Wsl:

Display a list of available Linux distros by entering:

```
PS C:\Users\Administrator> wsl --list --online
The following is a list of valid distributions that can be installed.
Install using 'wsl.exe --install <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
Ubuntu-24.04                    Ubuntu 24.04 LTS
OracleLinux_7_9                 Oracle Linux 7.9
OracleLinux_8_7                 Oracle Linux 8.7
OracleLinux_9_1                 Oracle Linux 9.1
openSUSE-Leap-15.6              openSUSE Leap 15.6
SUSE-Linux-Enterprise-15-SP5    SUSE Linux Enterprise 15 SP5
SUSE-Linux-Enterprise-15-SP6    SUSE Linux Enterprise 15 SP6
openSUSE-Tumbleweed             openSUSE Tumbleweed
```

To install a specific distro by name, such as Debian, enter:

```
PS C:\Users\Administrator> wsl --install -d Debian
Installing: Debian GNU/Linux
Debian GNU/Linux has been installed.
Launching Debian GNU/Linux...
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to
o match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: jithu
New password:
Retype new password:
Sorry, passwords do not match.
passwd: Authentication token manipulation error
passwd: password unchanged
Try again? [y/N] y
New password:
Retype new password:
passwd: password updated successfully
Installation successful!
```

Update Linux:

```
jith123@a6cf8aee28ce504:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no longer requ
ired:
  libllvm17t64
Use 'sudo apt autoremove' to remove it.
The following upgrades have been deferred due to phasing:
  libunwind8 wsl-setup
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
```

```
jith123@a6cf8aee28ce504:~$ sudo apt update
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
2 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

Switch Between WSL1 and WSL2:

```
PS C:\Users\Administrator> wsl --update
Checking for updates.
The most recent version of Windows Subsystem for Linux is a
lled.
PS C:\Users\Administrator> wsl --list --verbose
  NAME                STATE           VERSION
* docker-desktop      Stopped         2
  Debian              Stopped         2
  Ubuntu              Running         2
```

Set a Default Linux Distribution:

```
PS C:\Users\Administrator> mkdir D:\backup


    Directory: D:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----        04-02-2025     14:32                backup
```

Set a Default Linux Distribution:

```
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
docker-desktop (Default)
Debian
Ubuntu
```

Default:

```
PS C:\Users\Administrator> wsl --setdefault Ubuntu
The operation completed successfully.
```

Run Linux as a Specific User:

```
PS C:\Users\Administrator> wsl --user jith123
jith123@a6cf8aee28ce504:/mnt/c/Users/Administrator$
```

```
PS C:\Users\Administrator> wsl --setdefault Ubuntu
The operation completed successfully.
```

Move or Clone Your Linux Disk Image:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Administrator> mkdir D:\wsl


    Directory: D:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         04-02-2025     14:38                wsl


PS C:\Users\Administrator> cd D:/
PS D:\> wsl --import Ubuntu D:\wsl\ D:\backup\ubuntu.tar
Import in progress, this may take a few minutes.
The operation completed successfully.
```

r. To revert to your own account, enter the following command:

```
PS C:\Users\Administrator> ubuntu config --default-user jith123
PS C:\Users\Administrator>
```

Define a user by logging on to the distro and creating/editing /etc/wsl.conf:

```
root@a6cf8aee28ce504:~# touch /etc/wsl.conf
l.confroot@a6cf8aee28ce504:~# nano /etc/wsl.conf
root@a6cf8aee28ce504:~# nano /etc/wsl.conf
root@a6cf8aee28ce504:~#
```

restart the distro in a Powershell terminal with:

```
PS C:\Users\Administrator> wsl --terminate ubuntu
The operation completed successfully.
```
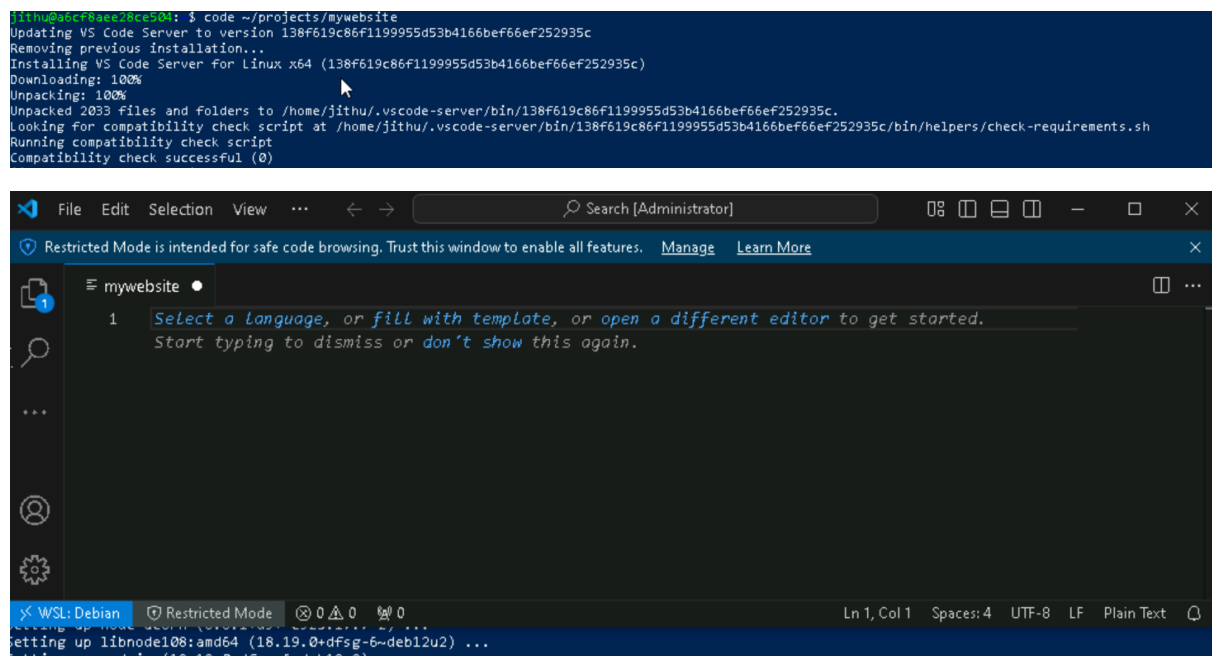
Access Linux Files from Windows:

```
PS C:\Users\Administrator> cd \\wsl$\Ubuntu\home\jith123
PS Microsoft.PowerShell.Core\FileSystem::\\wsl$\Ubuntu\home\jith123>
```

Run Windows Applications from Linux:

```
jithu@a6cf8aee28ce504:~$ explorer.exe .
jithu@a6cf8aee28ce504:~$ notepad.exe ~/.bashrc
^Cjithu@a6cf8aee28ce504:~$ ^C
jithu@a6cf8aee28ce504:~$ code ~/projects/mywebsite
```

open the a specific project directory in VS Code:

```
jithu@a6cf8aee28ce504:~$ code ~/projects/mywebsite
Updating VS Code Server to version 138f619c86f1199955d53b4166bef66ef252935c
Removing previous installation...
Installing VS Code Server for Linux x64 (138f619c86f1199955d53b4166bef66ef252935c)
Downloading: 100%
Unpacking: 100%
Unpacked 2033 files and folders to /home/jithu/.vscode-server/bin/138f619c86f1199955d53b4166bef66ef252935c.
Looking for compatibility check script at /home/jithu/.vscode-server/bin/138f619c86f1199955d53b4166bef66ef252935c/bin/helpers/check-requirements.sh
Running compatibility check script
Compatibility check successful (0)
```

Install Applications: