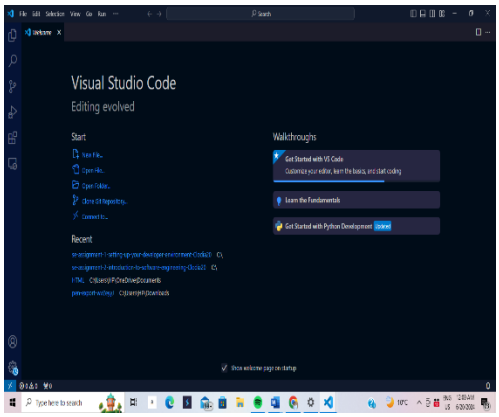
Development Environment Setup on Windows (step by step guide)

TABLE OF CONTENT

1. Downloading and installing Windows 11
   - Step 1: Firstly, check if your device qualifies for the upgrade by going to settings then update and security on your device settings and check if the upgrade is available under windows updates.
   - Step 2: If it is available, click the download and install button and agree to terms of use with the accept and install button
   - Step 3: Wait for it to complete downloading, do not close your PC during this process to avoid complications
   - Step 4: Then restart your PC and you will be taken to the windows 11 desktop

2. INSTALLING AND SETTINNG VISUAL STUDIO CODE

   - Step1: Visit the official website HERE and press '"download for windows" button
   - Step 2: When the download is complete ,open the download folder and you will find a Visual Studio code icon
   - Step 3: Click the installer icon for the installation process to begin
   - Step 4: Accept the agreement and click the "next" button
   - Step 5: Choose the location data to run the Visual Studio Code and add any additional task of your preference such as desktop icon for better navigation then press "next"
   - Step 6: Then click the "install" button
   - Step 7: After the installation tick the "launch Visual Studio Code" checkbox and then press finish.
   - Step 8: After completing all the steps the Visual Studio Code window that looks like this below will open.



3. INSTALLING, CONFIGURING AND LINKING GIT AND GITHUB
   - Git

   - Step 1: Download the latest version of Git and choose the 64 /32-bit version depending on your system

- Step 2: Once the installation process is complete launch the Git Bash and click “finish”
- Step 3: Check the Git version by entering this command “$git -v”
- Step 4: Make a local directory using these two commands “$ mkdir test “and “ $ cd test” where “test” represents the name of the directory
- Step 5: initiate the directory using the “$ git init” command
- Step 6: create an empty called demo.py using touch demo.py and use vim editor to make changes into your file
- Step 7: Type this command “$ git status” on the git interface to check the status
- Step 8: Commit using “$ git commit -m (enter the name of your cd)” command

➢ Git bash

- Step 1: Navigate to the official Git hub site and create an account
- Step 2: Link the Git to your Git hub account by entering this command “$ git config --global user.name” where user.name is your Git hub username
- Step 3: Create a new repository and copy the link of the repository
- Step 4: Go back to Git-bash and link the repository using this command “$ git remote add origin <link>”
- Step 5: Push the local file to the repository using ‘$ git push origin master” command and then check if the local file has been successfully pushed.

4. INSTALLING AND SETTING UP PYTHON AND PIP

- Step 1: visit the official page for python and select the latest version
- Step 2: Select the correct link for your device and proceed to download
- Step 3: After successfully downloading the installer open the “.exe file” and choose to install launchers for all users
- Step 4: Click install now and you will see a successful message after completing the setup.
- Step 5: Open CMD(command prompt) and check the version of python , if it appears then it means you can access it without any complications and if it does not appear then add its path on in Environmental variables
- Step 6: Open cmd and type “python -m ensurepip -upgrade “ to install or upgrade pip
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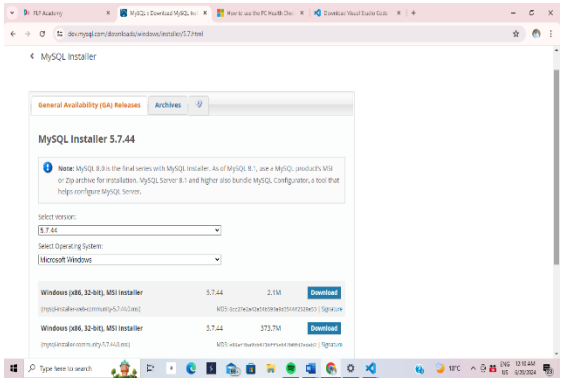
5. INSTALLING AND CONFIGURING MY SQL

- Step 1: Download MySQL using MySQL installer HERE



- Step 2: Choose mysql-installer -community
- Step 3: Unzip the folder and double click the MSI installer .exe file
- Step 4: Choose “full set up “and click next
- Step 5: Click “execute” and click next after the installation
- Step 6: Select the products that should be configured (in our case it is MySQL server, MySQL Workbench and MySQL shell) and press next on the “Product Configuration “process
- Step 7: on the “Authentication Method” select use strong password encryption, then click next
- Step 8: Set a password that is strong and easy for you to remember on Accounts and Roles
- Step 9: Keep the default setup and click next on the windows service
- Step 10: Click the execute button, then press finish to complete the MySQL package installation
- Step 12: type in the root password that you created to check if the connection to the server is successful.
- Step 13: select your options to apply configuration then click on the “Execute” button and finish. Therefore, your installation is successful.
- Step 14: Open cmd and log in to your account and attempt to create a database after successfully checking your MySQL version, add path to Environment variables if the version did not appear.

6. Extensions, plugins or addons on Visual Studio Code

   To install an extension, click on the extension icon in the activity bar on the side. Then a list of the most popular VS Code extensions will appear; search the one you are looking for if it not listed amongst the one appearing .Then select install and the installation of your extension will proceed. Some extensions may require you to restart your PC after the installation in order to begin operating .Moreover it is well recommended to always opt for the verified and most installed extension for safety purposes.

7. Challenges faced and solutions used

When downloading Python I mistakenly chose an old version and only realized when I checked the Python version on CMD and confirmed it on Gitbash .I then tried to upgrade the installed version to the latest version, however Git could find its path even after updating its path on Environmental Variables .I had to watch some Youtube videos to find a proper solution .

Setting an account on Github using my PC was a bit difficult. I could not pass the “enter captcha” step, it just kept on taking me back repeatedly, I ended up using my smartphone to create the account and logged in using my PC without any issues.