

How to Install Windows Subsystem for Linux (WSL) on Windows 11

Windows Subsystem for Linux (WSL) allows you to run a Linux environment directly on Windows without the need for a virtual machine or dual-boot setup. With Windows 11, installing WSL has been streamlined to a single command, making it easier than ever to get started. This guide will walk you through the steps to install WSL, update the WSL kernel, install a specific Linux distribution, and install WSL via the Microsoft Store.

1. Install WSL on Windows 11

Follow these steps to install WSL on your Windows 11 system:

1. Open Start Menu:

- Click on the Start button or press the `Windows` key on your keyboard.

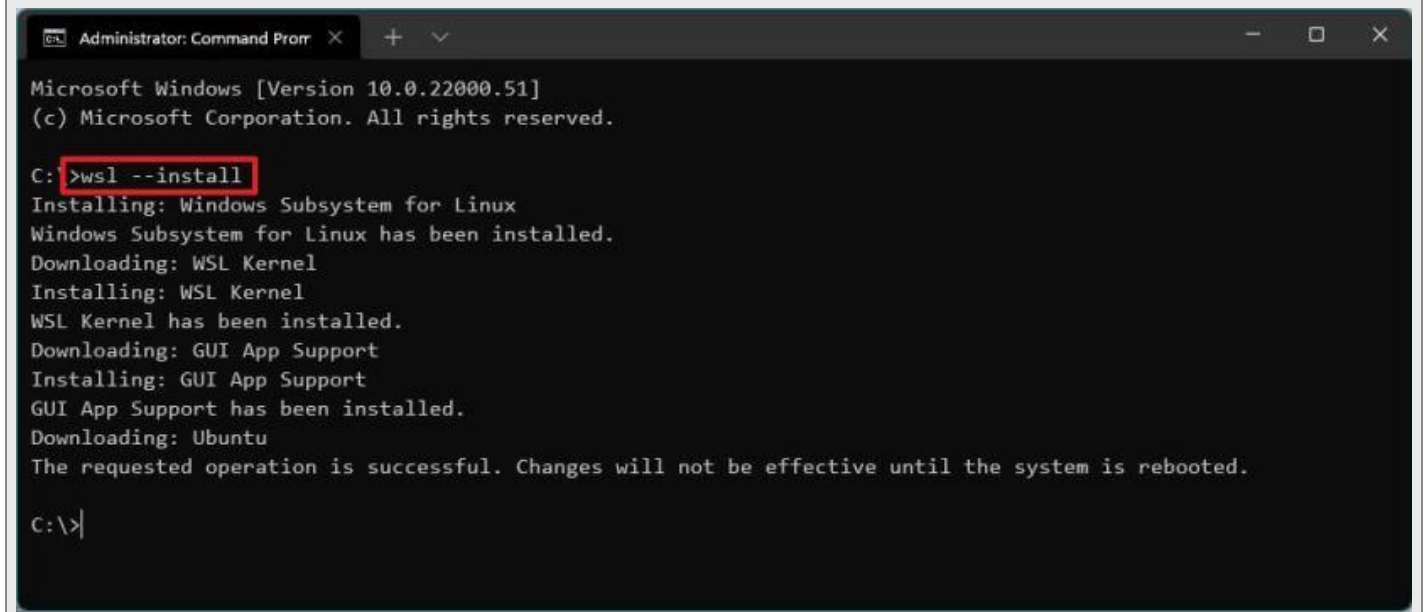
2. Open PowerShell as Administrator:

- Search for "PowerShell" in the Start menu.
- Right-click on the top result and select Run as administrator.

