



NATIONAL TEXTILE UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE

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SECTION :

BSSE-5A

SUBMITTED TO:

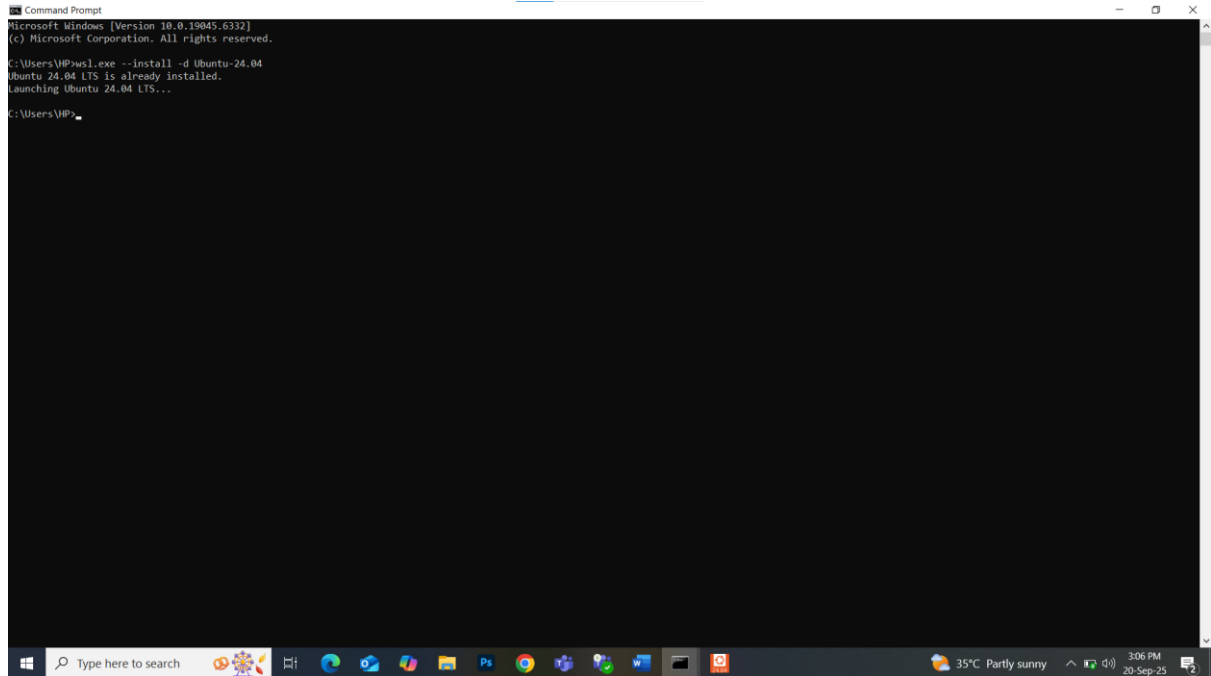
Sir Nasir Mehmood

SUBMISSION DATE:

09-20-2025

Lab 1 Plan: WSL2 Setup and Ubuntu Configuration

Task 01: Installing WSL2 on Windows



```
Microsoft Windows [Version 10.0.19045.6332]
(c) Microsoft Corporation. All rights reserved.

C:\Users\VIP>wsl.exe --install -d Ubuntu-24.04
Ubuntu 24.04 LTS is already installed.
Launching Ubuntu 24.04 LTS...

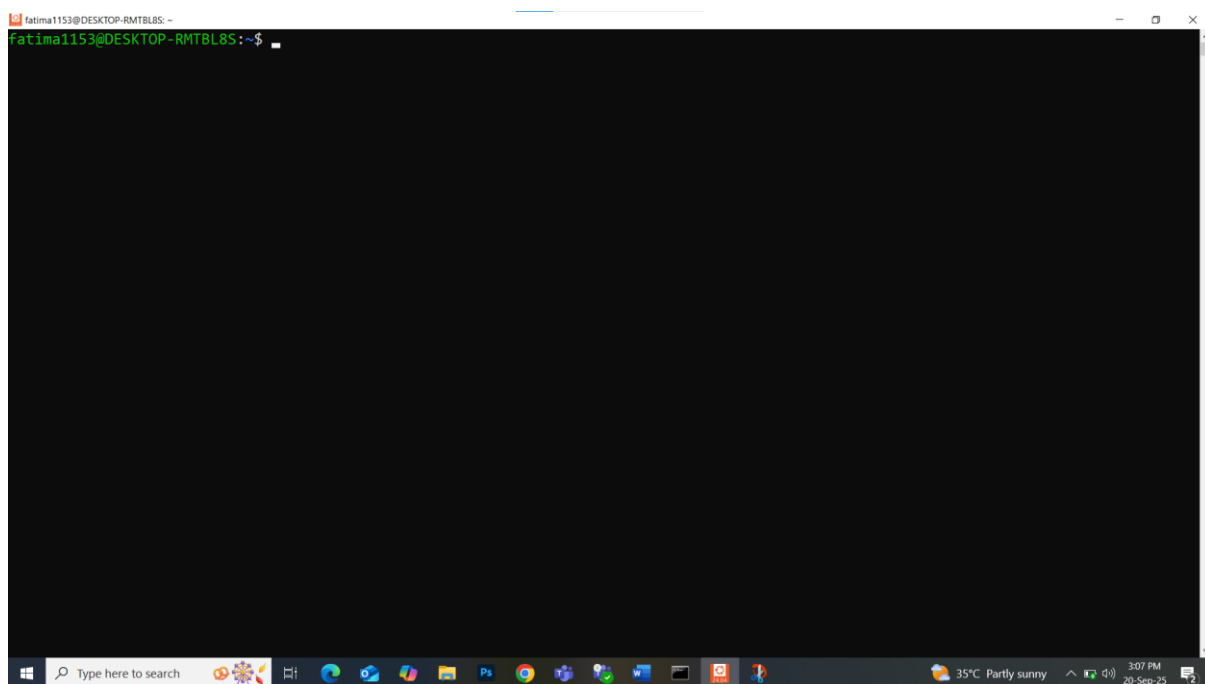
C:\Users\VIP>
```

