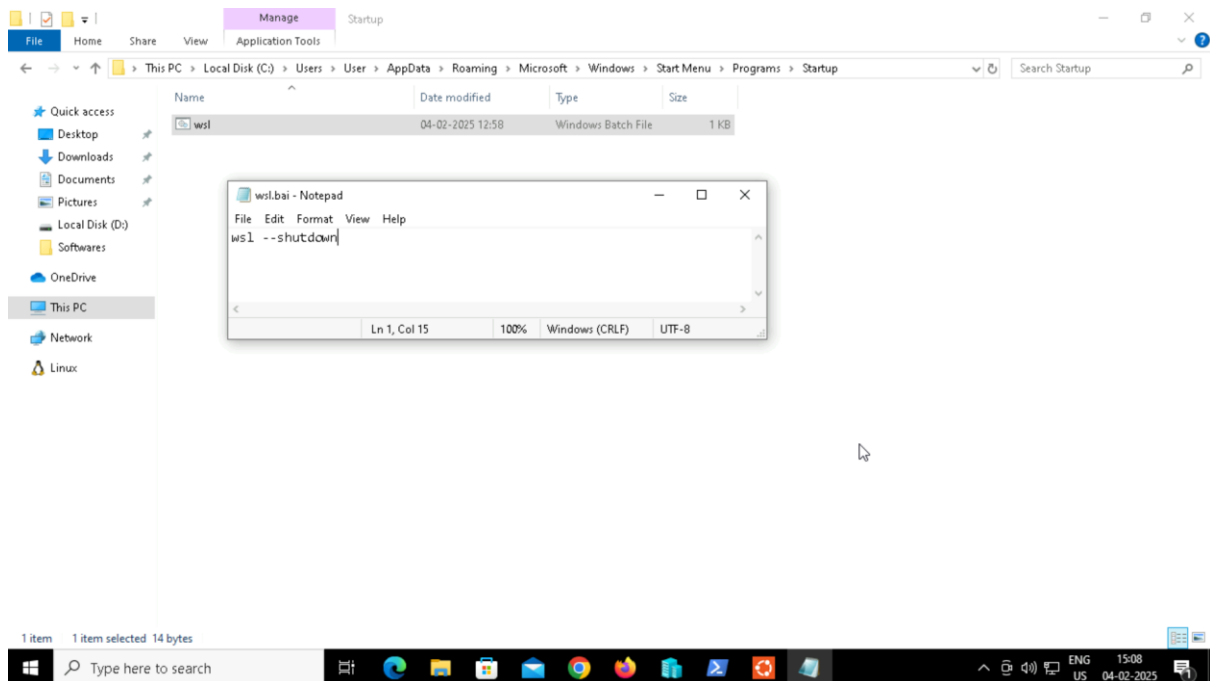


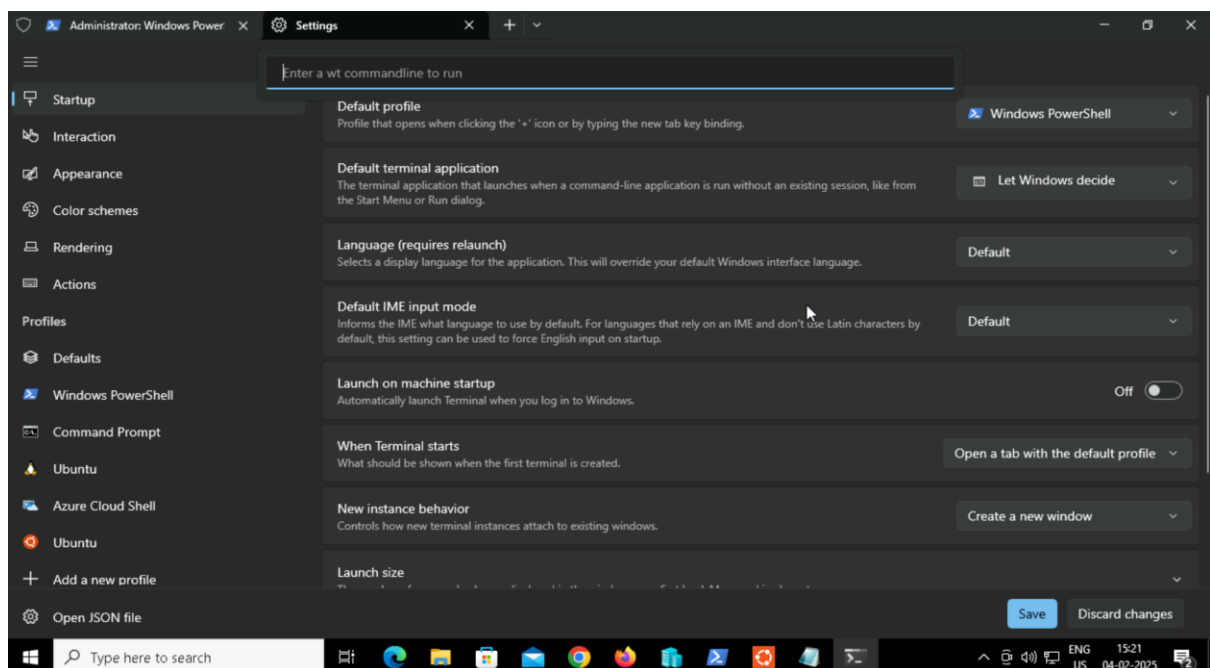
Windows Subsystem for Linux 2 (WSL2): A