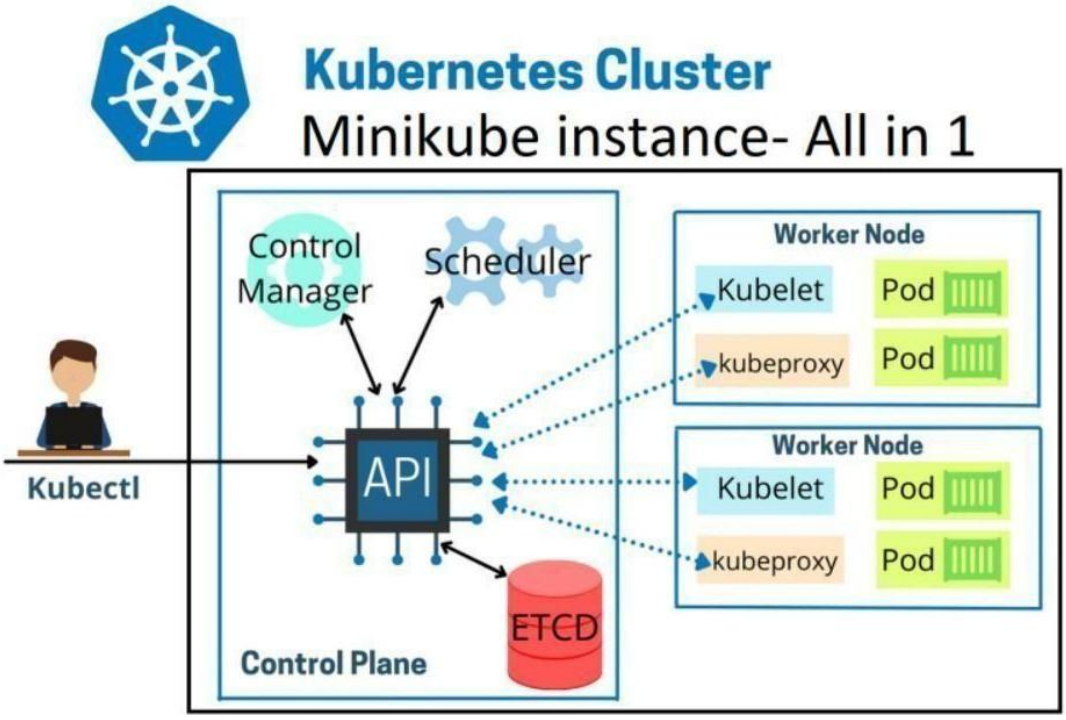
KUBERNETES MINIKUBE INSTALLATION



Minikube install karne se pehle jo **tools** diye gaye hain, unko **system** se **uninstall** karo. Aap **manually** ya **commands** se bhi kar sakte ho. Hum **installation** **Chocolatey** se karenge, agar aap aisa nahi karenge, to **installation** ke waqt **error** aayega aur **Minikube install** nahi hoga. Isliye pehle ye **tools uninstall** karo. **Recommend** ye karoga ke **System Format** kardo.

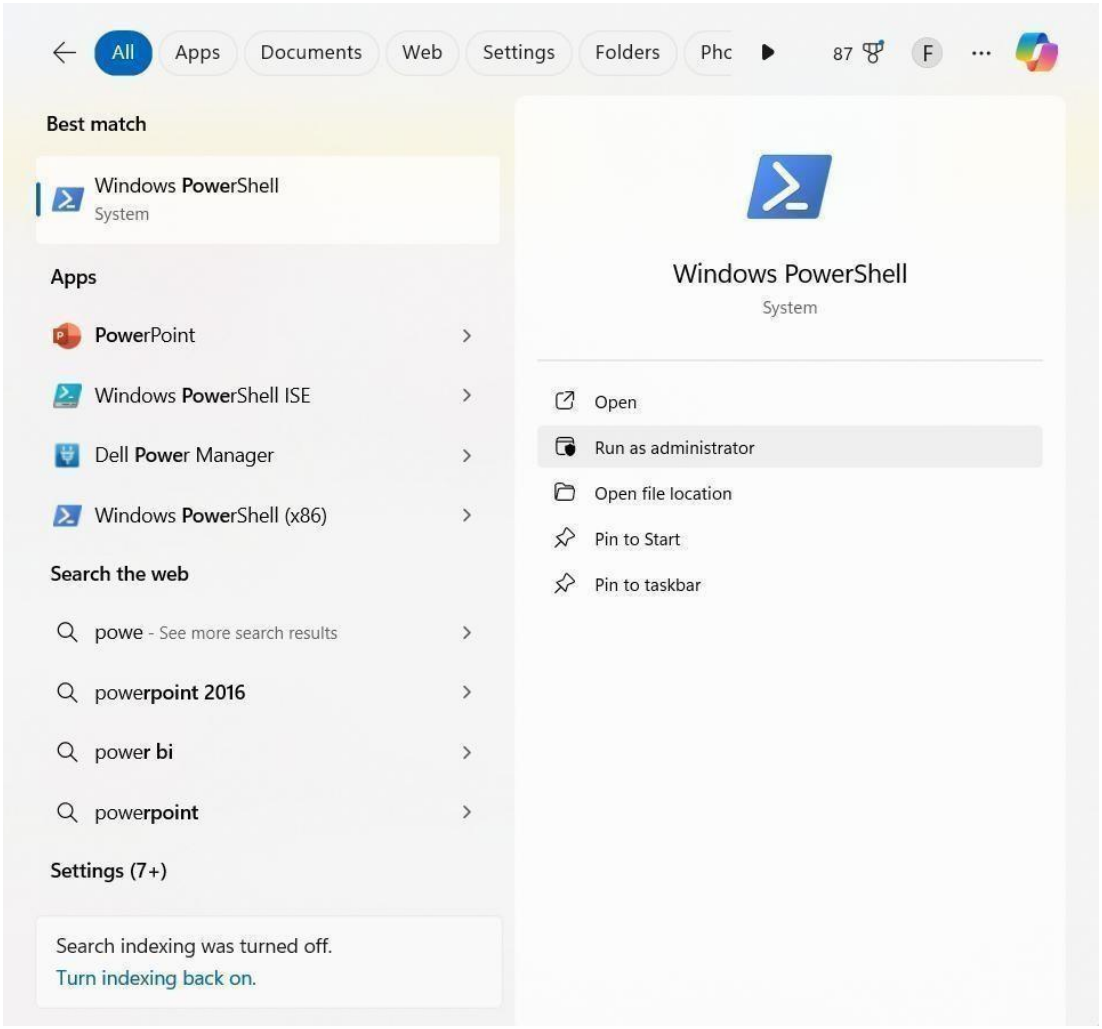
Minikube install karne ke liye ye Tools install karne honge

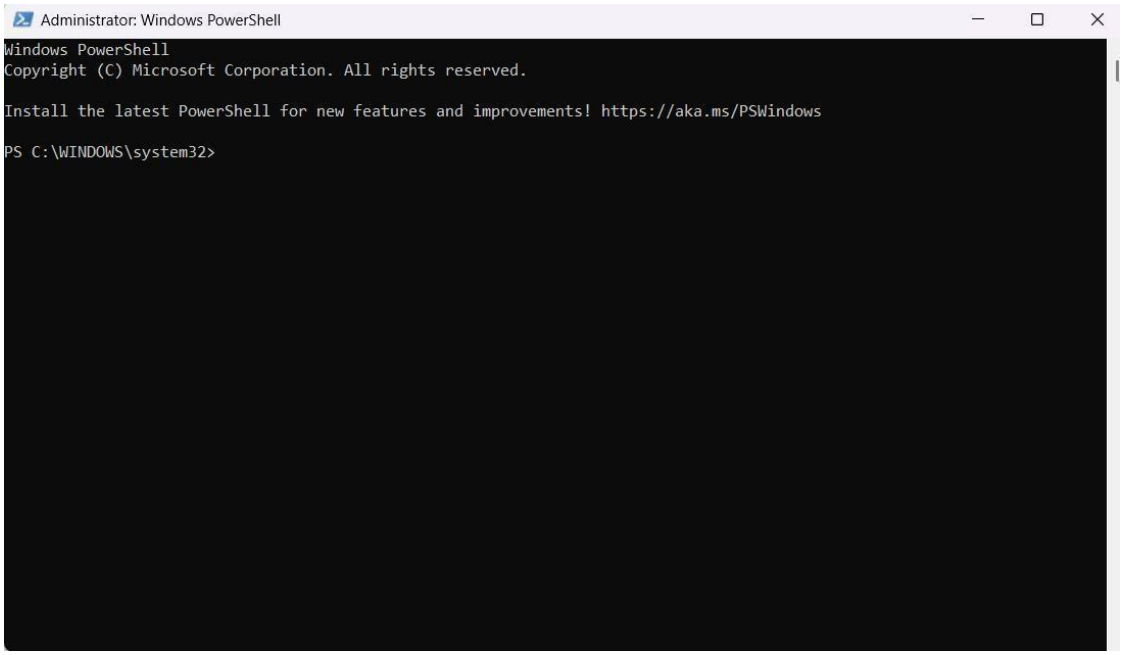
1. **Chocolatey Install karo**
2. **Oracle VirtualBox Install karo**
3. **Kubectl Install karo**
4. **WSL Install karo** (Future me iski zaroorat hogi)
5. **Git Install karo**(Future me iski zaroorat hogi)
6. **Minikube Install karo**

