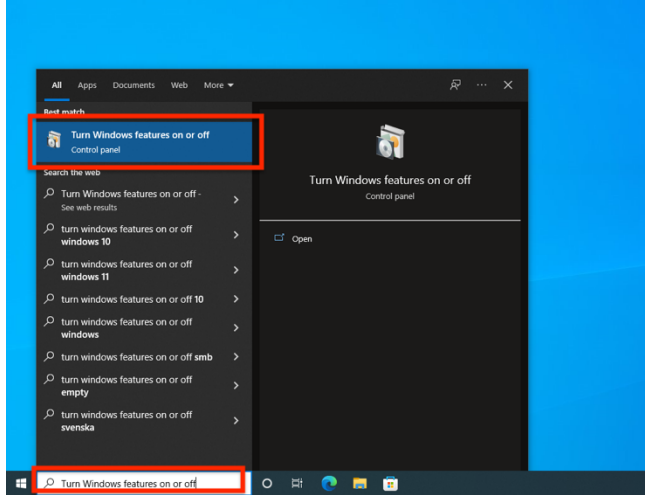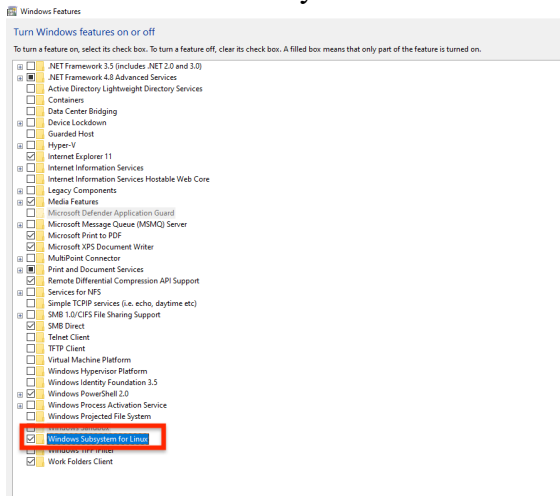**School of Computing and Information Systems**
The University of Melbourne

WSL Installation and Compilation
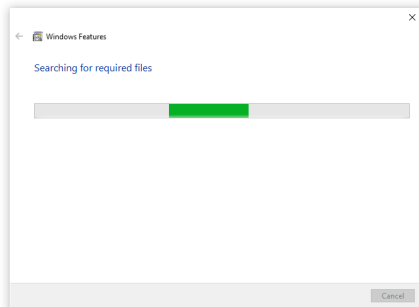# Environment Setup for Windows

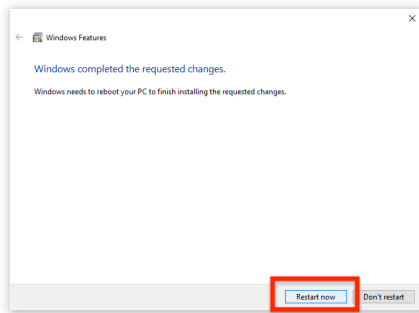1. Search the start menu for "Turn Windows features on or off"

