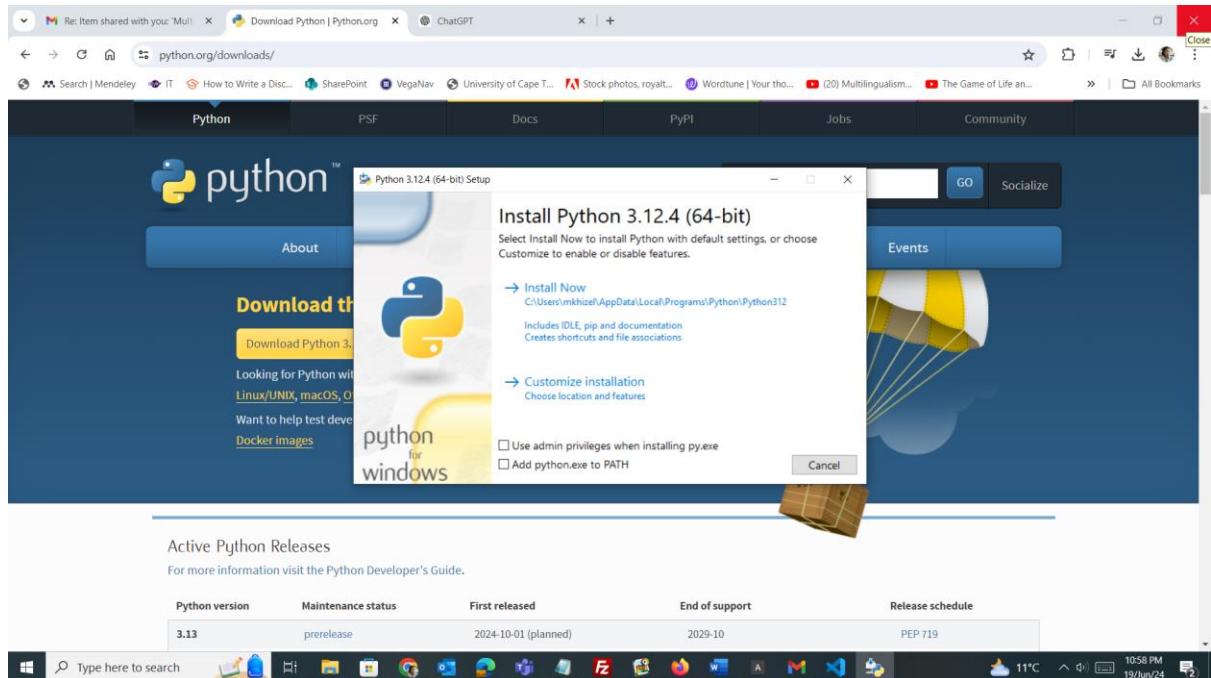
4. Installing Python.

Go to the official Python website. Click on the "Downloads" tab.

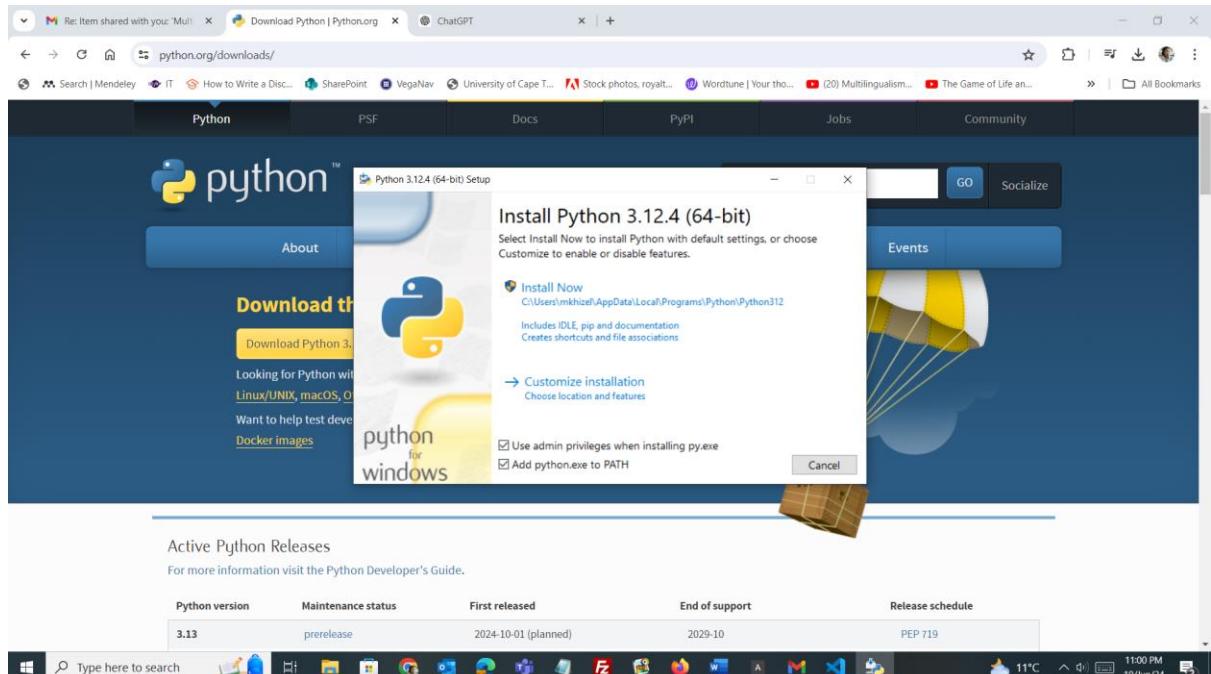
Click on the download button to get the installer.



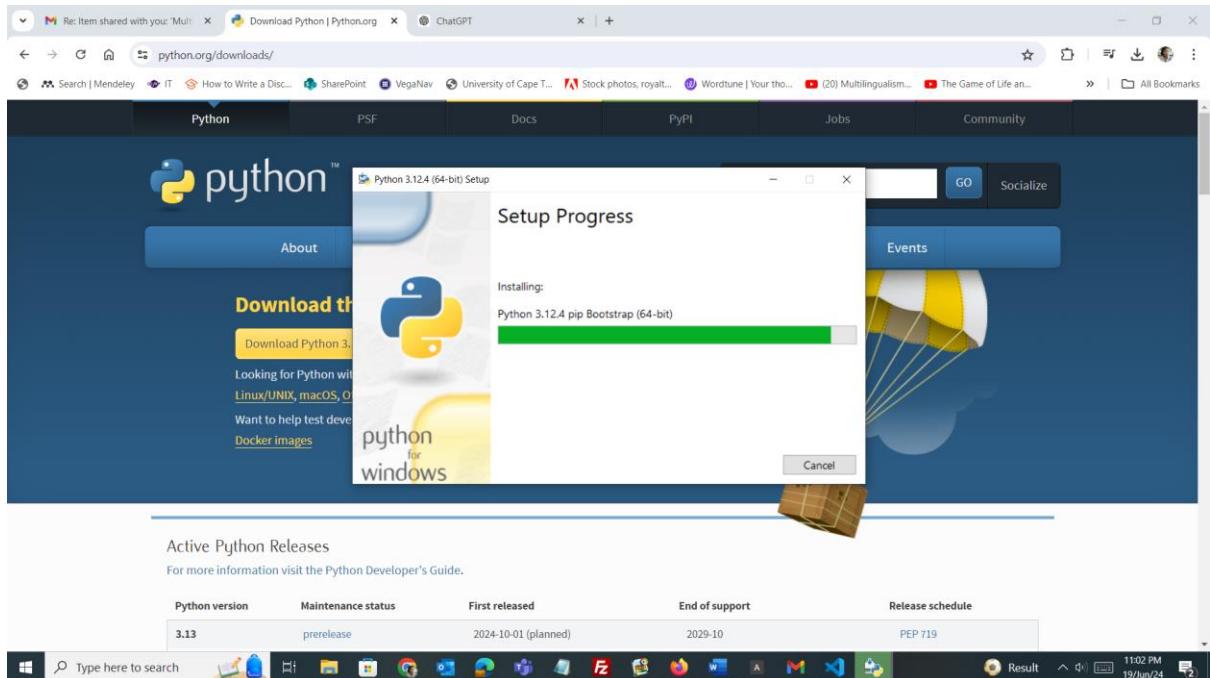
Choose the latest version of Python (3.12.4)



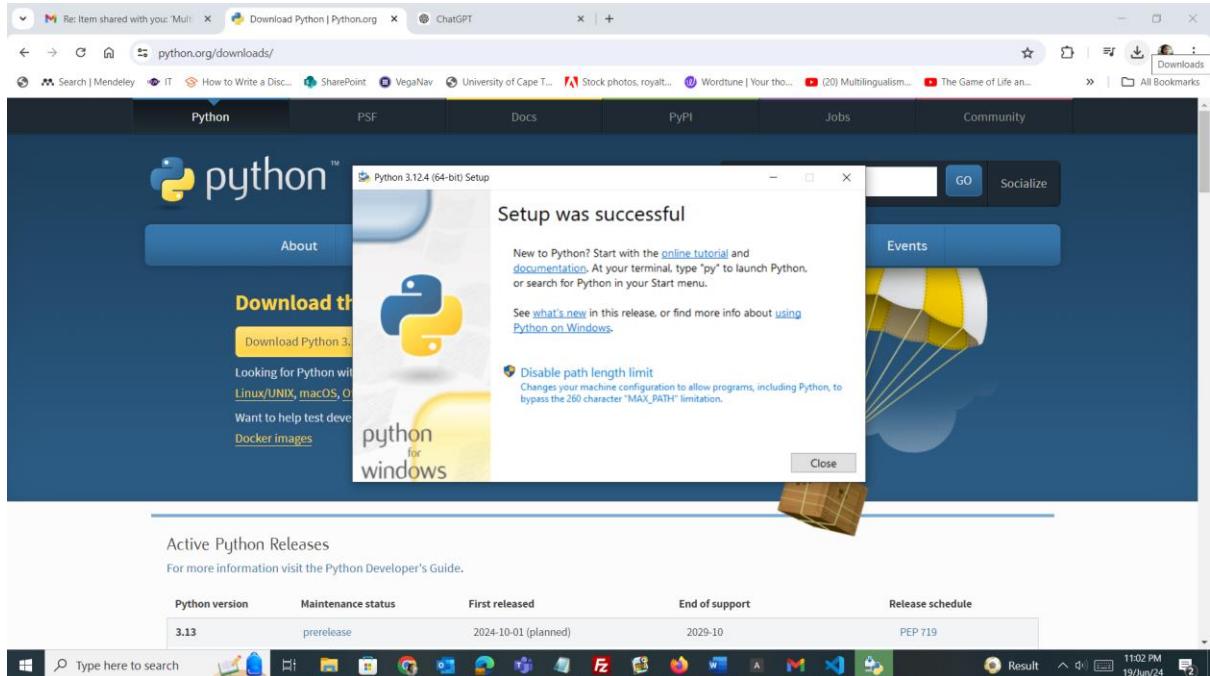
Make sure to Select “Add Python exe to Path”.