Yeh rahi step-by-step Minikube Cluster creation ki guide Roman Urdu mein

Step 1: Windows PowerShell ko administrator Mode me Open karein or Chocolatey install karein

YE KUCH ISTARHA LAGEGA





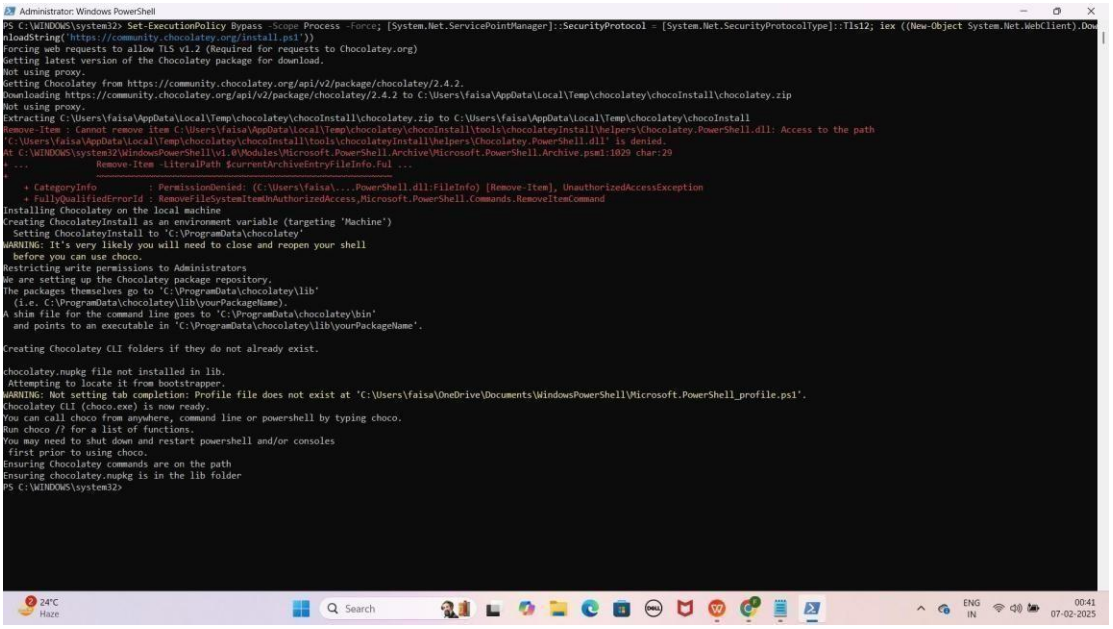
Chocolatey

Chocolatey ek package manager hai jo Windows pe software install karna easy banata hai.

1. Chocolatey install karne ke liye ye command run karo

Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProtocol = [System.Net.SecurityProtocolType]::Tls12; iex ((New-Object System.Net.WebClient).DownloadString('https://community.chocolatey.org/install.ps1'))

