

# WSL Assignment

## Enable wsl2

```
PS C:\Users\Administrator> dism.exe /online /enable-feature /featurename:Microsoft-Windows-Subsystem-Linux /all  
Deployment Image Servicing and Management tool  
Version: 10.0.19041.3636  
Image Version: 10.0.19045.4291  
Enabling feature(s)  
[=====100.0%=====]  
The operation completed successfully.
```

```
PS C:\Users\Administrator> dism.exe /online /enable-feature /featurename:VirtualMachinePlatform /all /norestart  
Deployment Image Servicing and Management tool  
Version: 10.0.19041.3636  
Image Version: 10.0.19045.4291  
Enabling feature(s)  
[=====100.0%=====]  
The operation completed successfully.
```

## Install linux

```
PS C:\Users\Administrator> wsl --install  
Ubuntu is already installed.  
Launching Ubuntu...  
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:       https://ubuntu.com/pro  
  
System information as of Tue Feb  4 12:03:50 PKT 2025  
  
System load:  0.46           Processes:            65  
Usage of /:   0.2% of 1006.85GB Users logged in:       0  
Memory usage: 5%           IPv4 address for eth0: 172.30.10.97  
Swap usage:   0%  
  
 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s  
   just raised the bar for easy, resilient and secure K8s cluster deployment.  
  
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge  
  
This message is shown once a day. To disable it please create the
```

## Update linux distro(Ubuntu)

```
Administrator: Windows PowerShell  
/home/samir/.hushlogin file.  
samir@9819f0877cP0522: ~$ sudo apt update  
[sudo] password for samir:  
Sorry, try again.  
[sudo] password for samir:  
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]  
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease  
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]  
Get:4 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [615 kB]  
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]  
Get:6 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [118 kB]  
Get:7 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [638 kB]  
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8972 B]  
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [803 kB]  
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [171 kB]  
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.0 kB]  
Get:12 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [620 kB]  
Get:13 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [119 kB]  
Get:14 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [208 B]  
Get:15 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]  
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/main Translation-en [191 kB]  
Get:17 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]  
Get:18 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1003 kB]  
Get:19 http://archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [250 kB]  
Get:20 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [315 kB]  
Get:21 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [631 kB]  
Get:22 http://archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [121 kB]  
Get:23 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]  
Get:24 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [16.3 kB]  
Get:25 http://archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [3944 B]  
Get:26 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]  
Get:27 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]  
Get:28 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [17.7 kB]  
Get:29 http://archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [212 B]  
Get:30 http://archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]  
Fetched 6427 kB in 9s (728 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
67 packages can be upgraded. Run 'apt list --upgradable' to see them.  
samir@9819f0877cP0522: ~$ 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 required:
```