Complete Guide for Windows 10 & 11

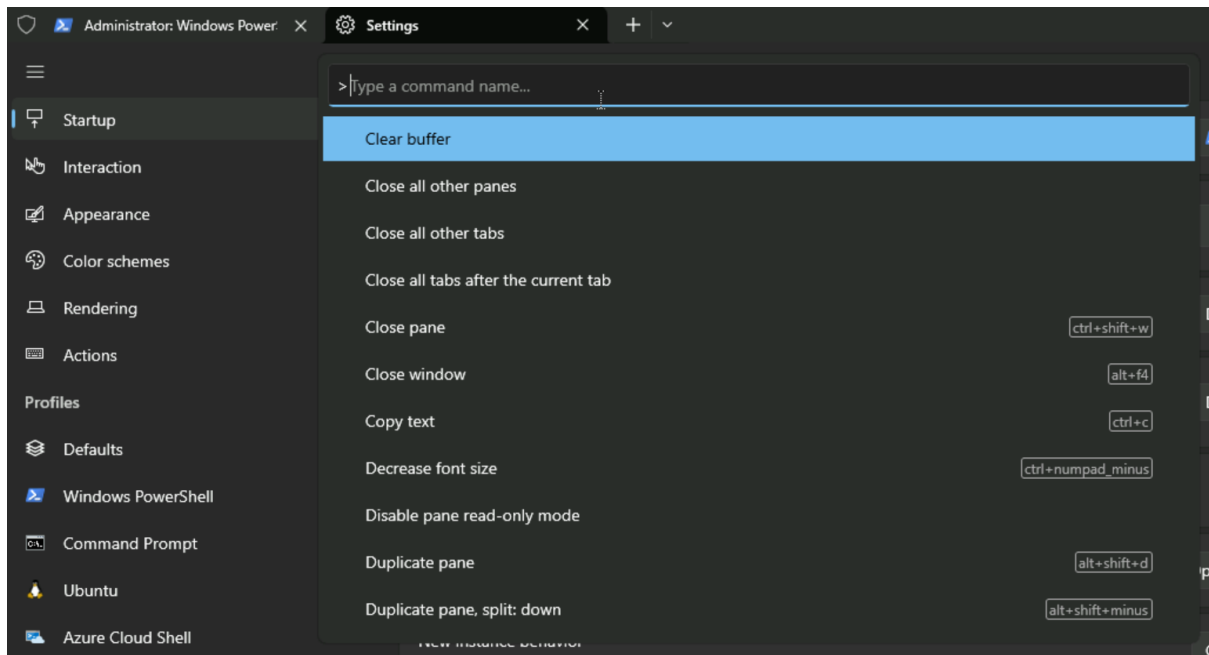
Step 1: Create a wsl.bat file in your Startup folder

