National Textile University

Department of Computer Science

Subject

Operating System

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Registration Number

23-NTU-CS-1164

Home Task

01

Semester

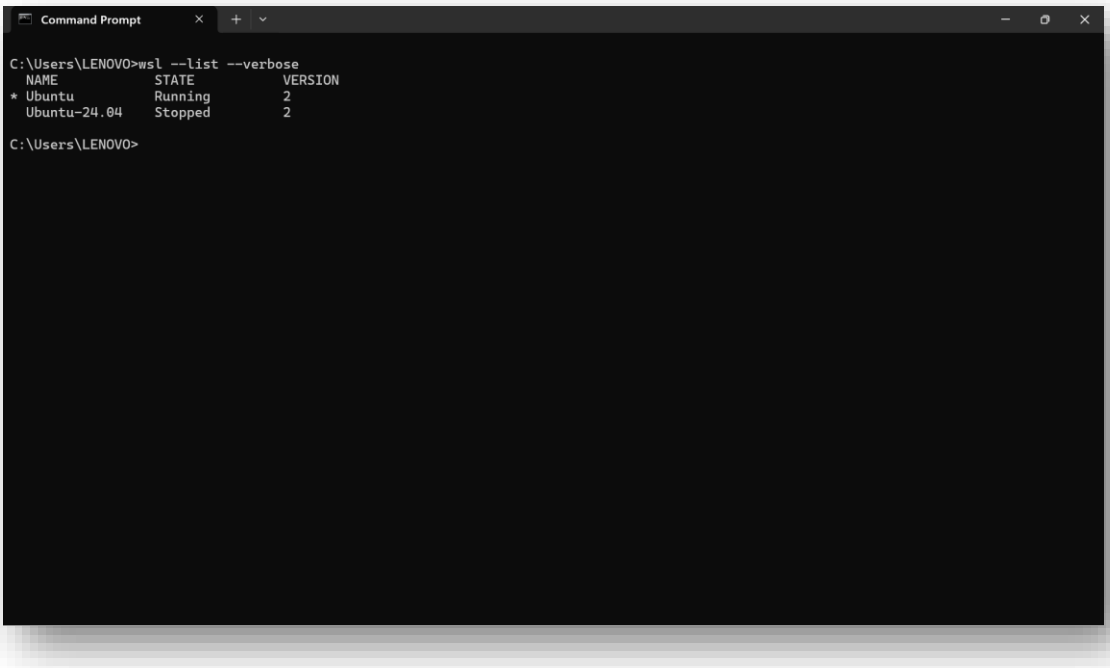
5th

Part A: WSL2 & Ubuntu Setup

1. Verify WSL2 and Ubuntu installation

- Verify installation by running the following command in powershell:
  wsl --list—verbose

Screen Short:



2. Updated Ubuntu environment

- Run the following command in Ubuntu:
  sudo apt update && sudo apt upgrade -y

Part B: Git & GitHub SSH Setup

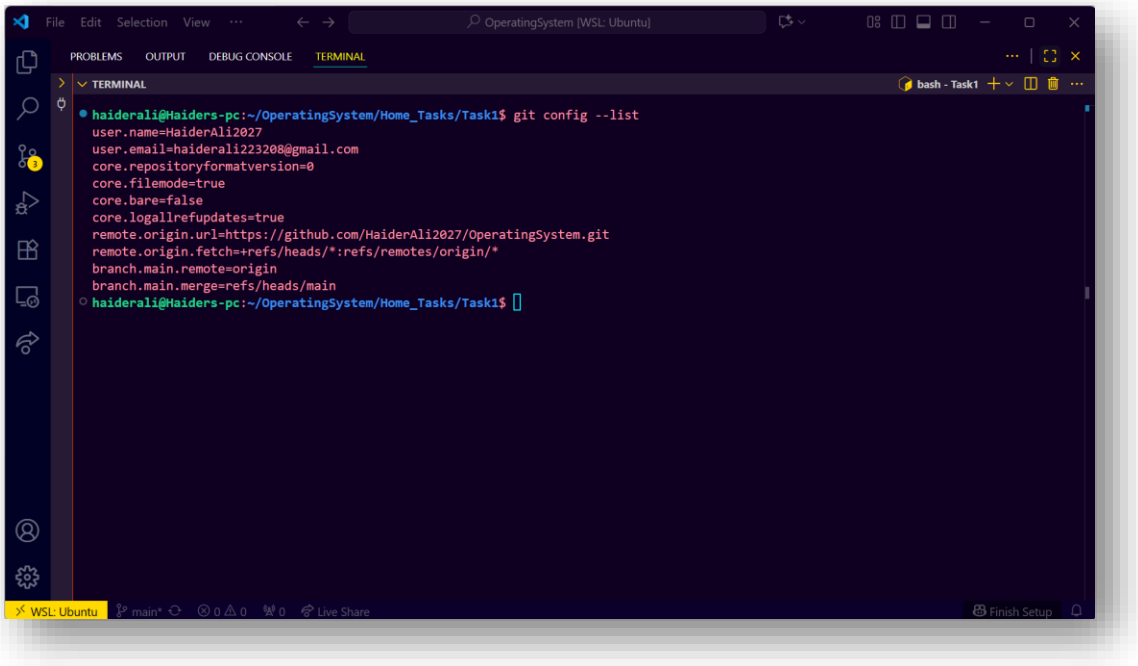
1. Configure Git

- Set your name and email:
  git config --global user.name "Your Name"
  git config --global user.email "your@email.com"