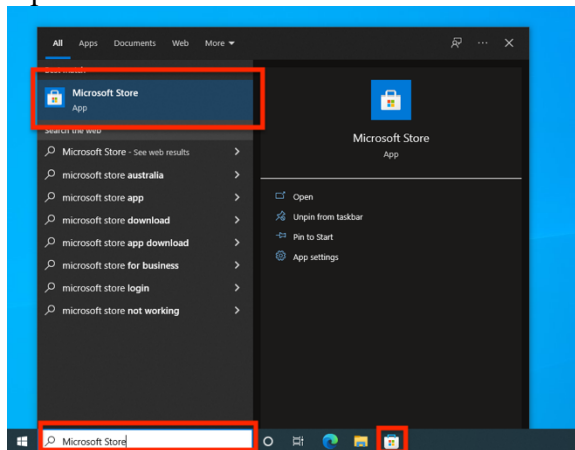2. Select "Windows Subsystem for Linux" and click "OK"
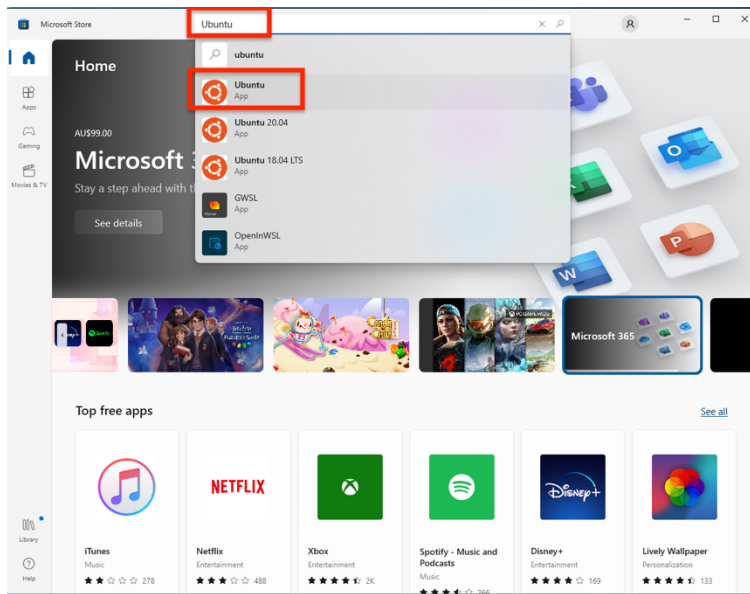

3. Wait for the changes to apply.
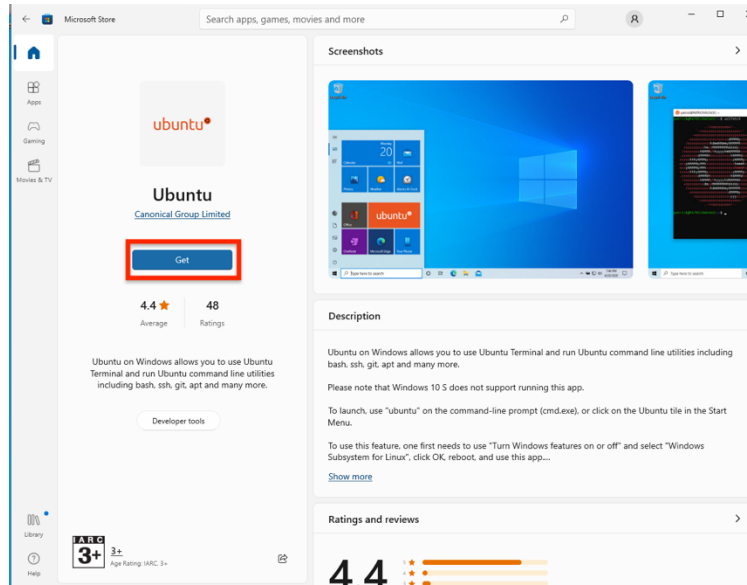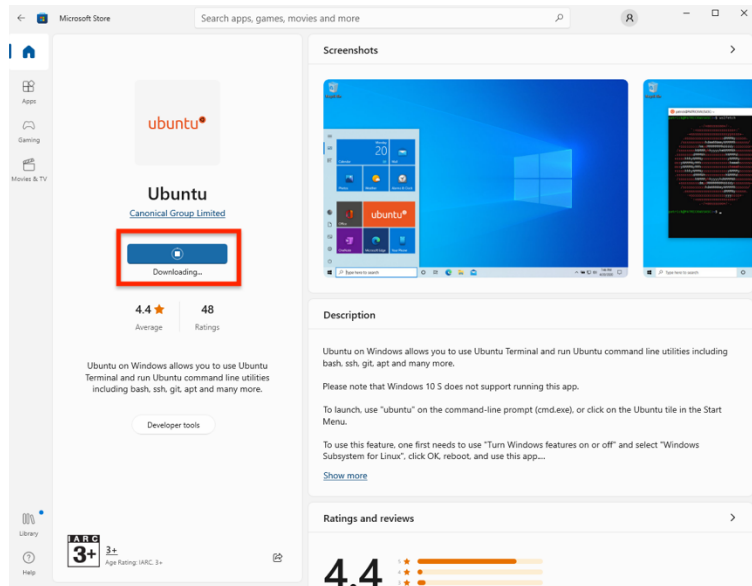
4. Restart.