(C:\Users\User\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup) with the content: wsl --shutdown

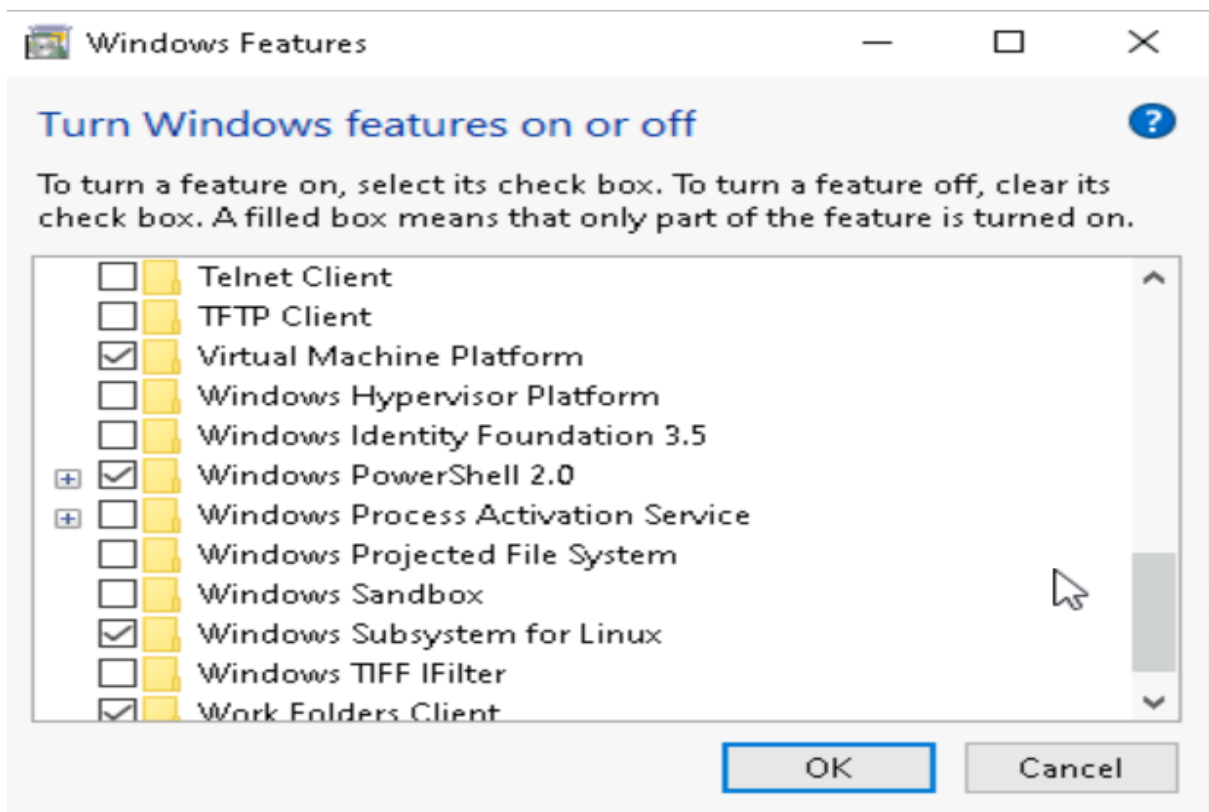


Step 2: Configuration is available from the Settings menu item (Ctrl + ,), the Command Palette (Ctrl + Shift + P), or the settings.json accessed at the bottom of the Settings panel.