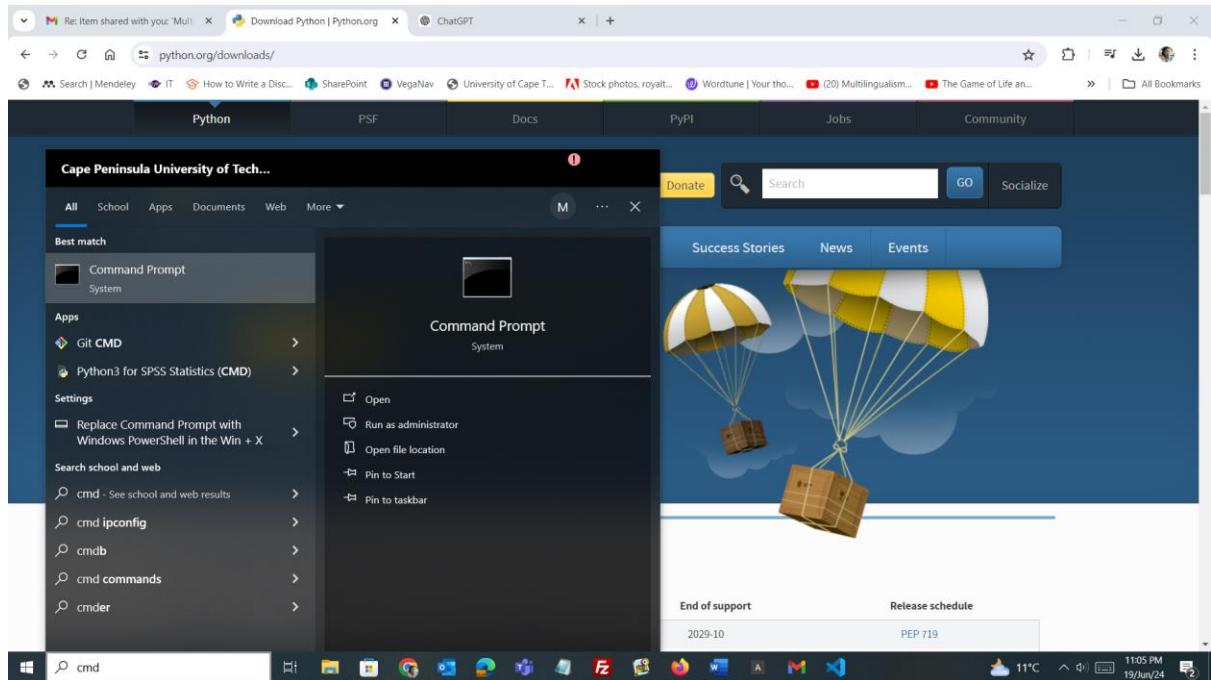
Installing Python.



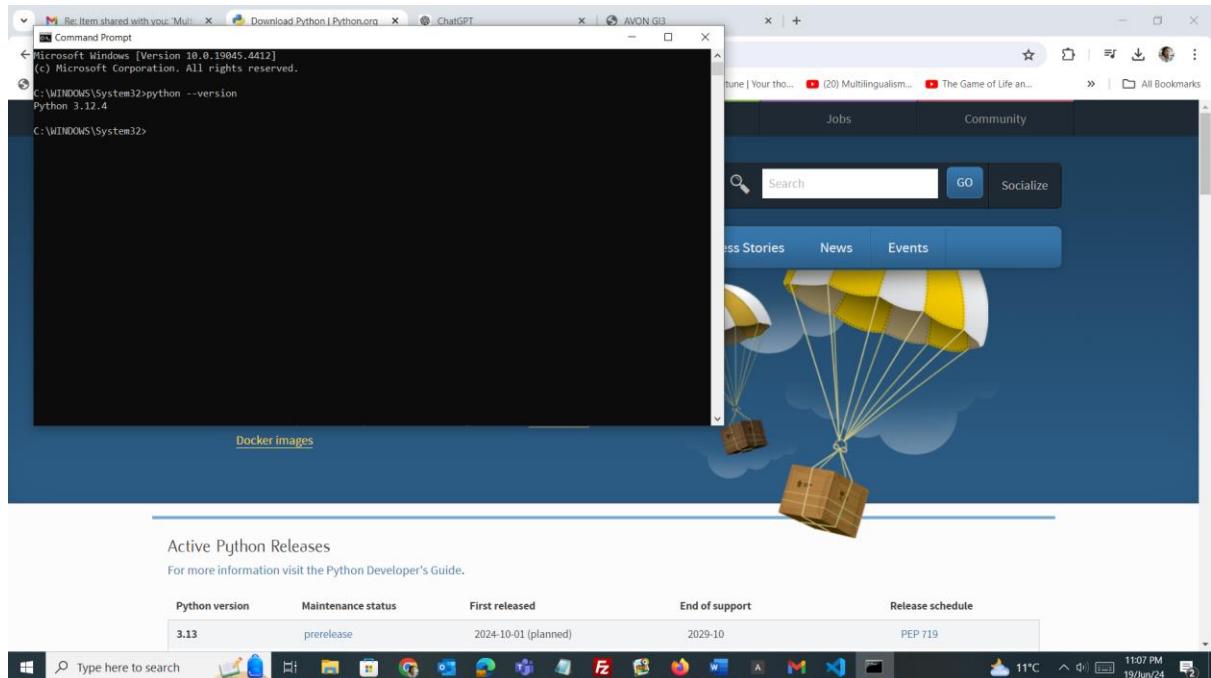
Successful set up message.



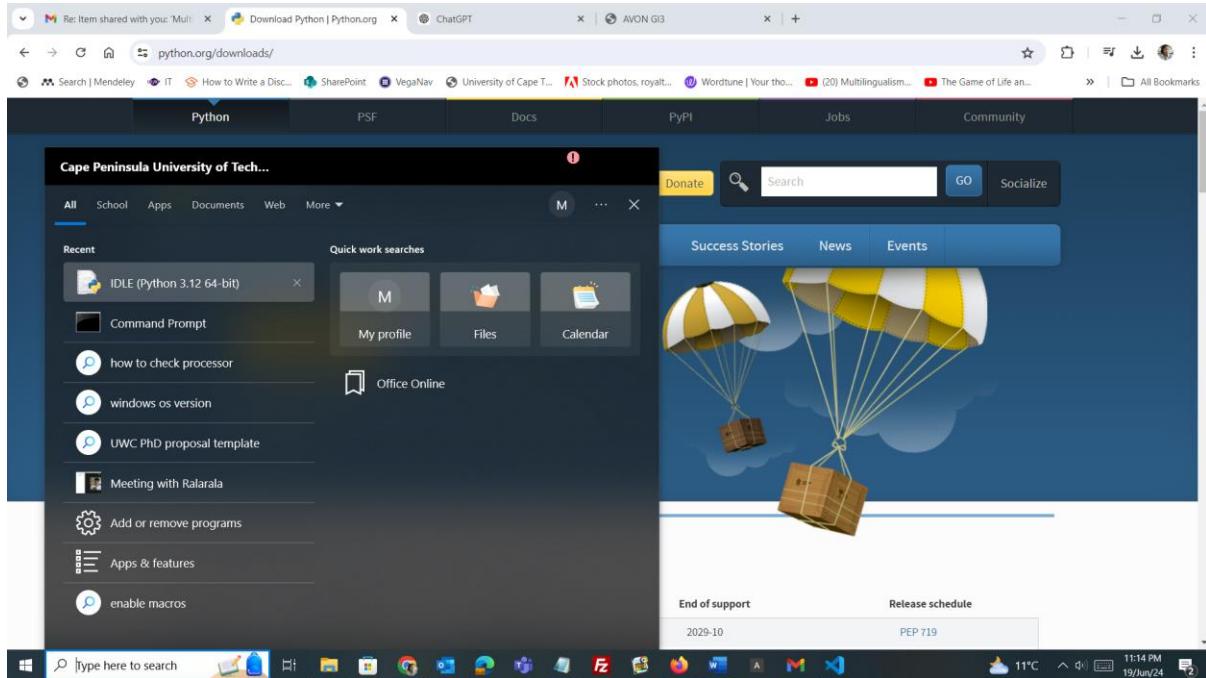
Go to console: type “cmd”.



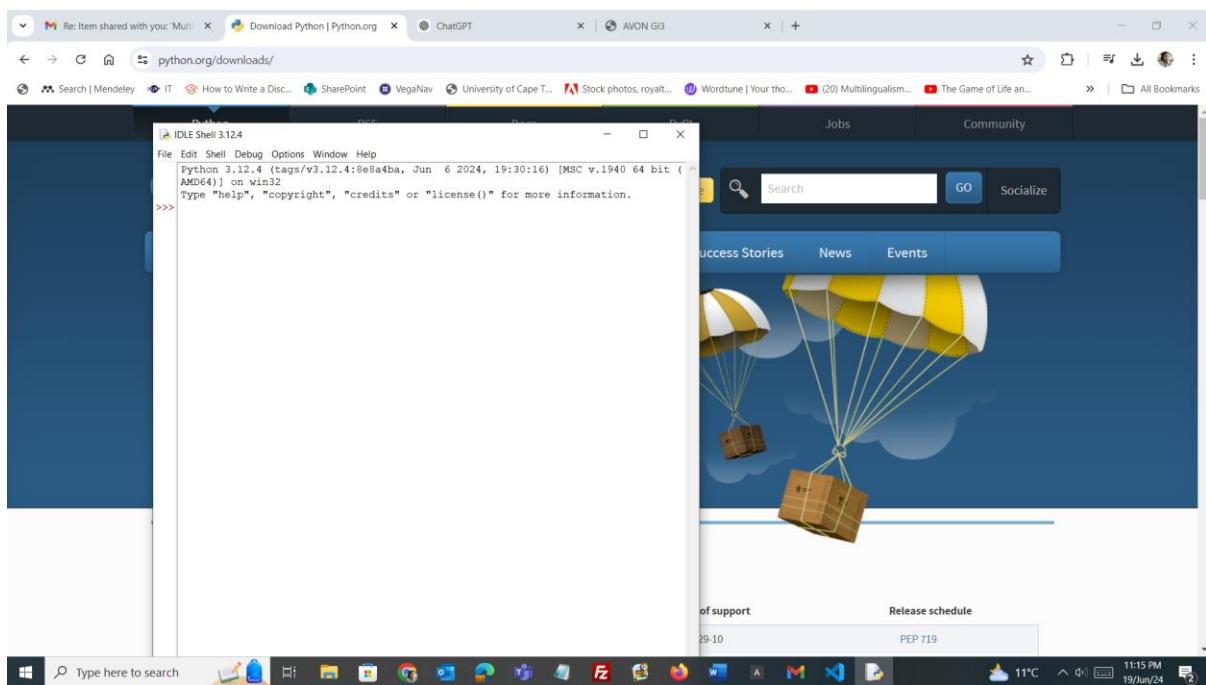
Verify the successful installation of Python.