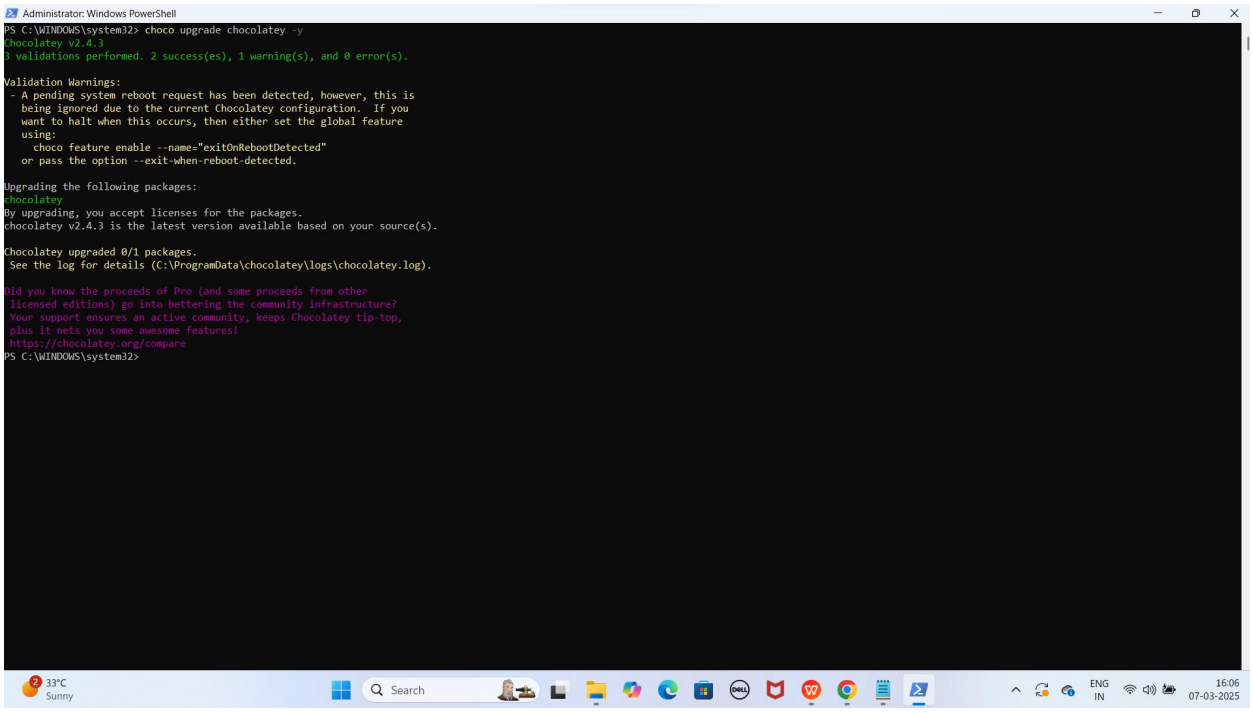
YE KUCH ISTARHA LAGEGA



2. Chocolatey update karne ke liye ye command run kariye

choco upgrade chocolatey -y

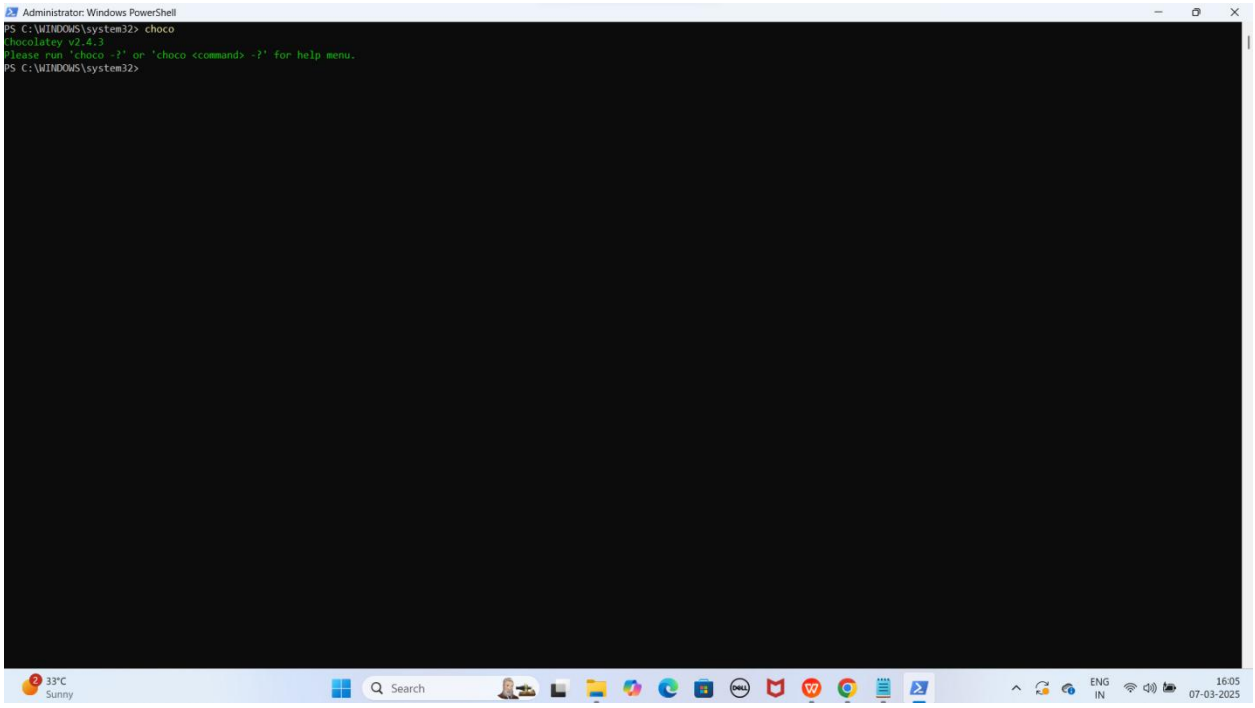
YE KUCH ISTARHA LAGEGA



3. Check karo Chocolatey install hua ya nahi ye command run kariye

choco

YE KUCH ISTARHA LAGEGA



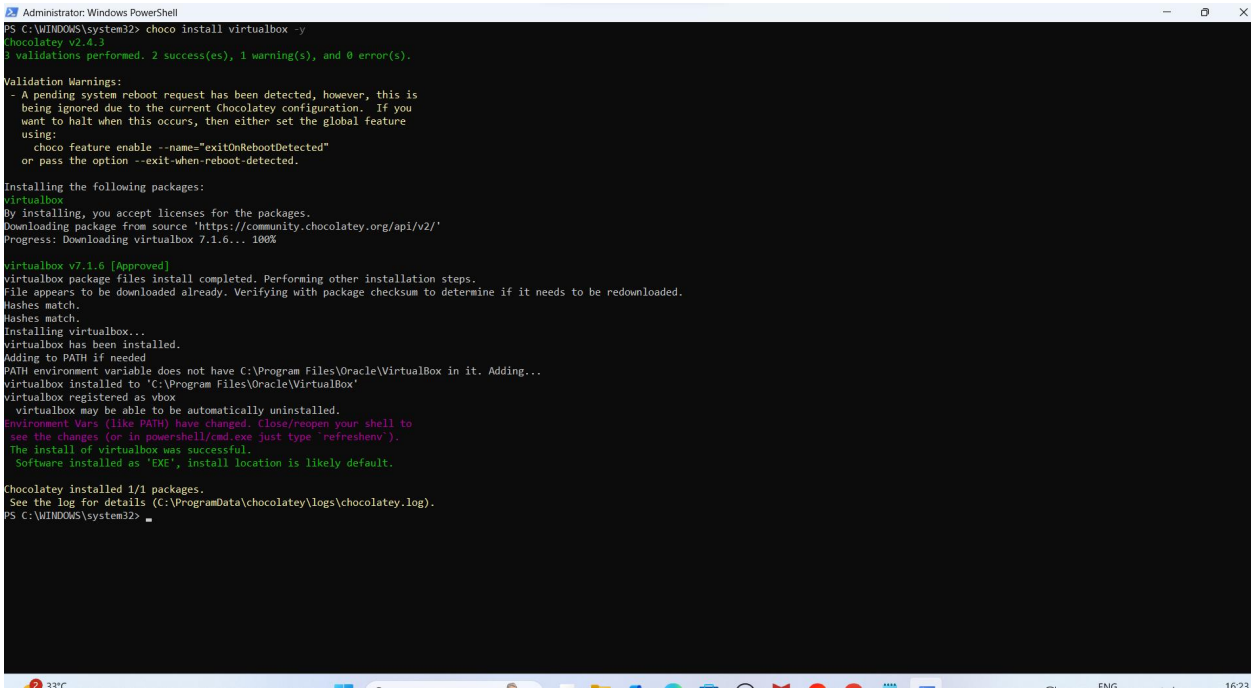
Step 2: Oracle VirtualBox Install Karna

VirtualBox ek **virtualization tool** hai jo **Minikube** ke liye zaroori hai

1. Install karne ke liye ye command run kariye

choco install virtualbox -y --force

YE KUCH ISTARHA LAGEGA

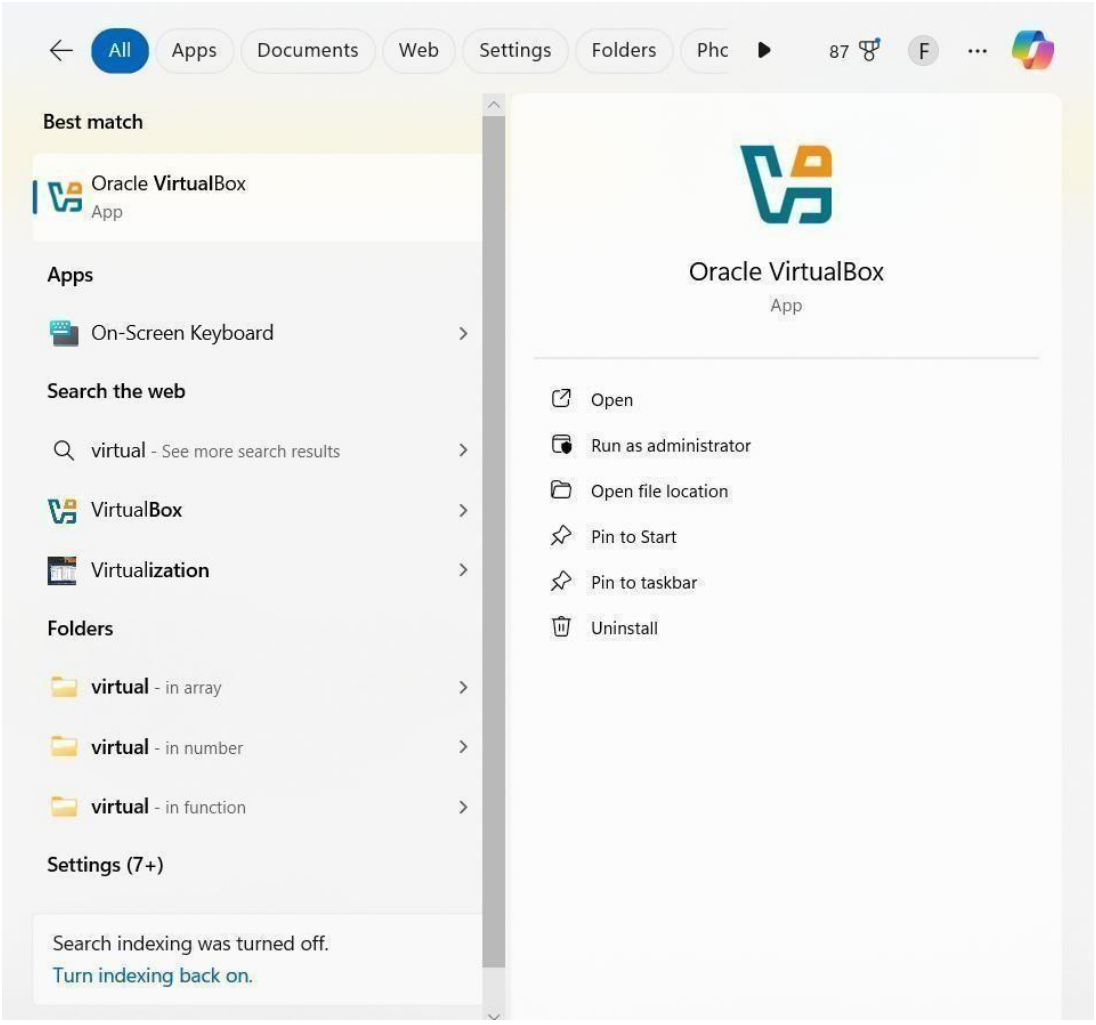


NOTE: Agar VirtualBox installation ke waqt koi error aaye, to same command dobara run karein. Agar phir bhi error aaye, to check karein ke VirtualBox properly install hua hai ya nahi. Agar install ho chuka hai lekin error phir bhi aa raha hai, to VirtualBox ko uninstall karke dobara install karein aur phir command run karein.

2. Check karne ke liye

Windows search bar me **"VirtualBox"** likho, agar show ho raha hai toh install hogaya.

YE KUCH ISTARHA LAGEGA



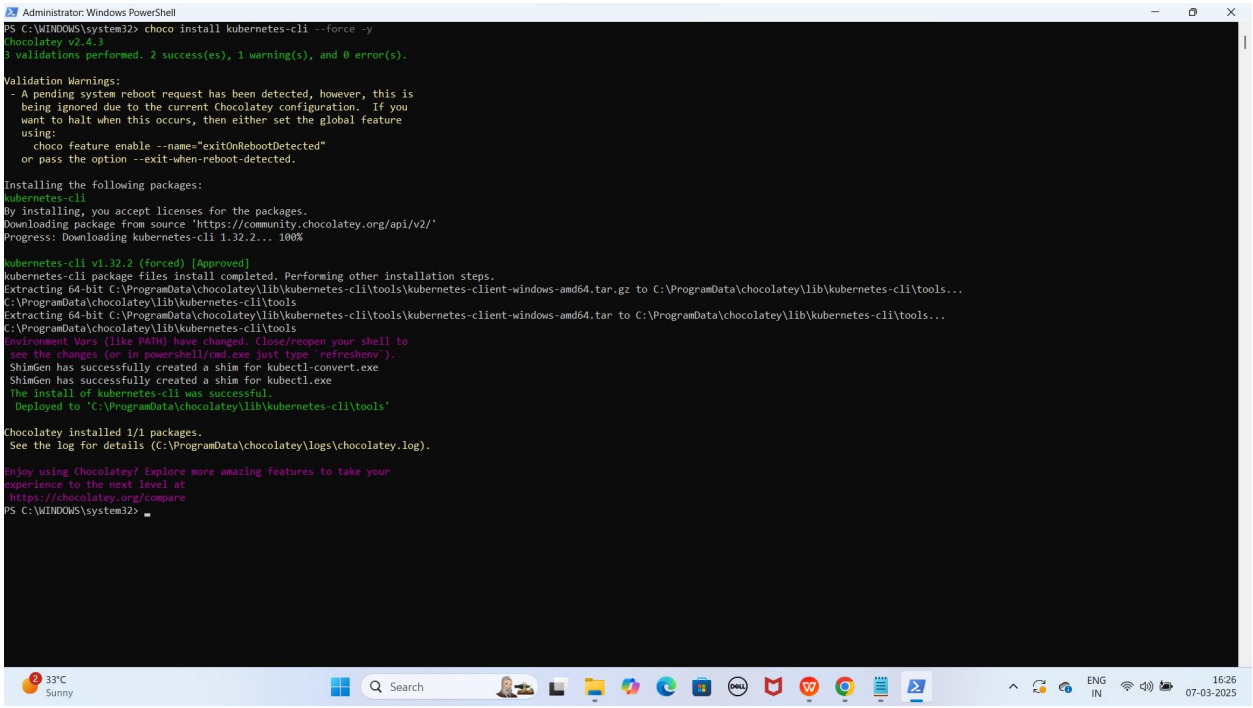
Step 3: Kubectl Install Karna

Kubectl Kubernetes clusters ko **manage** karne ke liye use hota hai.

