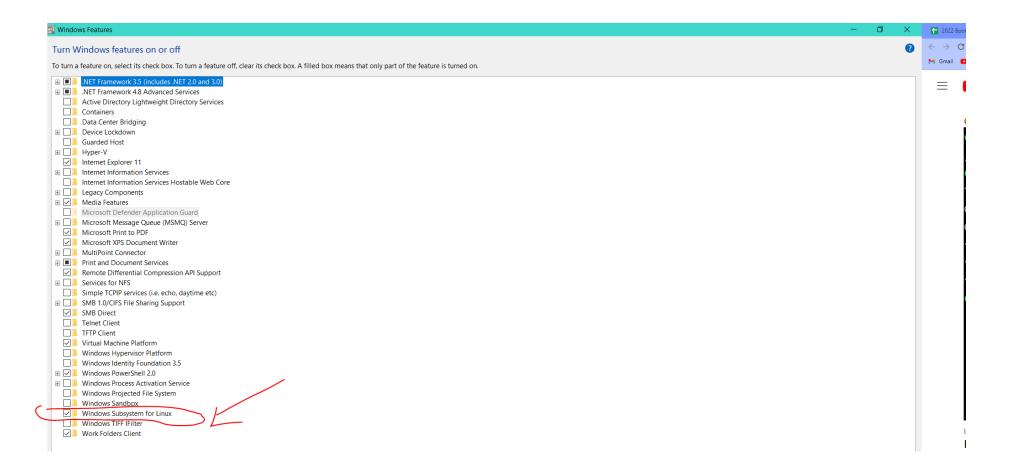
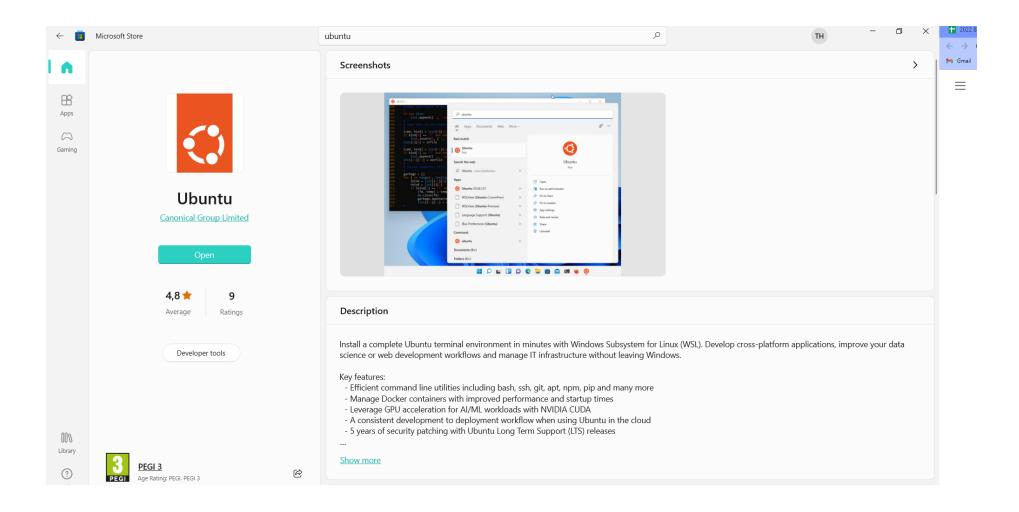
### - Activation of linux on windows



#### Download and Intallations



#### - Profile creation



# - Useful Commands:

Commands	Explanation
cd <folder name="">/</folder>	Takes you into the specific folder
ls -la	Lists all files in the folder
touch <file name=""></file>	Creates a file
nano <file name=""></file>	Edits a file (opens up the nano editor)
	Ctrl X to exit
	Y to save
	Enter to keep the file name
cat <file name=""></file>	To see contents of file
sudo apt-get update	Updates packages within Linux to the latest version
sudo apt-get upgrade	Updates packages within Linux
sudo apt-get install tree	Installs the tree command (allows you to view your directory structure)
tree	Displays directory structure
cd	Switches back to the Linux home directory
nano ~/.bashrc	Edits the bashrc file within the Linux home directory to prepare for creating an alias
alias winhome='cd mnt/c/Users/thlok/'	Creates an alias into specified directory
source ~/.bashrc	Source the file for changes to take effect
winhome	Takes you to newly created alias home directory
Using Linux commands withing Windows Command prompt	
bash	Switches windows command prompt to Linux Command prompt
grep -ni "String" <folder name="">/<file name=""></file></folder>	Finds a string in a specific file

