

8-10-2025

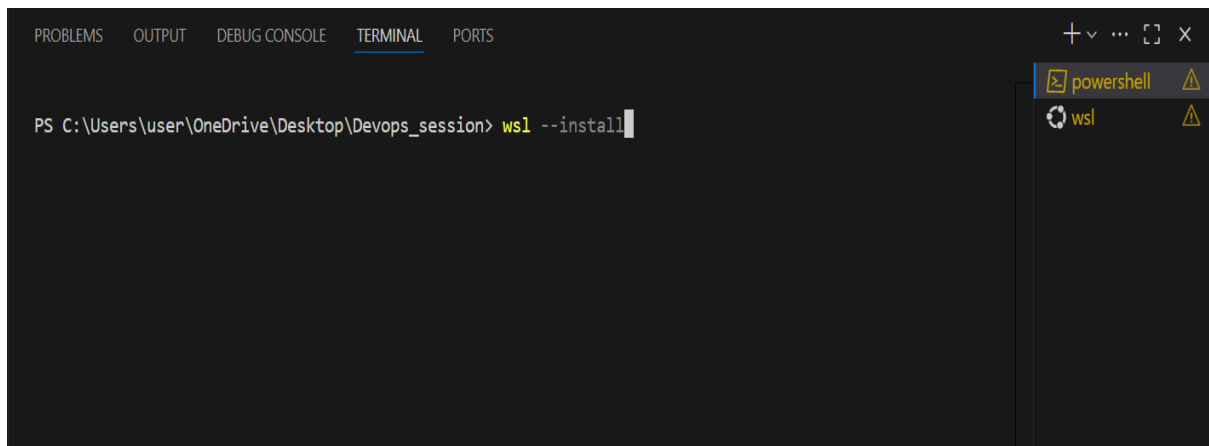
Day- 1 :- wsl (Ubuntu) Installation On windows And Shell Scripting

1. Install **Visual Studio Code (Windows build)** from the official site.
2. Open **VS code** Powershell and Run The Command `:- wsl --install`
3. Type your desired **username and Password** :

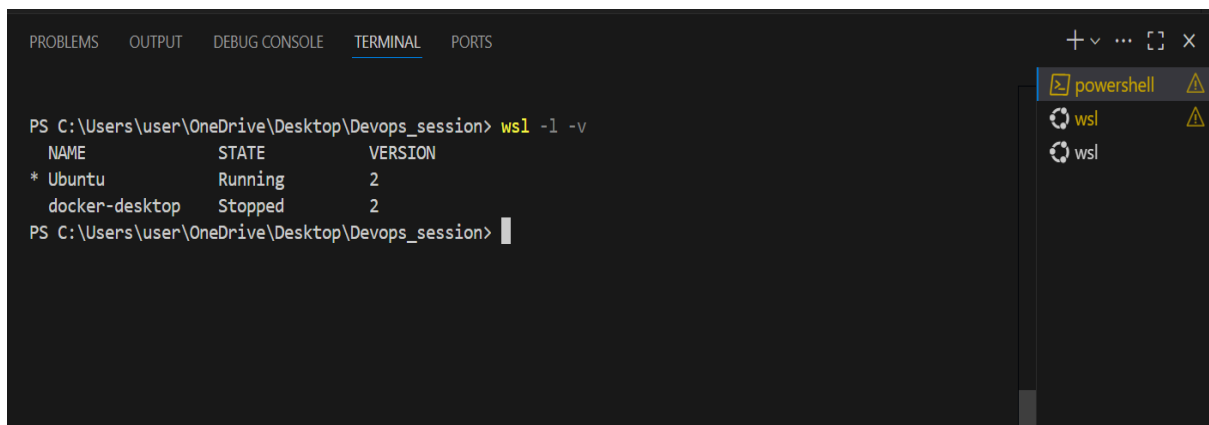
Enter new UNIX username: user

New password:

Retype new password:



The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab active. The terminal window displays the command `wsl --install` being executed in a PowerShell session. The path shown is `PS C:\Users\user\OneDrive\Desktop\Devops_session>`. On the right side, there is a sidebar showing the 'powershell' and 'wsl' environments.