# WSL Assignment

## Upgrade linux distro

```
Administrator: Windows PowerShell
Setting up libcapi2-bin (1:2.66-Subuntu2.1) ...
Setting up eject (2.39.3-9ubuntu6.2) ...
Setting up python3-jinja2 (3.1.2-1ubuntu1.2) ...
Setting up libmpfr6:amd64 (4.2.1-1build1.1) ...
Setting up perl-modules-5.38 (5.38.2-3.2build1.1) ...
Setting up libglapi-mesa:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Setting up libfdisk1:amd64 (2.39.3-9ubuntu6.2) ...
Setting up mount (2.39.3-9ubuntu6.2) ...
Setting up uuid-runtime (2.39.3-9ubuntu6.2) ...
uuidd.service is a disabled or a static unit not running, not starting it.
Setting up libnl-3-200:amd64 (3.7.0-0.3build1.1) ...
Setting up libperl5.38t64:amd64 (5.38.2-3.2build1.1) ...
Setting up libbsd0:amd64 (0.12.1-1build1.1) ...
Setting up libgpg-error-l10n (1.47-3build1.1) ...
Setting up libdrm-common (2.4.122-1-ubuntu0.24.04.1) ...
Setting up libpam-cap:amd64 (1:2.66-5ubuntu2.1) ...
Setting up libxkb2:amd64 (2.9.14+dfsg-1.3ubuntu3.1) ...
Setting up libkmod2:amd64 (31+20240202-2ubuntu7.1) ...
Setting up libllvm19:amd64 (1:19.1.1-1ubuntu1-24.04.2) ...
Setting up kmod (31+20240202-2ubuntu7.1) ...
Setting up fdisk (2.39.3-9ubuntu6.2) ...
Setting up libnl-route-3-200:amd64 (3.7.0-0.3build1.1) ...
Setting up perl (5.38.2-3.2build1.1) ...
Setting up libsystemd-shared:amd64 (255.4-1ubuntu8.5) ...
Setting up libdrm2:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up libdrm-amdgpu1:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up mesa-vulkan-drivers:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Setting up libdrm-nouveau2:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up libdrm-radeon1:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up libdrm-intel1:amd64 (2.4.122-1-ubuntu0.24.04.1) ...
Setting up systemd (255.4-1ubuntu8.5) ...
Setting up systemd-timesyncd (255.4-1ubuntu8.5) ...
Setting up udev (255.4-1ubuntu8.5) ...
Setting up systemd-resolved (255.4-1ubuntu8.5) ...
Setting up mesa-libgallium:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Setting up systemd-sysv (255.4-1ubuntu8.5) ...
Setting up libgbm1:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Setting up libgl1-mesa-drivers:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Setting up libnss-systemd:amd64 (255.4-1ubuntu8.5) ...
Setting up libegl-mesa0:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Setting up libnss-systemd:amd64 (255.4-1ubuntu8.5) ...
Setting up libglx-mesa0:amd64 (24.2.8-1ubuntu1-24.04.1) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for dbus (1.14.10-4ubuntu1) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
samim@9819Fd877cfb527: $ PS C:\> wsl --list --verbose
```

## Switch between wsl 1 and wsl 2

```
PS C:\Users\Administrator> wsl --set-version Ubuntu 1
Conversion in progress, this may take a few minutes.
The operation completed successfully.
```

## Run the version

```
PS C:\Users\Administrator> wsl -d Ubuntu

samim@9819Fd877cfb527:/mnt/c/Users/Administrator$ exit
logout
PS C:\Users\Administrator> wsl --list --verbose
```

NAME	STATE	VERSION
* docker-desktop	Running	2
Ubuntu	Running	1

## Set a default linux distro

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

PS C:\Users\Administrator> wsl --setdefault Ubuntu
The operation completed successfully.
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
Ubuntu (Default)
docker-desktop
```

## WSL Assignment

Move or clone your linux disk image

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

Directory: D:\

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

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

```
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
Ubuntu (Default)
docker-desktop
PS C:\Users\Administrator> wsl --unregister Ubuntu
Unregistering.
The operation completed successfully.
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
docker-desktop (Default)
```

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

Directory: D:\

Mode                LastWriteTime         Length Name
----                -
d-----          04-02-2025         14:16         wsl
```

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

Switch to your account

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

# WSL Assignment

## Cloning

```
PS C:\Users\Administrator> wsl --import Clone01 D:\wsl\ D:\backup\ubuntu.tar
Import in progress, this may take a few minutes.
The supplied install location is already in use.
Error code: Wsl/Service/RegisterDistro/ERROR_FILE_EXISTS
PS C:\Users\Administrator> wsl --import Another D:\wsl\ D:\backup\ubuntu.tar
Import in progress, this may take a few minutes.
The supplied install location is already in use.
Error code: Wsl/Service/RegisterDistro/ERROR_FILE_EXISTS
PS C:\Users\Administrator> touch /etc/wsl.conf
```

