



National Textile University

Department of Computer Science

Subject:

Operating System

Submitted to:

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Submitted by:

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Reg number:

23-NTU-CS-FL-1158

Lab number:

1st Home Task

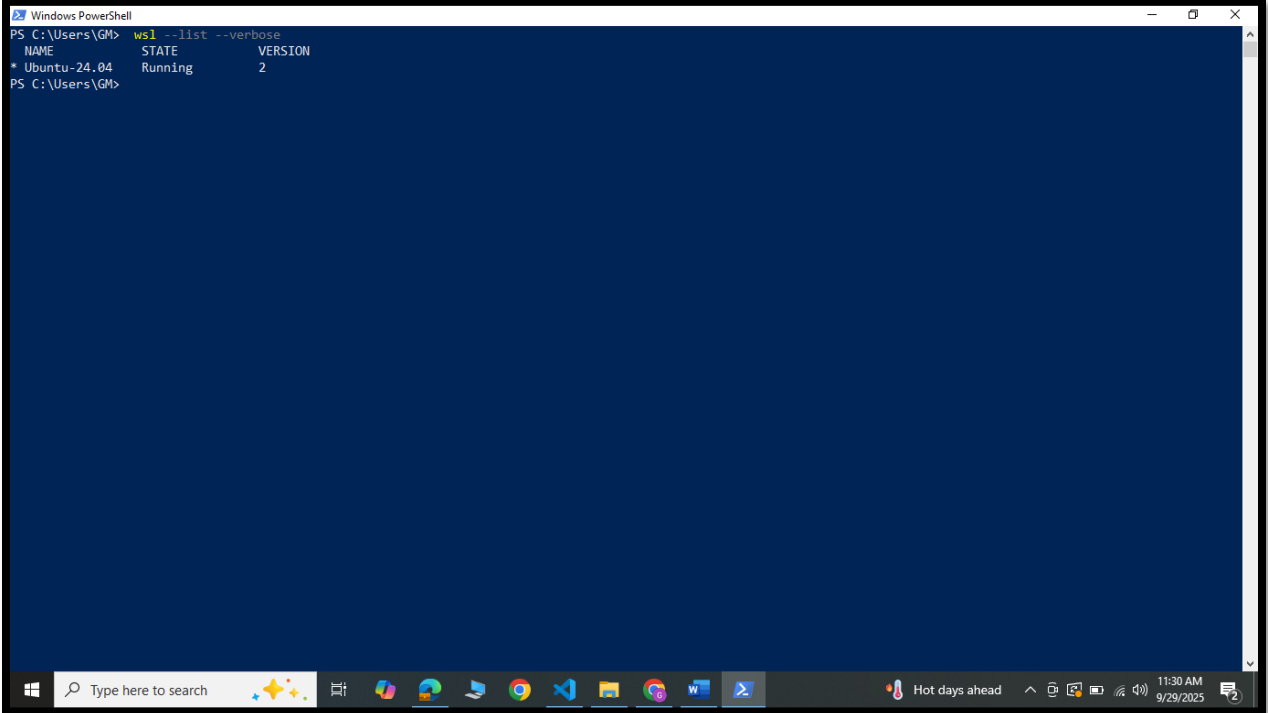
Semester:

4th

Git Hub Link: <https://github.com/GhulamMohyuddin28/Operating-System-1158>

Part A: WSL2 & Ubuntu Setup

Step: Verification of WSL2 and Ubuntu Installation

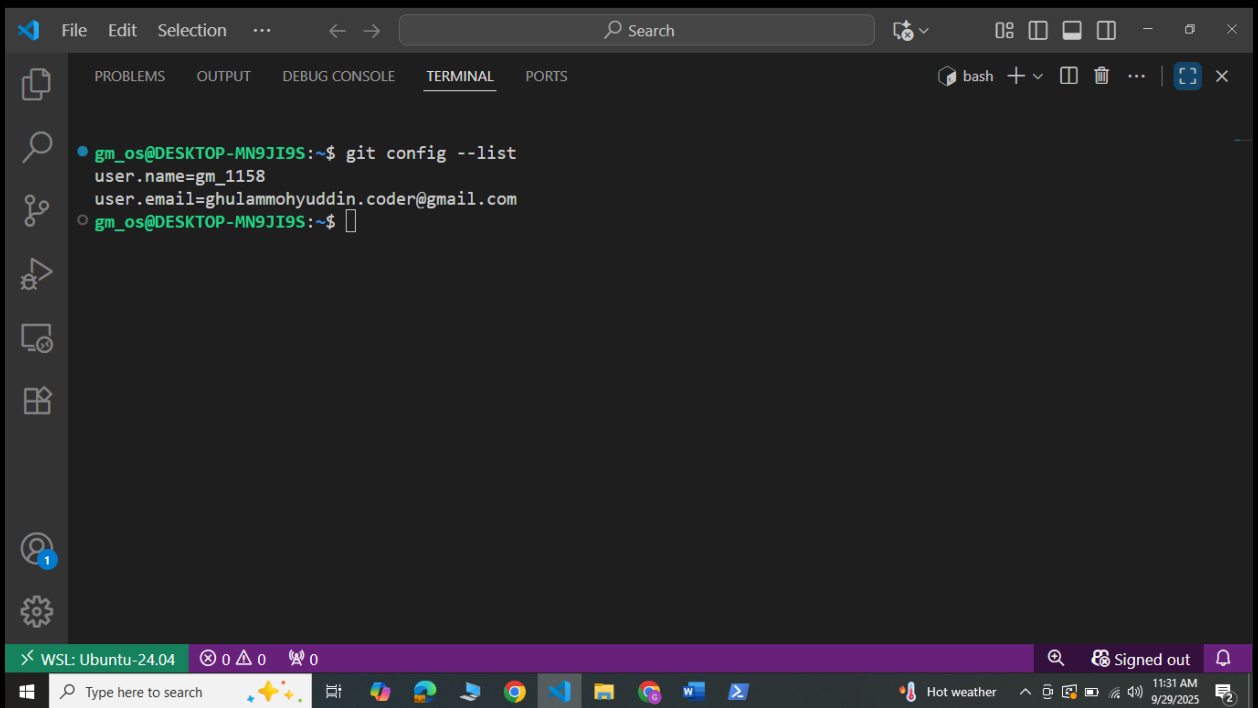


A screenshot of a Windows PowerShell window titled "Windows PowerShell". The command prompt shows the user running the command `WSL --list --verbose`. The output displays a table with three columns: NAME, STATE, and VERSION. The table lists one entry: "Ubuntu-24.04" with a state of "Running" and a version of "2". The background of the PowerShell window is dark blue. The Windows taskbar is visible at the bottom, showing the search bar, task view button, and several application icons. The system tray on the right indicates the time is 11:30 AM on 9/29/2025.

```
PS C:\Users\GM> WSL --list --verbose
NAME                STATE              VERSION
* Ubuntu-24.04      Running            2
PS C:\Users\GM>
```

Part B: Git & GitHub SSH Setup.