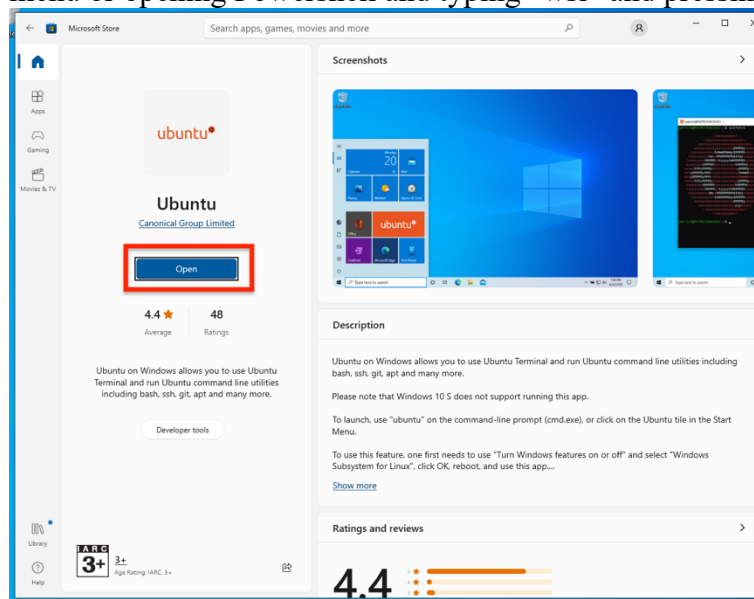5. Open the Microsoft Store.

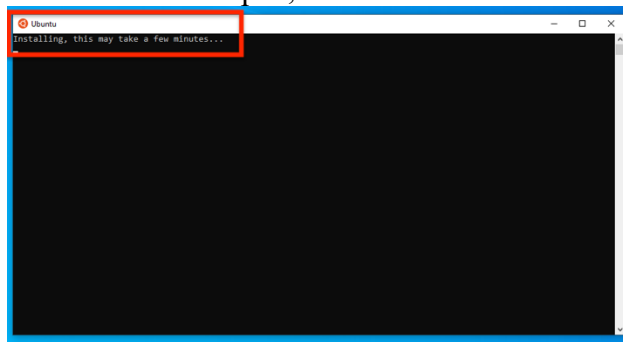6. Search for "Ubuntu"

7. Click "Get"
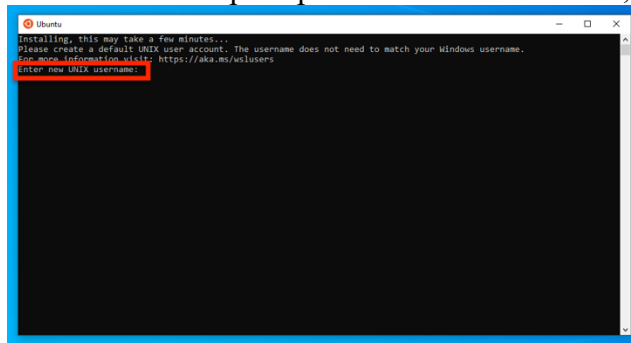

8. Wait for it to download

9. Click "Open" when it is finished. Note, you can now find Ubuntu by searching the Start menu or opening Powershell and typing "wsl" and pressing Enter.
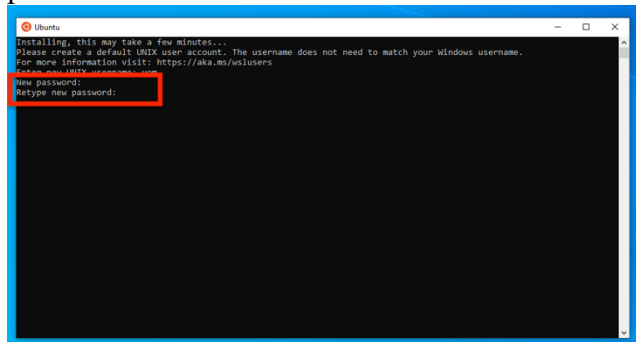

10. When Ubuntu is open, wait for the installation to complete.

11. You will then be prompted to create a username, type in a username and press Enter.

12. You will then be prompted to create a password by typing in a password and pressing enter (you will have to retype the same password twice). Note, the password will be hidden as you type. Use something easy to remember, e.g., your Unimelb username and password.