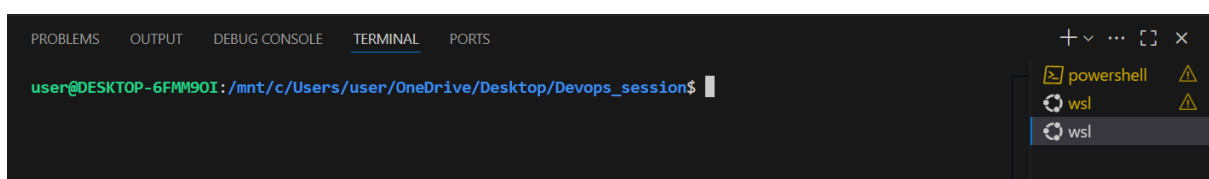
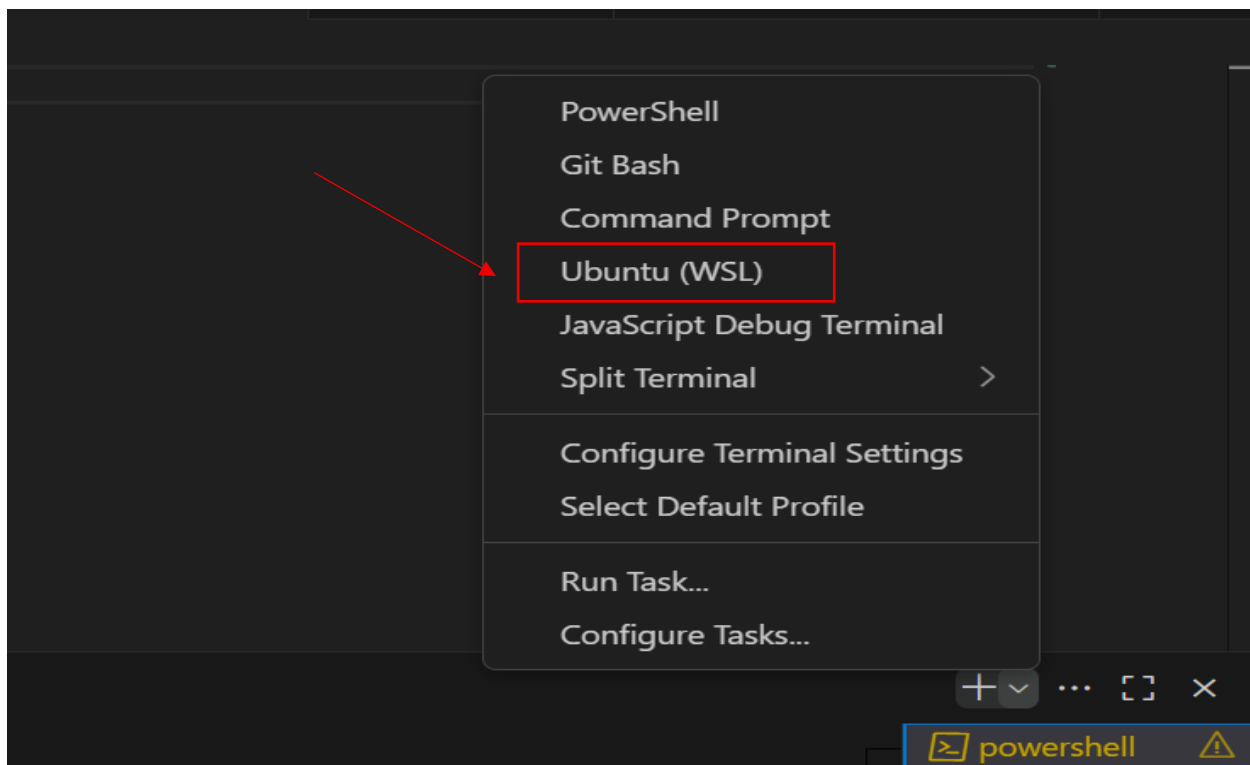
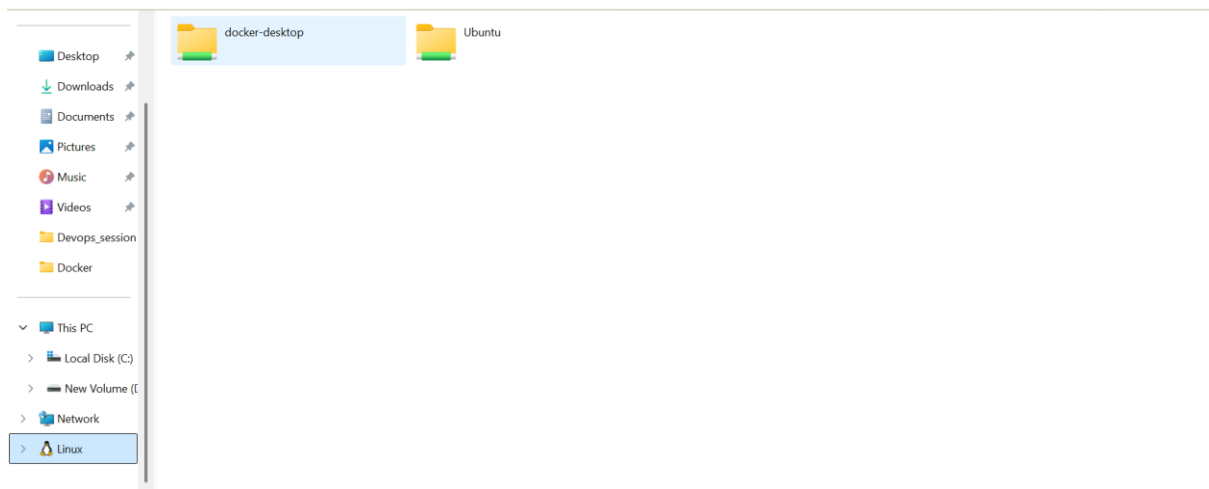