1. Install karne ke liye ye command run kariye

choco install kubernetes-cli --force -y

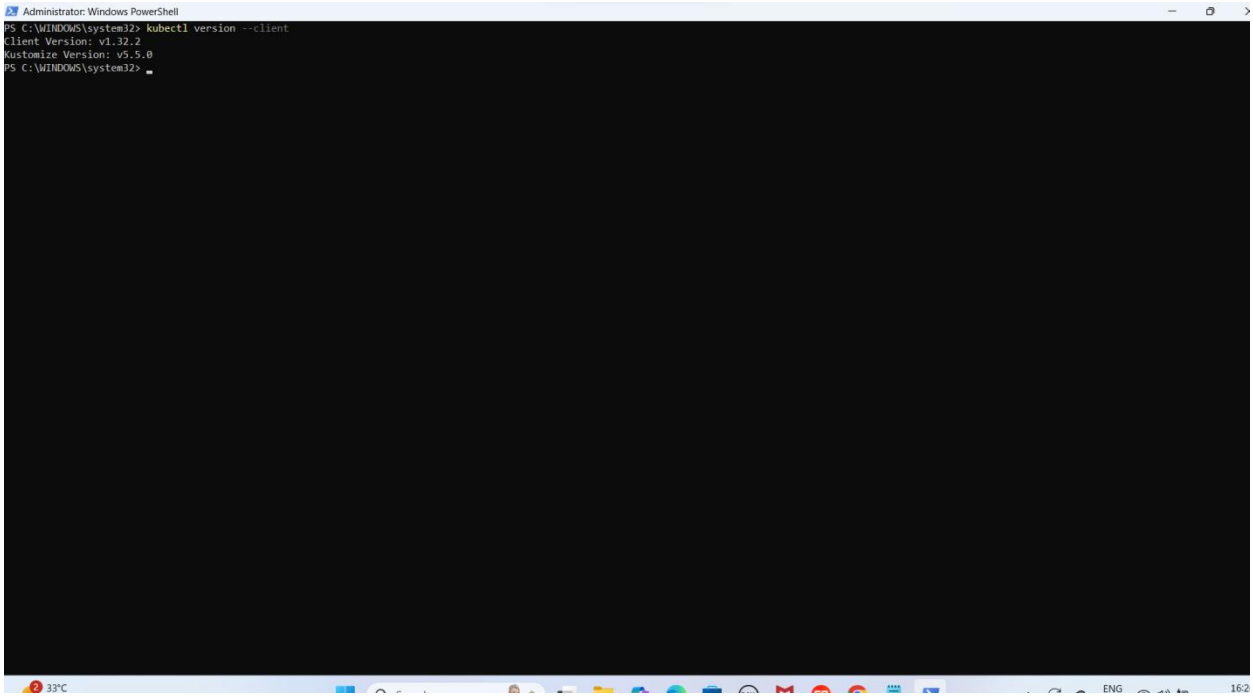
YE KUCH ISTARHA LAGEGA



2. Check karne ke liye ye command run kariye

kubectl version --client

YE KUCH ISTARHA LAGEGA



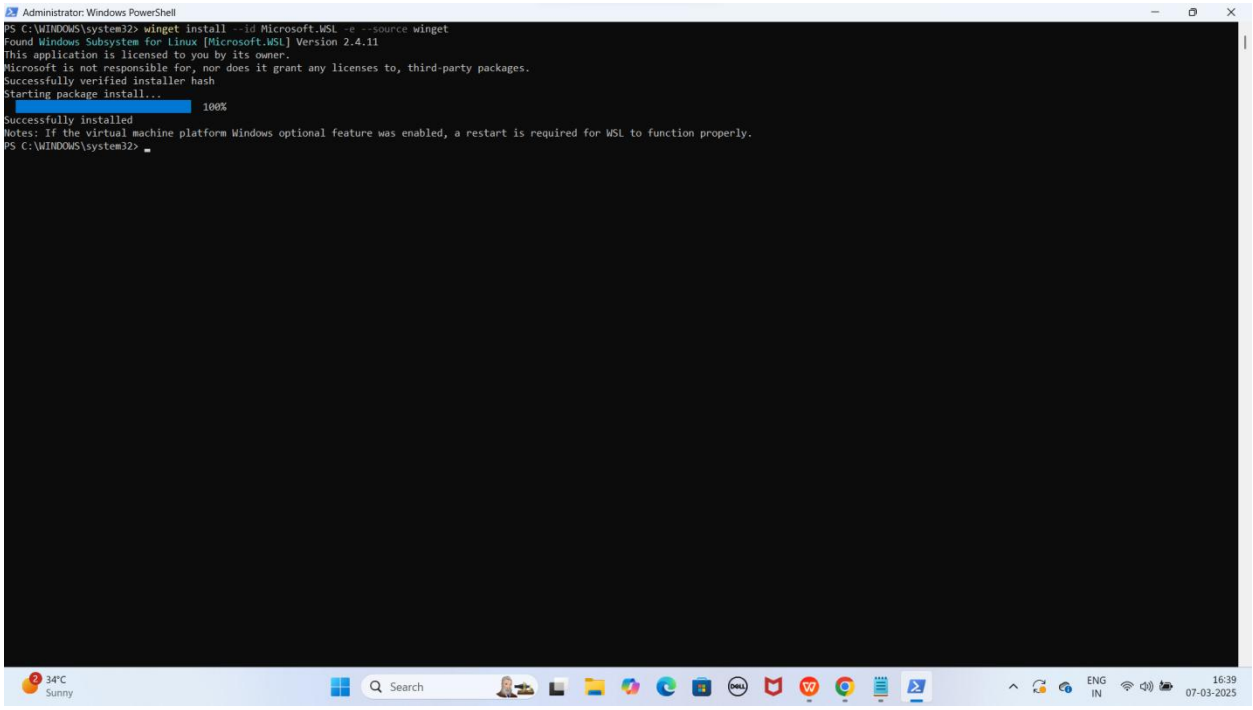
Step 4: WSL Install Karna (Future purpose ke liye)

WSL (Windows Subsystem for Linux) Linux environment provide karta hai.