The screenshot shows a Windows Command Prompt window. The title bar reads "Command Prompt". The text inside shows the execution of the command `wsl.exe --install -d Ubuntu-24.04`. The output indicates that Ubuntu 24.04 LTS is already installed and is being launched. The Windows taskbar is visible at the bottom, showing the search bar and various application icons.

Task 02: Verifying setup on Windows

Step 1: Open Ubuntu 24.04 in Windows terminal or Ubuntu shell directly

Step 2: Create new user and password



```
fatima1153@DESKTOP-RMTBLS: ~$
```

The screenshot shows an Ubuntu terminal window. The title bar reads "fatima1153@DESKTOP-RMTBLS: ~". The prompt is `fatima1153@DESKTOP-RMTBLS: ~$`. The terminal is currently empty, ready for input.

Step 3: Run the following commands `sudo apt update` `sudo apt upgrade`

```
fatima1153@DESKTOP-RMTBLBS:~$
Setting up libdrm-radeon1:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up openssl-client (1:9.6pl-3ubuntu13.14) ...
Setting up libdrm-intel1:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up dconf-service (0.40.0-4ubuntu1.1) ...
Setting up binutils (2.42-4ubuntu2.5) ...
Setting up python3-apport (2.28.1-0ubuntu3.8) ...
Setting up netplan.io (1:1.2-2-ubuntu24.04.2) ...
Setting up snapd (2.68.2+ubuntu24.04.1) ...
Setting up mesa-libgallium:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up cloud-init (25.1.4-0ubuntu0-24.04.1) ...
Installing new version of config file /etc/cloud/templates/sources.list.debian.deb822.tpl ...
Installing new version of config file /etc/cloud/templates/sources.list.ubuntu.deb822.tpl ...
Setting up dconf-gsettings-backend:amd64 (0.40.0-4ubuntu1.1) ...
Setting up ubuntu-minimal (1.539.2) ...
Setting up libghml:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libgl1-mesa-dri:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libegl-mesa0:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libgtk-3-common (3.24.41-4ubuntu1.3) ...
Setting up wsl-setup (0.5.10-24.04) ...
Installing new version of config file /etc/update-motd.d/99-wsl ...
Setting up libglx-mesa0:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libgtk-3-0:amd64 (3.24.41-4ubuntu1.3) ...
Setting up libgtk-3-bin (3.24.41-4ubuntu1.3) ...
Setting up apport-core-dump-handler (2.28.1-0ubuntu3.8) ...
invoke-rc.d: could not determine current runlevel
Setting up apport (2.28.1-0ubuntu3.8) ...
Setting up python3-distupgrade (1:24.04.27) ...
Setting up ubuntu-release-upgrader-core (1:24.04.27) ...
Setting up python3-update-manager (1:24.04.12) ...
Setting up update-manager-core (1:24.04.12) ...
Processing triggers for sgml-base (1:31) ...
Processing triggers for install-info (7:1.3build2) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.5) ...
Processing triggers for systemd (255.4-1ubuntu8.10) ...
Processing triggers for man-db (2.12.0-4build1) ...
Processing triggers for dbus (1:14.10-4ubuntu1.1) ...
Setting up packagekit (1.2.8-2ubuntu1.2) ...
invoke-rc.d: could not determine current runlevel
* Reloading system message bus config...
No such file or directory
Failed to open connection to "system" message bus: Failed to connect to socket /run/dbus/system_bus_socket:
invoke-rc.d: initscript dbus, action "force-reload" failed.
Failed to open connection to "system" message bus: Failed to connect to socket /run/dbus/system_bus_socket: No such file or directory
Setting up packagekit-tools (1:2.8-2ubuntu1.2) ...
Setting up software-properties-common (0.99.49.3) ...
Setting up ubuntu-wsl (1.539.2) ...
fatima1153@DESKTOP-RMTBLBS:~$
```

```
fatima1153@DESKTOP-RMTBLBS:~$
Setting up libalgorithm-merge-perl (0.08-5) ...
Setting up cpp-13-x86-64-linux-gnu (13.3.0-6ubuntu2-24.04) ...
Setting up dpkg-dev (1.22.6ubuntu6.2) ...
Setting up libgcc-13-dev:amd64 (13.3.0-6ubuntu2-24.04) ...
Setting up libc6-dev:amd64 (2.39-0ubuntu8.5) ...
Setting up libstdc++13-dev:amd64 (13.3.0-6ubuntu2-24.04) ...
Setting up cpp-x86-64-linux-gnu (4:13.2.0-7ubuntu1) ...
Setting up cpp-13 (13.3.0-6ubuntu2-24.04) ...
Setting up gcc-13-x86-64-linux-gnu (13.3.0-6ubuntu2-24.04) ...
Setting up gcc-13 (13.3.0-6ubuntu2-24.04) ...
