

How to install one or more linux distributions on Windows 10 or higher using WSL or Windows Subsystem for Linux

WSL stands for Windows Subsystem for Linux.

Using WSL you can install one or more than one Linux Distributions on windows 10 or higher and also you can remove any linux distributions you don't want any more.

WSL is alternative for creating Virtual Machines.

WSL prerequisites

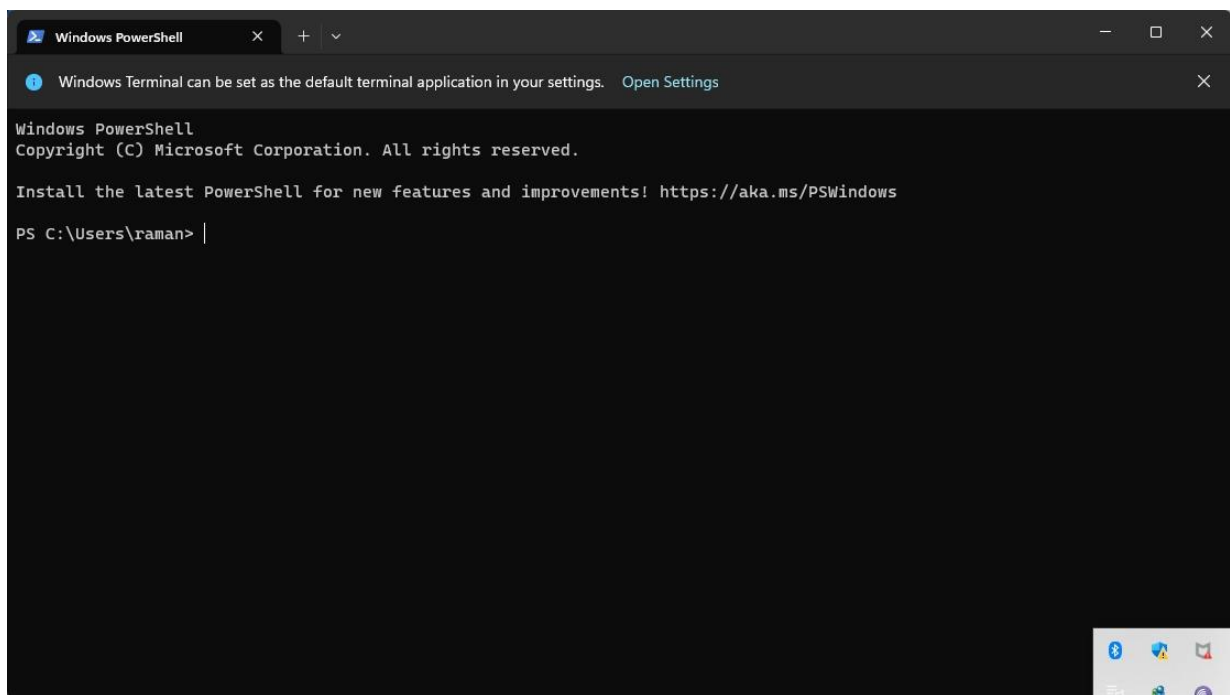
- You need Windows 10 or higher
- Virtualization Settings enabled in BIOS.
- Internet Connection

How to install WSL

Open terminal in Windows 10 or higher

Go to Search in Windows and open terminal

Following window will appear



To install wsl

Write command `wsl --install`

This command will install wsl and ubuntu which is a free linux distribution by default.

After that a reboot is required.

Now to go to Ubuntu Operating System type ubuntu in search bar and press enter , ubuntu will open up.