# **Examples:**

- Listing files in a folder

```
💽 tlhokomelo@DESKTOP-PI2VM19: /mnt/c/Users/thlok/Desktop
:lhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ ls -la
total 288
drwxrwxrwx 1 root root
                         512 Nov 2 12:51
drwxrwxrwx 1 root root
                         512 Oct 21 10:40
-rwxrwxrwx 1 root root 93457 Sep 15 16:48
                                          Doc2.docx
rwxrwxrwx 1 root root 94134 Sep 15 16:54 'Docker Desktop.docx'
rwxrwxrwx 1 root root 2138 Sep 15 08:23 'Docker Desktop.lnk'
rwxrwxrwx 1 root root 74409 Sep 15 16:52 'Docker Desktop.pdf'
drwxrwxrwx 1 root root
                         512 Feb 11 2022
drwxrwxrwx 1 root root
                        512 Feb 23
                                    2022
                                          'GitHub Desktop.lnk'
rwxrwxrwx 1 root root 2369 Feb 22
                                    2022
-rwxrwxrwx 1 root root 2350 Jan 11
                                    2022
                                          'Microsoft Edge.lnk'
rwxrwxrwx 1 root root 2345 Oct 23 23:14
                                          MongoDBCompass.lnk
drwxrwxrwx 1 root root
                        512 Feb 11 2022
                        512 Feb 11 2022
drwxrwxrwx 1 root root
rwxrwxrwx 1 root root 2185 Oct 18 11:38
                                          Postman.lnk
rwxrwxrwx 1 root root 2191 Sep 30 16:24
                                          SceneBuilder.lnk
rwxrwxrwx 1 root root 1402 Feb 23 2022 'Visual Studio Code.lnk'
                         282 Dec 3
rwxrwxrwx 1 root root
                                    2021
                                          desktop.ini
                         384 Jan 28 2022 'new 1.txt'
rwxrwxrwx 1 root root
:lhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$
```

## Creating a file

```
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ touch test.txt
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ ls -la
total 288
drwxrwxrwx 1 root root
                        512 Nov 2 23:02
drwxrwxrwx 1 root root
                        512 Oct 21 10:40
-rwxrwxrwx 1 root root 93457 Sep 15 16:48 Doc2.docx
-rwxrwxrwx 1 root root 94134 Sep 15 16:54 'Docker Desktop.docx'
-rwxrwxrwx 1 root root 2138 Sep 15 08:23 'Docker Desktop.lnk'
-rwxrwxrwx 1 root root 74409 Sep 15 16:52 'Docker Desktop.pdf'
drwxrwxrwx 1 root root
                        512 Feb 11 2022
drwxrwxrwx 1 root root
                        512 Feb 23
                                    2022
                                          Git Practice
-rwxrwxrwx 1 root root 2369 Feb 22 2022 'GitHub Desktop.lnk'
-rwxrwxrwx 1 root root 2350 Jan 11 2022 'Microsoft Edge.lnk'
-rwxrwxrwx 1 root root 2345 Oct 23 23:14 MongoDBCompass.lnk
                        512 Feb 11 2022
drwxrwxrwx 1 root root
                        512 Feb 11 2022
drwxrwxrwx 1 root root
-rwxrwxrwx 1 root root 2185 Oct 18 11:38 Postman.lnk
-rwxrwxrwx 1 root root 2191 Sep 30 16:24 SceneBuilder.lnk
                                    2022 'Visual Studio Code.lnk'
-rwxrwxrwx 1 root root 1402 Feb 23
                                    2021
                                          desktop.ini
-rwxrwxrwx 1 root root
                        282 Dec 3
-rwxrwxrwx 1 root root
                        384 Jan 28
                                   2022 'new 1.txt'
rwxrwxrwx 1 root root
                          0 Nov 2 23:02 test.txt
```

# Editing a file

tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop\$ nano test.txt tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop\$ cat test.txt Testing file

## - Updating packages within Linux

```
lhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ sudo apt-get update
[sudo] password for tlhokomelo:
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Hit:2 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [461 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:7 http://archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:8 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [101 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [372 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [695 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [159 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [10.8 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [409 kB]
Get:18 http://security.ubuntu.com/ubuntu jammy-security/restricted T<u>ranslation-en [57.4 kB]</u>
Get:19 http://archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [63.1 kB]
Get:20 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [743 kB]
Get:21 http://securitv.ubuntu.com/ubuntu jammy-securitv/universe amd64 Packages [602 kB]
Get:22 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [122 kB]
Get:23 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [4404 B]
Get:24 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [13.7 kB]
Get:25 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [4228 B]
Get:26 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [420 B]
Get:27 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [3008 B]
Get:28 http://archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:29 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:30 http://archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:31 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6752 B]
Get:32 http://archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9360 B]
Get:33 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [356 B]
Get:34 http://archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:35 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [76.6 kB]
Get:36 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [2408 B]
Get:37 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4192 B]
Get:38 http://security.ubuntu.com/ubuntu jammy-security/multiverse <u>Translation-en [900 B]</u>
Get:39 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [228 B]
Fetched 24.6 MB in 20s (1212 kB/s)
Reading package lists... Done
```