3. Run the Installation Command:

- In the command line window, type the following command and press `Enter`:

wsl --install

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prom". The window shows the output of the command "wsl --install". The text in the command prompt is as follows:

```
Microsoft Windows [Version 10.0.22000.51]
(c) Microsoft Corporation. All rights reserved.

C:\>wsl --install
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
Installing: WSL Kernel
WSL Kernel has been installed.
Downloading: GUI App Support
Installing: GUI App Support
GUI App Support has been installed.
Downloading: Ubuntu
The requested operation is successful. Changes will not be effective until the system is rebooted.

C:\>
```

- This command will automatically install WSL and the latest Ubuntu distribution.

4. Restart Your Computer:

- Once the installation is complete, restart your computer to finalize the installation.

5. Complete Linux Distro Setup:

- After restarting, follow the on-screen prompts to complete the setup of the Ubuntu Linux distribution.

2. Update the WSL Kernel

To keep your WSL kernel up to date, follow these steps:

1. Open Start Menu:

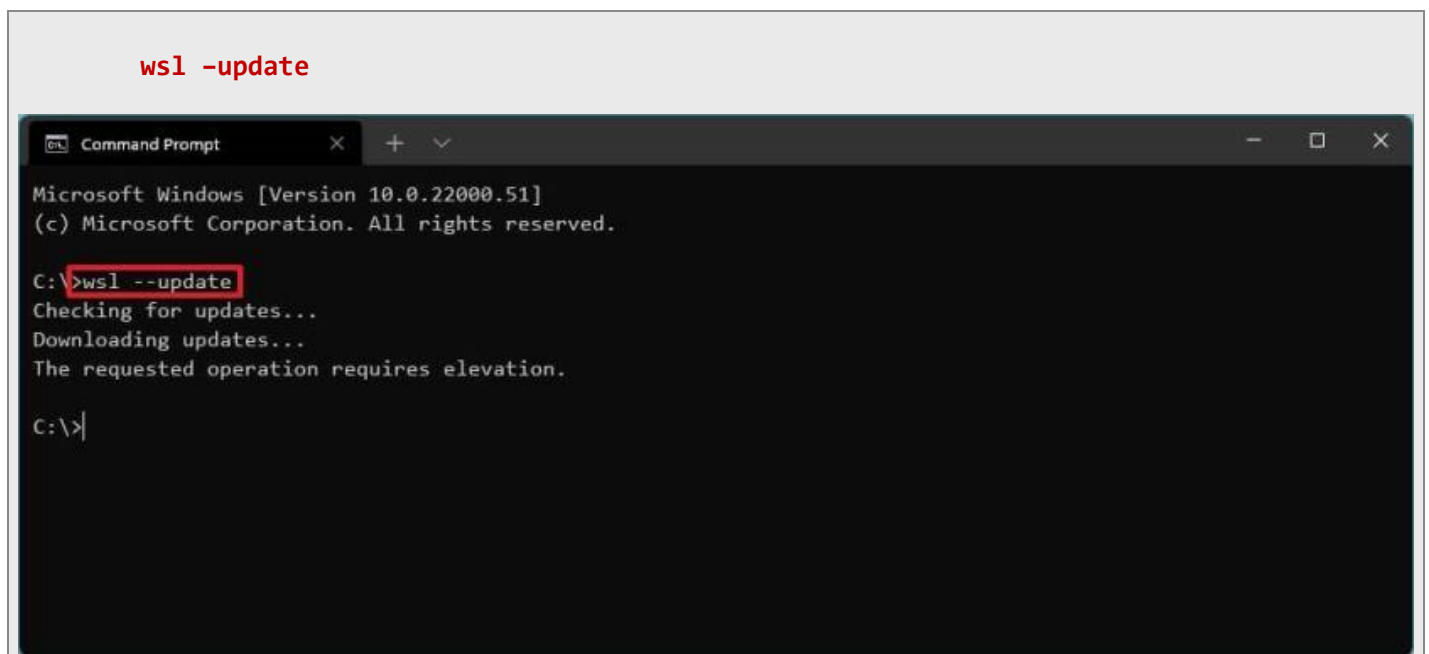
- Click on the Start button or press the `Windows` key on your keyboard.

