

Chapter 1

Installing Ubuntu Linux on Windows (WSL2)

Before You Begin

- ☐ Connect your laptop to the internet.
- ☐ Plug your laptop into the charger.
- ☐ Close any programs you don't need.
- ☐ Save any work you have open.

Step 1 - Open Windows PowerShell as Administrator

Follow each step carefully. Do not skip any steps.

1. Move your mouse to the Start button in the bottom-left corner of your screen.
2. Click the Start button once.
3. Type the word PowerShell on your keyboard.
4. You should see 'Windows PowerShell' appear in the search results.
5. Move your mouse over 'Windows PowerShell'.
6. Right-click 'Windows PowerShell'.
7. From the menu that appears, click 'Run as administrator'.
8. If Windows asks 'Do you want to allow this app to make changes to your device?', click 'Yes'.

Expected Result:

A blue or black Windows PowerShell window opens. Leave this window open.

Step 2 - Install WSL2 and Ubuntu

Click once inside the PowerShell window so that the cursor is blinking.

Type the command below exactly as shown.

```
wsl --install
```

Important:

- There is one space between 'wsl' and '--install'.

- There are TWO dashes before the word install.
- Do not add any extra characters.

Press the Enter key on your keyboard.

Windows will now automatically install:

- Windows Subsystem for Linux (WSL)
- Virtual Machine Platform
- The latest WSL2 Linux kernel
- Ubuntu Linux

The installation may take between 5 and 15 minutes depending on your internet connection and computer speed.

Do NOT close the PowerShell window while the installation is in progress.

Step 3 - Restart Your Computer

When the installation has finished, Windows will ask you to restart your computer.

Save any open work.

Click Restart.

Wait for Windows to restart completely before continuing.

If Something Goes Wrong

If you see an error message:

- Do not panic.
- Read the message carefully.
- Take a clear screenshot of the error.
- Send the screenshot to your instructor before trying random fixes.

Chapter 1 - Part 2

First Time Ubuntu Setup

Step 4 - Open Ubuntu for the First Time

After your computer has restarted, you are ready to open Ubuntu.

1. Click the Start button.
2. Type Ubuntu.
3. Click the Ubuntu application.
4. Do not worry if Ubuntu takes a minute or two to open. This is normal during the first launch.
5. You will see messages showing Ubuntu is completing its installation. Wait patiently until you are asked to create a username.

Expected result:

You should see a black terminal window with a message asking you to create a UNIX username.

Step 5 - Create Your Linux Username

A username identifies you on the Linux system. You will use it throughout the bootcamp.

When you see the message:

Enter new UNIX username:

Type a username using only:

- Lowercase letters (a-z)
- Numbers (0-9), if needed
- No spaces
- No special characters such as !, @, #, %, &

Examples of good usernames:

john

mary1

adeola

techking

Examples to avoid:

John Smith

John!

My Laptop

john doe

After typing your username, press Enter.

Step 6 - Create Your Linux Password

Ubuntu will now ask you to create a password.

New password:

Type a password that you will remember.

Important:

- Nothing will appear on the screen while you type your password.
- You will not see dots, stars or letters.
- This is normal and is done for security reasons.
- Even though you cannot see the password, Ubuntu is recording every key you press.

When you finish typing your password, press Enter.

Ubuntu will ask you to type the same password again to confirm it.

Retype new password:

Type exactly the same password and press Enter.

If Your Password Is Rejected

- Read the message carefully.
- It usually means the two passwords did not match.
- Simply type the password again.
- Remember that passwords are case-sensitive. For example, Password123 is different from password123.

Expected Result

When your username and password have been accepted, Ubuntu will display a command prompt similar to:

yourusername@yourcomputer:~\$

Congratulations! Ubuntu has now been installed successfully and you are ready to update your system.

Chapter 1 - Part 3

Updating Ubuntu for the First Time

Step 7 - Understanding the Command Prompt

You should now see a line similar to the one below. This is called the Linux command prompt.

yourusername@yourcomputer:~\$

The flashing cursor means Ubuntu is waiting for you to type a command.

Step 8 - Update the Package List

The first thing we do on any new Linux installation is update the package list. This tells Ubuntu about the latest software available.

Type the command exactly as shown below:

```
sudo apt update
```

Check carefully before pressing Enter:

- There is one space after 'sudo'.
- There is one space after 'apt'.
- Do not add any extra characters.

Press Enter.

Ubuntu will ask for your password.

```
[sudo] password for yourusername:
```

Type the password you created earlier and press Enter.

Remember: you will NOT see any characters while typing your password. This is completely normal.

What Should Happen?

Ubuntu will connect to the internet and download the latest package information.

You will see several lines of text scrolling up the screen. This is expected.

Wait until the command finishes and the command prompt appears again.

Step 9 - Upgrade Installed Software

Now install the latest updates for software already on your computer.

Type the following command:

```
sudo apt upgrade -y
```

Press Enter.

The '-y' automatically answers 'Yes' to any confirmation questions.

Depending on your internet speed, this may take several minutes.

Do not close the Ubuntu window while the upgrade is running.

If You See 'Do you want to continue? [Y/n]'

Normally, the '-y' option answers this automatically.

If you are asked anyway, simply type:

Y

Then press Enter.

Step 10 - Check That Everything Worked

When the upgrade finishes, you should see the command prompt again.

```
yourusername@yourcomputer:~$
```

This means Ubuntu has finished updating successfully.

Common Problems

- 'Temporary failure resolving...' usually means your computer is not connected to the internet.
- 'Unable to lock directory' usually means another update is already running. Wait a few minutes and try again.
- 'Permission denied' usually means the command was typed incorrectly. Type it again exactly as shown.

Checkpoint

- ☐ I successfully ran 'sudo apt update'.
- ☐ I successfully ran 'sudo apt upgrade -y'.

☐ I entered my password correctly.

☐ The command prompt returned without any errors.