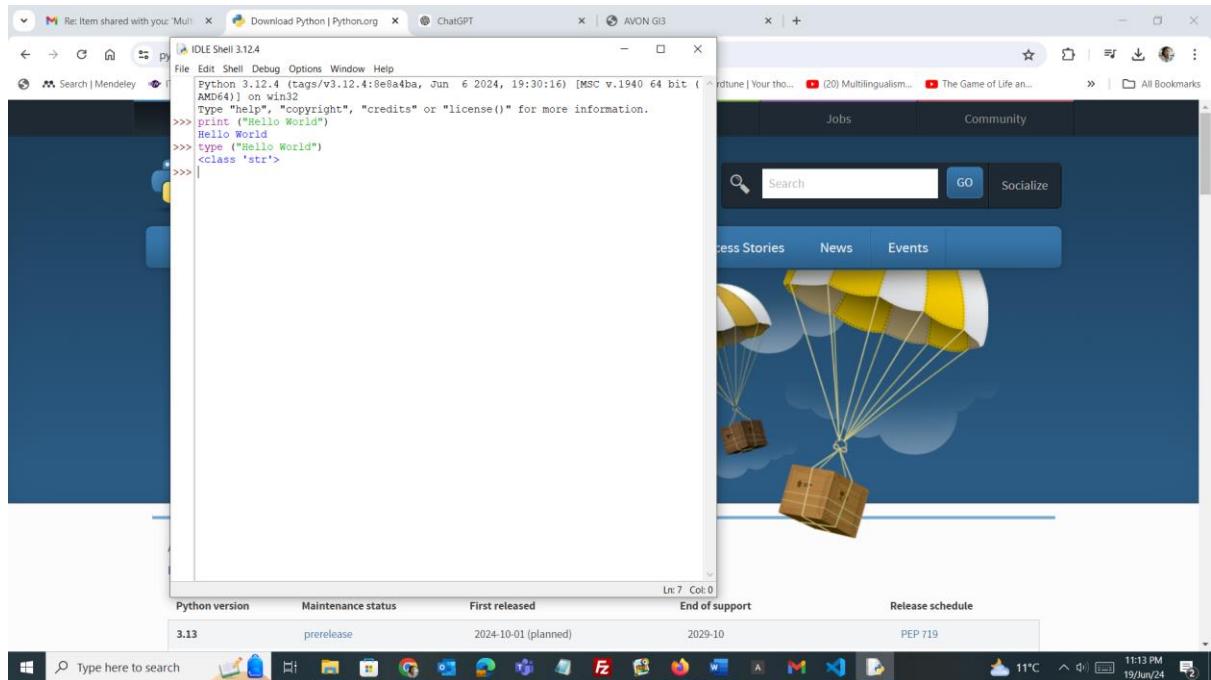
Open the IDLE Python



Start writing your code.



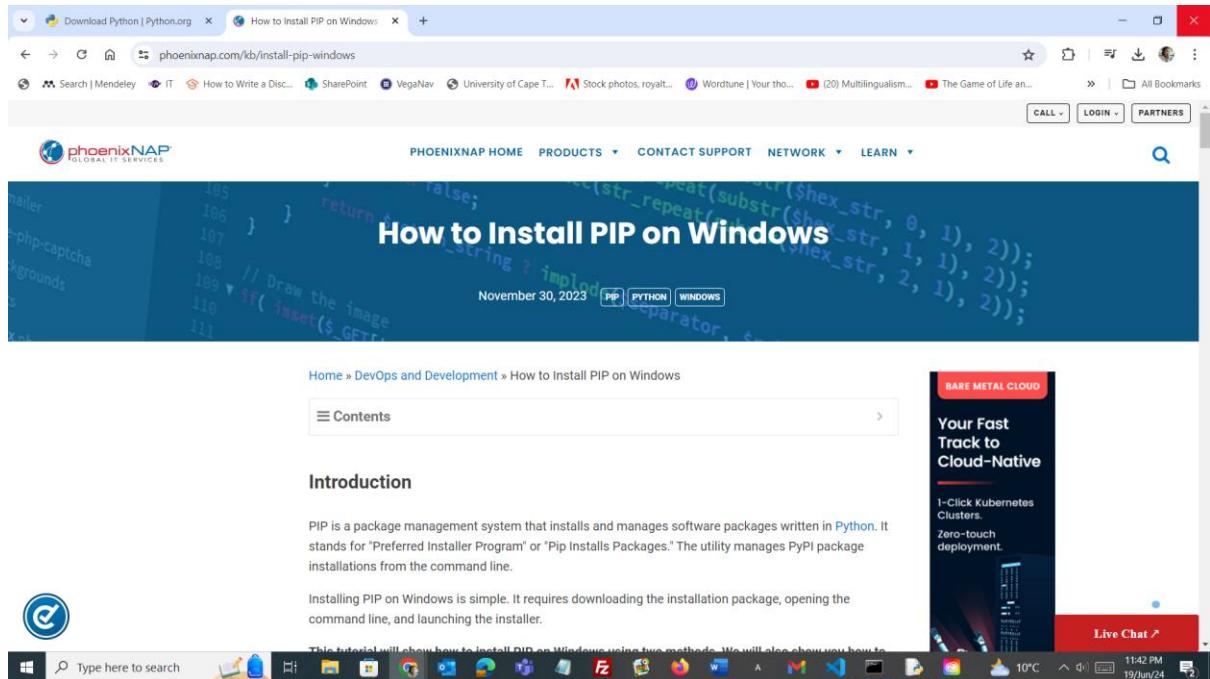
Test code “Hello World”.



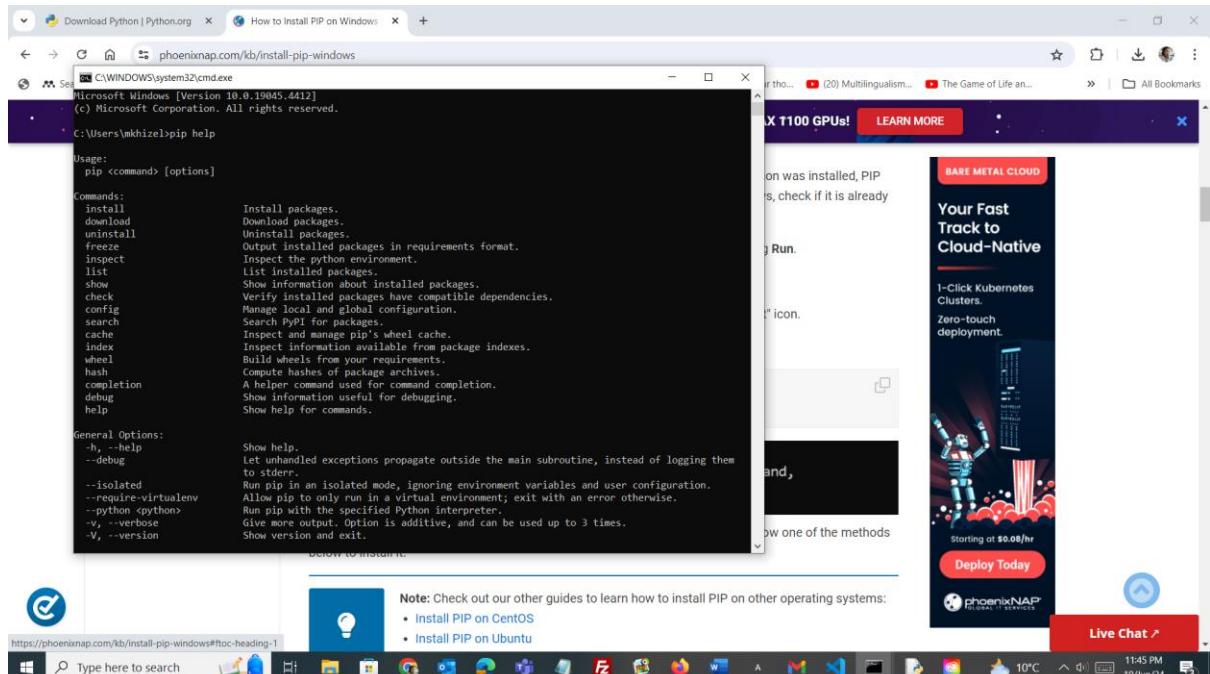
End.

5. Installing Package Managers: like pip (Python)

Go to: <https://phoenixnap.com/kb/install-pip-windows>



Install Pip.



Verify Pip installation.

A screenshot of the Visual Studio Code interface. The terminal tab is active, displaying the following command and its output:

```
$ python get-pip.py
c:\users\mkhizel\appdata\local\programs\python\python312\python.exe: can't open file 'c:\users\mkhizel\github-classroom\Powerlearnproject\se-assignment-1-setting-up-your-developer-environment-mkhizelinda\get-pip.py': [Errno 2] No such file or directory
```

The status bar at the bottom shows the path: MINGW64 ~/github-classroom/Powerlearnproject/se-assignment-1-setting-up-your-developer-environment-mkhizelinda (main)

End.

6. Configuring a Database (MySQL)

Download and install MySQL database.

Go to: <https://dev.mysql.com/downloads/windows/installer/>

A screenshot of a web browser window showing the MySQL Community Downloads page. The URL is <https://dev.mysql.com/downloads/windows/installer/>. The page displays options for downloading MySQL Installer 8.0.37 for Windows (x86, 32-bit). The 'General Availability (GA) Releases' tab is selected, and the 'Archives' tab is visible. The 'MySQL Installer 8.0.37' section includes a note about MySQL 8.0 being the final series, a dropdown for selecting the version (set to 8.0.37), a dropdown for selecting the operating system (set to Microsoft Windows), and two download links for MSI installers: one for Windows (x86, 32-bit) and one for Windows (x86, 32-bit), both with file sizes of 8.0.37 and 2.1M respectively. A note at the bottom suggests using MD5 checksums and GnuPG signatures for package verification.

Start Download

Login Now or Sign Up for a free account.

An Oracle Web Account provides you with the following advantages:

- Fast access to MySQL software downloads
- Download technical White Papers and Presentations
- Post messages in the MySQL Discussion Forums
- Report and track bugs in the MySQL bug system

MySQL.com is using Oracle SSO for authentication. If you already have an Oracle Web account, click the Login link. Otherwise, you can signup for a free account by clicking the Sign Up link and following the instructions.

No thanks, just start my download.

Start Installation

Please select the Setup Type that suits your use case.