2. Open "PowerShell" as Administrator:

- Search for "" in the Start menu.
- Right-click on the top result and select Run as administrator.

3. Run the Update Command:

- In the command line window, type the following command and press `Enter`:



```
wsl --update
```

```
Microsoft Windows [Version 10.0.22000.51]
(c) Microsoft Corporation. All rights reserved.

C:\>wsl --update
Checking for updates...
Downloading updates...
The requested operation requires elevation.

C:\>
```

- If an update is available, it will be downloaded and installed automatically.

3. Install WSL with a Specific Linux Distribution

If you prefer a Linux distribution other than Ubuntu, you can install a specific distro using the following steps:

1. Open Start Menu:

- Click on the Start button or press the `Windows` key on your keyboard.

2. Open "PowerShell" as Administrator:

- Search for "PowerShell" in the Start menu.
- Right-click on the top result and select Run as administrator.

3. List Available Distributions:

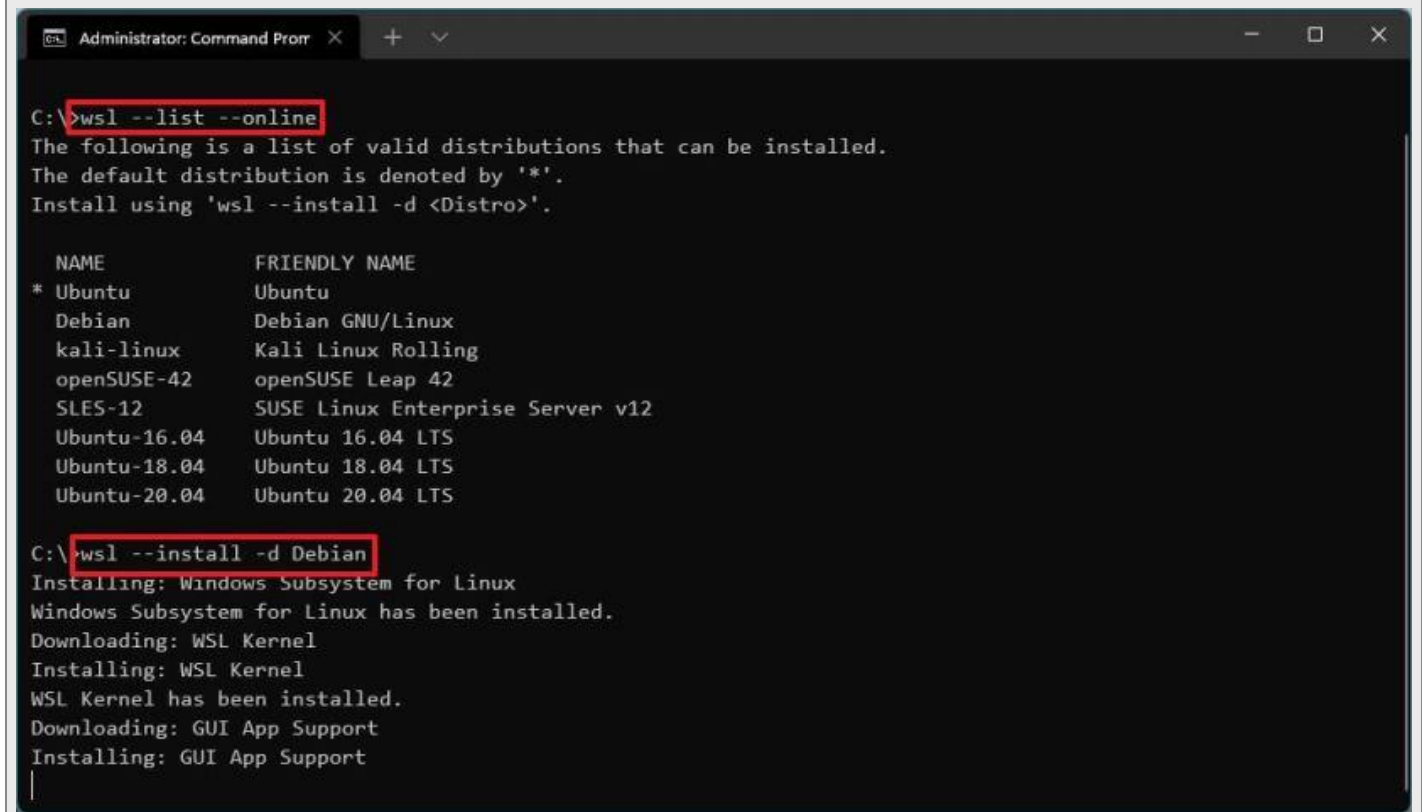
- To see a list of available distributions, type the following command and press `Enter`:

```
wsl --list -online
```