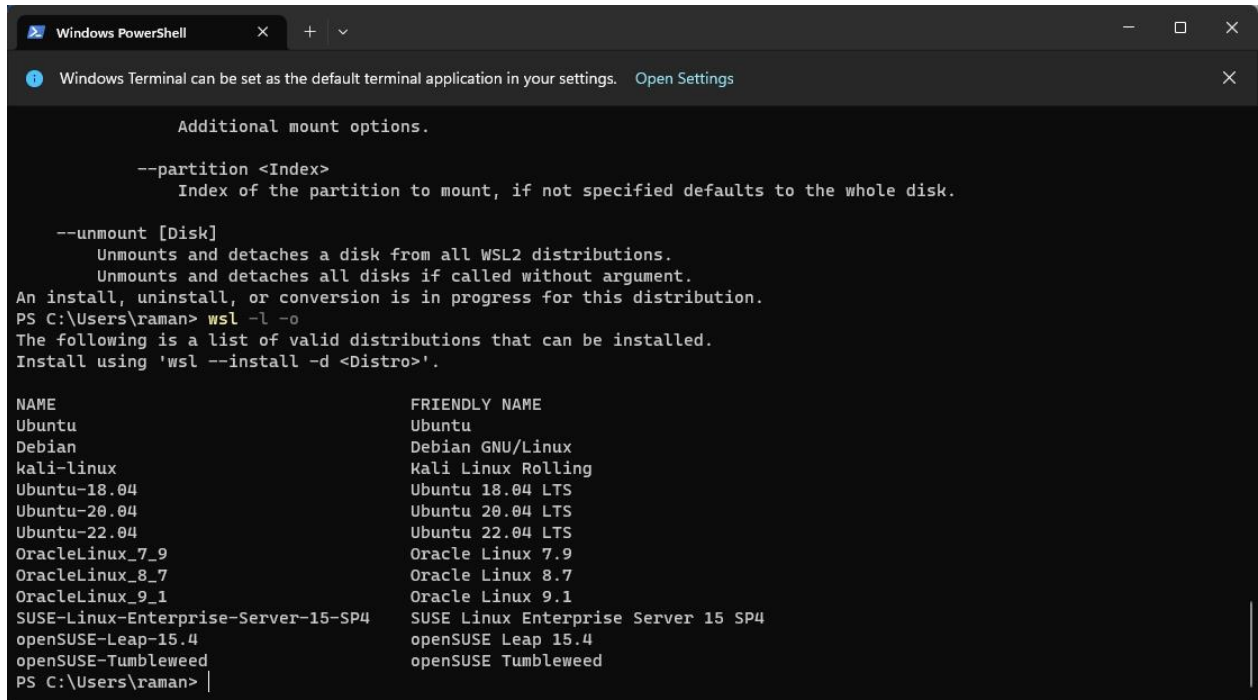
To see the list of linux distributions you can install with wsl

Type command

`Wsl -l -o`

-l stands for list and -o stands for online

Following output will appear



```
Windows PowerShell
Windows Terminal can be set as the default terminal application in your settings. Open Settings

Additional mount options.

--partition <Index>
    Index of the partition to mount, if not specified defaults to the whole disk.

--unmount [Disk]
    Unmounts and detaches a disk from all WSL2 distributions.
    Unmounts and detaches all disks if called without argument.
An install, uninstall, or conversion is in progress for this distribution.
PS C:\Users\raman> wsl -l -o
The following is a list of valid distributions that can be installed.
Install using 'wsl --install -d <Distro>'.

NAME                                FRIENDLY NAME
-----                                -
Ubuntu                              Ubuntu
Debian                              Debian GNU/Linux
kali-linux                          Kali Linux Rolling
Ubuntu-18.04                         Ubuntu 18.04 LTS
Ubuntu-20.04                         Ubuntu 20.04 LTS
Ubuntu-22.04                         Ubuntu 22.04 LTS
OracleLinux_7_9                     Oracle Linux 7.9
OracleLinux_8_7                     Oracle Linux 8.7
OracleLinux_9_1                     Oracle Linux 9.1
SUSE-Linux-Enterprise-Server-15-SP4 SUSE Linux Enterprise Server 15 SP4
openSUSE-Leap-15.4                  openSUSE Leap 15.4
openSUSE-Tumbleweed                 openSUSE Tumbleweed
PS C:\Users\raman> |
```