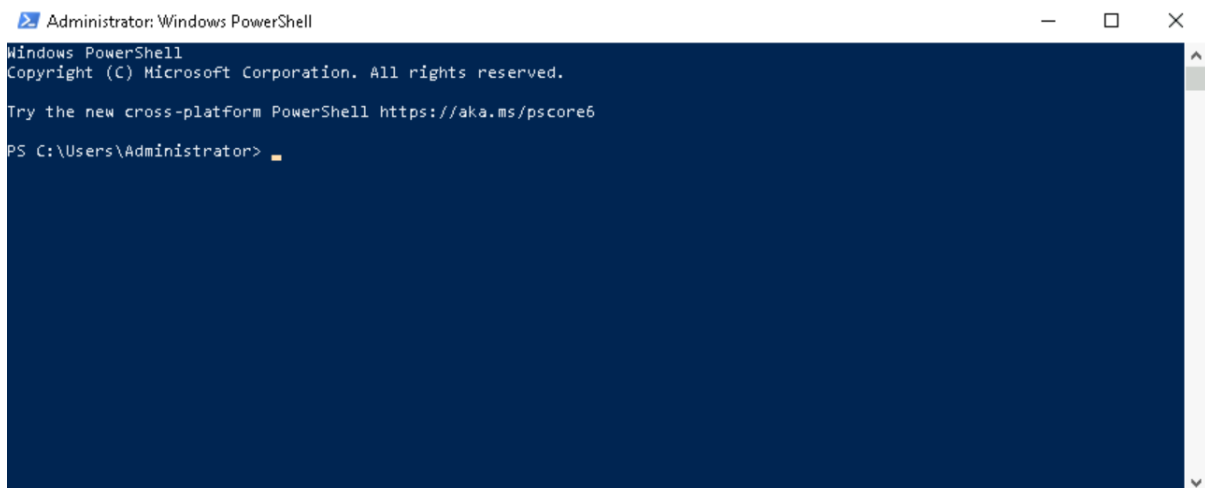




Step 3: The Virtual Machine Platform and Windows Subsystem for Linux features must be enabled in Turn Windows features on or off option. The panel is accessed by hitting Start and typing “features” or from the Programs and Features icon in the classic Control Panel.



Step 4: Open Windows Powershell as Open as Administrator.

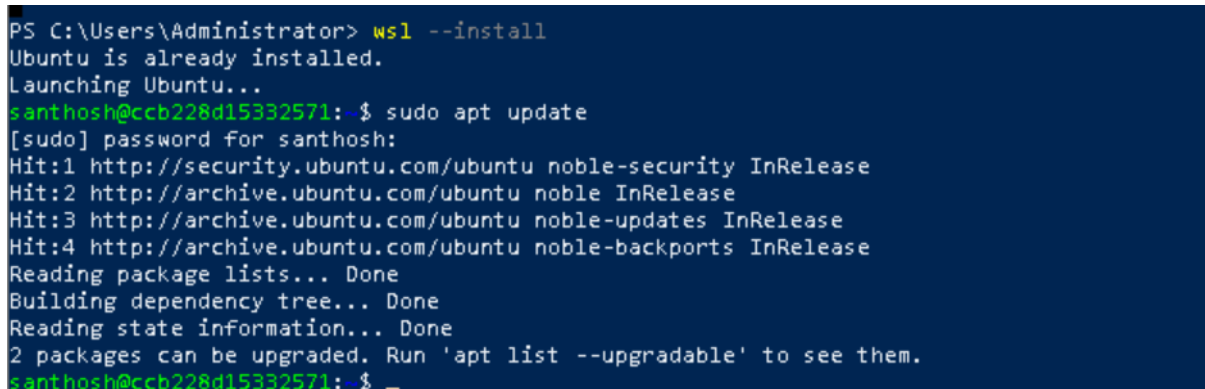


```
Administrator: Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

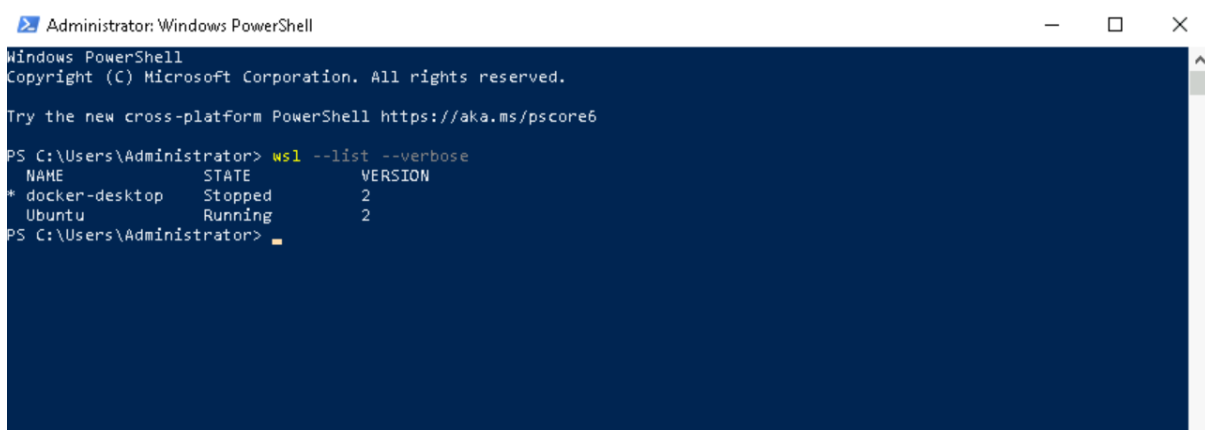
PS C:\Users\Administrator>
```