13. You will now be inside of Ubuntu.

14. Update everything inside Ubuntu by typing the command: sudo apt update && sudo apt upgrade

Note, you will need to type your password here. You will also be asked to confirm by typing "y" (You can add the command "-y" to the above command to automatically confirm).

15. After everything is finished, you will also need to install build tools (gcc), type the command: sudo apt install build-essential

Note, if you do not add the "-y" you will be asked to confirm as above.

16. Double check that gcc is correctly installed by typing the command: gcc --version

If you are shown the version of gcc and not an error, continue.

17. You can navigate to your C drive my typing the command: cd /mnt/c

Note, in this example, we navigate to our COMP folder in the C drive. Next, we use the command "ls" to show what is in the current folder. Next, use the "cd" command again to navigate to the Workshops folder where we can see a Hello World C program prepared earlier. We compile this program with the "gcc" command into an executable called "hello". We can then see it exists in the folder. We then run the program with "./hello" and the computer talks. Writing C programs can be done in VSCode as presented in the VSCode setup guide.

18. You will need to download VSCode and link it to WSL before continuing with the VSCode setup. Download VSCode from https://code.visualstudio.com/download and install.
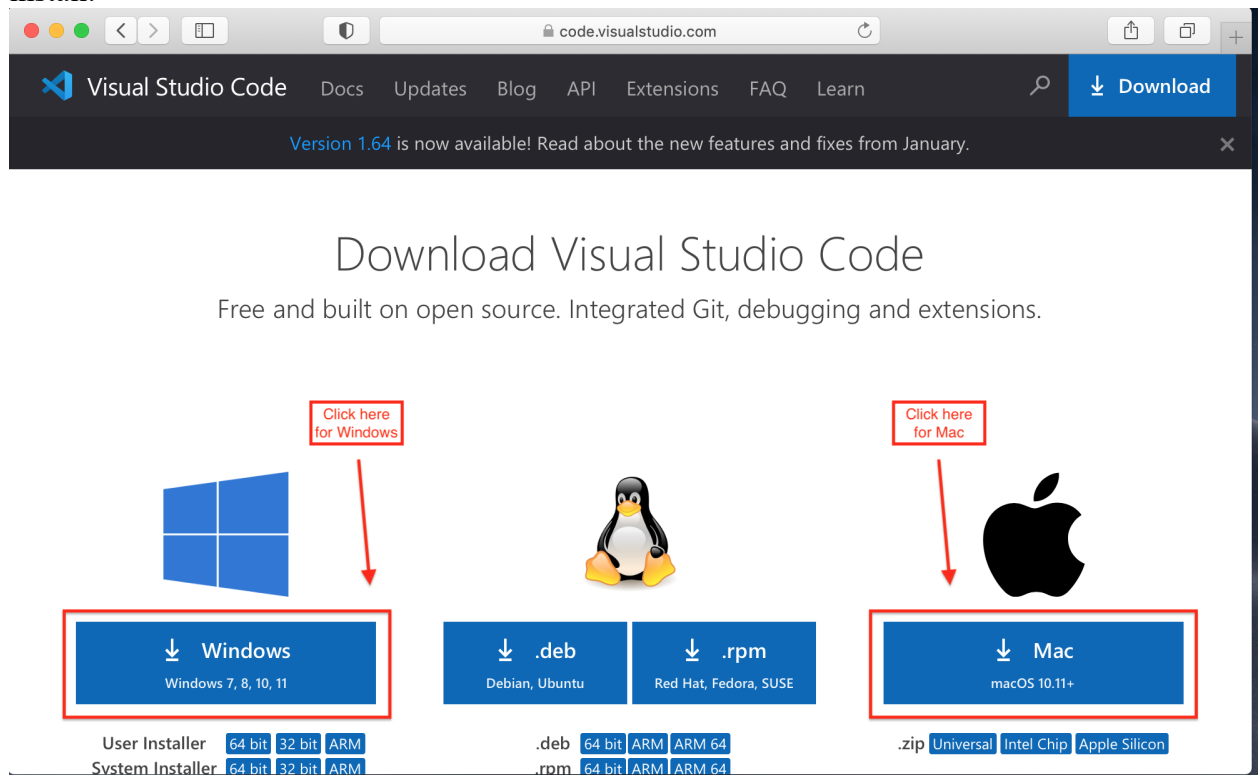
19. When you open the installer, you will be asked to read and accept a License Agreement.
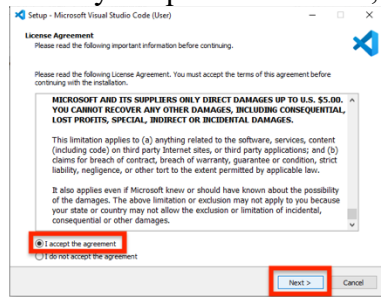
20. Select where you would like to install VSCode
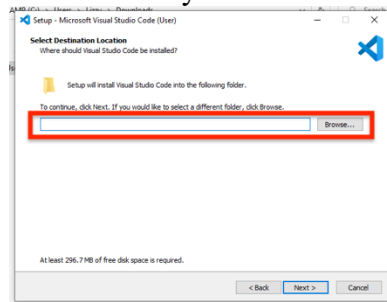
21. Ensure you select "Add to PATH" this will allow you to type the command "code ." when you are in Ubuntu to open VSCode inside the current folder. Then click "Next" and "Install"
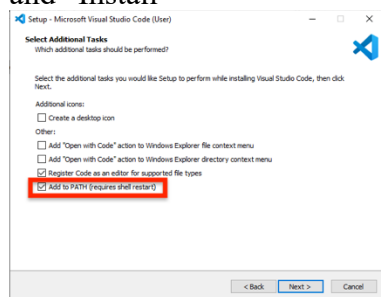
Note, if you installed VSCode without this option, you can open VSCode, open Command Palette (ctrl+shift+P) search and select "Add to PATH"

22. Wait for installation to complete.
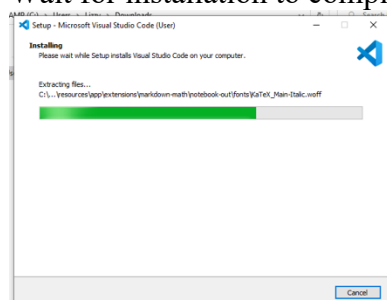
23. You can open VSCode when it is finished. Note, you may also open VSCode from the Start Menu or from Ubuntu by typing the command "code ." – This will require a closing and reopening Ubuntu.

24. Go to "Extensions"

25. Search "Remote – WSL"

26. Click "Install"

27. Wait for installation to complete.
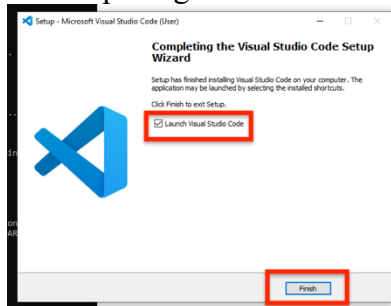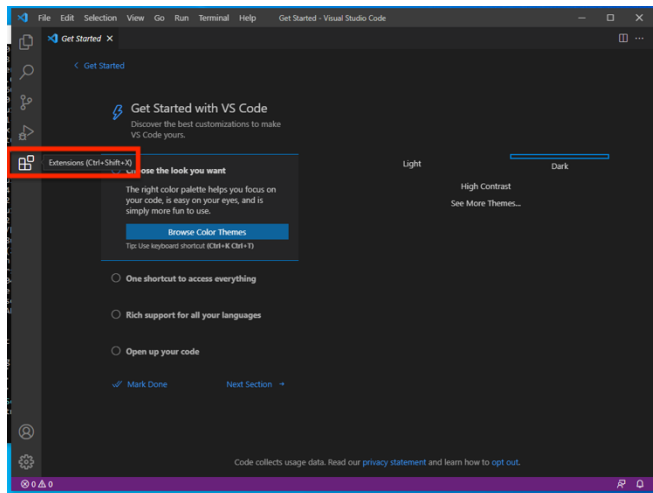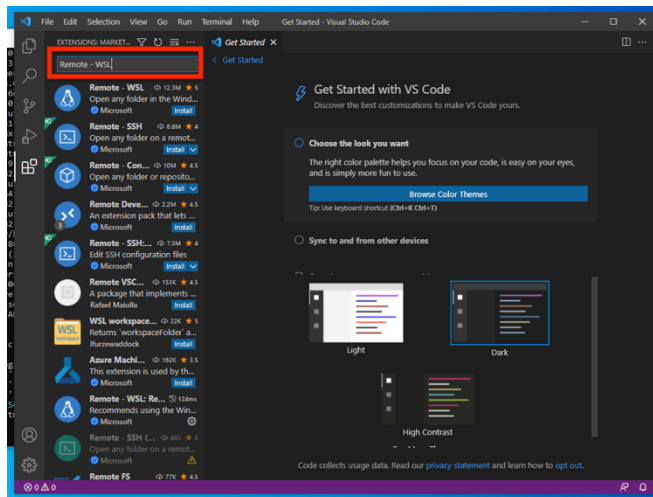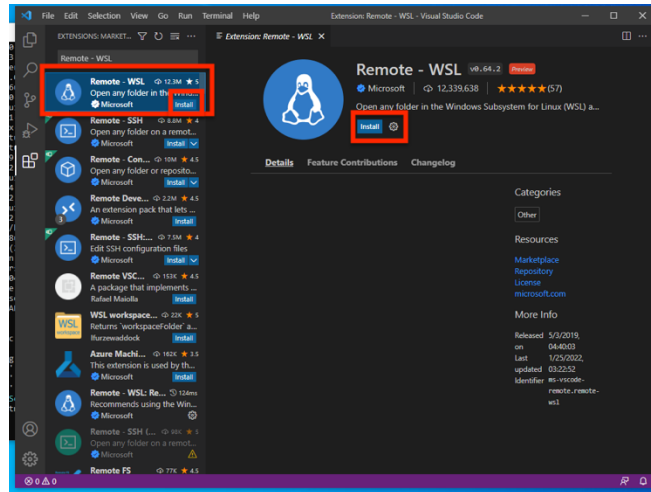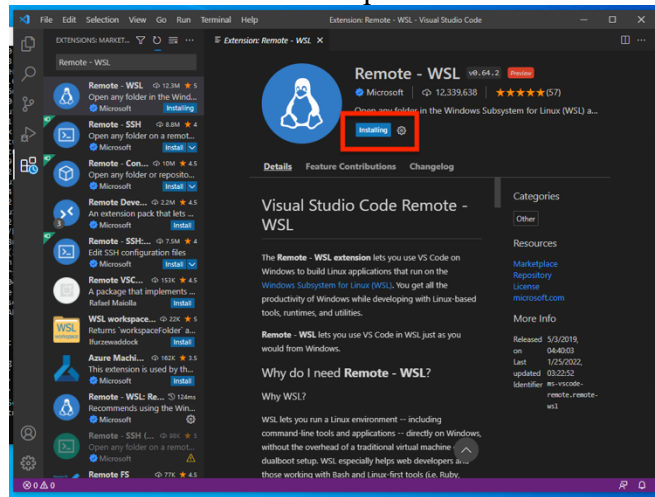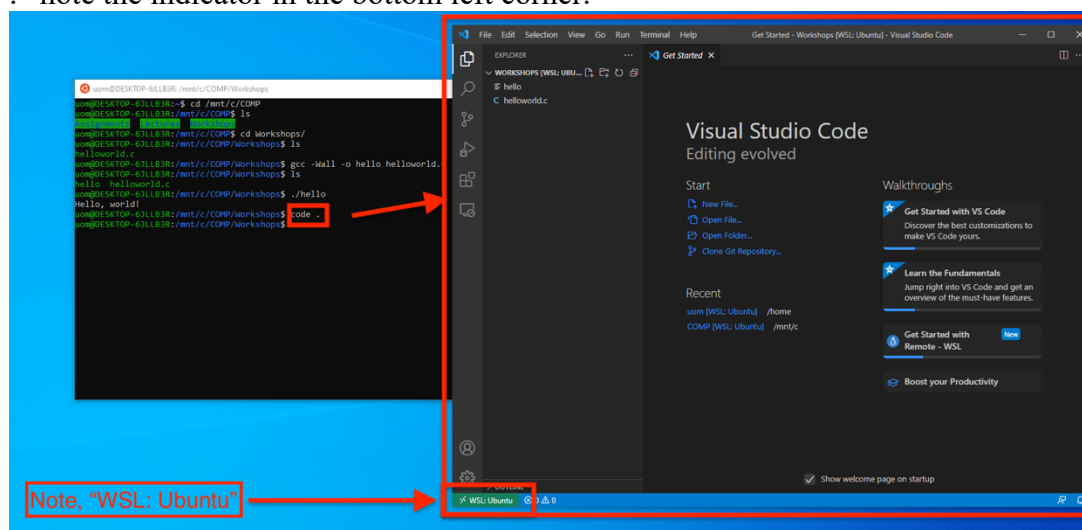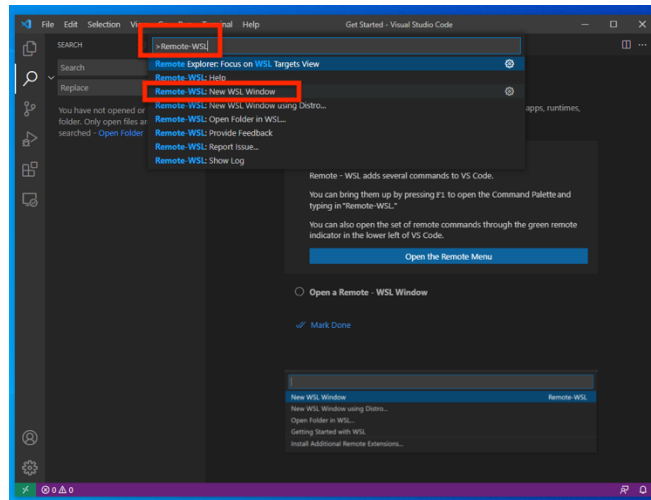