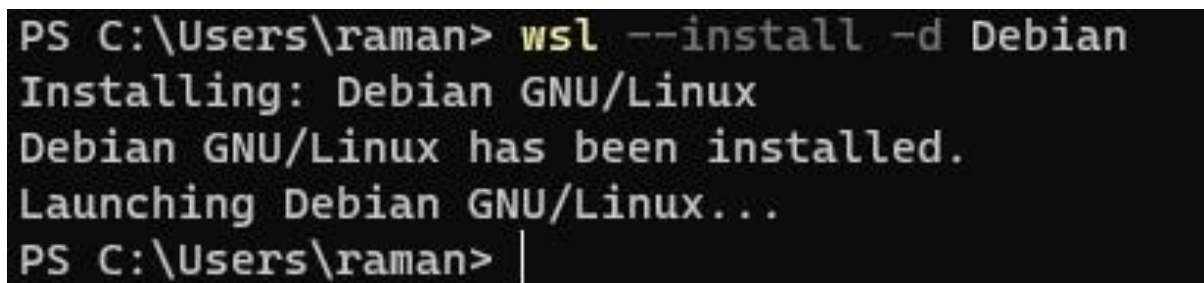
To install Debian Linux distribution

Type command

`Wsl --install -d Debian`

-d means you are installing a linux distribution

Following output will appear



```
PS C:\Users\raman> wsl --install -d Debian
Installing: Debian GNU/Linux
Debian GNU/Linux has been installed.
Launching Debian GNU/Linux...
PS C:\Users\raman> |
```

And Debian will be launched in another window

It will ask for new UNIX username

Enter root as a new unix username and password

Following window will appear

```
raman@LAPTOP-G4T4EDUV: ~  
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: root  
adduser: The user `root' already exists.  
Enter new UNIX username: raman  
New password:  
Retype new password:  
passwd: password updated successfully  
Installation successful!  
raman@LAPTOP-G4T4EDUV: ~$
```

Now to exit the linux distribution command line type exit.

To see the list of linux distributions installed

Type command

`Wsl -l`

And list of linux distributions installed under windows subsystem for linux will be listed

```
PS C:\Users\raman> wsl -l  
Windows Subsystem for Linux Distributions:  
docker-desktop (Default)  
Ubuntu  
docker-desktop-data  
Debian  
SUSE-Linux-Enterprise-Server-15-SP4  
PS C:\Users\raman> |
```