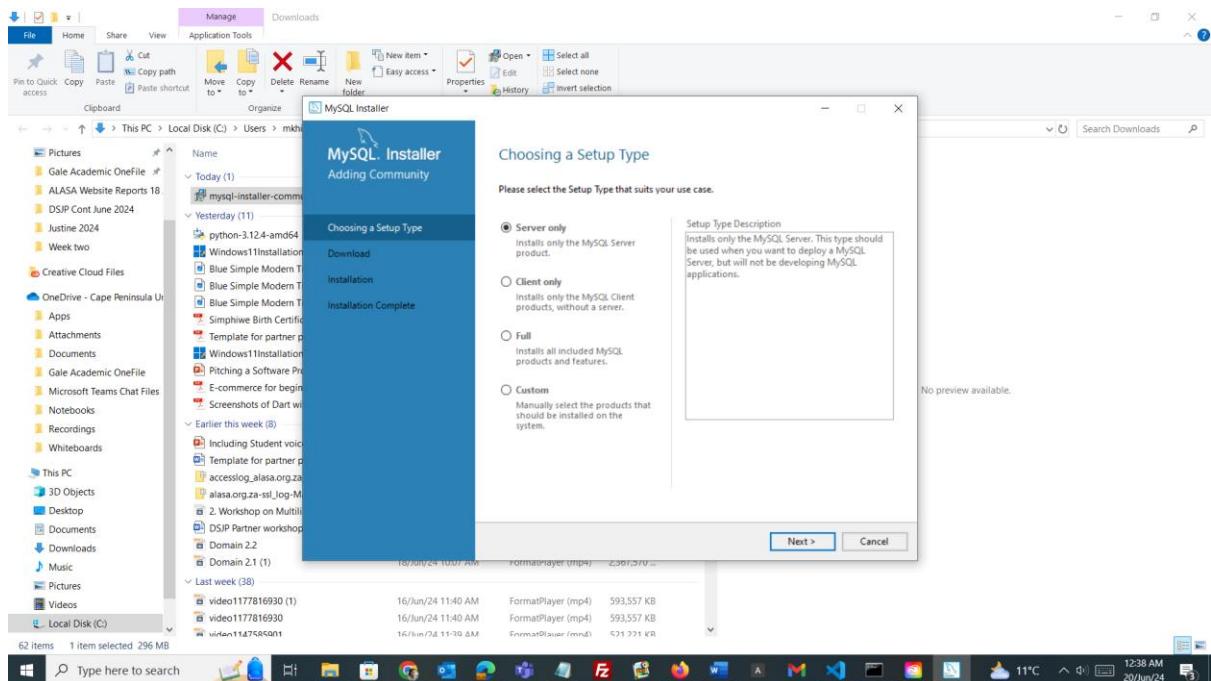
Server only
Installs only the MySQL Server product.

Client only
Installs only the MySQL Client products, without a server.

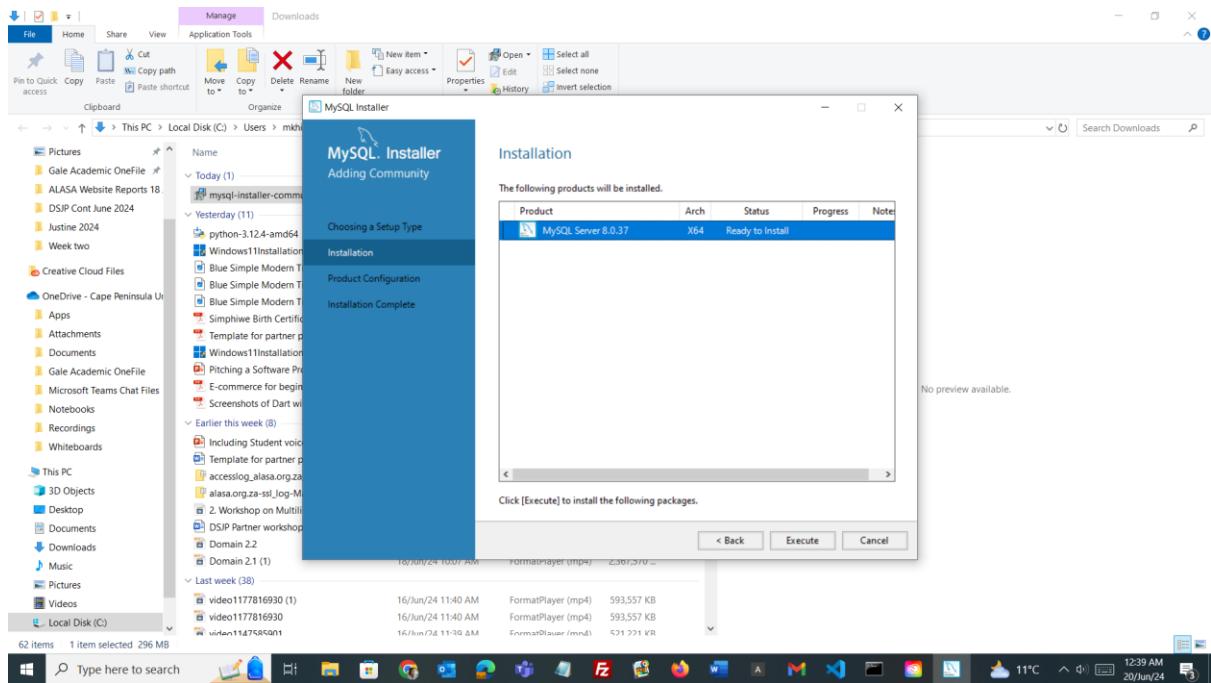
Full
Installs all included MySQL products and features.

Custom
Manually select the products that should be installed on the system.

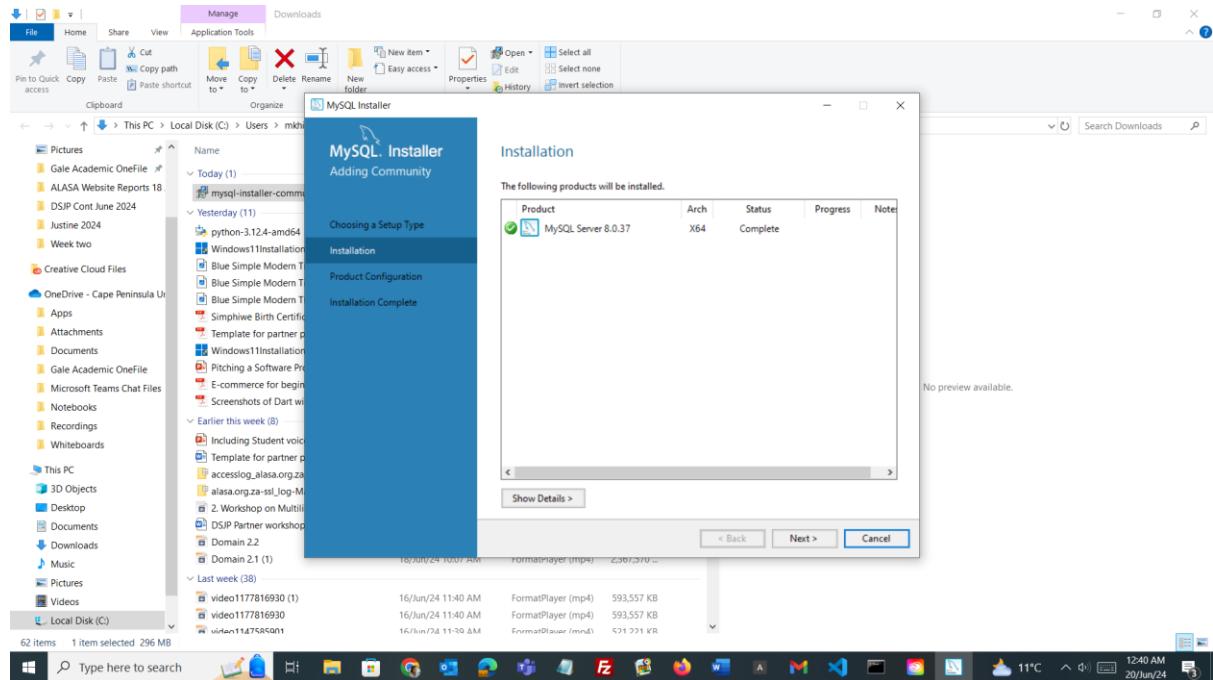
Choose Server only.



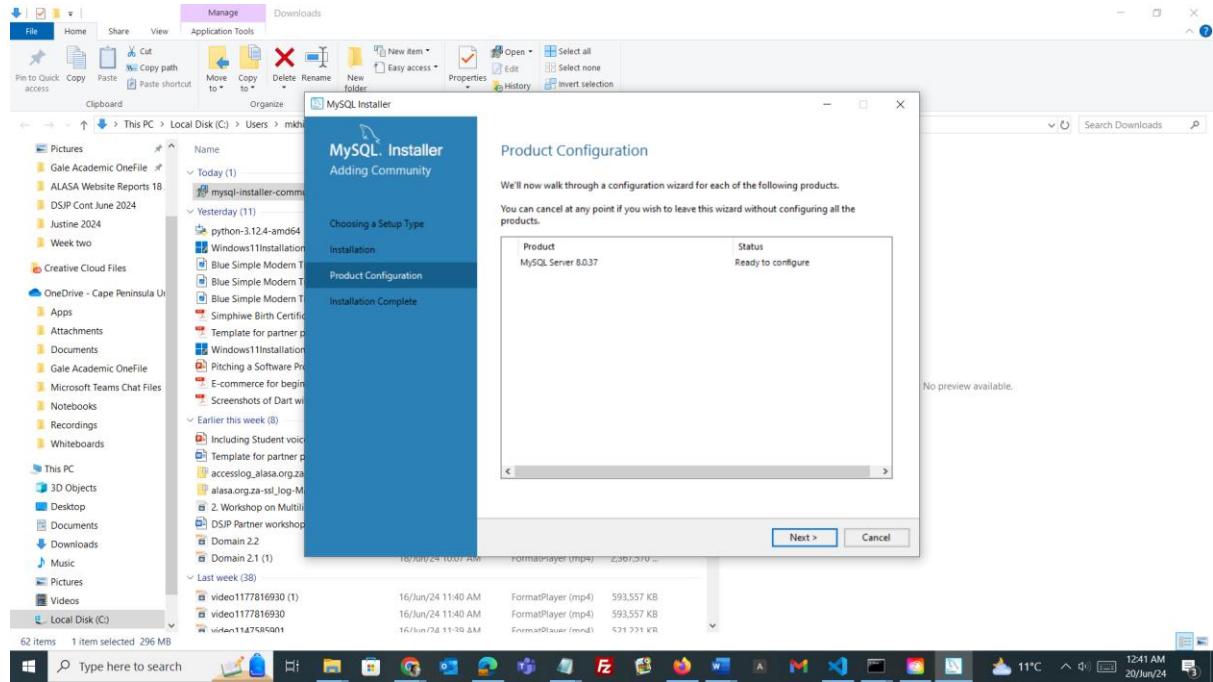
Choose the latest version.



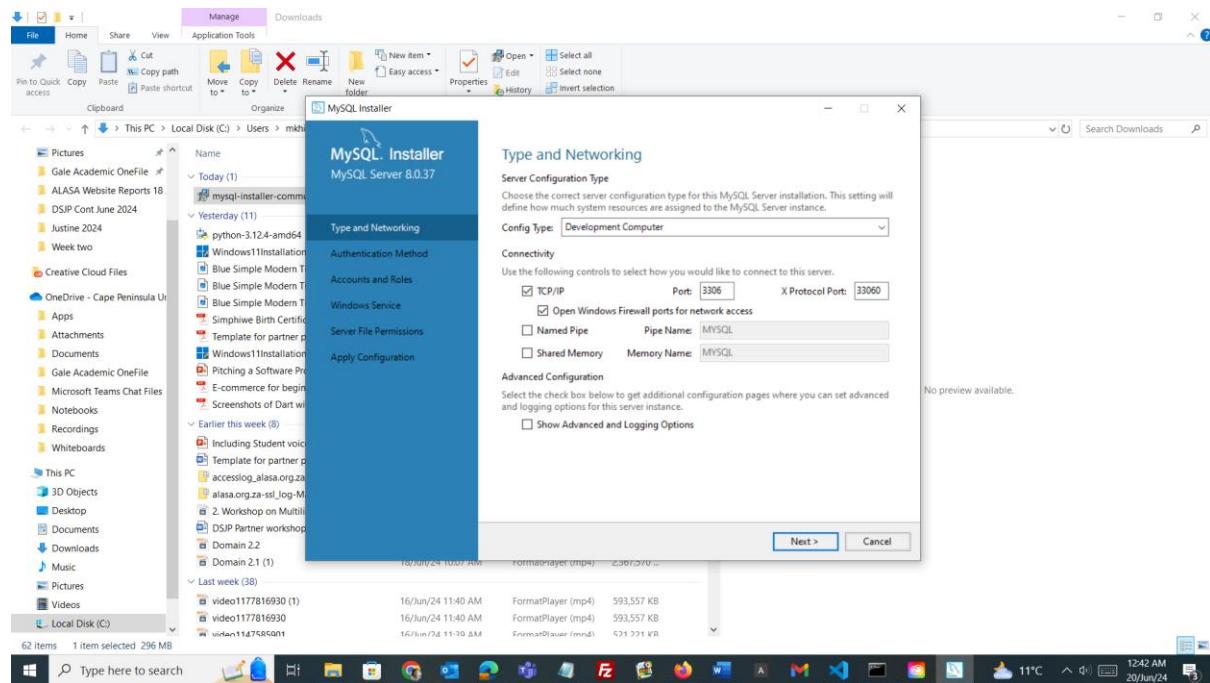
Execute



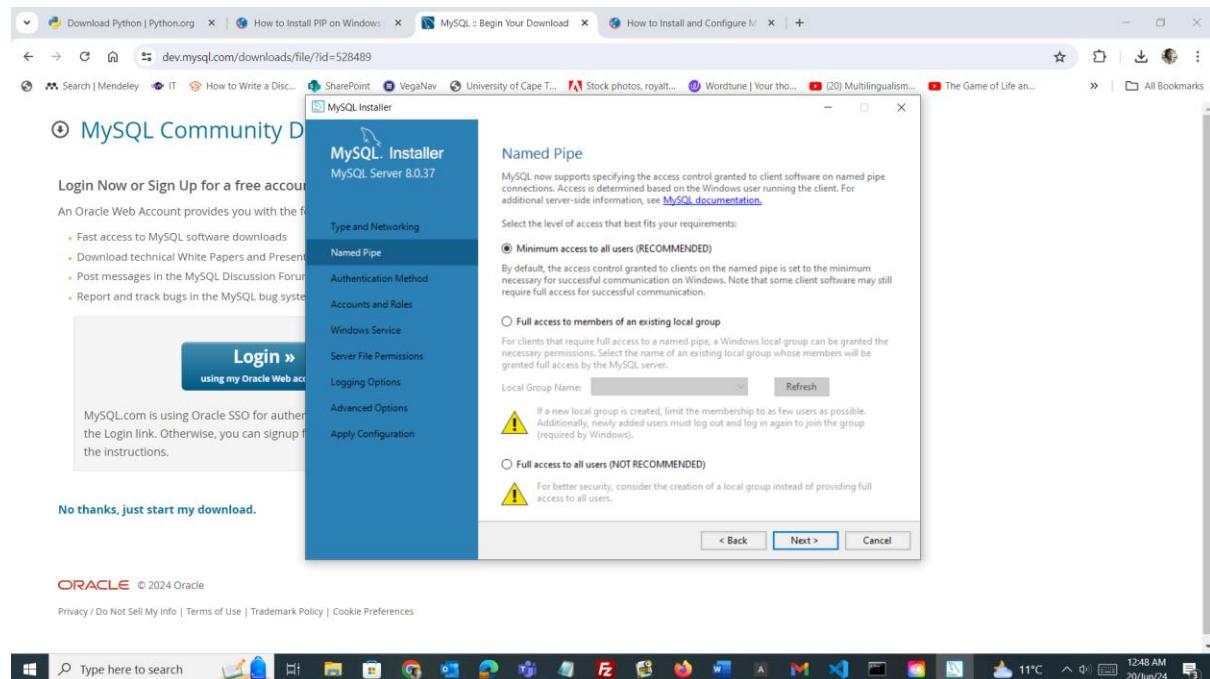
Configuration



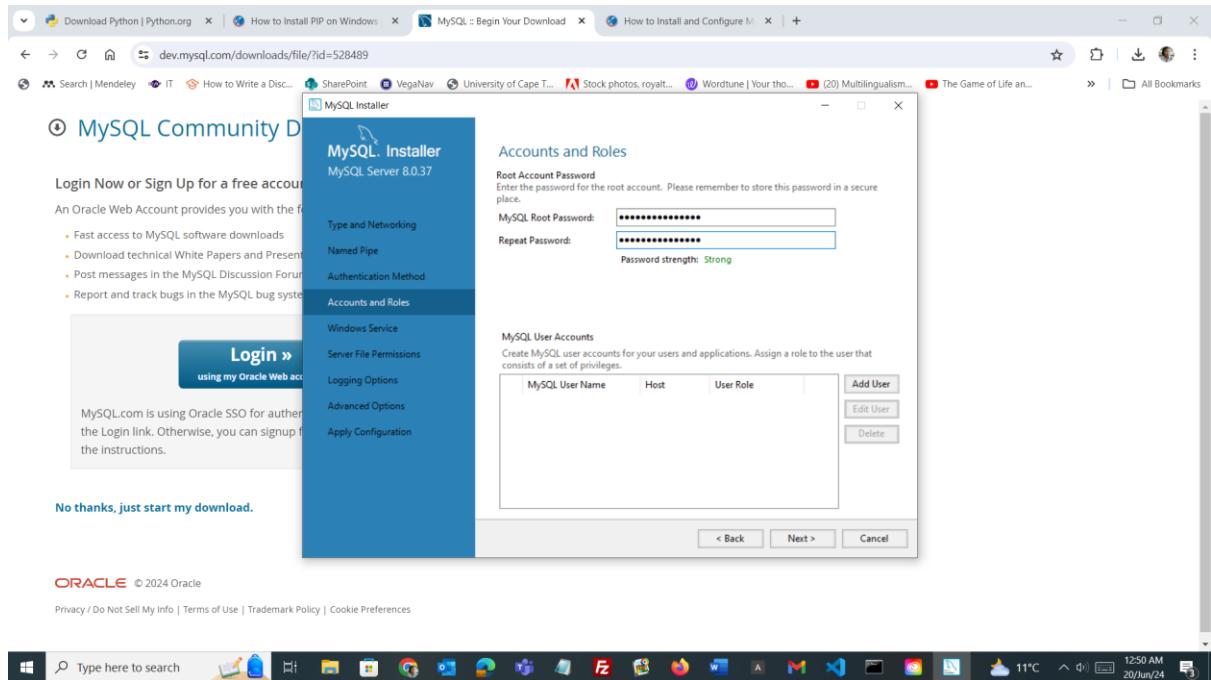
Configure your network.