1. Install karne ke liye ye command run kariye

winget install --id Microsoft.WSL -e --source winget

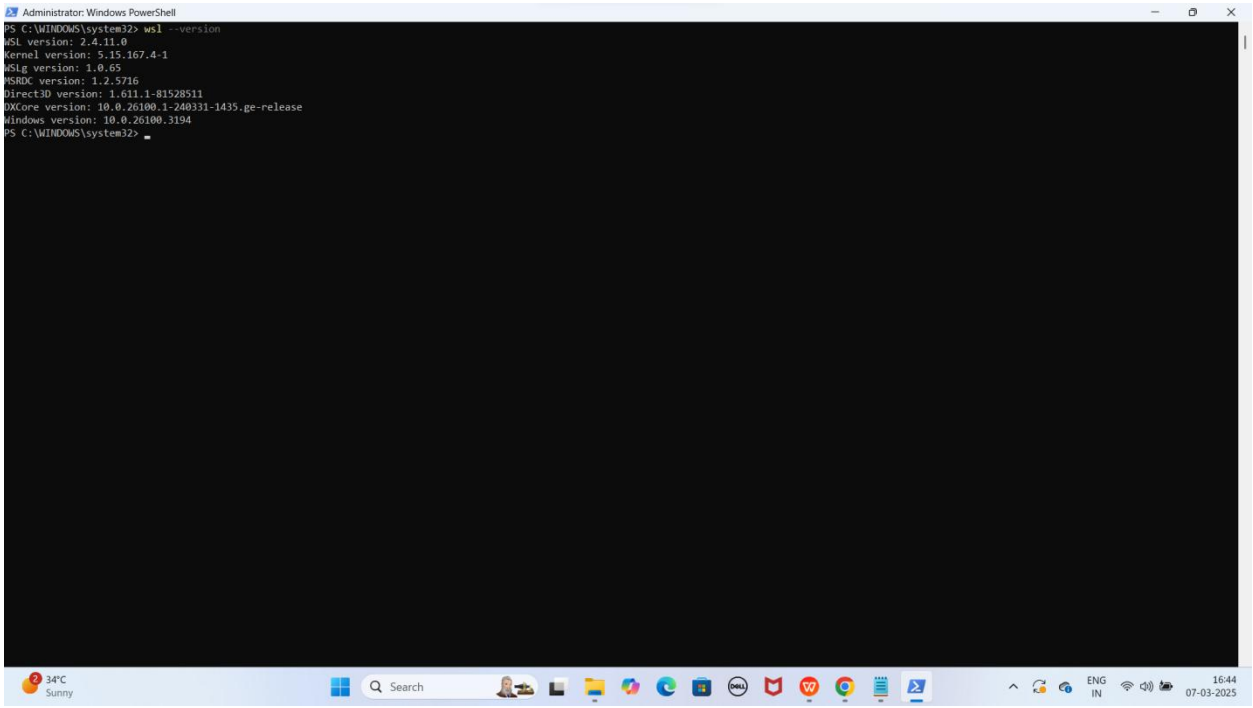
YE KUCH ISTARHA LAGEGA



2. Check karne ke liye ye command run kariye

wsl --version

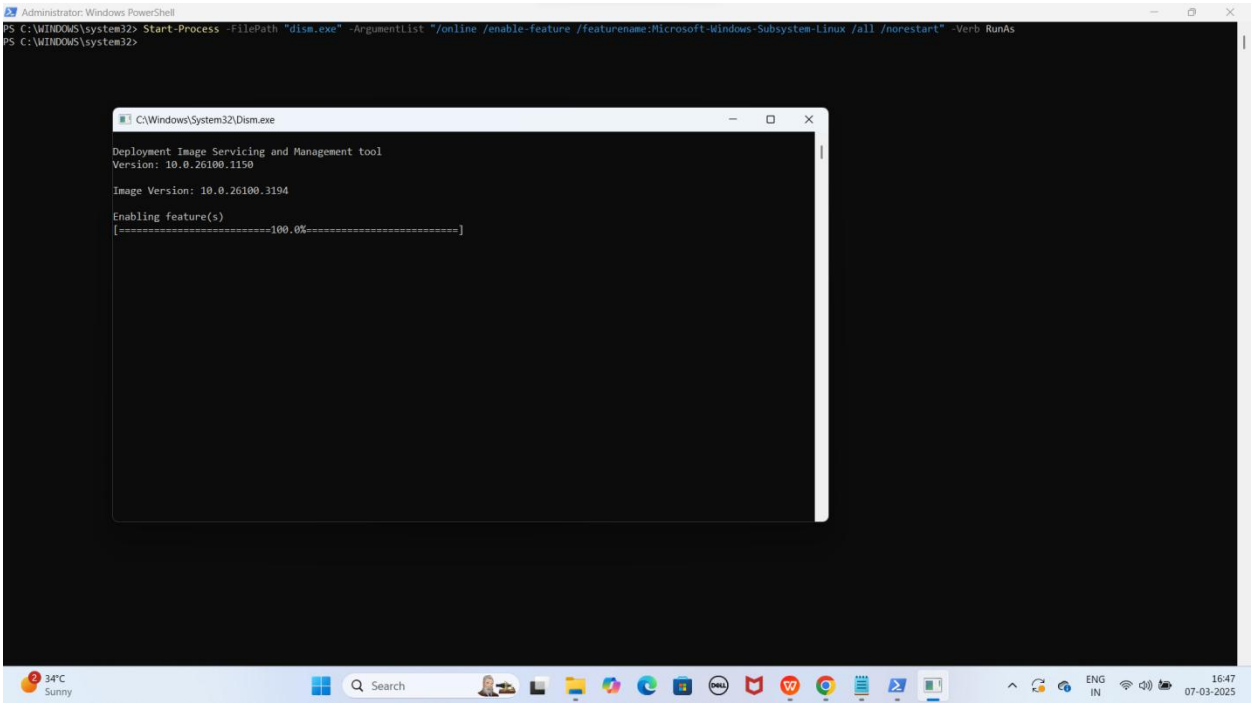
YE KUCH ISTARHA LAGEGA



3. Required features enable karne ke liye ye commands run kariye

Start-Process -FilePath "dism.exe" -ArgumentList "/online /enable-feature /featurename:Microsoft-Windows-Subsystem-Linux /all /norestart" -Verb RunAs

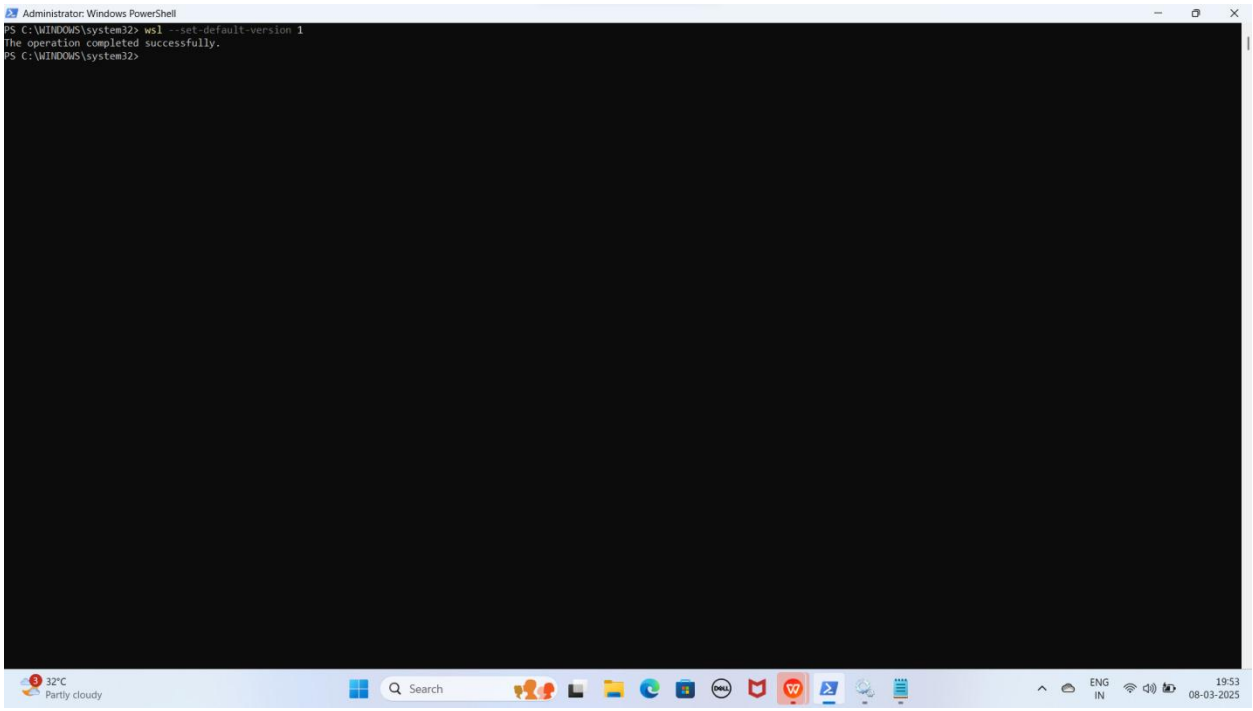
YE KUCH ISTARHA LAGEGA



4. WSL version 1 set karne ke liye ye command run kariye

wsl --set-default-version 1

YE KUCH ISTARHA LAGEGA



5. Manually Enable WSL Service

- **Win + R** dabao, **services.msc** likho aur **Enter** karo.
- **"WSL service"** service dhundo.
- Agar **Disabled** hai, to **Right-click → Properties → Startup type: Automatic(Delayed Start) → OK → Start** karo.