The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab active. The terminal window displays the command `wsl -l -v` being executed. The output shows a list of installed WSL distributions:

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

The terminal path is `PS C:\Users\user\OneDrive\Desktop\Devops_session>`. The right sidebar shows the 'powershell' and 'wsl' environments.

After installing **WSL (Ubuntu)** successfully, In **File Explorer** to show an entry like this:



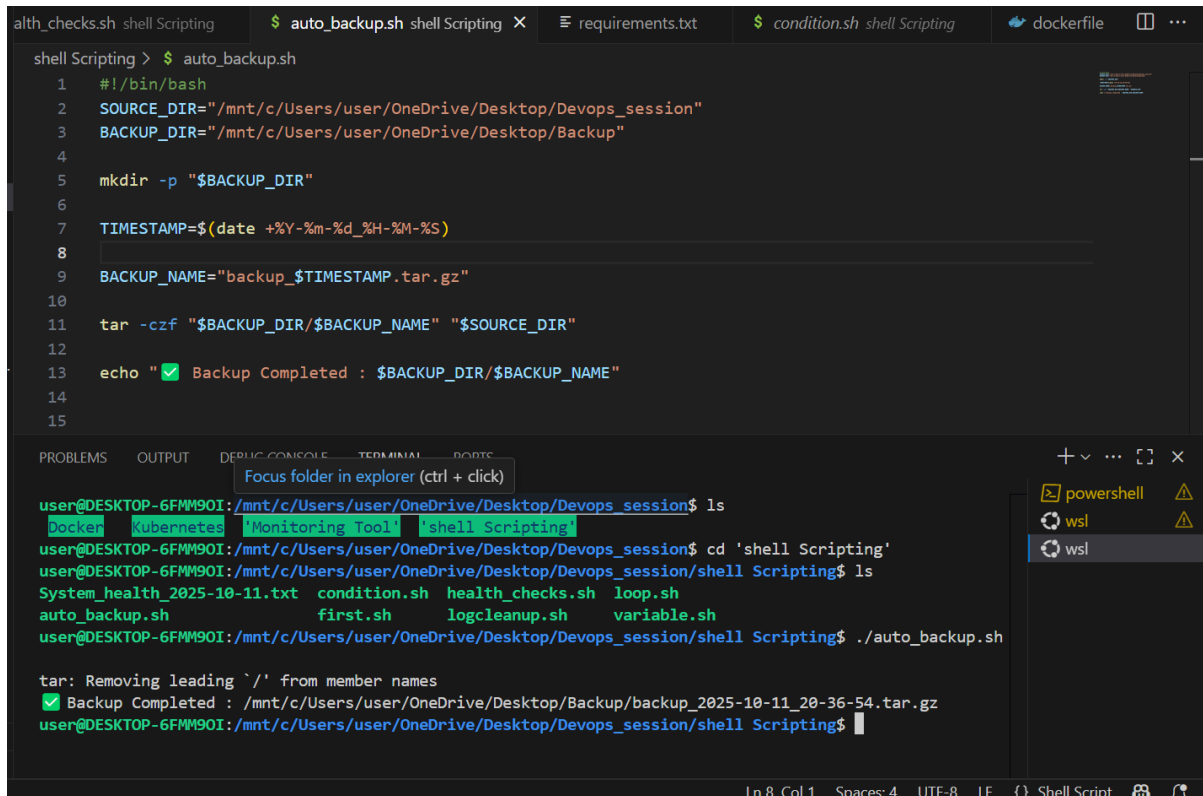
Shell Scripting

❖ To run a shell script file (.sh) inside your WSL (Ubuntu) terminal:-

Command:-

- `bash filename.sh` or
- `chmod +x filename.sh` (permission for execution) then `./filename.sh`

1. Manually run shell script file :- for Ex.



```
alth_checks.sh shell Scripting  $ auto_backup.sh shell Scripting X requirements.txt $ condition.sh shell Scripting dockerfile ...

shell Scripting > $ auto_backup.sh
1  #!/bin/bash
2  SOURCE_DIR="/mnt/c/Users/user/OneDrive/Desktop/Devops_session"
3  BACKUP_DIR="/mnt/c/Users/user/OneDrive/Desktop/Backup"
4
5  mkdir -p "$BACKUP_DIR"
6
7  TIMESTAMP=$(date +%Y-%m-%d_%H-%M-%S)
8
9  BACKUP_NAME="backup_${TIMESTAMP}.tar.gz"
10
11 tar -czf "$BACKUP_DIR/$BACKUP_NAME" "$SOURCE_DIR"
12
13 echo "✅ Backup Completed : $BACKUP_DIR/$BACKUP_NAME"
14
15

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Focus folder in explorer (ctrl + click)

user@DESKTOP-6FMM90I: /mnt/c/Users/user/OneDrive/Desktop/Devops_session$ ls