Step 1: Configure Git

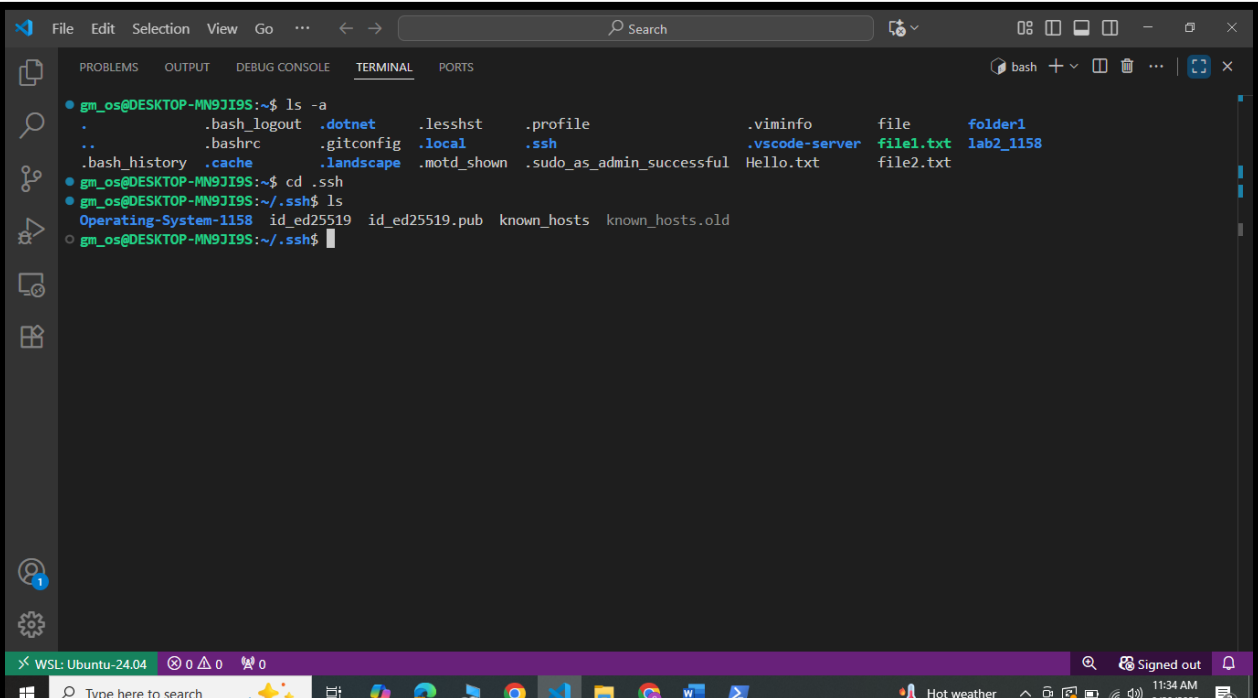


The screenshot shows a terminal window within a VS Code editor. The terminal is titled 'bash' and shows the following commands and output:

```
gm_os@DESKTOP-MN9JI9S:~$ git config --list
user.name=gm_1158
user.email=ghulammoxyuddin.coder@gmail.com
gm_os@DESKTOP-MN9JI9S:~$
```

The terminal window is part of a WSL (Windows Subsystem for Linux) environment, as indicated by the status bar at the bottom which shows 'WSL: Ubuntu-24.04'. The taskbar at the bottom of the screen displays various application icons and the system clock showing 11:31 AM on 9/29/2025.

Step 2: Generate and Test SSH Key.



The screenshot shows a terminal window within a VS Code editor. The terminal is titled 'bash' and shows the following commands and output:

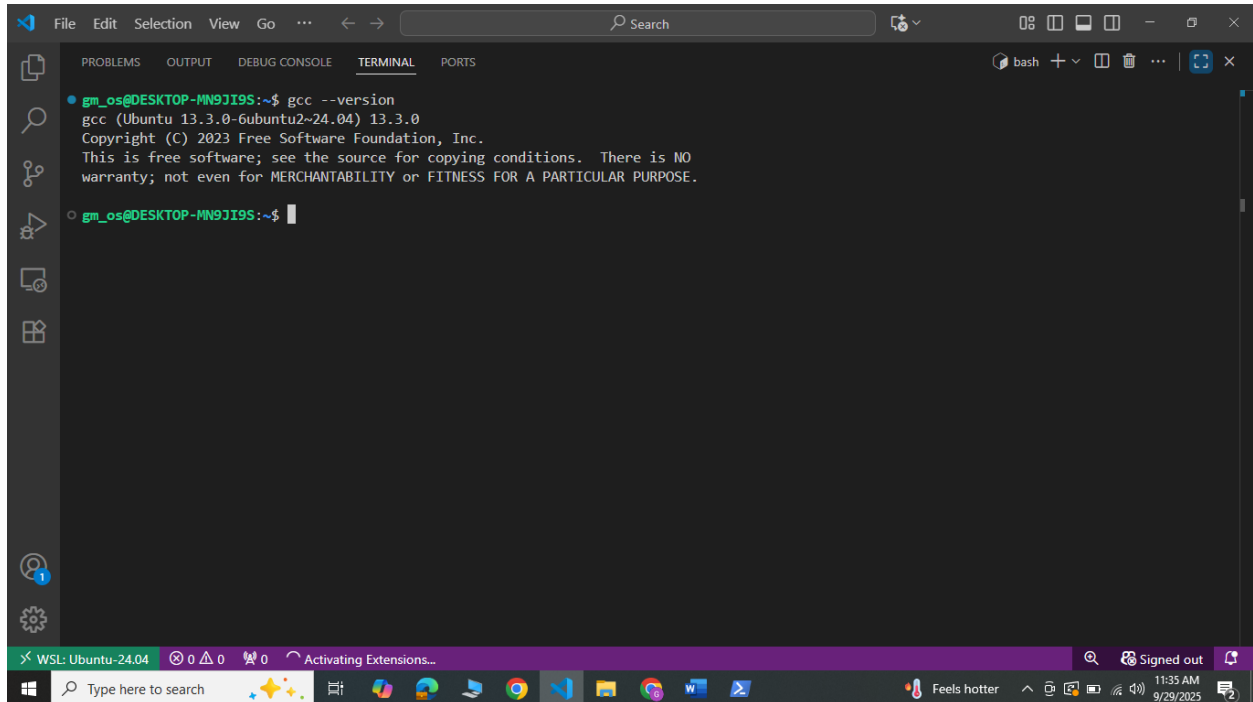
```
gm_os@DESKTOP-MN9JI9S:~$ ls -a
.      .bash_logout  .dotnet      .lessht      .profile      .viminfo     file        folder1
..     .bashrc      .gitconfig   .local       .ssh          .vscode-server file1.txt   lab2_1158
.bash_history .cache       .landscape   .motd_shown  .sudo_as_admin_successful Hello.txt     file2.txt

gm_os@DESKTOP-MN9JI9S:~$ cd .ssh
gm_os@DESKTOP-MN9JI9S:~/.ssh$ ls
Operating-System-1158 id_ed25519 id_ed25519.pub known_hosts known_hosts.old
gm_os@DESKTOP-MN9JI9S:~/.ssh$
```

The terminal window is part of a WSL (Windows Subsystem for Linux) environment, as indicated by the status bar at the bottom which shows 'WSL: Ubuntu-24.04'. The taskbar at the bottom of the screen displays various application icons and the system clock showing 11:34 AM on 9/29/2025.

