



National Textile University
Department of Computer Science
Subject: Operating System

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Reg number:23-NTU-CS-1201

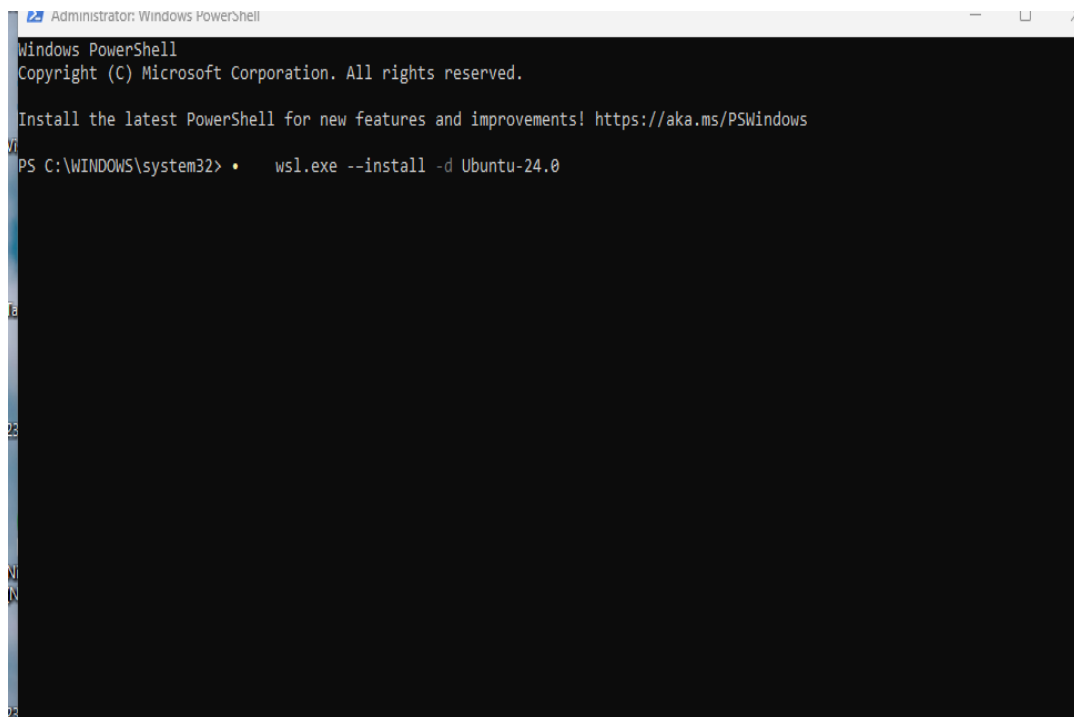
Assignment No.1

Semester:5th

Lab manual

Task 01: Installing WSL2 on Windows

- **First, I opened Search bar and opened PowerShell and selected Run as Administrator.**
- **In PowerShell, I am writing this command to install Ubuntu:**
Wsl.exe --install -d Ubuntu-24.04

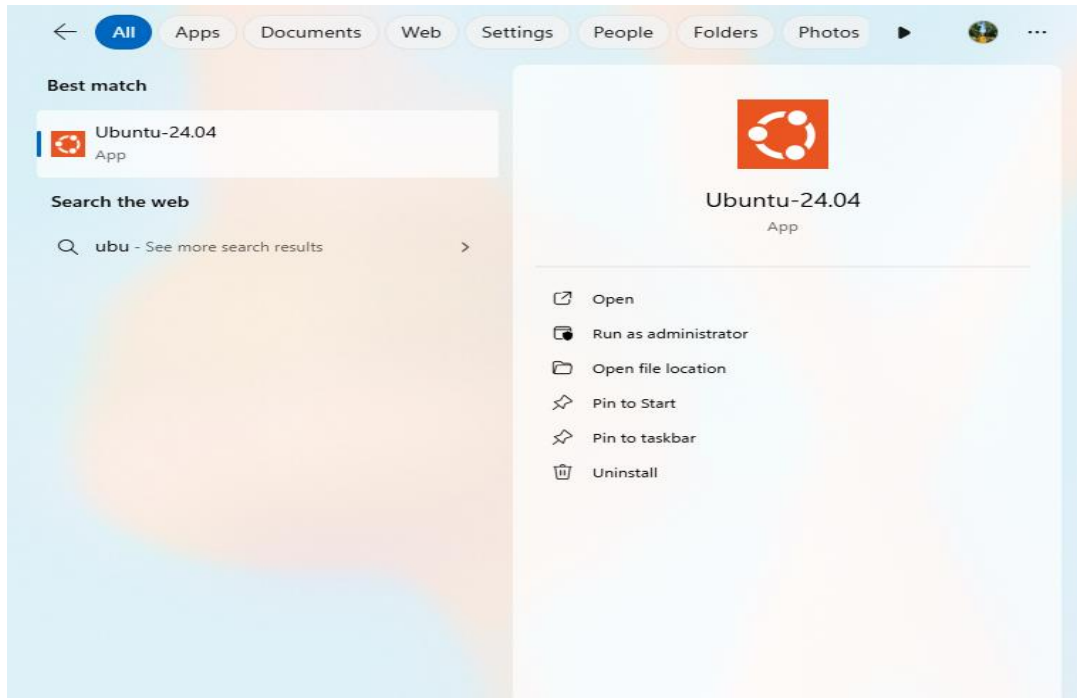


```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\WINDOWS\system32> wsl.exe --install -d Ubuntu-24.0
```