- Show your config:

git config –list

Screen Short:



2. Generate SSH Keys

- Run:

  ssh-keygen -t ed25519

- **Copy the public key:**

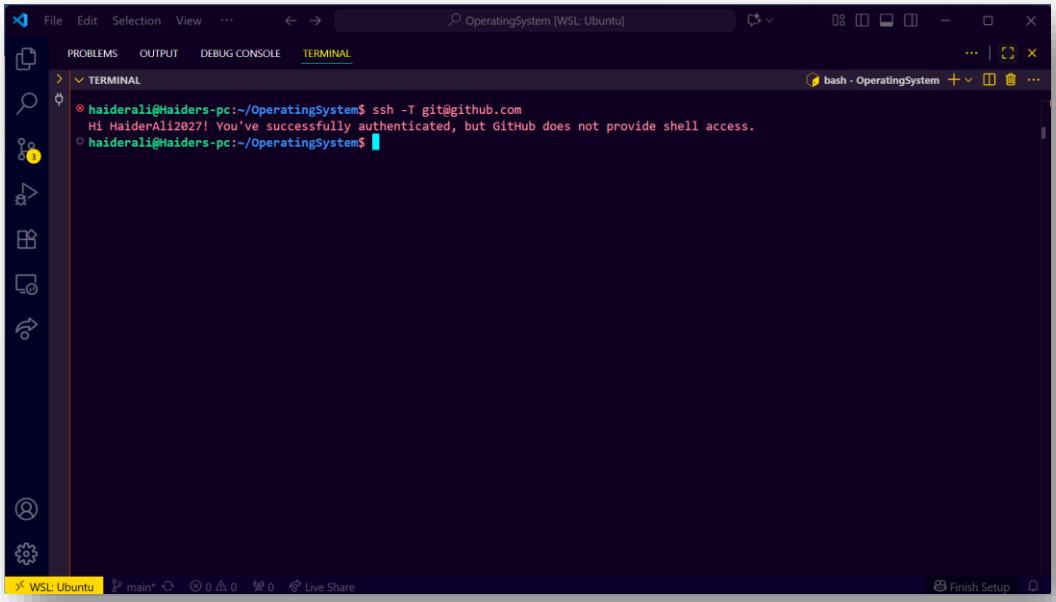
  cat ~/.ssh/id_ed25519.pub

  Add this key to your GitHub account under Settings → SSH and GPG keys.

3. Test Connection

Ssh -T git@github.com

Screen Short:



Part C: C Programming Environment & Practice

Step 1: Install Build Tools

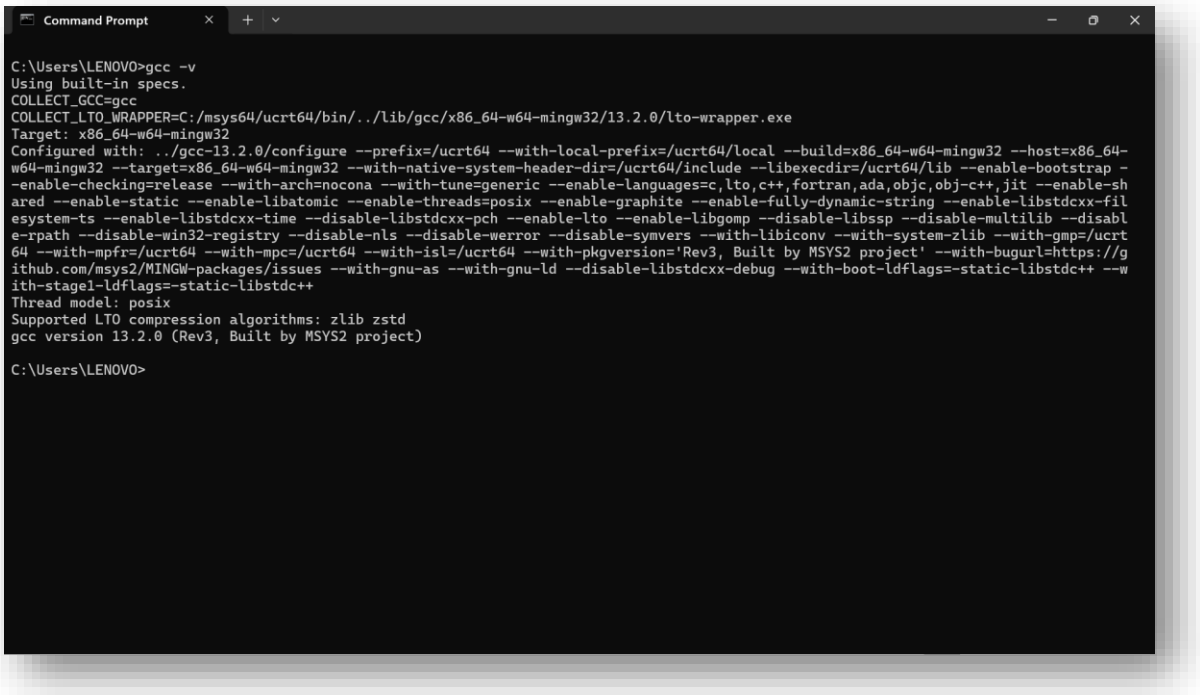
Before writing C programs, install the build-essential package which contains and other tools required for compiling.