Step 5: Updating the windows subsystem using the below command.



```
PS C:\Users\Administrator> wsl --install
Ubuntu is already installed.
Launching Ubuntu...
santhosh@ccb228d15332571:~$ sudo apt update
[sudo] password for santhosh:
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.
santhosh@ccb228d15332571:~$
```

Step 6: Switch Between WSL1 and WSL2 - Existing WSL1 distros can be converted to WSL2. For that, enter the following command in a Windows Powershell terminal to display the installed Linux distros and their WSL version:



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

PS C:\Users\Administrator> wsl --list --verbose
  NAME                STATE      VERSION
* docker-desktop      Stopped    2
  Ubuntu               Running    2
PS C:\Users\Administrator>
```

Step 7: Try switching between wsl1 and wsl2.

```

PS C:\Users\Administrator> wsl --set-version Ubuntu 2
For information on key differences with WSL 2 please visit https://aka.ms/wsl2
Conversion in progress, this may take a few minutes.
The distribution is already the requested version.
Error code: Wsl/Service/WSL_E_VM_MODE_INVALID_STATE
PS C:\Users\Administrator> wsl --set-version Ubuntu 1
Conversion in progress, this may take a few minutes.
The operation completed successfully.
PS C:\Users\Administrator> wsl --set-version Ubuntu 2
For information on key differences with WSL 2 please visit https://aka.ms/wsl2
Conversion in progress, this may take a few minutes.
The operation completed successfully.
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
docker-desktop (Default)
Ubuntu

```

Step 8: Clone Linux Disk Image.

```

Administrator: Windows PowerShell
Ubuntu (Default)
docker-desktop
PS C:\Users\Administrator> mkdir D:\backup

Directory: D:\

Mode                LastWriteTime         Length Name
----                -
d-----          04-02-2025    15:41         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 --unregister Ubuntu
Unregistering.
The operation completed successfully.
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
docker-desktop (Default)

```

Step 9: Import the backup into a new WSL2 distro at another location, such as D:\wsl

```

Administrator: Windows PowerShell
docker-desktop (Default)
PS C:\Users\Administrator> mkdir D:\wsl

Directory: D:\

Mode                LastWriteTime         Length Name
----                -
d-----          04-02-2025    15:49         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.
PS C:\Users\Administrator> wsl --list
Windows Subsystem for Linux Distributions:
docker-desktop (Default)
Ubuntu