- **Through this command ubuntu will be starting to download inside the window.**



- **After finishing installation, I restarted my computer.**

Task 02: Verifying the Setup on Windows

- **After restart, I opened windows terminal and select ubuntu.**
- **The first I opened ubuntu ,it said me to set user name and password .**
- **Ubuntu will finish setting up your new Linux home directory and bring you to a prompt that looks like:
esha@DESKTOP-XXXX:~\$**
That means your Ubuntu 24.04 LTS system is ready.
- **After this, I am running followings command that is:
sudo apt update
sudo apt upgrade**

```
Ubuntu-24.04 x + v
nimra@DESKTOP-KJ9FT10:~$ sudo apt update
*: command not found
nimra@DESKTOP-KJ9FT10:~$ sudo apt update
[sudo] password for nimra:
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://security.ubuntu.com/ubuntu noble-security InRelease
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Get:5 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1415 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1485 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [299 kB]
Fetched 3325 kB in 7s (461 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
nimra@DESKTOP-KJ9FT10:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
```

Task 03: Linux filesystem and directory structure:

- **In this task i firstly connect the VS code with Ubuntu and then write thses commands on the ubuntu terminal `cd /mnt`**

Ls

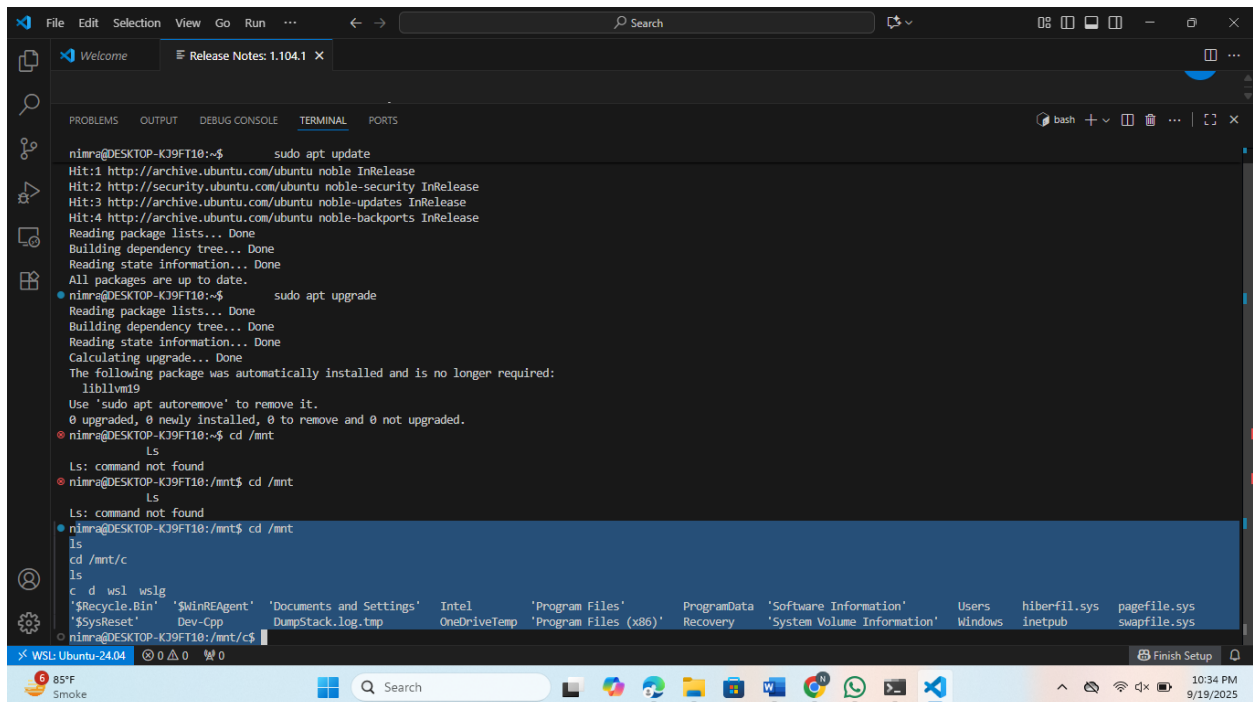
- **In this task i write these commands on ubuntu terminal in VS**

