

Installing WSL (Windows Subsystem for Linux) and Opening Ubuntu Terminal

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This document provides a step-by-step guide for Windows users to install and configure the Windows Subsystem for Linux (WSL) and Ubuntu. It includes prerequisites, installation steps, basic bash commands, and instructions for uninstalling WSL and Ubuntu if needed. This guide is especially helpful for developers and users who want to use Linux tools and commands on a Windows system.

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Prerequisites

Before proceeding with the installation, ensure your system meets the following requirements:

- **Minimum Disk Space:** 5 GB of free disk space.
- **Recommended CPU Cores:** At least 2 cores.
- **Recommended RAM:** 4 GB or more.
- **Estimated Installation Time:** Approximately 15-20 minutes, depending on system performance and internet speed.

Enable WSL

1. Open **Windows PowerShell** as Administrator.
 - **Estimated Time:** Less than 1 minute.
2. Run the following command to enable WSL:

```
wsl --install
```

- **Estimated Time:** 5-10 minutes, depending on your system's performance.
3. Once installation is finished you should see these lines at the end:

```
Enabling feature(s)
[=====100.0%=====]
The operation completed successfully.
```

The requested operation is successful. Changes will not be effective until the system is rebooted.

Reboot Your System

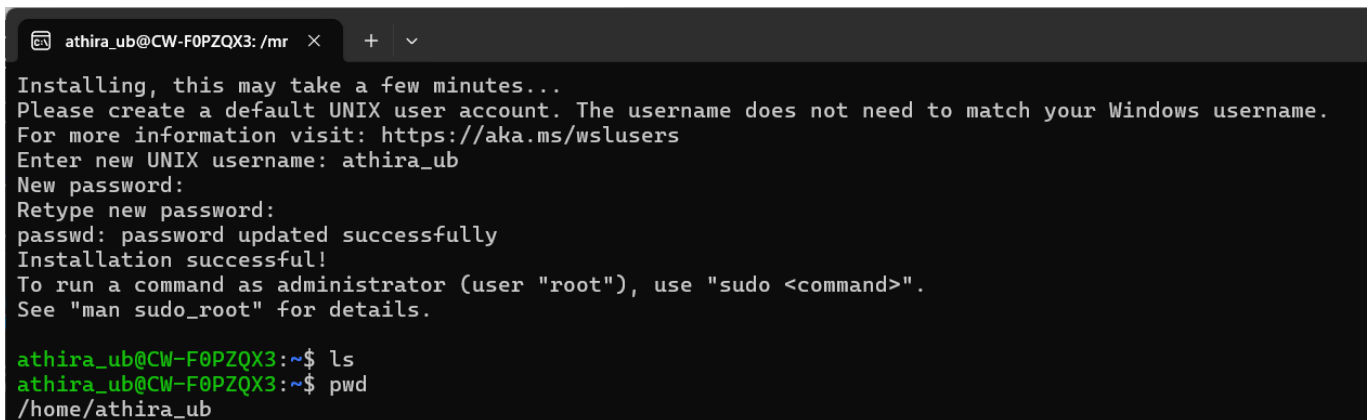
1. Save all your work and close any open applications.
2. Restart your system by:
 - Clicking on the **Start Menu**.
 - Selecting **Power** and then **Restart**.
 - **Estimated Time:** 2-5 minutes.

Download and Install Ubuntu

1. Open the **Microsoft Store** from the **Start Menu**.
2. Search for **Ubuntu** in the store's search bar.
3. Select your preferred version of Ubuntu (e.g., Ubuntu 20.04 LTS) and click **Get** or **Install**.
 - **Estimated Time:** 5-10 minutes, depending on your internet speed.
4. Wait for the download and installation to complete.

Start Ubuntu Terminal

1. After the installation, open the **Start Menu**.
2. Search for **Ubuntu** in the search bar.
3. Click on the **Ubuntu** app to launch the terminal.
4. Follow the on-screen instructions to complete the initial setup, such as creating a username and password.
 - Example username: **ubuntu**
 - **Estimated Time:** 2-3 minutes.

A screenshot of a terminal window titled 'athira_ub@CW-F0PZQX3: /mr'. The terminal shows the following text: 'Installing, this may take a few minutes... Please create a default UNIX user account. The username does not need to match your Windows username. For more information visit: https://aka.ms/wslusers Enter new UNIX username: athira_ub New password: Retype new password: passwd: password updated successfully Installation successful! To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details.' Below this, the user enters 'ls' and 'pwd', resulting in the output '/home/athira_ub'.

```
athira_ub@CW-F0PZQX3: /mr
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: athira_ub
New password:
Retype new password:
passwd: password updated successfully
Installation successful!
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

athira_ub@CW-F0PZQX3:~$ ls
athira_ub@CW-F0PZQX3:~$ pwd
/home/athira_ub
```

5. Update the package lists to ensure you have the latest information about available packages:

```
sudo apt update
```

- **Estimated Time:** 1-2 minutes.

You can find the Windows Documents folder like this:

```
cd /mnt/c/Users/YOUR_USERNAME/Documents/
```

Basic Bash Commands

Here are some basic bash commands to get started, along with examples:

1. List files in the current directory:

```
ls
```

Example:

```
ubuntu@MACHINENAME:~$ ls  
Documents Downloads Pictures
```

2. Print the current working directory:

```
pwd
```

Example:

```
ubuntu@MACHINENAME:~$ pwd  
/home/ubuntu
```

3. Change directory:

```
cd <directory_path>
```

Example:

```
cd Documents
```

4. Create a new directory:

```
mkdir <directory_name>
```

Example:

```
mkdir new_folder
```

5. View the contents of a file:

```
cat <file_name>
```

Example:

```
cat example.txt
```

6. Copy a file:

```
cp <source_file> <destination_file>
```

Example:

```
cp file1.txt file2.txt
```

7. Move or rename a file:

```
mv <source_file> <destination_file>
```

Example:

```
mv old_name.txt new_name.txt
```

8. Remove a file:

```
rm <file_name>
```

Example:

```
rm unwanted_file.txt
```

Uninstall WSL and Ubuntu

Uninstall Ubuntu

1. Open the **Start Menu** and search for **Apps & features**.
2. In the **Apps & features** window, search for **Ubuntu** in the search bar.
3. Select the installed Ubuntu version (e.g., Ubuntu 20.04 LTS) and click **Uninstall**.
4. Confirm the uninstallation when prompted.

Uninstall WSL

1. Open **Windows PowerShell** as Administrator.
2. Disable the WSL feature by running the following command:

```
dism.exe /online /disable-feature /featurename:Microsoft-Windows-Subsystem-Linux /norestart
```

3. If you also want to remove the Virtual Machine Platform, run:

```
dism.exe /online /disable-feature /featurename:VirtualMachinePlatform /norestart
```

4. Restart your system to complete the uninstallation process.

Remove WSL Files

1. Navigate to the WSL installation folder (usually located at **C:\Users\<YourUsername>\AppData\Local\Packages**).
2. Delete the folder corresponding to your Ubuntu installation (e.g., **CanonicalGroupLimited.Ubuntu20.04onWindows**).

Note: Uninstalling WSL and Ubuntu will delete all associated files and data. Ensure you back up any important data before proceeding.