Docker Kubernetes Monitoring Tool shell Scripting
user@DESKTOP-6FMM90I: /mnt/c/Users/user/OneDrive/Desktop/Devops_session$ cd 'shell Scripting'
user@DESKTOP-6FMM90I: /mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ ls
System_health_2025-10-11.txt condition.sh health_checks.sh loop.sh
auto_backup.sh first.sh logcleanup.sh variable.sh
user@DESKTOP-6FMM90I: /mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ ./auto_backup.sh

tar: Removing leading `/' from member names
✅ Backup Completed : /mnt/c/Users/user/OneDrive/Desktop/Backup/backup_2025-10-11_20-36-54.tar.gz
user@DESKTOP-6FMM90I: /mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$
```

Homework Day-1:-

Q. To automate a shell script file (ex. auto_backup.sh) to run at a particular time

1. check the date by default it is display in UTC using check `date` command
2. Change to your local timezone (e.g., IST):-
`sudo timedatectl set-timezone Asia/Kolkata`
3. Check the date :- `date`

Method -1:- using crontab Command:-

4. Open the cron editor: `crontab -e`

```
shell Scripting > $ auto_backup.sh
1  #!/bin/bash
2  SOURCE_DIR="/mnt/c/Users/user/OneDrive/Desktop/Devops_session"
3  BACKUP_DIR="/mnt/c/Users/user/OneDrive/Desktop/Backup"
4
5  mkdir -p "$BACKUP_DIR"
6
7  TIMESTAMP=$(date +%Y-%m-%d_%H-%M-%S)
8
9  BACKUP_NAME="backup_${TIMESTAMP}.tar.gz"
10
11 tar -czf "$BACKUP_DIR/$BACKUP_NAME" "$SOURCE_DIR"
12
13 echo "✅ Backup Completed : $BACKUP_DIR/$BACKUP_NAME"
14
15
```