`cd /mnt`

`ls`

`cd /mnt/c`

ls



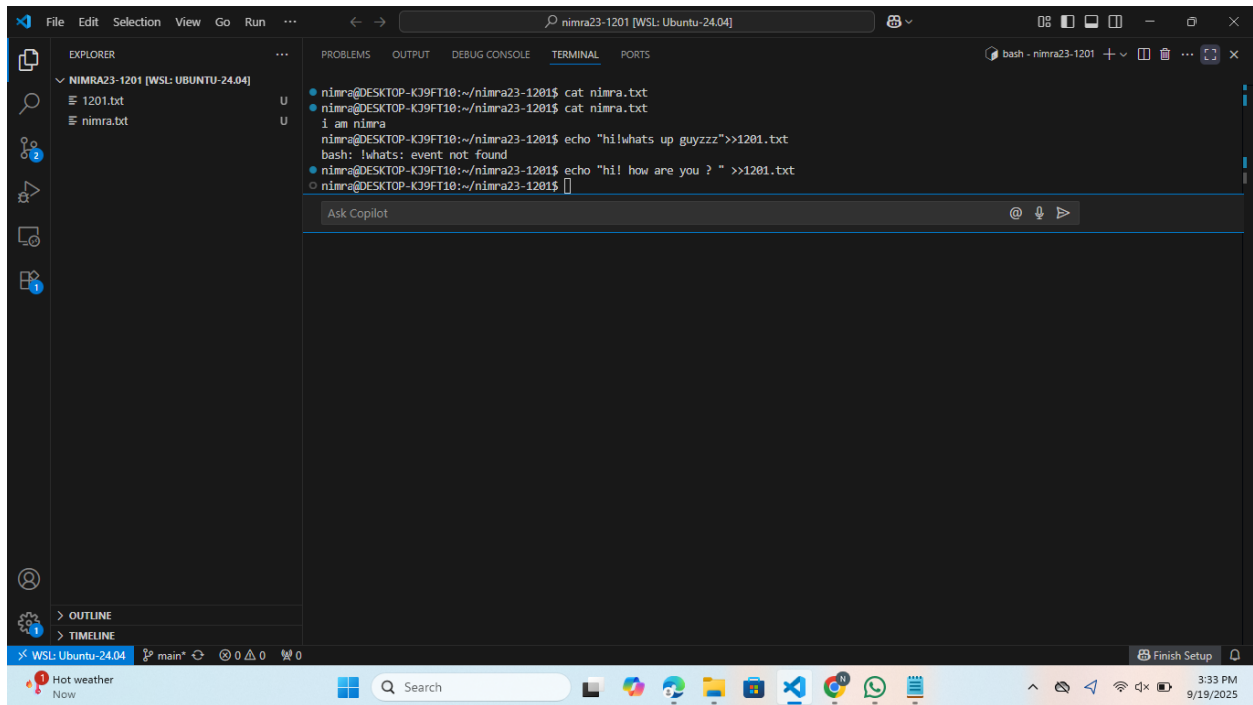
```
nimra@DESKTOP-KJ9FT10:~$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.

nimra@DESKTOP-KJ9FT10:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
nimra@DESKTOP-KJ9FT10:~$ cd /mnt
ls
ls: command not found
nimra@DESKTOP-KJ9FT10:/mnt$ cd /mnt
ls
ls: command not found
nimra@DESKTOP-KJ9FT10:/mnt$ cd /mnt
ls
cd /mnt/c
ls
c d wsl wslg
"$Recycle.Bin" "$winREAgent" "Documents and Settings" Intel "Program Files" ProgramData "Software Information" Users hiberfil.sys pagefile.sys
"$SysReset" "Dev-Cpp" DumpStack.log.tmp OneDriveTemp "Program Files (x86)" Recovery "System Volume Information" Windows inetpub swapfile.sys
nimra@DESKTOP-KJ9FT10:/mnt/c$
```