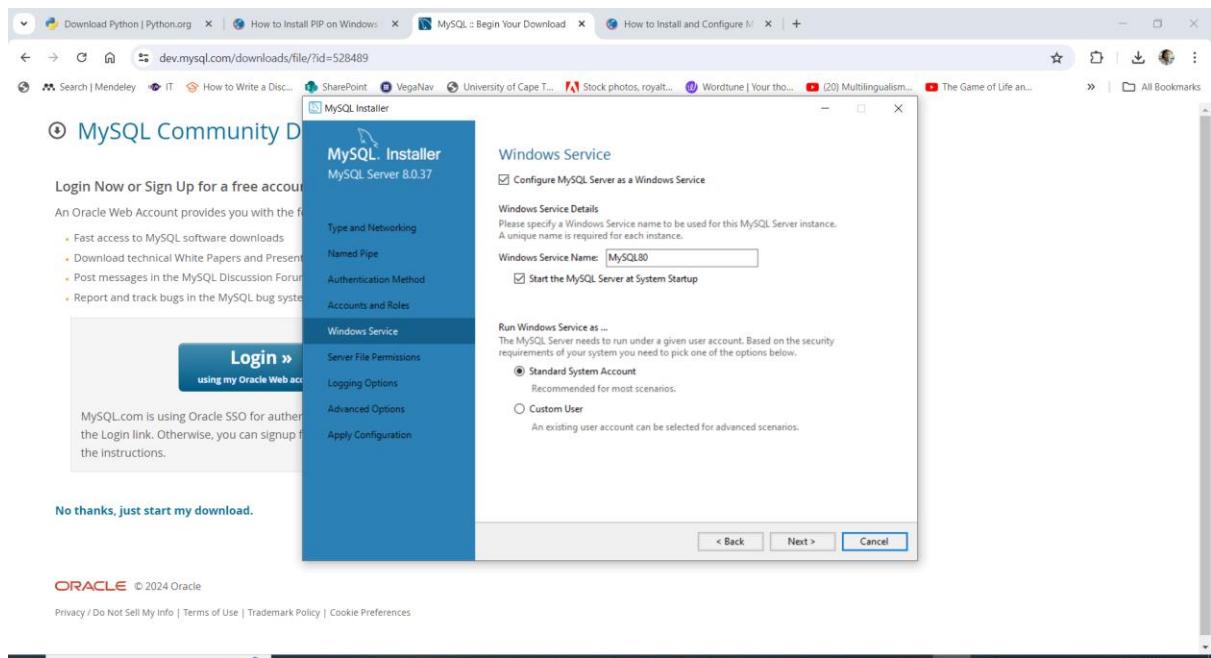
Authenticate the use of your server



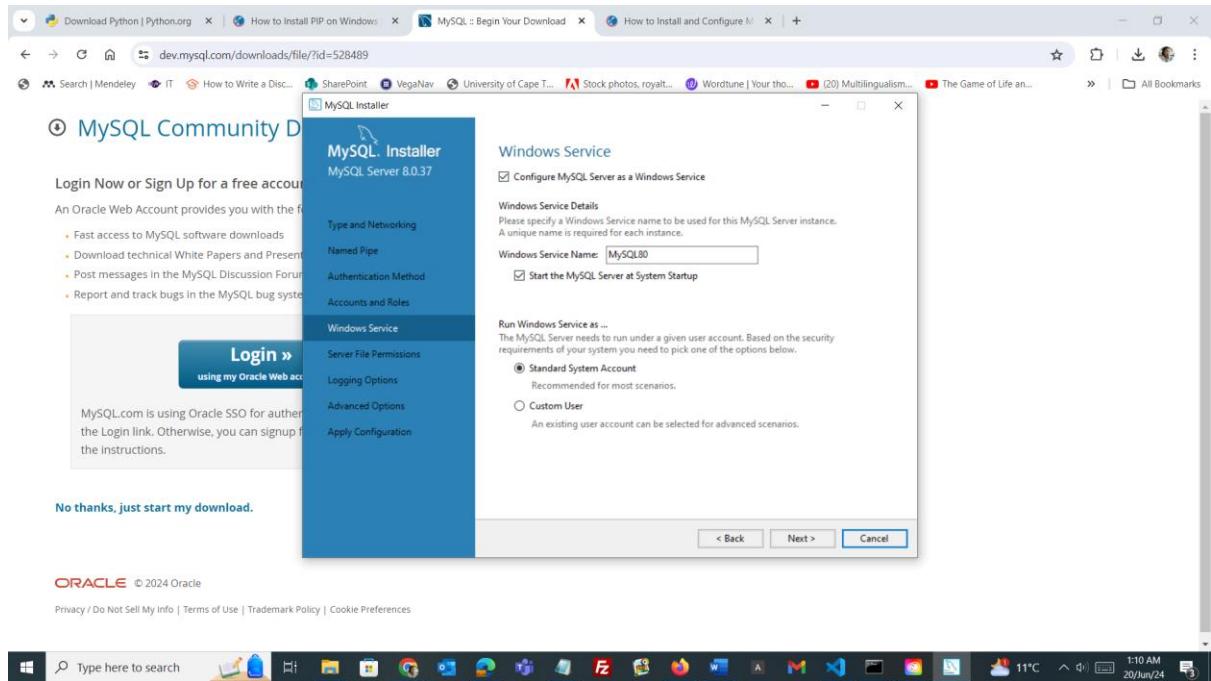
Create a strong password



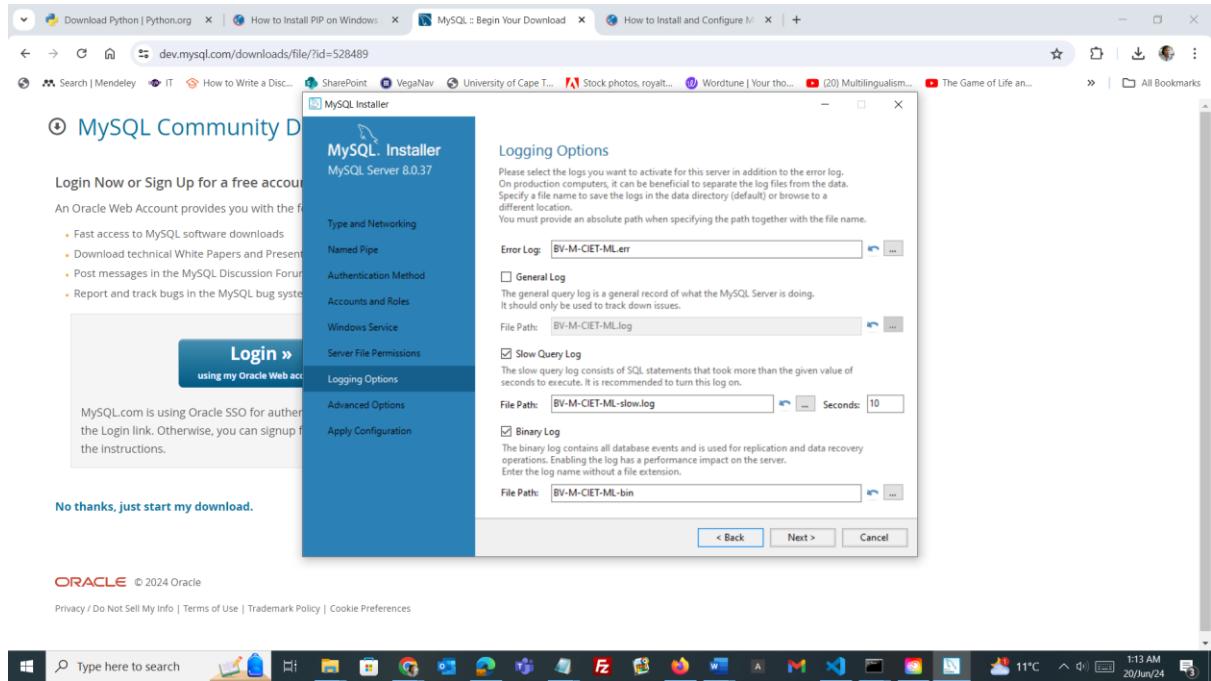
Password set successfully.



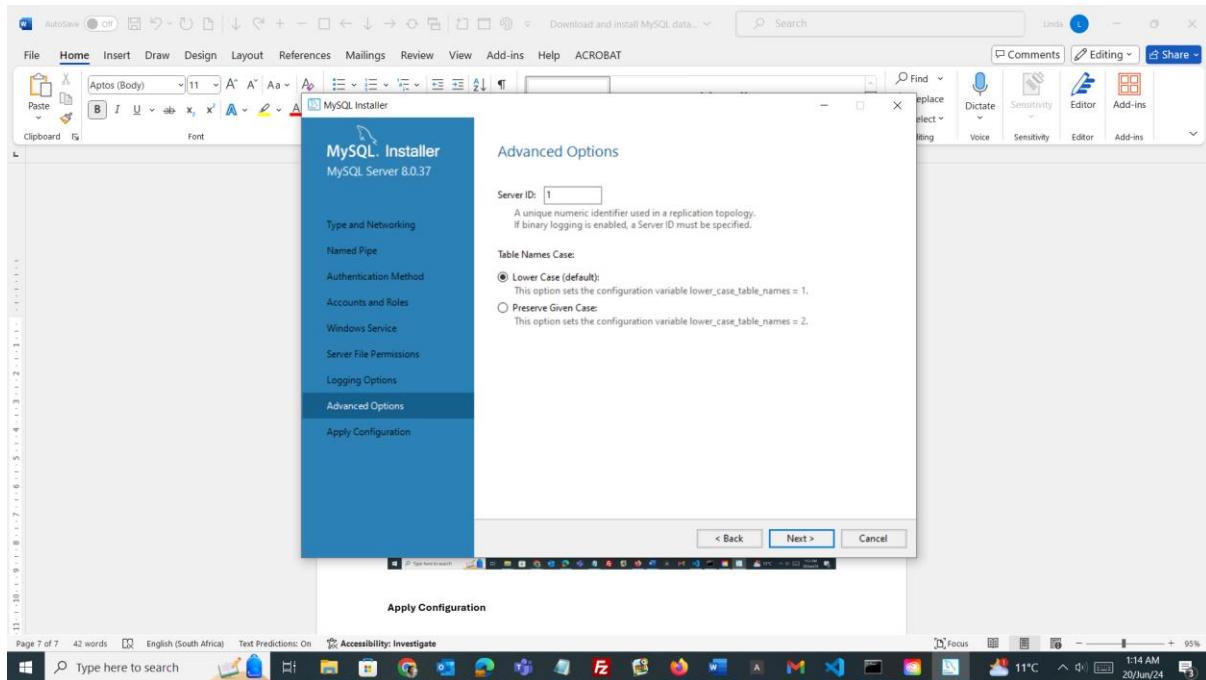
Start MySQL Server at system startup.



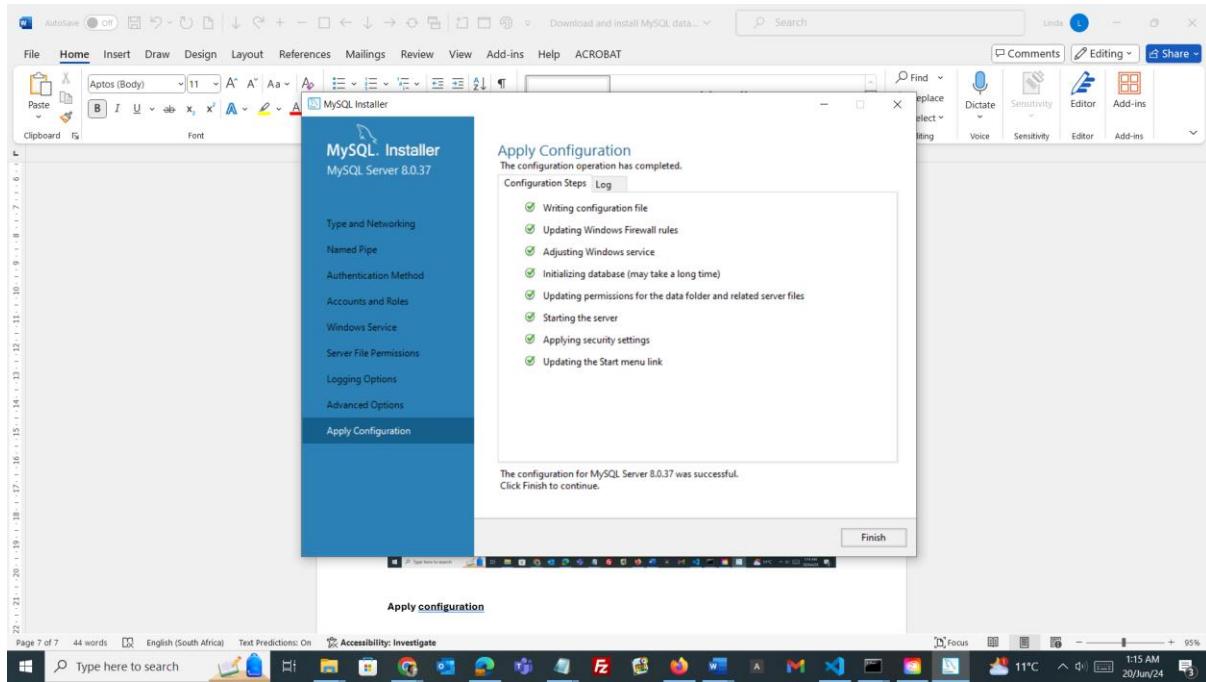
System startup continued.