Run: sudo apt install build-essential

Verify installation by checking the version of gcc :

gcc –version

Screen Short:



Step 2: How to run a C Program

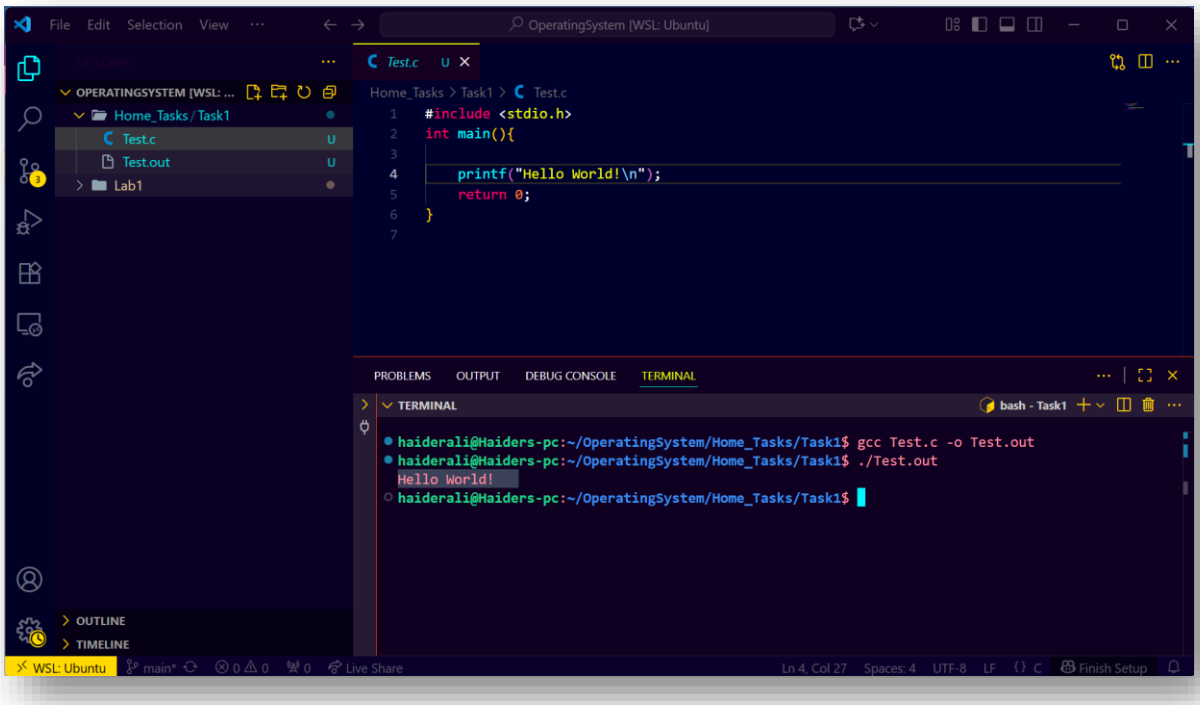
1. First write a C program in a file with .c extension.

2. Compile the file using: **gcc filename.c -o filename.out**

3. Execute it using: **./filename.out**

Step 3: Write a C Program

Write a simple C program of your choice. It can be a Hello World program or any other.


File Edit Selection View
OperatingSystem [WSL: Ubuntu]
OPERATINGSYSTEM [WSL: ...
Home_Tasks / Task1
Test.c
Test.out
Lab1
Test.c U
Home_Tasks > Task1 > Test.c
#include <stdio.h>
int main(){
printf("Hello World!\n");
return 0;
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
TERMINAL
bash - Task1
haiderali@Haiders-pc:~/OperatingSystem/Home_Tasks/Task1$ gcc Test.c -o Test.out
haiderali@Haiders-pc:~/OperatingSystem/Home_Tasks/Task1$ ./Test.out
Hello World!
haiderali@Haiders-pc:~/OperatingSystem/Home_Tasks/Task1$
OUTLINE
TIMELINE
WSL: Ubuntu
main*
Live Share
Ln 4, Col 27
Spaces: 4
UTF-8
LF
C
Finish Setup