All commands shows in c drive.

Firstly i create a txt file in the folder of ubuntu in the path of my respective Repository of Github .In content file is displayed on the ubuntu terminal by using these commands .

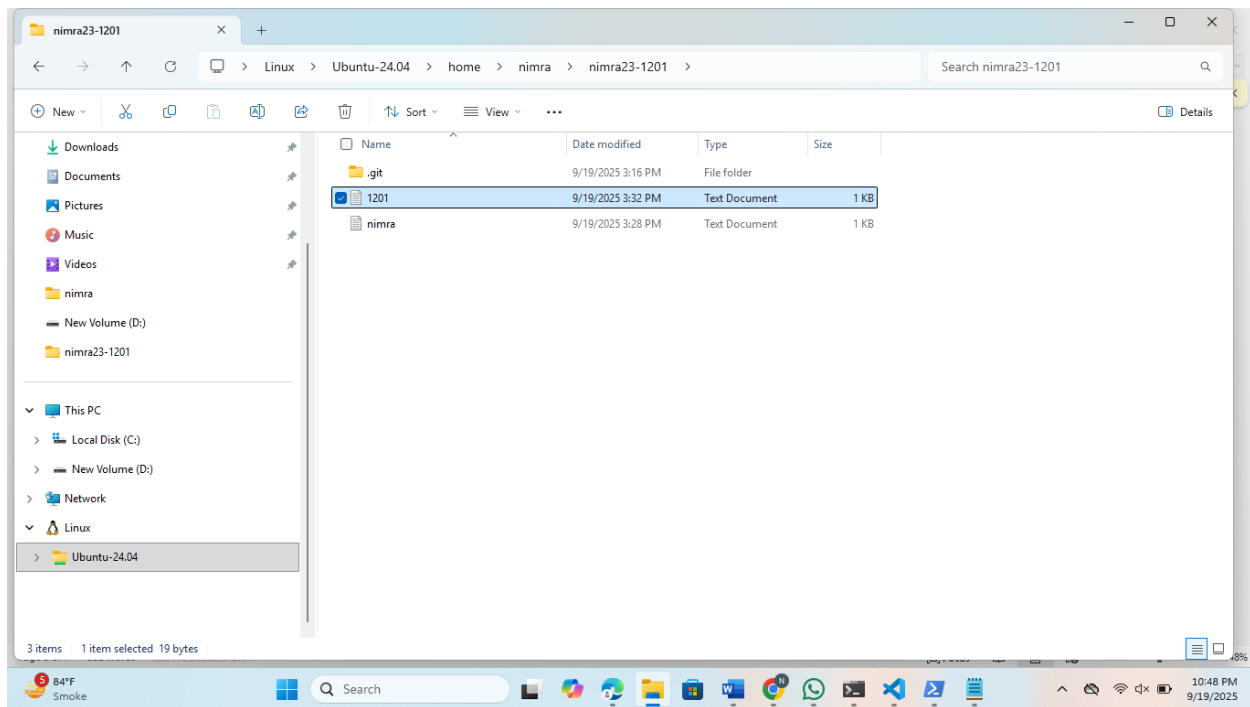
cat nimra.txt



In next step i just write

echo "hi!how are you? " >> 1201.txt

this will create a new file of txt in the same folder where our previous file of “nimra” located .



Task of this lab :

In this lab ,we basically checks the ubuntu setup is running or not and check the version of ubuntu by typing these commands on terminal of ubuntu .

Gcc -l -version.