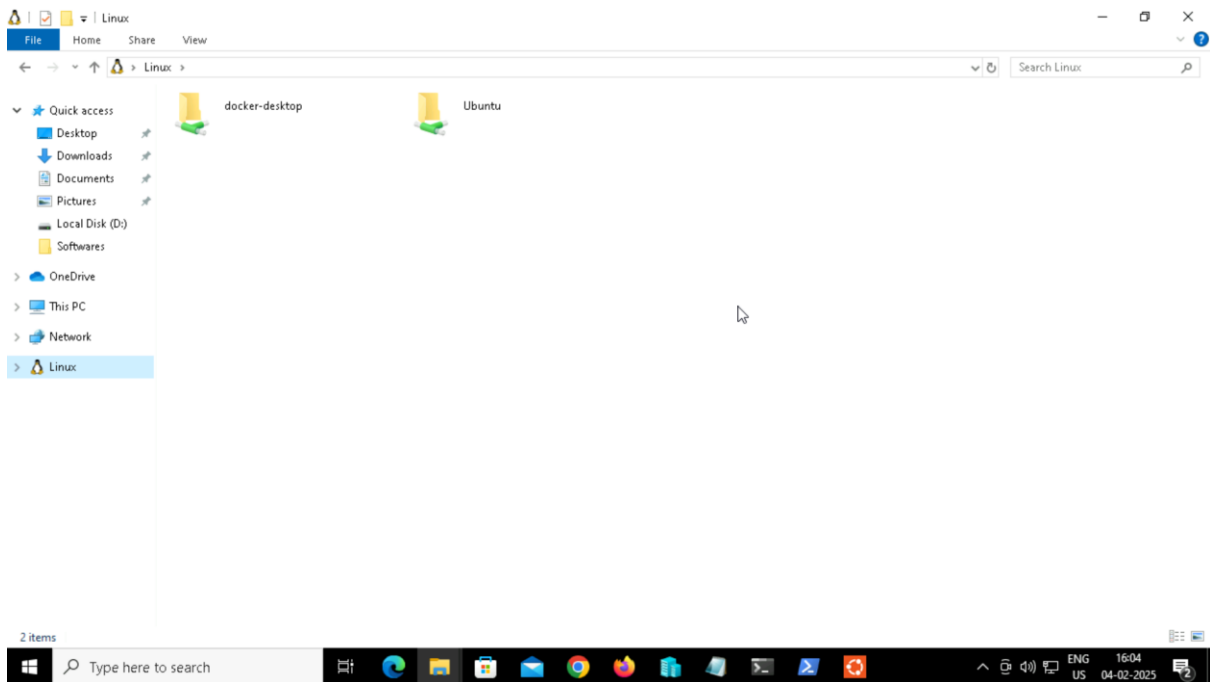
```

Step 10: Accessing Linux Files from windows and mapping a network drive.

```

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

```



Step 11: Accessing the windows files from Linux.

```

santhosh@ccb228d15332571: ~$ ls
01-netcfg.yaml  arr4.sh      con3.sh  ex3.sh      example8.sh  my-svn-repo  sll.sh      until.sh
Demo            arr5.sh      con4.sh  ex4.sh      example9.sh  my-work-copy  split.sh    until2.sh
New            arr6.sh      con5.sh  ex4.sh      expr_example.sh  my_backup.tar.gz  split2.sh  while.sh
algos          arr7.sh      con6.sh  ex5.sh      find.sh       nested_if.sh  string.sh   while2.sh
and.sh         arr8.sh      con7.sh  ex6.sh      find1.sh      new-git-repo  string1.sh  while3.sh
andnor.sh      array_sums   del.sh   ex7.sh      find2.sh      new_repo      string2.sh  while4.sh
args.sh        bash.yaml    e2.sh    ex8.sh      find3.sh      num_if.sh     string3.sh  while5.sh
args2.sh       bash_arithmetic.sh  e3.sh    ex9.sh      find4.sh      or.h          string4.sh  while6.sh
args3.sh       bash_case1.sh  e4.sh    example10.sh  greater.sh    or.sh         string5.sh  wile6.sh
args4.sh       bubble_sort   ex.sh    example10.sh  greetings.sh  palindrome    sub1.sh
args5.sh       comapre.sh   ex1.sh   example11.sh  index.html    pascal_triangle.sh  sub2.sh
arr1.sh        compare.sh   ex10.sh  example12.sh  let_example.sh  personal_message.sh  sub3.sh
arr2.sh        con1.sh      ex11.sh  example13.sh  liat.txt       reverse_nums     sub4.sh
arr3.sh        con2.sh      ex2.sh   example2.sh  list.txt       scripts.sh       svn_repo
santhosh@ccb228d15332571:~$

```

Step 12: Executing the linux commands from windows.