Part C: C Programming Environment & Practice

Step 1: How to write a C program.

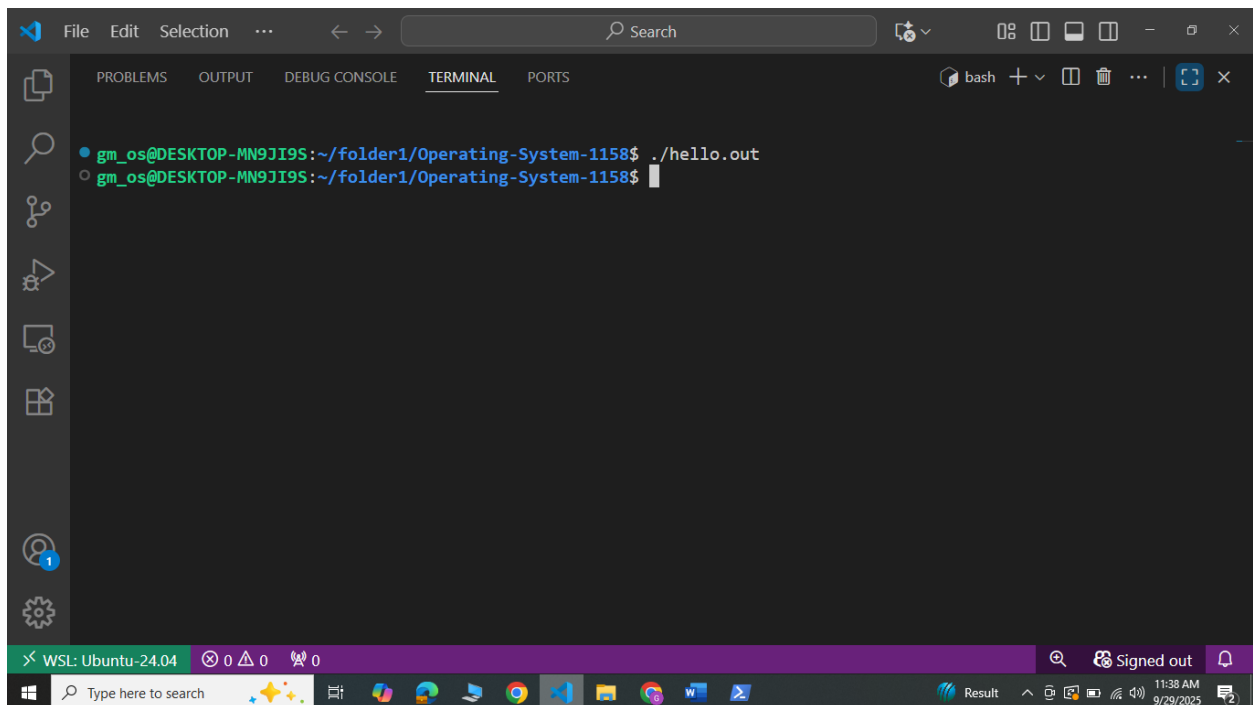


The screenshot shows a Visual Studio Code window with the terminal pane active. The terminal output displays the version information for the GCC compiler. The command entered is `gcc --version`, and the output shows it is GCC version 13.3.0 from Ubuntu 13.3.0-6ubuntu2~24.04. The terminal also shows the copyright notice for the Free Software Foundation, Inc.

```
gm_os@DESKTOP-MN9JI9S:~$ gcc --version
gcc (Ubuntu 13.3.0-6ubuntu2~24.04) 13.3.0
Copyright (C) 2023 Free Software Foundation, Inc.
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

gm_os@DESKTOP-MN9JI9S:~$
```

Part 2: Run and Compile C program.



The screenshot shows a Visual Studio Code window with the terminal pane active. The terminal output shows the execution of a C program. The command entered is `./hello.out`, and the output shows the program running successfully. The terminal also shows the current directory as `~/folder1/Operating-System-1158`.

```
gm_os@DESKTOP-MN9JI9S:~/folder1/Operating-System-1158$ ./hello.out
gm_os@DESKTOP-MN9JI9S:~/folder1/Operating-System-1158$
```