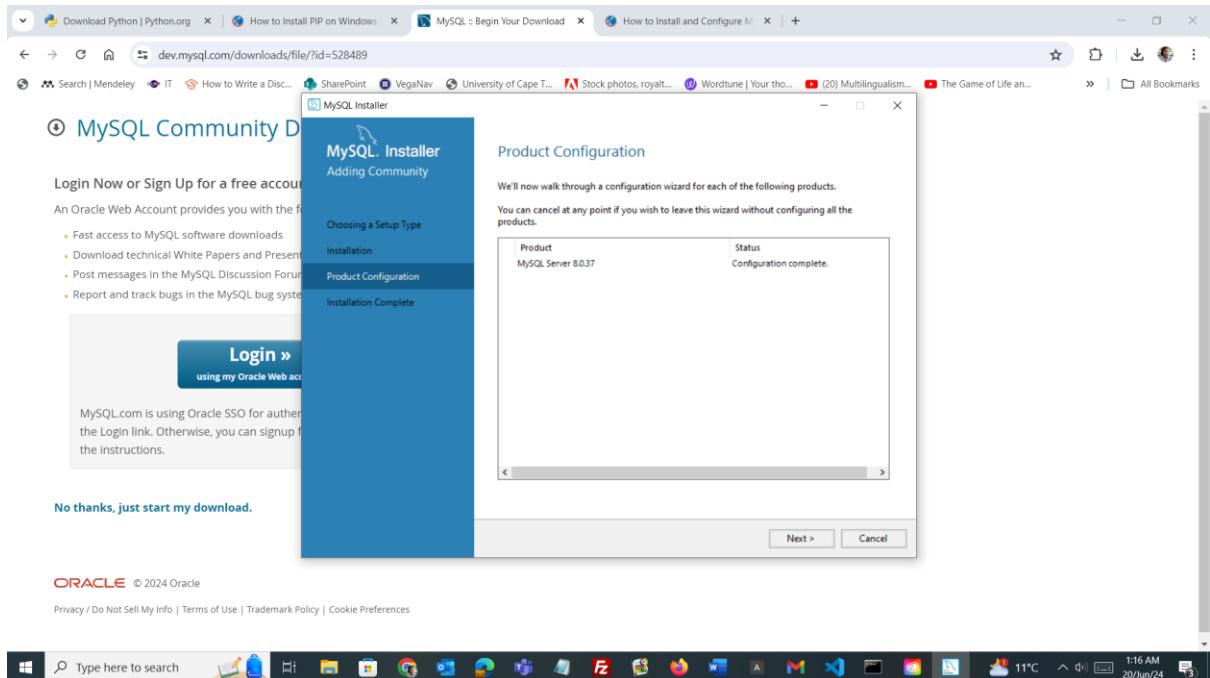
Apply Configuration



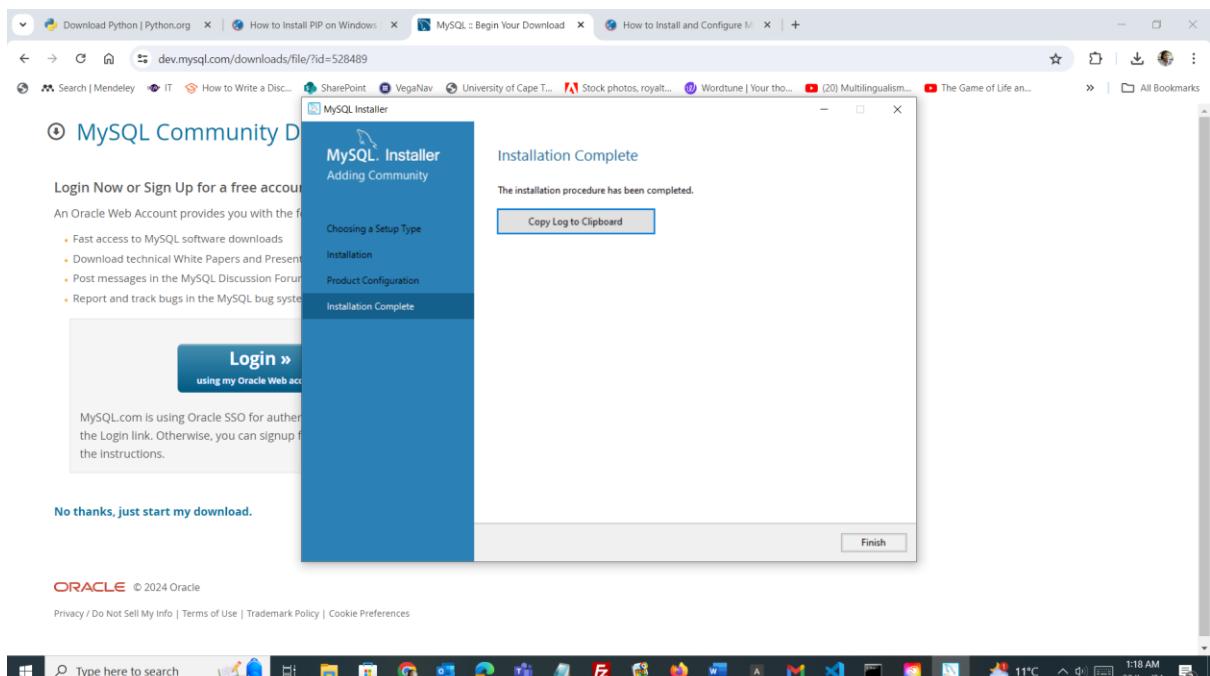
Apply configuration.