Setting up g++-13-x86-64-linux-gnu (13.3.0-6ubuntu2-24.04) ...
Setting up g++-13 (13.3.0-6ubuntu2-24.04) ...
Setting up gcc (4:13.2.0-7ubuntu1) ...
Setting up g++-x86-64-linux-gnu (4:13.2.0-7ubuntu1) ...
Setting up g++ (4:13.2.0-7ubuntu1) ...
update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (c++) in auto mode
Setting up build-essential (12.10ubuntu1) ...
Setting up libheif1:amd64 (1.17.6-1ubuntu4.1) ...
Setting up libgd3:amd64 (2.3.3-9ubuntu5) ...
Setting up libc-devtools (2.39-0ubuntu8.5) ...
Setting up libheif-plugin-aomdec:amd64 (1.17.6-1ubuntu4.1) ...
Setting up libheif-plugin-libde265:amd64 (1.17.6-1ubuntu4.1) ...
Setting up libheif-plugin-aomenc:amd64 (1.17.6-1ubuntu4.1) ...
Processing triggers for libc-bin (2.39-0ubuntu8.5) ...
Processing triggers for man-db (2.12.0-4build2) ...
fatima1153@DESKTOP-RMTBLBS:~$
```

```
fatima1153@DESKTOP-RMTBLS:~  
fatima1153@DESKTOP-RMTBLS:~$ cd ~/.ssh/  
-bash: cd: ~/.ssh/: No such file or directory  
fatima1153@DESKTOP-RMTBLS:~$ cd ~/.ssh  
-bash: cd: /home/fatima1153/.ssh: No such file or directory  
fatima1153@DESKTOP-RMTBLS:~$ gcr config --list  
Command 'gcr' not found, but can be installed with:  
sudo apt install gcr-rust-code-generator  
fatima1153@DESKTOP-RMTBLS:~$ ssh-keygen -t ed25519 -C "fatihere75@gmail.com"  
Generating public/private ed25519 key pair.  
Enter file in which to save the key (/home/fatima1153/.ssh/id_ed25519):
```

```
fatima1153@DESKTOP-RMTBLS:~  
fatima1153@DESKTOP-RMTBLS:~$ cd ~/.ssh/  
-bash: cd: ~/.ssh/: No such file or directory  
fatima1153@DESKTOP-RMTBLS:~$ cd ~/.ssh  
-bash: cd: /home/fatima1153/.ssh: No such file or directory  
fatima1153@DESKTOP-RMTBLS:~$ gcr config --list  
Command 'gcr' not found, but can be installed with:  
sudo apt install gcr-rust-code-generator  
fatima1153@DESKTOP-RMTBLS:~$ ssh-keygen -t ed25519 -C "fatihere75@gmail.com"  
Generating public/private ed25519 key pair.  
Enter file in which to save the key (/home/fatima1153/.ssh/id_ed25519):  
Created directory '/home/fatima1153/.ssh'.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Passphrases do not match. Try again.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved in /home/fatima1153/.ssh/id_ed25519  
Your public key has been saved in /home/fatima1153/.ssh/id_ed25519.pub  
The key fingerprint is:  
SHA256:Av4IXg6x4ISRbHh3K1w6Q9uqM+rzgV7KUrtXxfrU1I fatihere75@gmail.com  
The key's randomart image is:  
--[ED25519 256]--+  
| .. . E |  
|.. .. |  
|+ o . o . |  
|O= . . n |  
|..B o .-S |  
|*+B o . o |  
|.B*+ . . |  
|* . . |  
|.. .. |  
+----[SHA256]-----+  
fatima1153@DESKTOP-RMTBLS:~$
```

```
fati1153@DESKTOP-RHTBLBS:~$  
fati1153@DESKTOP-RHTBLBS:~$ gir config --list  
Command 'gir' not found, but can be installed with:  
sudo apt install gir-rust-code-generator  
fati1153@DESKTOP-RHTBLBS:~$ ssh-keygen -t ed25519 -C "fatihere75@gmail.com"  
Generating public/private ed25519 key pair.  
Enter file in which to save the key (/home/fati1153/.ssh/id_ed25519):  
Created directory '/home/fati1153/.ssh'.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Passphrases do not match. Try again.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved in /home/fati1153/.ssh/id_ed25519  
Your public key has been saved in /home/fati1153/.ssh/id_ed25519.pub  
The key fingerprint is:  
SHA256:Av4ZtQpox415R8bh3KiuQ0Q9wgM+rzgV7KUrtXxFrUI fatihere75@gmail.com  
The key's randomart image is:  
+--[ED25519 256]--+  
| . . . . .  
| . . . . .  
|+ o + o .  
|o.w . . =  
|..B o cS  
|*+B.o..o  
|B*+..  
|*+..  
|..+..  
+-----[SHA256]-----  
fati1153@DESKTOP-RHTBLBS:~$ cd ~/.ssh/  
fati1153@DESKTOP-RHTBLBS:~/.ssh$ ls  
id_ed25519 id_ed25519.pub  
fati1153@DESKTOP-RHTBLBS:~/.ssh$ cat ~/.ssh/id_ed25519.pub  
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIP38Q/2lUKoR/QMaid4wQ8RH/hadL0Fi8DQp38RyIf fatihere75@gmail.com  
fati1153@DESKTOP-RHTBLBS:~/.ssh$ ssh -T git@github.com  
The authenticity of host 'github.com (20.207.73.82)' can't be established.  
ED25519 key fingerprint is SHA256:4dY3awVvUuJ3hbpZisf/zLD0qzPMSVhdkr4UvC0qL.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes_
```