- This will display all the supported Linux distributions you can install.

4. Install the Desired Distribution:

```
wsl --install -d Ubuntu
```



The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prom". The command `wsl --list --online` is entered and executed, displaying a list of available Linux distributions. The command `wsl --install -d Debian` is then entered and executed, showing the progress of the installation, including downloading the WSL kernel and GUI app support.

```
C:\>wsl --list --online
The following is a list of valid distributions that can be installed.
The default distribution is denoted by '*'.
Install using 'wsl --install -d <Distro>'.

NAME          FRIENDLY NAME
* Ubuntu      Ubuntu
Debian        Debian GNU/Linux
kali-linux    Kali Linux Rolling
openSUSE-42   openSUSE Leap 42
SLES-12       SUSE Linux Enterprise Server v12
Ubuntu-16.04  Ubuntu 16.04 LTS
Ubuntu-18.04  Ubuntu 18.04 LTS
Ubuntu-20.04  Ubuntu 20.04 LTS

C:\>wsl --install -d Debian
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
Installing: WSL Kernel
WSL Kernel has been installed.
Downloading: GUI App Support
Installing: GUI App Support
|
```

- Replace `DISTRO-NAME` with the name of the distribution you want to install, such as `Debian` or `Kali-Linux`.

5. Restart Your Computer:

- After the installation, restart your computer to finalize the setup.

6. Complete Linux Distro Setup:

- Follow the on-screen prompts to complete the setup of your chosen Linux distribution.

4. Install WSL from the Microsoft Store

For a more isolated and update-friendly installation, you can install WSL directly from the Microsoft Store. Here's how:

Step 1: Enable the Virtual Machine Platform

1. Open Start Menu:

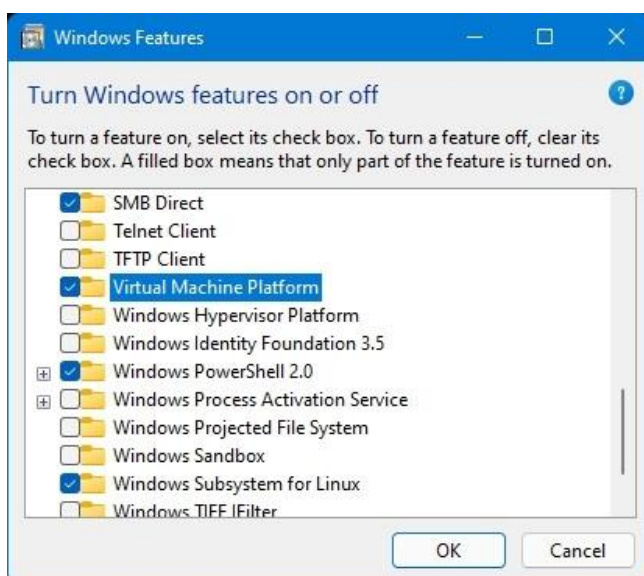
- Click on the Start button or press the `Windows` key on your keyboard.