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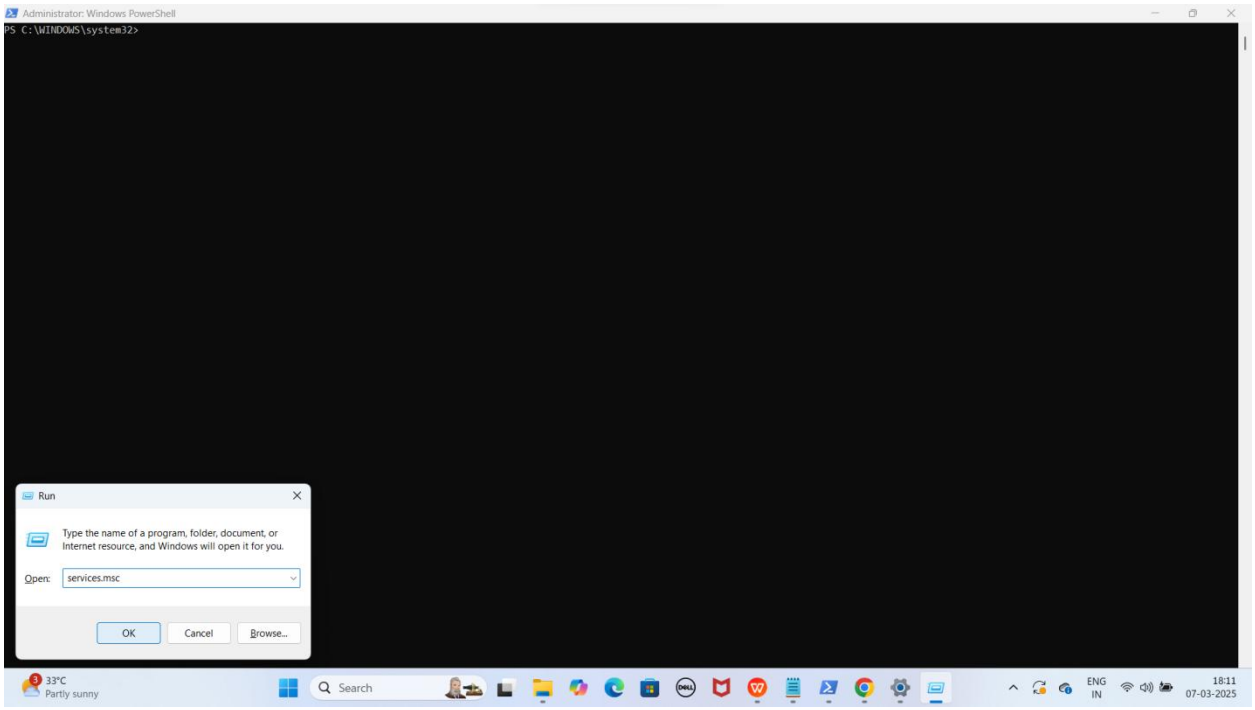
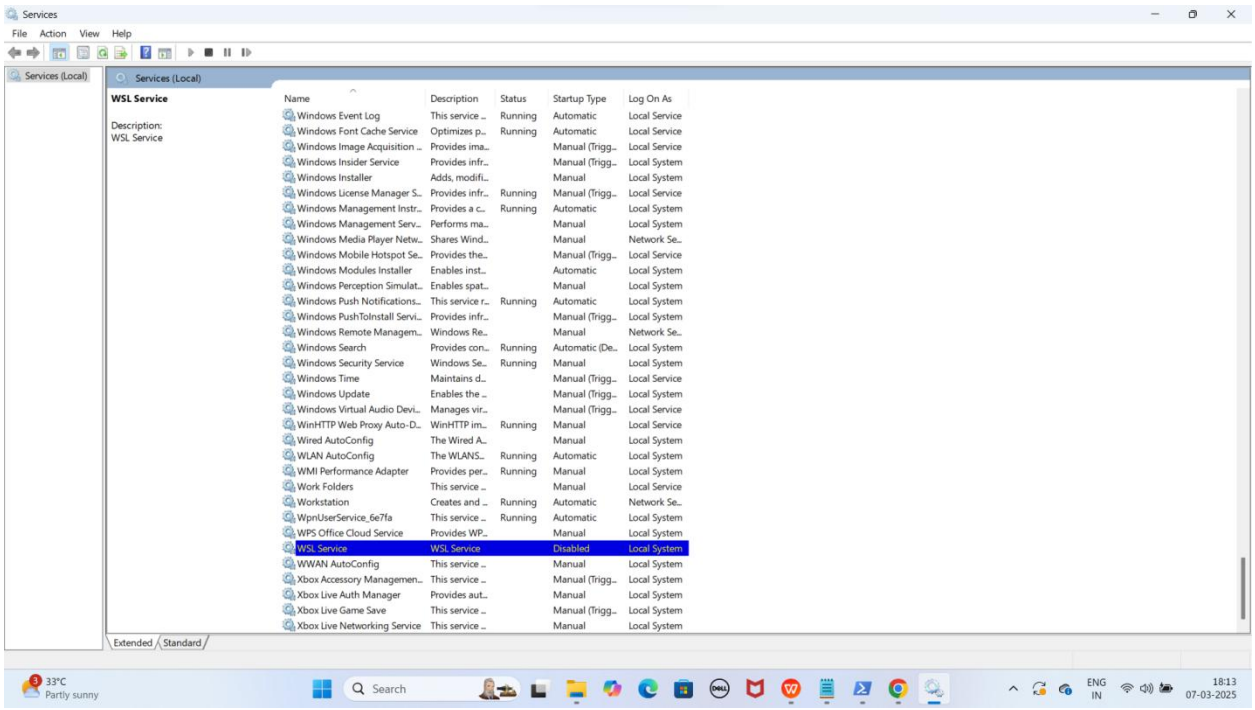
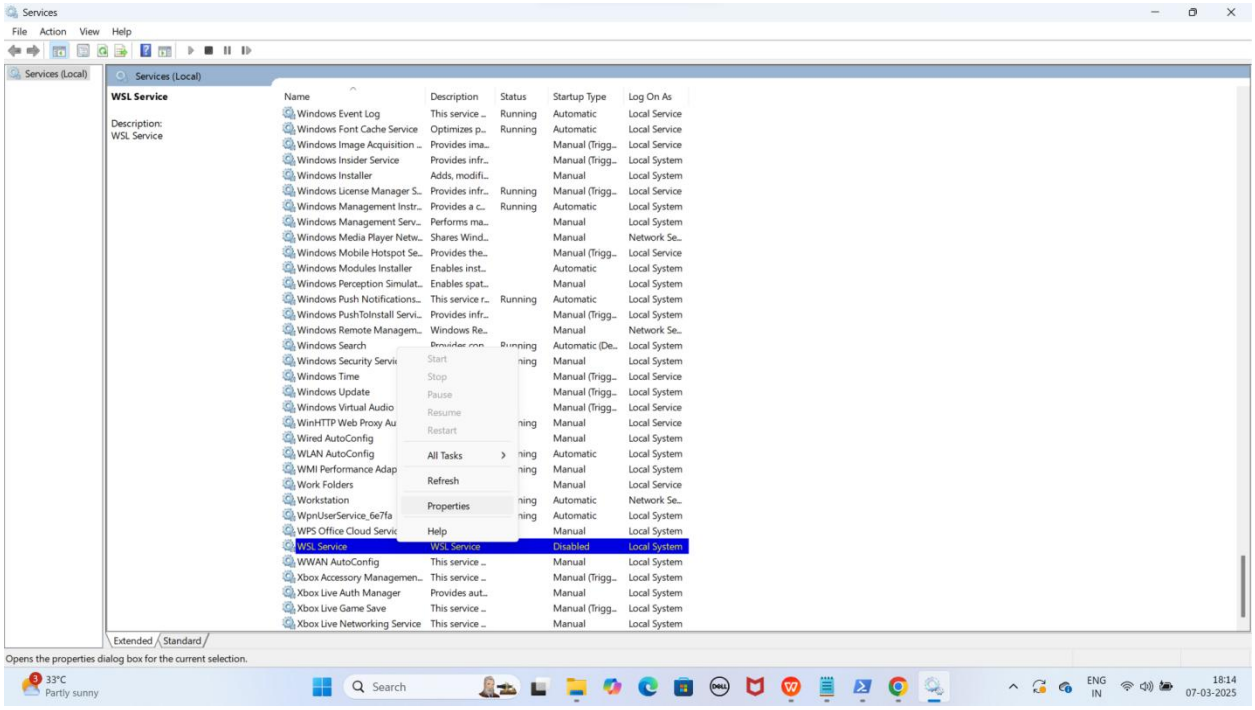
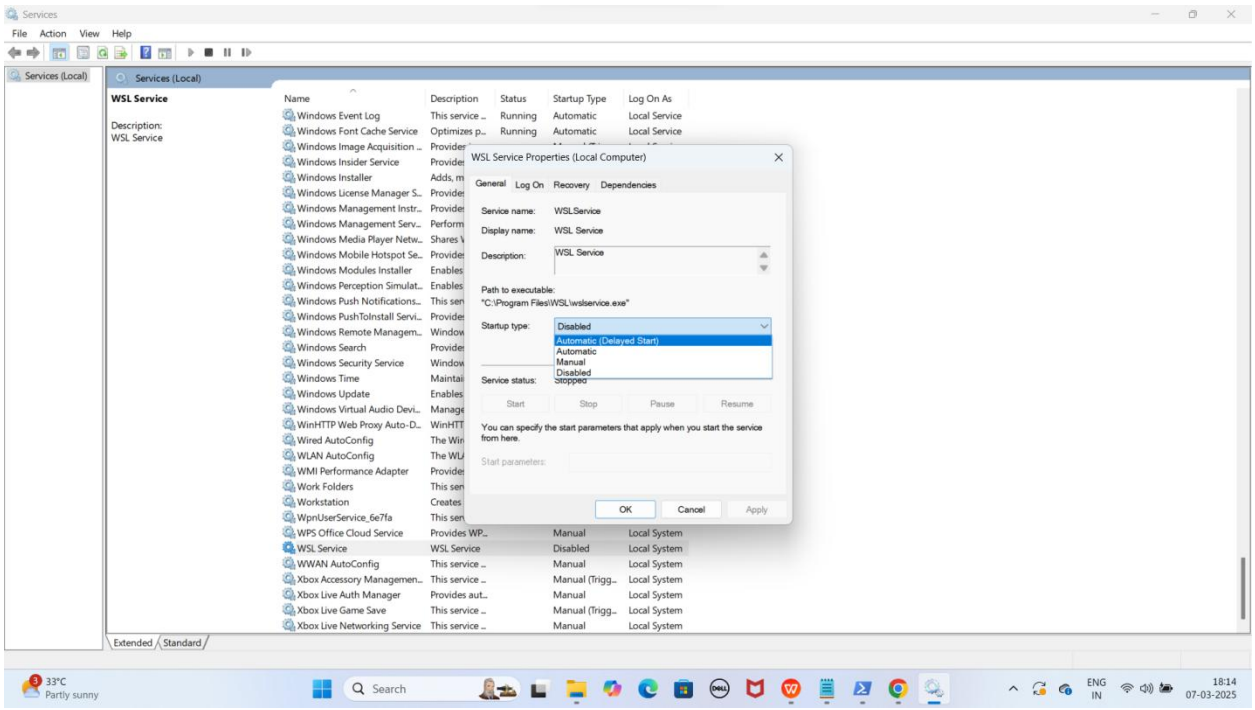