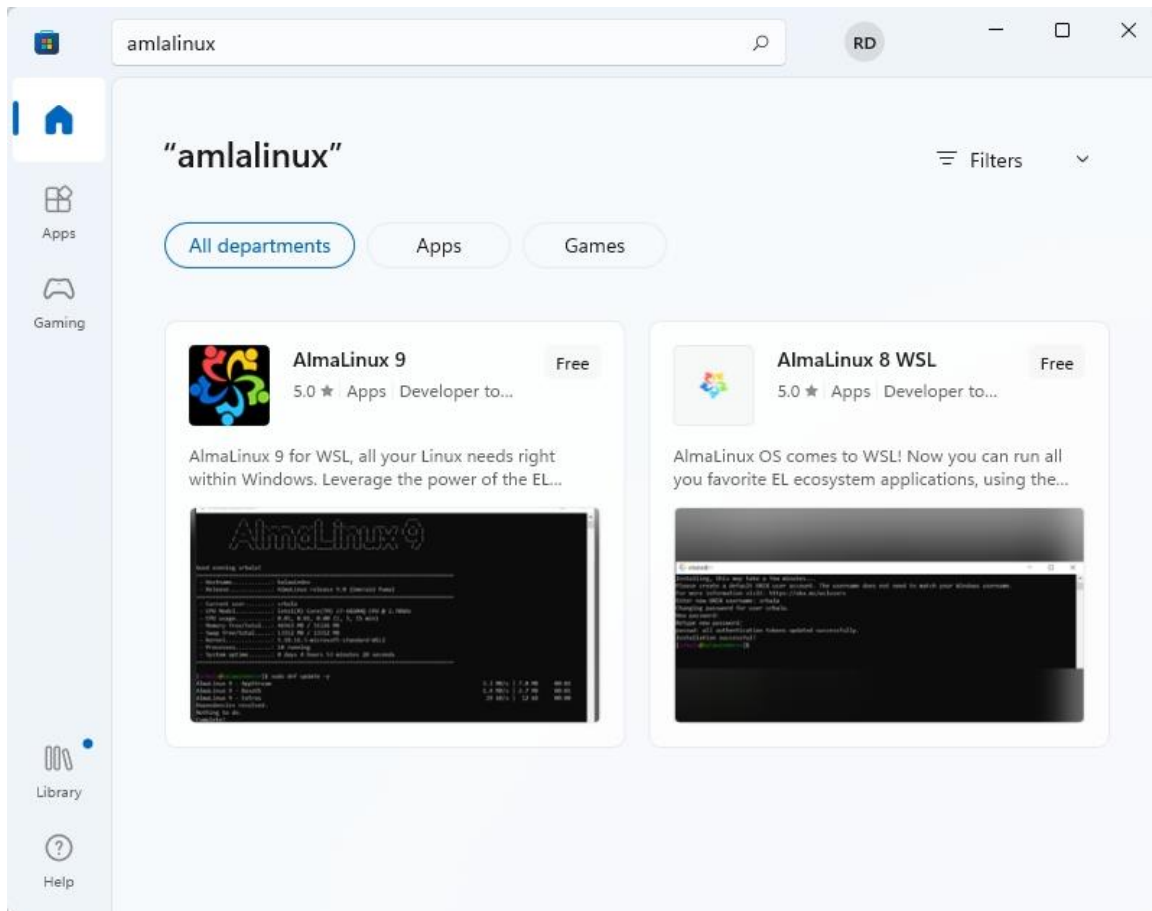
If the linux distribution is not available in wsl you can install it from Microsoft store