28. Now you can develop code within VSCode using the following methods.

29. You can open VSCode within Ubuntu by opening Ubuntu and typing the command "code ." note the indicator in the bottom left corner.

30. Alternatively, you can open from VSCode. Press F1 and select "Remote-WSL: New Window"

31. Note the indicator in the bottom left corner. You can use the Explorer tab or File menu in the top left to open folders graphically. The "Get Started" tab also offers further methods to open files and folders.
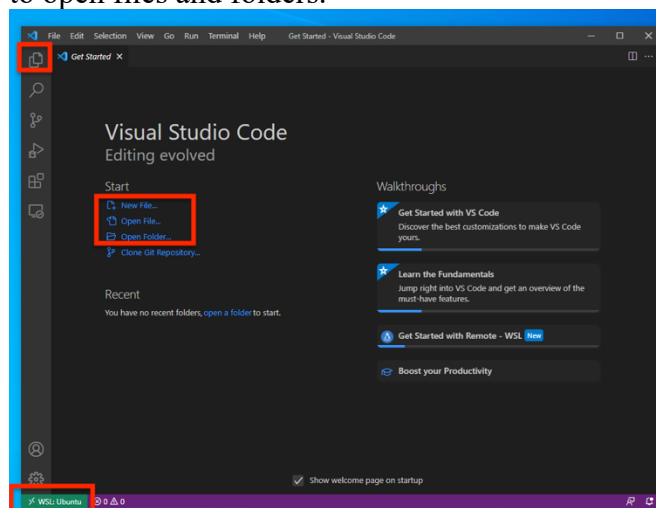
32. Follow the instructions on VSCode installation, setup and debugging to start coding.

Prepared by Thomas Minuzzo, February 2022