Services
File Action View Help
Services (Local)
WSL Service
Description:
WSL Service
Name Description Status Startup Type Log On As
Windows Event Log This service ... Running Automatic Local Service
Windows Font Cache Service Optimizes p... Running Automatic Local Service
Windows Image Acquisition ... Provides ima... Manual (Trigg... Local Service
Windows Insider Service Provides infr... Manual (Trigg... Local System
Windows Installer Adds, modifi... Manual Local System
Windows License Manager S... Provides infr... Running Manual (Trigg... Local Service
Windows Management Instr... Provides a c... Running Automatic Local System
Windows Management Serv... Performs ma... Manual Local System
Windows Media Player Netw... Shares Wind... Manual Network Se...
Windows Mobile Hotspot Se... Provides the... Manual (Trigg... Local Service
Windows Modules Installer Enables inst... Automatic Local System
Windows Perception Simulat... Enables spat... Manual Local System
Windows Push Notifications... This service r... Running Automatic Local System
Windows PushToInstall Servi... Provides infr... Manual (Trigg... Local System
Windows Remote Managem... Windows Re... Manual Network Se...
Windows Search Automatic (De... Local System
Windows Security Servic... Manual Local System
Windows Time Manual (Trigg... Local Service
Windows Update Manual (Trigg... Local System
Windows Virtual Audio Manual (Trigg... Local Service
WinHTTP Web Proxy Au... Manual Local Service
Wired AutoConfig Manual Local System
WLAN AutoConfig Automatic Local System
WMI Performance Adap... Manual Local System
Work Folders Manual Local Service
Workstation Automatic Network Se...
WpnUserService_6e7fa Automatic Local System
WPS Office Cloud Servic... Manual Local System
WSL Service WSL Service Disabled Local System
WWAN AutoConfig This service ... Manual Local System
Xbox Accessory Managemen... This service ... Manual (Trigg... Local System
Xbox Live Auth Manager Provides aut... Manual Local System
Xbox Live Game Save This service ... Manual (Trigg... Local System
Xbox Live Networking Service This service ... Manual Local System
Start
Stop
Pause
Resume
Restart
All Tasks
Refresh
Properties
Help
Extended Standard
Opens the properties dialog box for the current selection.
33°C
Partly sunny
Search
ENG
IN
18:14
07-03-2025


Services
File Action View Help
Services (Local)
WSL Service
Description:
WSL Service
WSL Service Properties (Local Computer)
General Log On Recovery Dependencies
Service name: WSLService
Display name: WSL Service
Description: WSL Service
Path to executable:
"C:\Program Files\WSL\wslservice.exe"
Startup type: Disabled
Automatic (Delayed Start)
Automatic
Manual
Disabled
Service status: Stopped
Start Stop Pause Resume
You can specify the start parameters that apply when you start the service from here.
Start parameters:
OK Cancel Apply
Extended Standard
33°C
Partly sunny
Search
ENG
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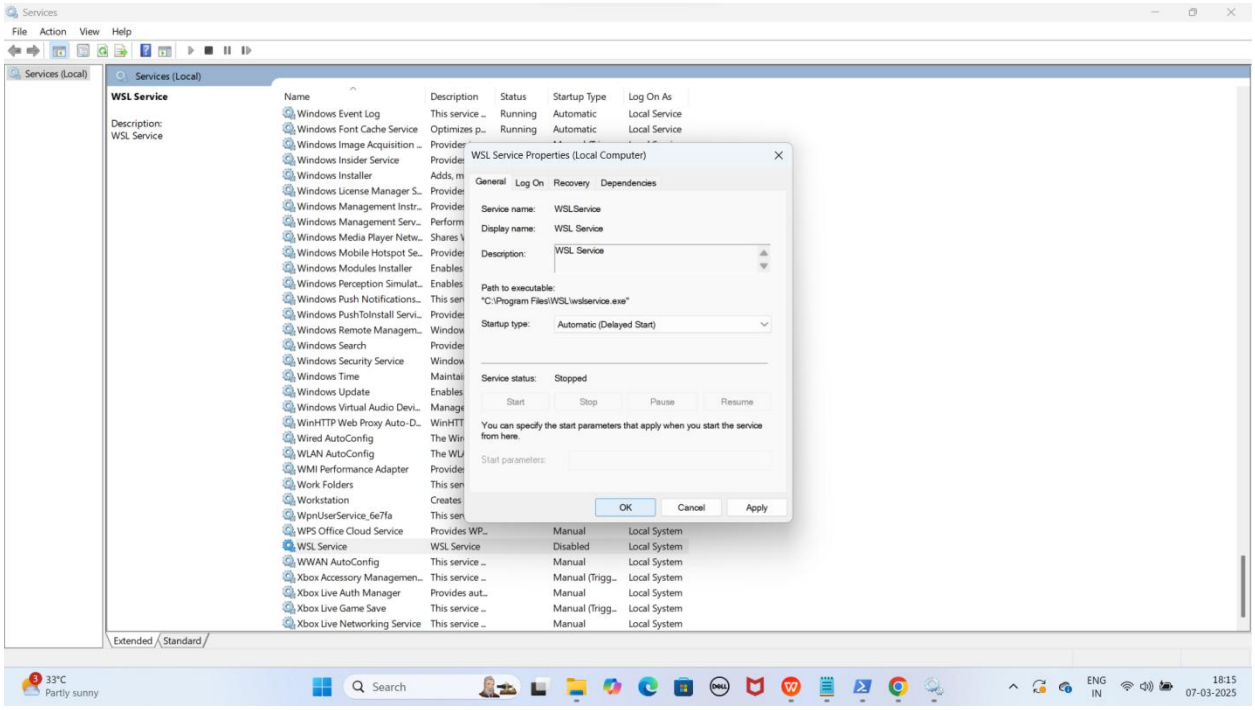
18:14
07-03-2025


Services
File Action View Help
Services (Local)
WSL Service
Description:
WSL Service
Name Description Status Startup Type Log On As
WSL Service Properties (Local Computer)
General Log On Recovery Dependencies
Service name: WSLService
Display name: WSL Service
Description: WSL Service
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"C:\Program Files\WSL\wslservice.exe"
Startup type: Automatic (Delayed Start)
Service status: Stopped
Start Stop Pause Resume
You can specify the start parameters that apply when you start the service from here.
Start parameters:
OK Cancel Apply
Extended Standard
33°C
Partly sunny
Search
ENG
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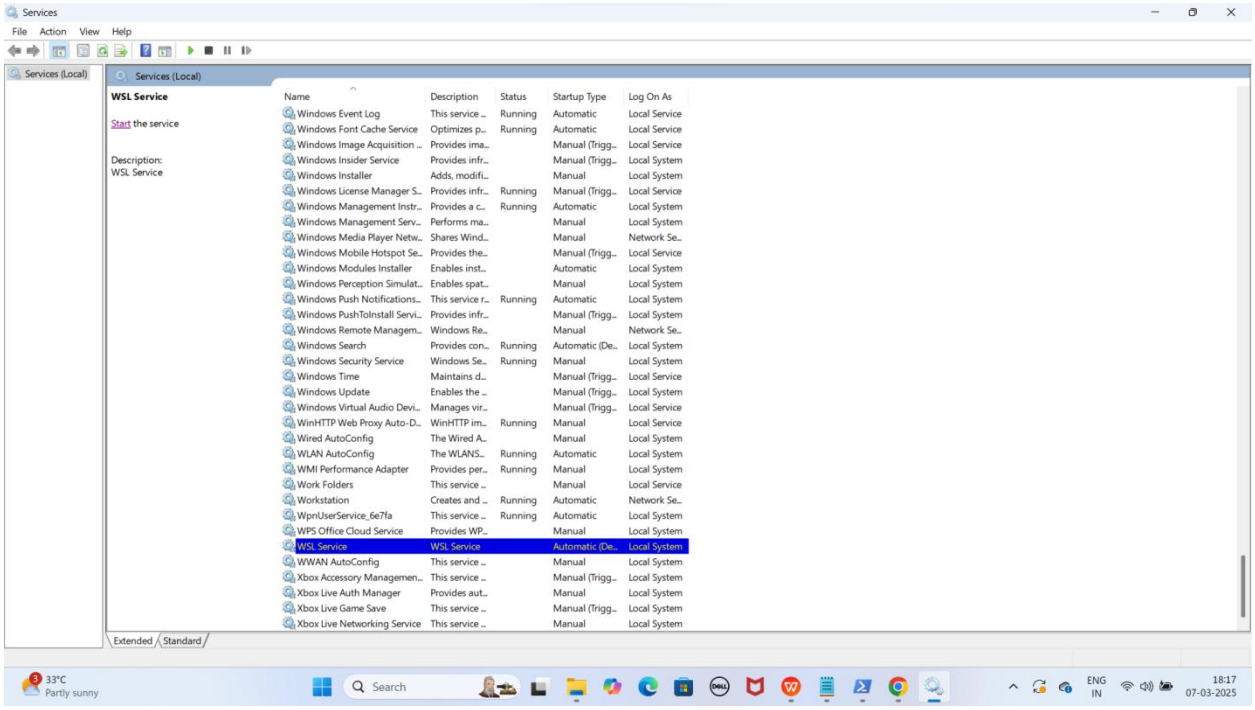
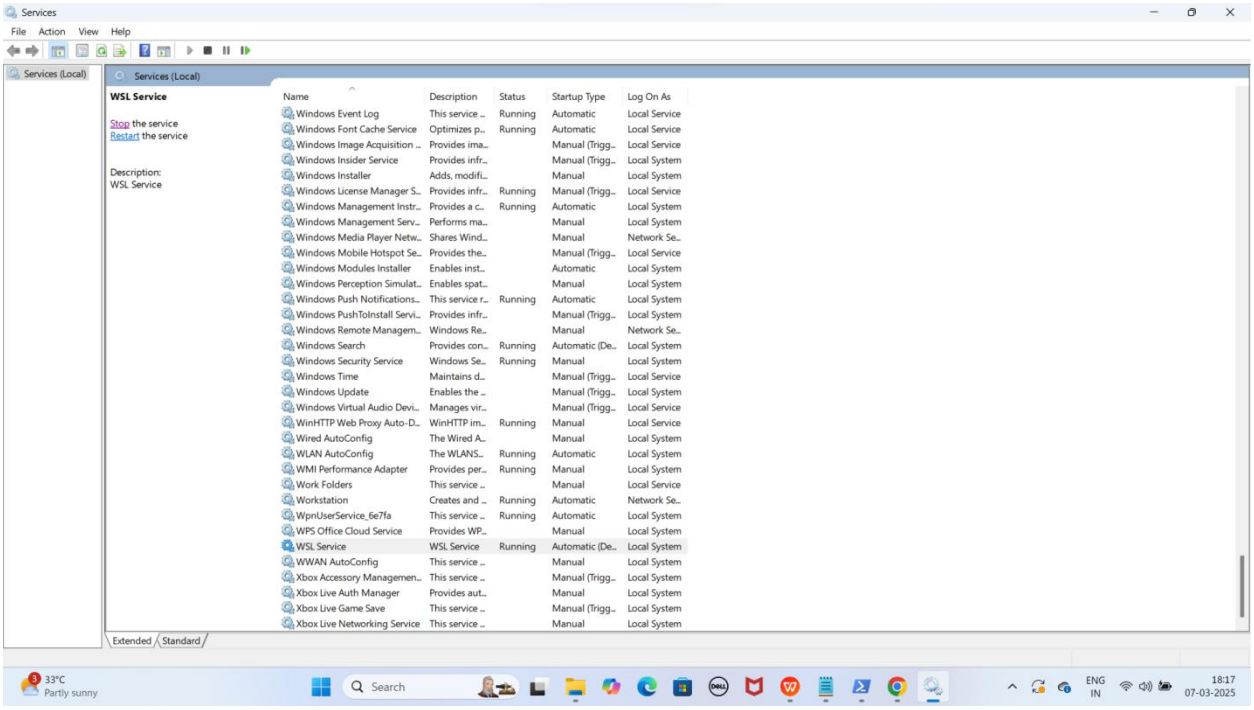
18:15
07-03-2025