## - Upgrading packages within Linux

```
omelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ sudo apt-get upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
 curl dbus dbus-x11 libcurl3-gnutls libcurl4 libdbus-1-3 libntfs-3g89 libssl3 ntfs-3g openssl tzdata
11 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
10 standard LTS security updates
Need to get 5122 kB of archives.
After this operation, 13.3 kB disk space will be freed.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 ntfs-3g amd64 1:2021.8.22-3ubuntu1.2 [408 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libntfs-3g89 amd64 1:2021.8.22-3ubuntu1.2 [161 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libssl3 amd64 3.0.2-0ubuntu1.7 [1899 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 dbus-x11 amd64 1.12.20-2ubuntu4.1 [23.0 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 dbus amd64 1.12.20-2ubuntu4.1 [158 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libdbus-1-3 amd64 1.12.20-2ubuntu4.1 [189 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 openssl amd64 3.0.2-0ubuntu1.7 [1183 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 tzdata all 2022e-0ubuntu0.22.04.0 [335 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 curl amd64 7.81.0-1ubuntu1.6 [194 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libcurl4 amd64 7.81.0-1ubuntu1.6 [290 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libcurl3-gnutls amd64 7.81.0-1ubuntu1.6 [283 kB]
Fetched 5122 kB in 29s (174 kB/s)
Preconfiguring packages ...
(Reading database ... 24075 files and directories currently installed.)
Preparing to unpack .../ntfs-3g 1%3a2021.8.22-3ubuntu1.2 amd64.deb ...
Unpacking ntfs-3g (1:2021.8.22-3ubuntu1.2) over (1:2021.8<u>.22-3ubuntu1.1) ...</u>
Preparing to unpack .../libntfs-3g89_1%3a2021.8.22-3ubuntu1.2_amd64.deb ...
Unpacking libntfs-3g89 (1:2021.8.22-3ubuntu1.2) over (1:2021.8.22-3ubuntu1.1) ...
Preparing to unpack .../libssl3_3.0.2-Oubuntu1.7_amd64.deb ...
Unpacking libssl3:amd64 (3.0.2-0ubuntu1.7) over (3.0.2-0ubuntu1.6) ...
Setting up libssl3:amd64 (3.0.2-0ubuntu1.7) ...
(Reading database ... 24075 files and directories currently installed.)
Preparing to unpack .../0-dbus-x11 1.12.20-2ubuntu4.1 amd64.deb ...
Unpacking dbus-x11 (1.12.20-2ubuntu4.1) over (1.12.20-2ubuntu4) ...
Preparing to unpack .../1-dbus_1.12.20-2ubuntu4.1_amd64.deb ...
Unpacking dbus (1.12.20-2ubuntu4.1) over (1.12.20-2ubuntu4) ...
Preparing to unpack .../2-libdbus-1-3_1.12.20-2ubuntu4.1_amd64.deb ...
Unpacking libdbus-1-3:amd64 (1.12.20-2ubuntu4.1) over (1.12.20-2ubuntu4) ...
Preparing to unpack .../3-openssl_3.0.2-0ubuntu1.7 amd64.deb ...
Unpacking openss1 (3.0.2-0ubuntu1.7) over (3.0.2-0ubuntu1.6) ...
Preparing to unpack .../4-tzdata_2022e-Oubuntu0.22.04.0_all.deb ...
Unpacking tzdata (2022e-0ubuntu0.22.04.0) over (2022c-0ubuntu0.22.04.0) ...
Preparing to unpack .../5-curl_7.81.0-1ubuntu1.6_amd64.deb ...
Jnpacking curl (7.81.0-1ubuntu1.6) over (7.81.0-1ubuntu1.4) ...
Preparing to unpack .../6-libcurl4_7.81.0-1ubuntu1.6_amd64.deb ...
Unpacking libcurl4:amd64 (7.81.0-1ubuntu1.6) over (7.81.0-1ubuntu1.4) ...
```

Installing tree

```
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ sudo apt-install tree
sudo: apt-install: command not found
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ sudo apt
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ sudo apt-get install tree
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
O upgraded, 1 newly installed, O to remove and O not upgraded.
Need to get 47.9 kB of archives.
After this operation, 116 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tree amd64 2.0.2-1 [47.9 kB]
Fetched 47.9 kB in 1s (56.3 kB/s)
Selecting previously unselected package tree.
(Reading database ... 24075 files and directories currently installed.)
Preparing to unpack .../tree 2.0.2-1 amd64.deb ...
Unpacking tree (2.0.2-1) ...
Setting up tree (2.0.2-1) ...
Processing triggers for man-db (2.10.2-1) ...
```

- Using the tree command to view directory structure

```
lhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ tree

    README.md

                styles.css
            README.md
          style.css
            \mathsf{README.md}
            styles.css
            README.md
           partII.html
   Postman.lnk
   SceneBuilder.lnk
10 directories, 34 files
```

- Navigating to Linux home directory, editing it, creating an alias and navigating back to the newly created alias

```
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok/Desktop$ cd
tlhokomelo@DESKTOP-PI2VM19:~$ nano ~/.bashrc
tlhokomelo@DESKTOP-PI2VM19:~$ source ~/.bashrc
tlhokomelo@DESKTOP-PI2VM19:~$ winhome
tlhokomelo@DESKTOP-PI2VM19:/mnt/c/Users/thlok$
```