PROBLEMS OUTPUT DEBUG CONSOLE **TERMINAL** PORTS

GNU nano 7.2 /tmp/crontab.QNvpiD/crontab

```
37 19 * * * "/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting/auto_backup.sh"
```

Read 2 lines

Help Exit Write Out Read File Where Is Replace Cut Paste Execute Justify Location Go To Line Undo Redo

powershell wsl wsl

5. View your cron jobs:- `crontab -l`

```
auto_backup.sh first.sh logcleanup.sh variable.sh
user@DESKTOP-6FMM90I:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ ./auto_backup.sh

tar: Removing leading `/' from member names
✅ Backup Completed : /mnt/c/Users/user/OneDrive/Desktop/Backup/backup_2025-10-11_20-36-54.tar.gz
user@DESKTOP-6FMM90I:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ date
Sat Oct 11 20:50:58 IST 2025
user@DESKTOP-6FMM90I:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ crontab -e
crontab: installing new crontab
user@DESKTOP-6FMM90I:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ crontab -l
37 19 * * * "/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting/auto_backup.sh"

user@DESKTOP-6FMM90I:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$
```

- If the not execute the crontab or script file then Verify cron is running or not:-
`sudo service cron status`
- If not running, start it:
`sudo service cron start`

```

user@DESKTOP-6FWM9OI:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ sudo service cron status
[sudo] password for user:
● cron.service - Regular background program processing daemon
   Loaded: loaded (/usr/lib/systemd/system/cron.service; enabled; preset: enabled)
   Active: active (running) since Sat 2025-10-11 19:07:50 IST; 1h 54min ago
     Docs: man:cron(8)
    Main PID: 156 (cron)
      Tasks: 1 (limit: 4524)
    Memory: 420.0K (peak: 5.3M)
       CPU: 6.329s
    CGroup: /system.slice/cron.service
            └─156 /usr/sbin/cron -f -P

```

Method -2:- using at Command :-

1. First Install the at package :-

```
sudo apt update
```

```
sudo apt install at -y
```

2. Start (and enable) the atd service:-

```
sudo service atd start
```

3. Check its status:-

```
sudo service atd status
```

4. Schedule a job with at and set the time and path then **ctrl+d (<EOF>)**:-
at

```

shell Scripting > $ auto_backup.sh
1  #!/bin/bash
2  SOURCE_DIR="/mnt/c/Users/user/OneDrive/Desktop/Devops_session"
3  BACKUP_DIR="/mnt/c/Users/user/OneDrive/Desktop/Backup"
4
5  mkdir -p "$BACKUP_DIR"
6
7  TIMESTAMP=$(date +%Y-%m-%d_%H-%M-%S)
8
9  BACKUP_NAME="backup_${TIMESTAMP}.tar.gz"
10
11 tar -czf "$BACKUP_DIR/$BACKUP_NAME" "$SOURCE_DIR"
12
13 echo "✅ Backup completed : $BACKUP_DIR/$BACKUP_NAME"
14
15

```

```

at> ./auto_backup.sh
at> <EOT>
job 7 at Sat Oct 11 21:13:00 2025
user@DESKTOP-6FWM9OI:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ atq
user@DESKTOP-6FWM9OI:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ at 21:30
warning: commands will be executed using /bin/sh
at Sat Oct 11 21:30:00 2025
at> ./auto_backup.sh
at> <EOT>
job 8 at Sat Oct 11 21:30:00 2025
user@DESKTOP-6FWM9OI:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$ atq
8      Sat Oct 11 21:30:00 2025 a user
user@DESKTOP-6FWM9OI:/mnt/c/Users/user/OneDrive/Desktop/Devops_session/shell Scripting$

```

5. Check pending jobs :-

```
atq
```

6. Remove a scheduled job ,If you want to delete a pending job (e.g., job number 3):-

```
atrm 3
```