2. Search for Windows Features:

- Type "Turn Windows features on or off" and click the top result.

3. Enable Virtual Machine Platform:

- Scroll down and check the box for Virtual Machine Platform.
- Click OK and then Restart your computer when prompted.



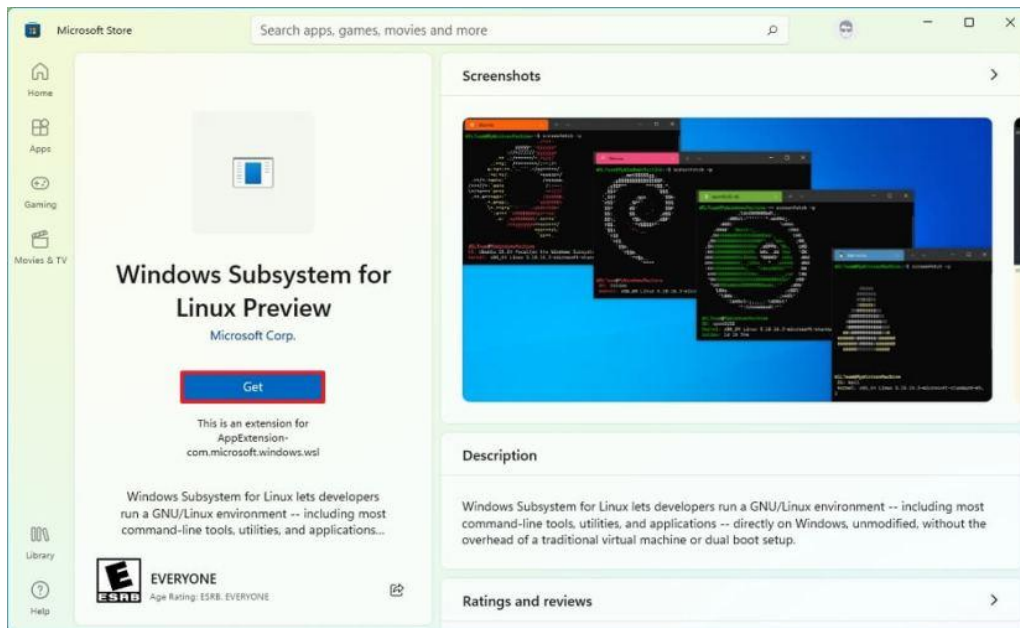
Step 2: Install the Windows Subsystem for Linux App

1. Open Microsoft Store:

- Click on the Start button, search for "Microsoft Store," and open it.

2. Search for WSL:

- In the Store, search for "Windows Subsystem for Linux."



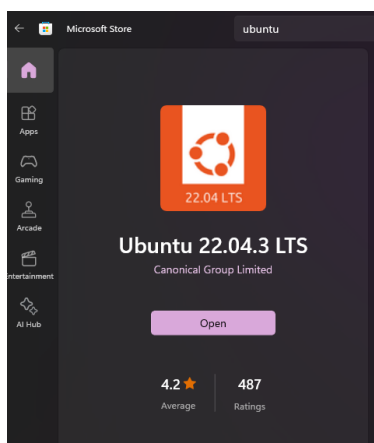
3. Install WSL:

- Click on the Get button to download and install the WSL app.

Step 3: Install a Linux Distribution

1. Search for a Linux Distribution:

- In the Microsoft Store, search for your preferred Linux distribution, such as `Debian` or `Ubuntu`.



2. Install the Distribution:

- Click on the Get button to download and install the distribution.

3. Open the Distribution:

- Once installed, open the distribution to complete the initial setup.

Conclusion

By following this guide, you've successfully installed WSL on your Windows 11 machine. You now have a full Linux environment at your disposal, ready to run alongside your Windows applications. Whether you opted for the default Ubuntu distribution or chose another one, you're set to start exploring the powerful world of Linux on your Windows 11 system.