Open Microsoft store by clicking on icon next to search bar



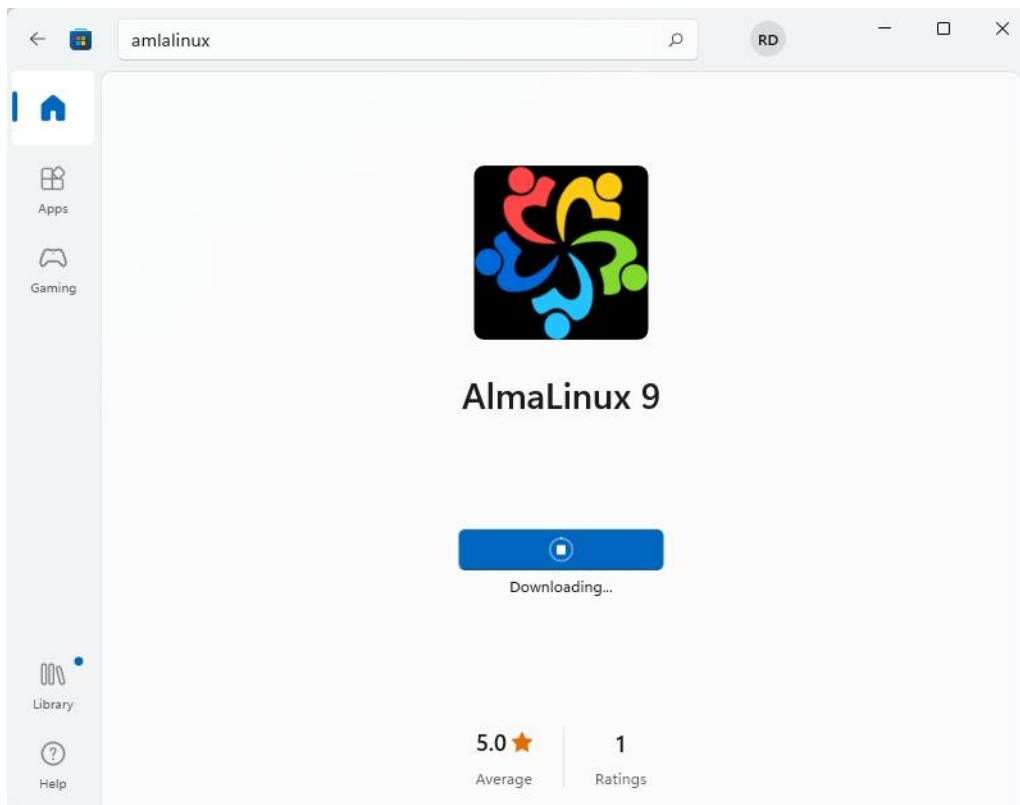
Type Amlalinux in Microsoft Store

Following window will appear



Click on AmlaLinux Icon and select Get

Following window will appear

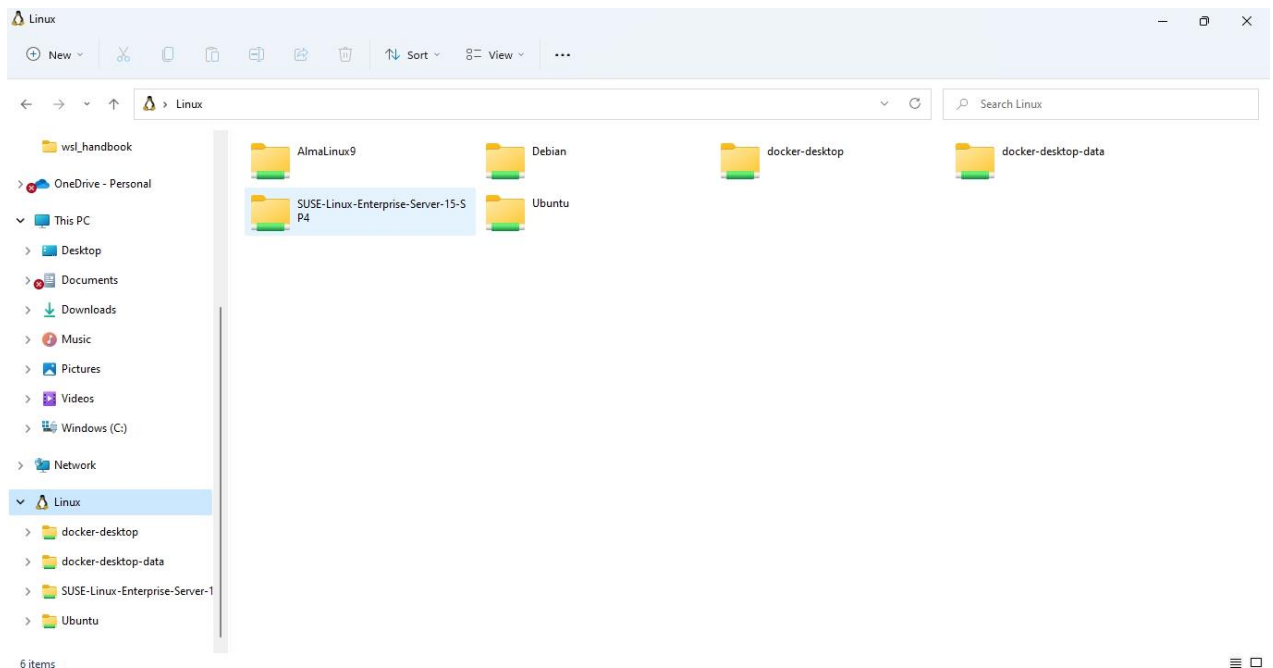


After successful installation button will change to open

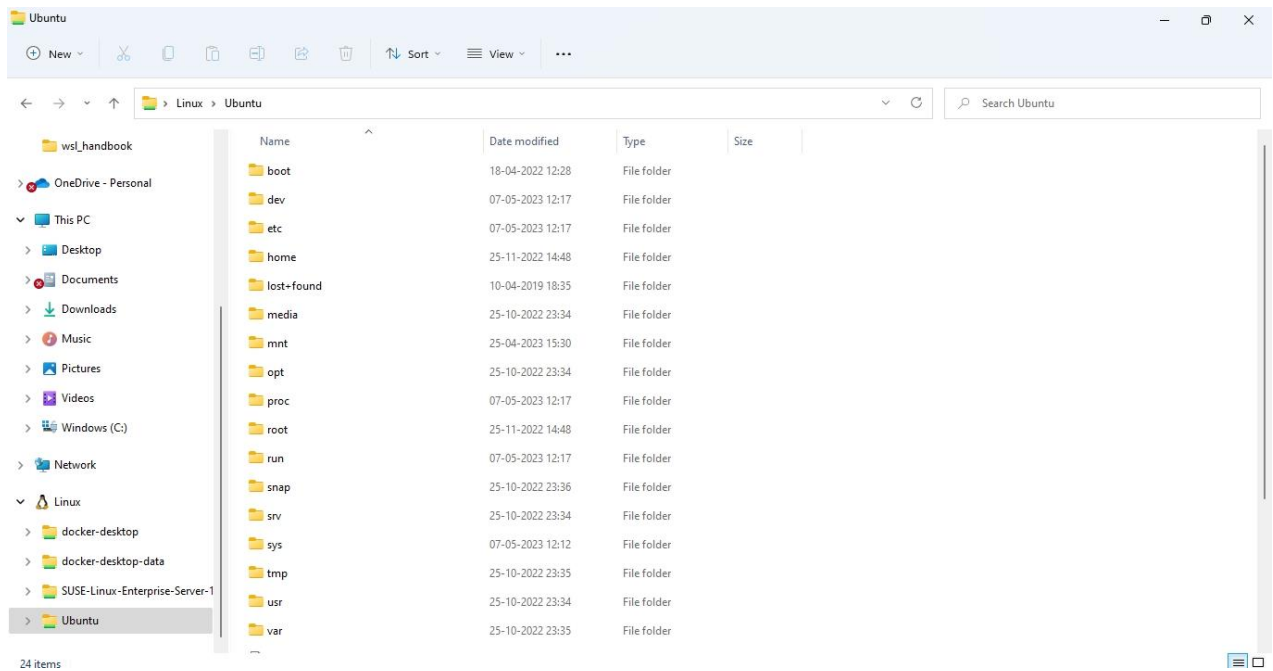
Click on Open and following window will appear

```
raman@LAPTOP-G4T4EDUV:~  
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: root  
useradd: user 'root' already exists  
Enter new UNIX username: raman  
Changing password for user raman.  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
passwd: all authentication tokens updated successfully.  
Installation successful!  
[raman@LAPTOP-G4T4EDUV:~]$
```

Now you can see installed linux distributions in windows explorer.



To see files and directories under Ubuntu double click on Ubuntu and files and directories will be opened up in file explorer.



How to uninstall or remove a linux distribution from wsl

Type command

`Wsl --unregister Debian`

Above command will uninstall Debian linux distribution from wsl.

Now type command

`Wsl -l`

And you will not see Debian distribution in the list.

How to uninstall Debian App

Go to Installed Apps and right on dot button and select Uninstall and Debian will be installed.

This is the way you can install and uninstall linux distributions from Windows Subsystem for Linux or WSL.