```
Select Administrator: Windows PowerShell

Windows Subsystem for Linux Distributions:
docker-desktop (Default)
Ubuntu
PS C:\Users\Administrator> ubuntu config --default-user santhosh
PS C:\Users\Administrator> wsl ls -ls
total 9896
 0 drwxrwxrwx 1 root root          512 Oct 18 2022 3D Objects
 0 drwxrwxrwx 1 root root          512 Oct 18 2022 AppData
 0 lrwxrwxrwx 1 root root           47 Oct 18 2022 Application Data -> /mnt/host/c/Users/Administrator/AppData/Roaming
 0 drwxrwxrwx 1 root root          512 Oct 18 2022 Contacts
 0 lrwxrwxrwx 1 root root           75 Oct 18 2022 Cookies -> /mnt/host/c/Users/Administrator/AppData/Local/Microsoft/Windows/INetCookies
 0 drwxrwxrwx 1 root root          512 Feb  4 09:38 Desktop
 0 drwxrwxrwx 1 root root          512 Jan  8 06:06 Documents
 0 drwxrwxrwx 1 root root          512 Feb  4 09:58 Downloads
 0 drwxrwxrwx 1 root root          512 Oct 18 2022 Favorites
 0 drwxrwxrwx 1 root root          512 Oct 18 2022 Links
 0 lrwxrwxrwx 1 root root           45 Oct 18 2022 Local Settings -> /mnt/host/c/Users/Administrator/AppData/Local
 0 drwxrwxrwx 1 root root          512 Oct 18 2022 Music
 0 lrwxrwxrwx 1 root root           41 Oct 18 2022 My Documents -> /mnt/host/c/Users/Administrator/Documents
```

```
Select Administrator: Windows PowerShell

g:\Microsoft/Windows/SendTo
 0 lrwxrwxrwx 1 root root          76 Oct 18 2022 Start Menu -> /mnt/host/c/Users/Administrator/AppData/Roaming/Microsoft/Windows/Start Menu
 0 lrwxrwxrwx 1 root root          75 Oct 18 2022 Templates -> /mnt/host/c/Users/Administrator/AppData/Roaming/Microsoft/Windows/Templates
 0 drwxrwxrwx 1 root root          512 Sep 11 2023 Videos
 0 drwxrwxrwx 1 root root          512 Apr 13 2024 WPS Cloud Files
 0 drwxrwxrwx 1 root root          512 Apr 13 2024 eclipse
 0 drwxrwxrwx 1 root root          512 Apr 13 2024 eclipse-workspace
 0 -rwxrwxrwx 1 root root           0 Jan  3 05:05 file1.txt
 0 -rwxrwxrwx 1 root root           0 Jan  3 05:05 file2.txt
 0 -rwxrwxrwx 1 root root           0 Jan  3 07:18 file3.txt
 0 -rwxrwxrwx 1 root root           0 Jan  3 06:18 file4.txt
 0 -rwxrwxrwx 1 root root           0 Jan  3 06:35 file5.txt
 0 -rwxrwxrwx 1 root root           0 Jan  3 07:18 file6.txt
1460 -rwxrwxrwx 1 root root      1491968 Oct 18 2022 ntuser.dat.LOG1
1460 -rwxrwxrwx 1 root root      1491968 Oct 18 2022 ntuser.dat.LOG2
 0 -rwxrwxrwx 1 root root           20 Oct 18 2022 ntuser.ini

PS C:\Users\Administrator> explorer.exe
```

Step 13: Run Windows commands from Linux.

```
PS C:\Users\Administrator> explorer.exe
PS C:\Users\Administrator> notepad.exe .\bashrc
PS C:\Users\Administrator>
```