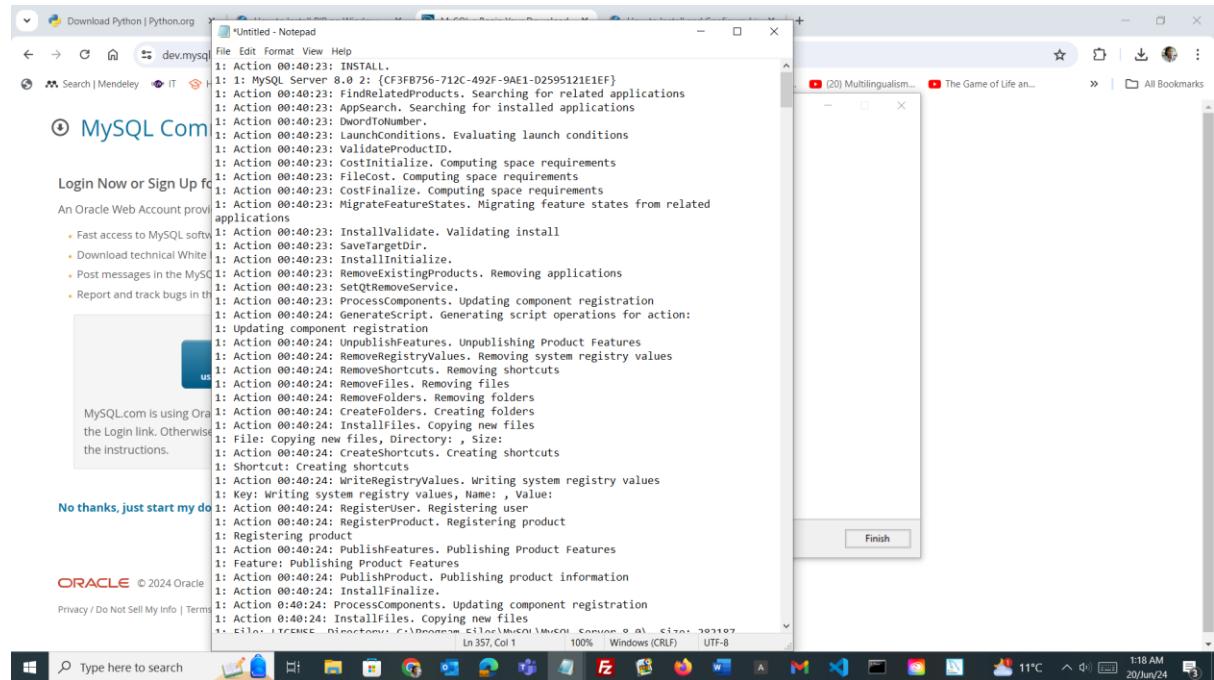
Configuration Complete



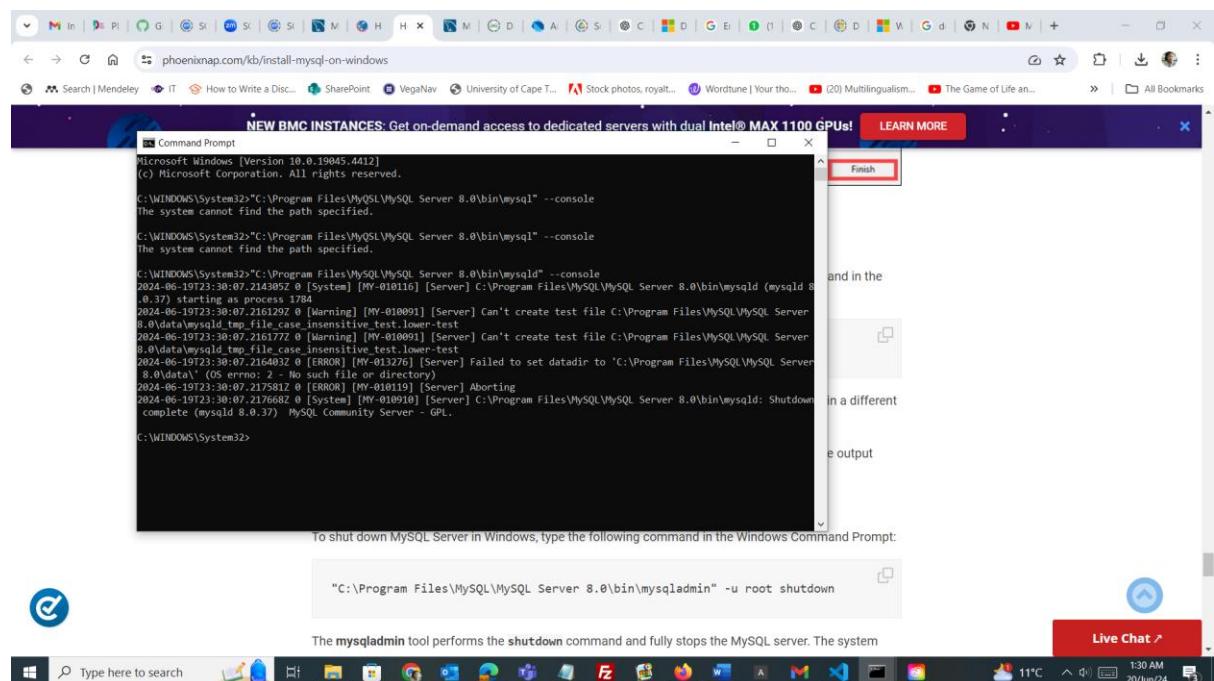
Copy installation log



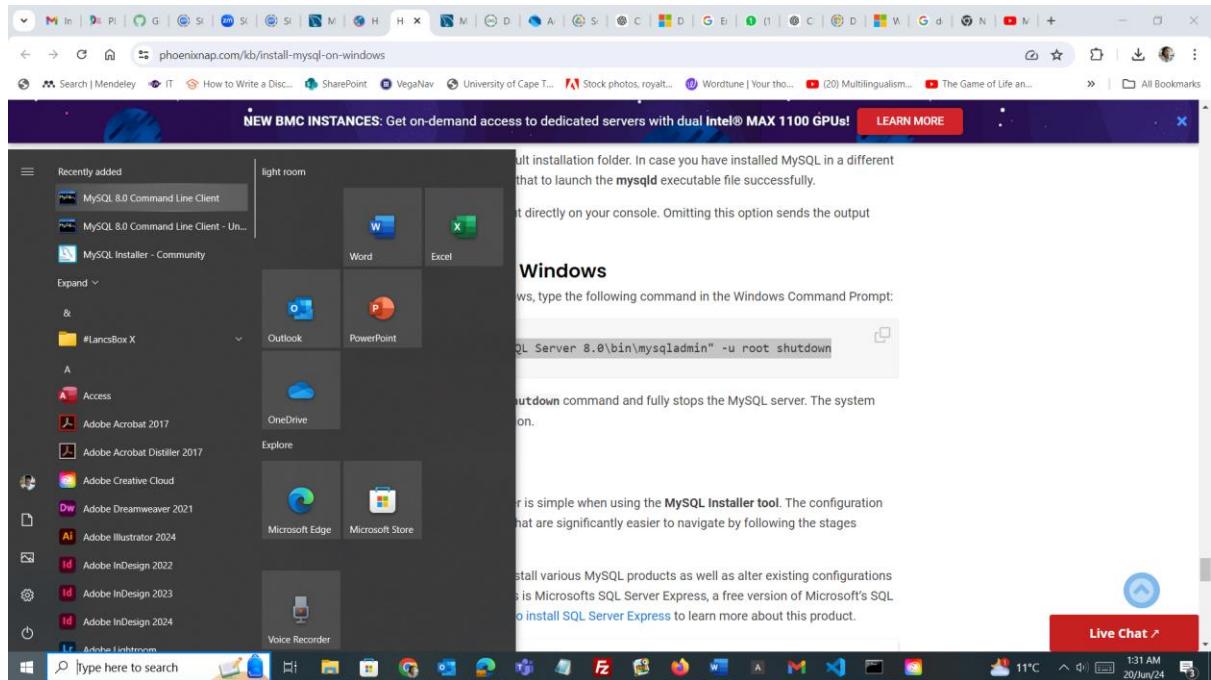
Copied Log of the Installation



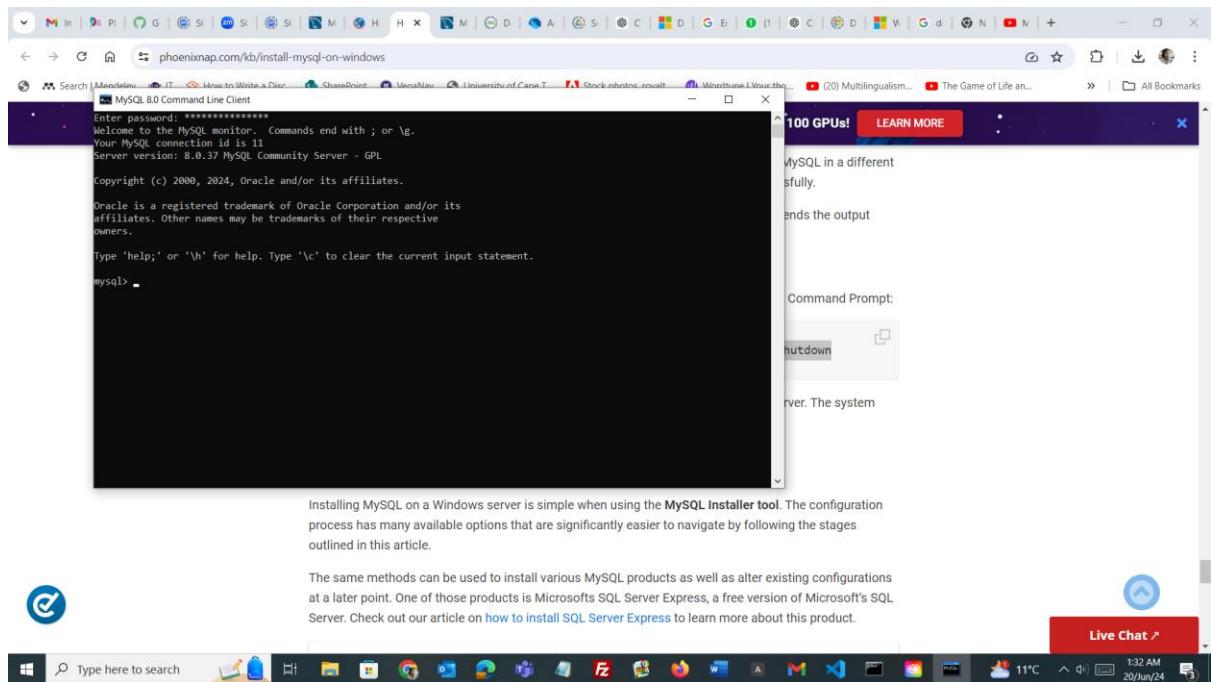
Installation Complete



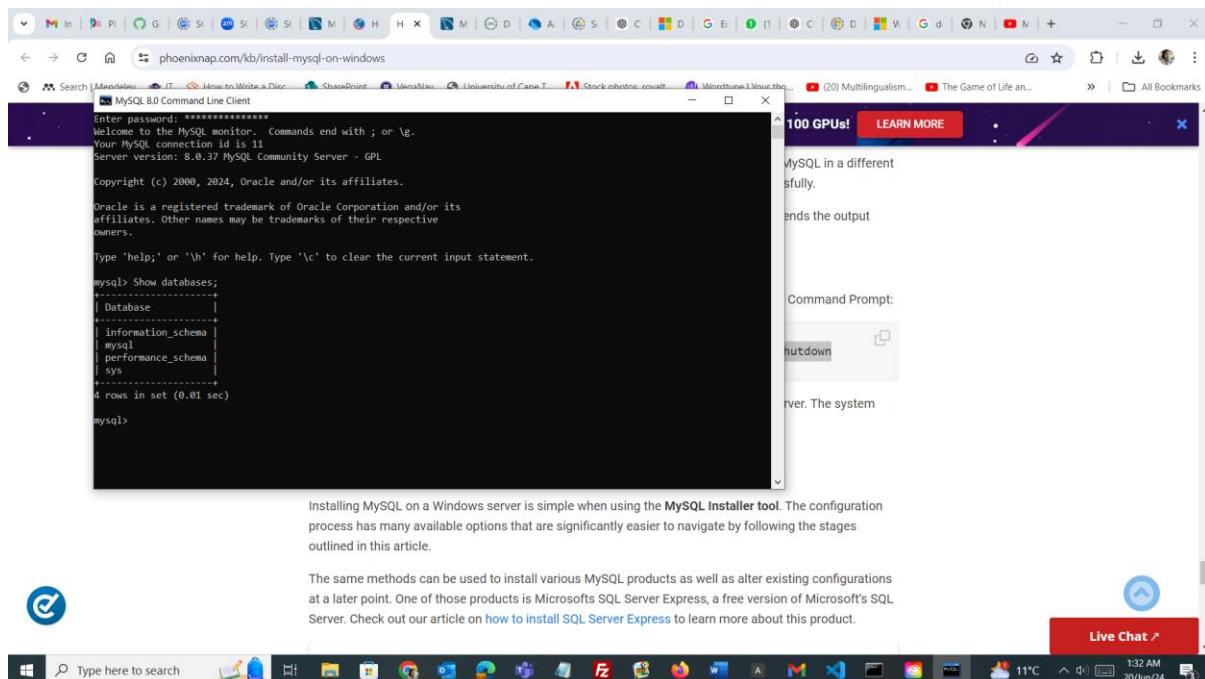
Run MySQL



Test MySQL connecting to the server



Check for existing database(s)



End.

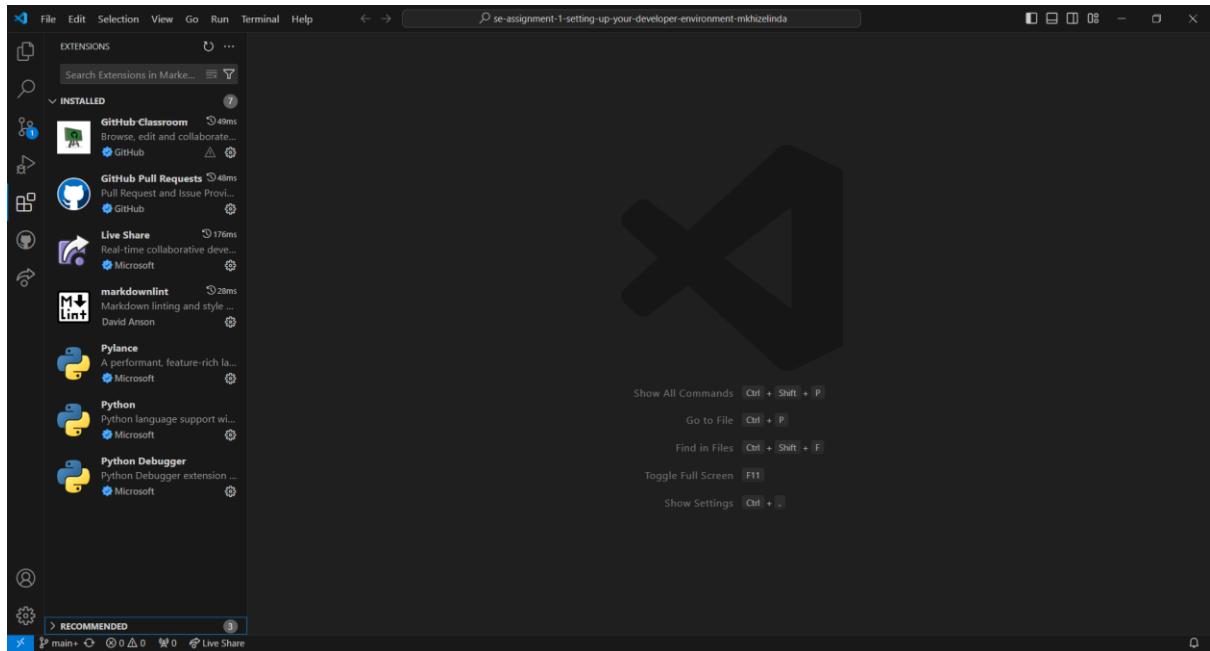
7. Set Up Development Environments and Virtualization (Optional): Docker

I did not get a chance to set up this option, however I will try it at a later stage or when I need it.

8. Extensions and Plugins:

I have installed the following extensions on Visual Studio Code

- GitHub Classroom
- GitHub Pull Requests
- Markdownlint
- Python



9. Document Your Setup: Reflection

Most of the installations were relatively easy. The challenge was relating everything together especially using GitHub and VS Code together to submit the assignment. I still need a lot of practice and catching up to solidify my knowledge. I am intentionally working on it.