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

```
samim@9819fd877cfb527:~$ sudo touch /etc/wsl.conf
[sudo] password for samim:
samim@9819fd877cfb527:~$ sudo nano /etc/wsl.conf
samim@9819fd877cfb527:~$ cd ~
```

```
samim@9819fd877cfb527:~$ cd ~
samim@9819fd877cfb527:~$ ln -s /mnt/c/projects/code
samim@9819fd877cfb527:~$ ls
add.sh      arr4.sh      bubblesort.sh  for2.sh      fun2.sh      let.sh
and.sh      arr5.sh      case1.sh       for3.sh      fun3.sh      multiple_else_if.sh
andor.sh    arr6.sh      case2.sh       for4.sh      fun4.sh      my-svn-repo
arr1.sh     arr7.sh      code           for5.sh      fun5.sh      my-working-copy
arr10.sh    arr8.sh      comp.sh        for6.sh      hello.sh     nest.sh
arr11.sh    arr9.sh      double.sh      for7.sh      if.sh        nested.sh
arr12.sh    arr_sum.sh   else_if.sh     for8.sh      if_else.sh   new-git-repo
arr2.sh     back.sh      for1.sh        for9.sh      if_script.sh or.sh
arr3.sh     backup.sh    for10.sh       fun1.sh      join.sh      palindrome.sh
```

```
samim@9819fd877cfb527:~$ ls -l code
lrwxrwxrwx 1 samim samim 20 Feb  4 09:12 code -> /mnt/c/projects/code
samim@9819fd877cfb527:~$ cd /mnt/c/projects/code
```

## Accessing windows files from linux

```
samim@9819fd877cfb527:~$ explorer.exe .
samim@9819fd877cfb527:~$ code ~/projects/mywebsite
samim@9819fd877cfb527:~$ sudo apt install gedit
[sudo] password for samim:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  liblvm17t64
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  alsa-topology-conf alsa-ucm-conf aspell aspell-en bubblewrap dictionaries-common docbook-xml emacs-common end
  gir1.2-atk-1.0 gir1.2-freedesktop gir1.2-gdkpixbuf-2.0 gir1.2-gtk-3.0 gir1.2-gtksource-300 gir1.2-harfbuzz-0.0
  gir1.2-tepl-6 glib-networking glib-networking-common glib-networking-services gstreamer1.0-gl gstreamer1.0-plug
  gstreamer1.0-x hunspell-en-us libaa1 libadwaita-1-0 libasound2-data libasound2t64 libaspell15 libasynct0 libat
  libcairo-script-interpreter2 libcdparanoia0 libdv4t64 libenchant-2-2 libevdev2 libflac12t64 libgedit-amtk-5-0 l
  libgedit-gtksourceview-300-0 libgedit-gtksourceview-300-common libgles2 libgraphene-1.0-0 libgspell-1-2 libgspe
  libgstreamer-plugins-base1.0-0 libgstreamer-plugins-good1.0-0 libgtk-4-1 libgtk-4-bin libgtk-4-common libgtk-4-
  libhandy-1-0 libharfbuzz-gobject0 libharfbuzz-icu0 libhunspell-1.7-0 libhyphen0 libiec61883-0 libjavascriptcore
  libjson-glib-1.0-common libmanette-0.2-0 libmp3lame0 libmpeg123-0t64 libogg0 libopus0 liborc-0.4-0t64 libpangox
  libpipewire-0.3-0t64 libpipewire-0.3-common libproxy1v5 libpulse0 libraw1394-11 libsecret-1-0 libsecret-common
  libsoup-3.0-common libspa-0.2-modules libspeex1 libtag1v5 libtag1v5-vanilla libtepl-6-4 libtepl-common libtheor
  libv4lconvert0t64 libvisual-0.4-0 libvorbis0a libvorbisenc2 libvpx2 libwaypack1 libwebkit2gtk-4.1-0 libwebpdmu
```

# WSL Assignment

Installing gedit in both windows and linux