TASK NO3:

```
fatima1153@DESKTOP-RMTBLS: ~/wsl_lab1
*** Please tell me who you are.

Run

git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: empty ident name (for <fatima1153@DESKTOP-RMTBLS.localdomain>) not allowed
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$ git config --global user.name "FatimaBashir511"
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$ git config --global user.email "fatihere75@gmail.com"
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$ git config --list
user.name=FatimaBashir511
user.email=fatihere75@gmail.com
core.repositoryformatversion=0
core.filemode=true
core.bare=false
core.logallrefupdates=true
remote.origin.url=https://github.com:FatimaBashir511/wsl_lab1.git
remote.origin.fetch=https://github.com:FatimaBashir511/wsl_lab1.git
branch.main.remote.origin
branch.main.merge=refs/heads/main
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$ git commit -m "Add first file from wsl"
[main (root-commit) 163df02] Add first file from wsl
1 file changed, 1 insertion(+)
 create mode 100644 first_file.txt
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$ git branch -M main
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$ git push origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 251 bytes | 251.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:FatimaBashir511/wsl_lab1.git
 * [new branch] main -> main
fatima1153@DESKTOP-RMTBLS:~/wsl_lab1$
```

YouTube (3) WhatsApp Pre lab 01 (1).pdf WSL install command fix GitHub - Search FatimaBashir511/wsl_lab1

https://github.com/FatimaBashir511/wsl_lab1

FatimaBashir511 / wsl_lab1

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

ws_lab1 Public

main 1 Branch 0 Tags

Go to file Add file Code

FatimaBashir511 Add first file from wsl 163df02 · 38 minutes ago 1 Commit

first_file.txt Add first file from wsl 38 minutes ago

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

Activity

0 stars

0 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

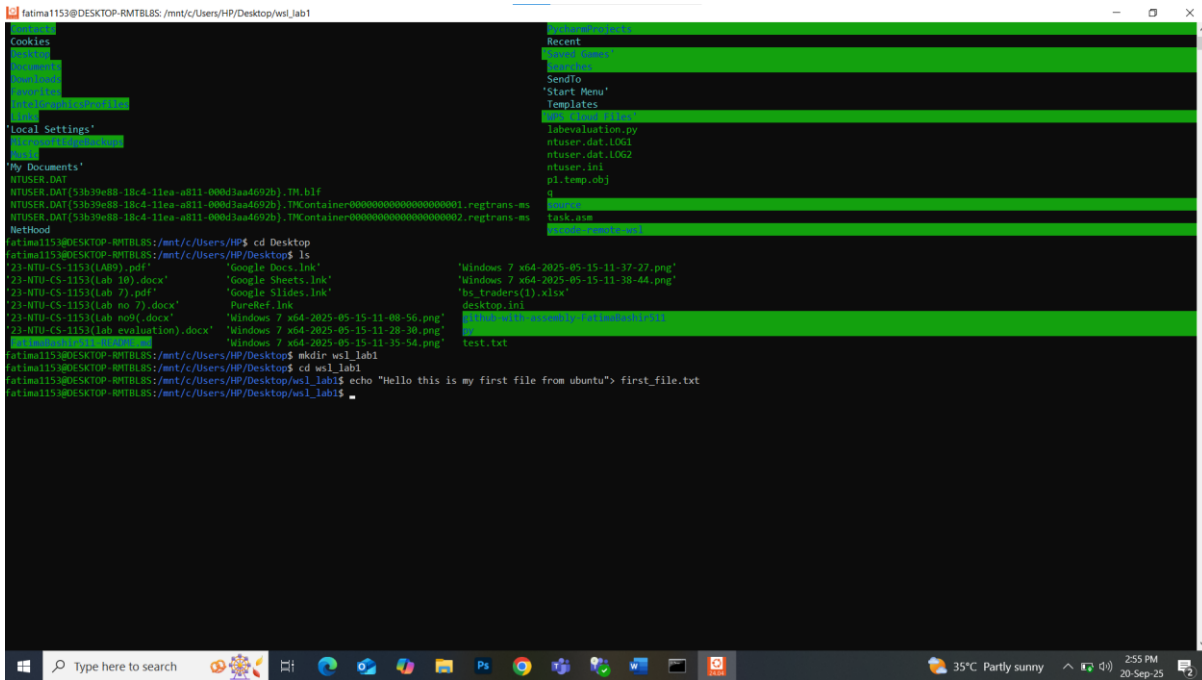
Publish your first package

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Task 03: Linux filesystem and directory structure

Step 1: Explore Linux filesystem and basic linux files.

Step 2: Explore how Ubuntu (Linux) can access Windows file system under /mnt/c/.



```
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP/Desktop/wsl_lab1
ls
Cookies
Downloads
Local Settings
My Documents
NTUSER.DAT
NTUSER.DAT{53b39e88-18c4-11ea-a811-000d3aa4692b}.TH.bif
NTUSER.DAT{53b39e88-18c4-11ea-a811-000d3aa4692b}.TH.Container000000000000000000000001.regtrans-ms
NTUSER.DAT{53b39e88-18c4-11ea-a811-000d3aa4692b}.TH.Container000000000000000000000002.regtrans-ms
NetHood
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP$ cd Desktop
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP/Desktop$ ls
'23-NTU-CS-1153(LAB9).pdf'      'Google Docs.link'      'Windows 7 x64-2025-05-15-11-37-27.png'
'23-NTU-CS-1153(Lab 10).docx'  'Google Sheets.link'    'Windows 7 x64-2025-05-15-11-38-44.png'
'23-NTU-CS-1153(Lab 7).pdf'    'Google Slides.link'    'bs_traders(1).xlsx'
'23-NTU-CS-1153(Lab no 7).docx' 'Parallel.link'         'desktop.ini'
'23-NTU-CS-1153(Lab no9).docx' 'Windows 7 x64-2025-05-15-11-09-56.png'
'23-NTU-CS-1153(Lab evaluation).docx' 'Windows 7 x64-2025-05-15-11-28-30.png'
'Windows 7 x64-2025-05-15-11-35-54.png'
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP/Desktop$ mkdir wsl_lab1
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP/Desktop$ cd wsl_lab1
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP/Desktop/wsl_lab1$ echo "Hello this is my first file from ubuntu" > first_file.txt
fatima1153@DESKTOP-RMTBLS: /mnt/c/Users/HP/Desktop/wsl_lab1$
```

Step 3: Practice creating files in Windows and accessing them in Ubuntu.