Services
File Action View Help
Services (Local)
WSL Service
Start the service
Description:
WSL Service
Name Description Status Startup Type Log On As
Extended Standard
33°C
Partly sunny
Search
ENG
IN
18:17
07-03-2025



NOTE : Ab aapka WSL Service Enable and Start hogaya hai.

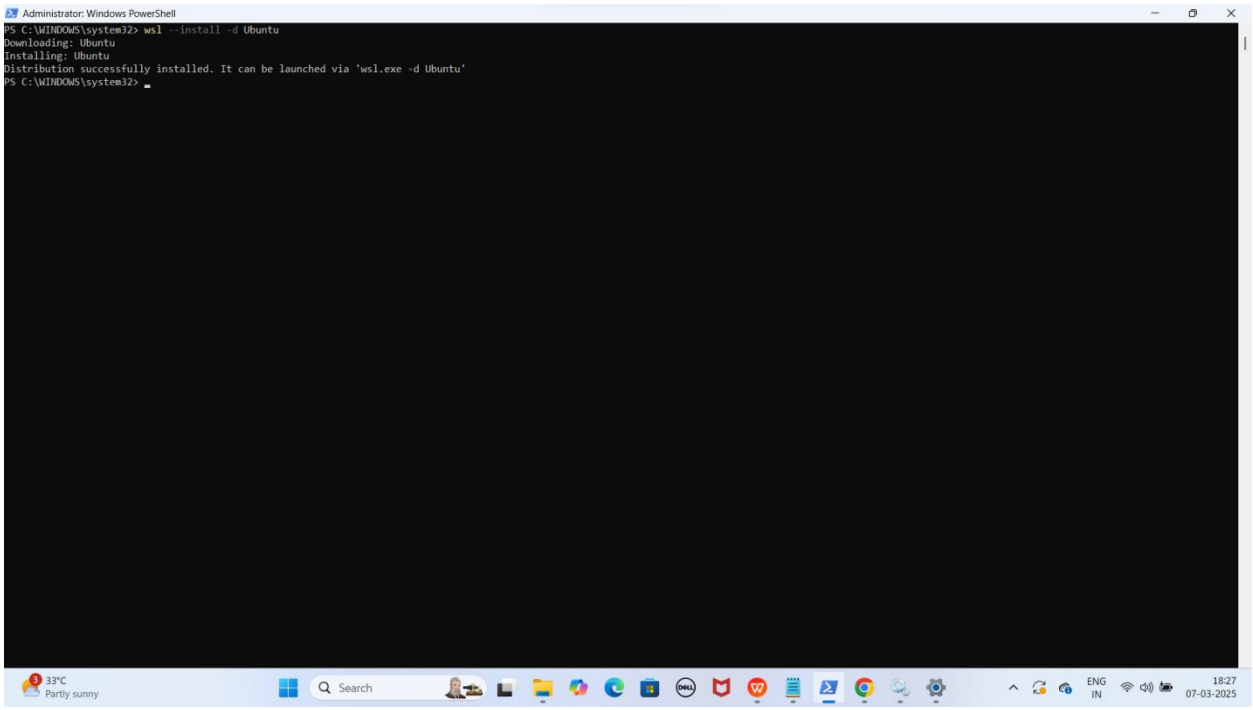
Step 5: Ubuntu Install Kariye Ye WSL Ki Requirement Hai

Ubuntu WSL ke andar ek Linux distribution hai.

1. Install karne ke liye ye command run kariye

wsl --install -d Ubuntu-24.04

YE KUCH ISTARHA LAGEGA



2. Ubuntu manually launch karne ke lieye ye command run kariye

wsl -d Ubuntu-24.04

Username aur password set karo

1. Username: **faisal** --> (Aapka Name Likho)
2. Password: **faisalkhan35** --> (Aapke Name Se Password Set Karo)

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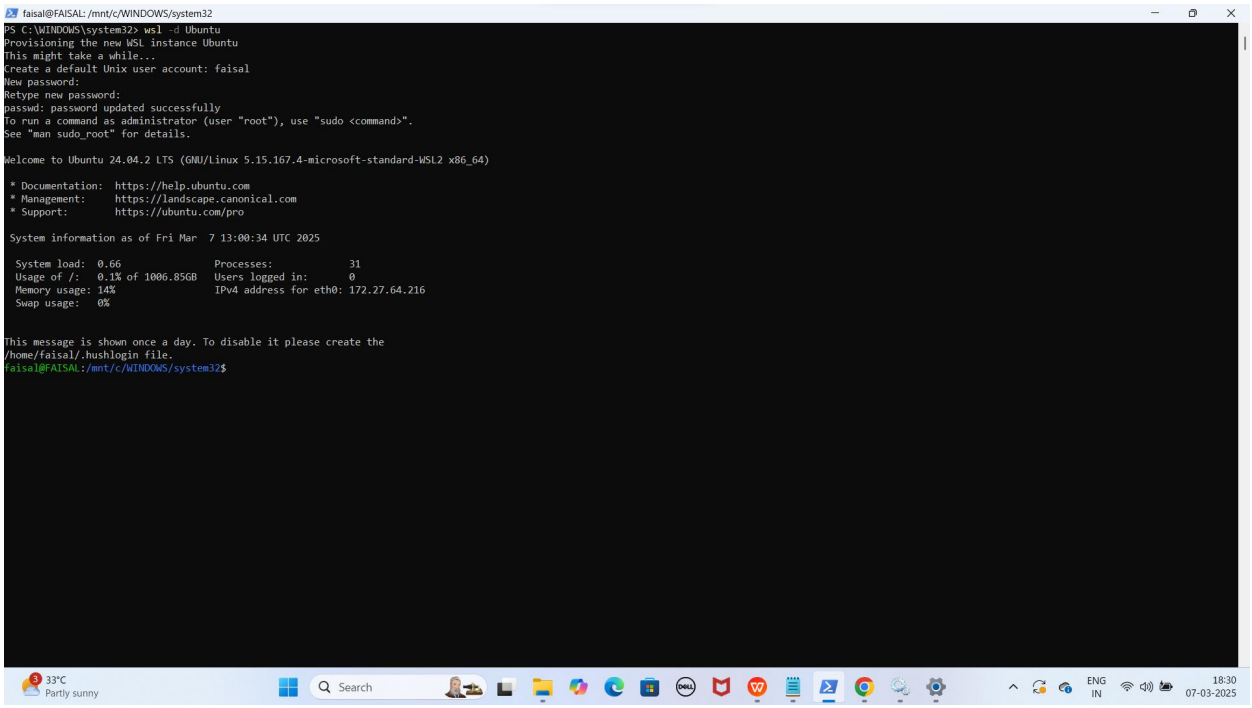
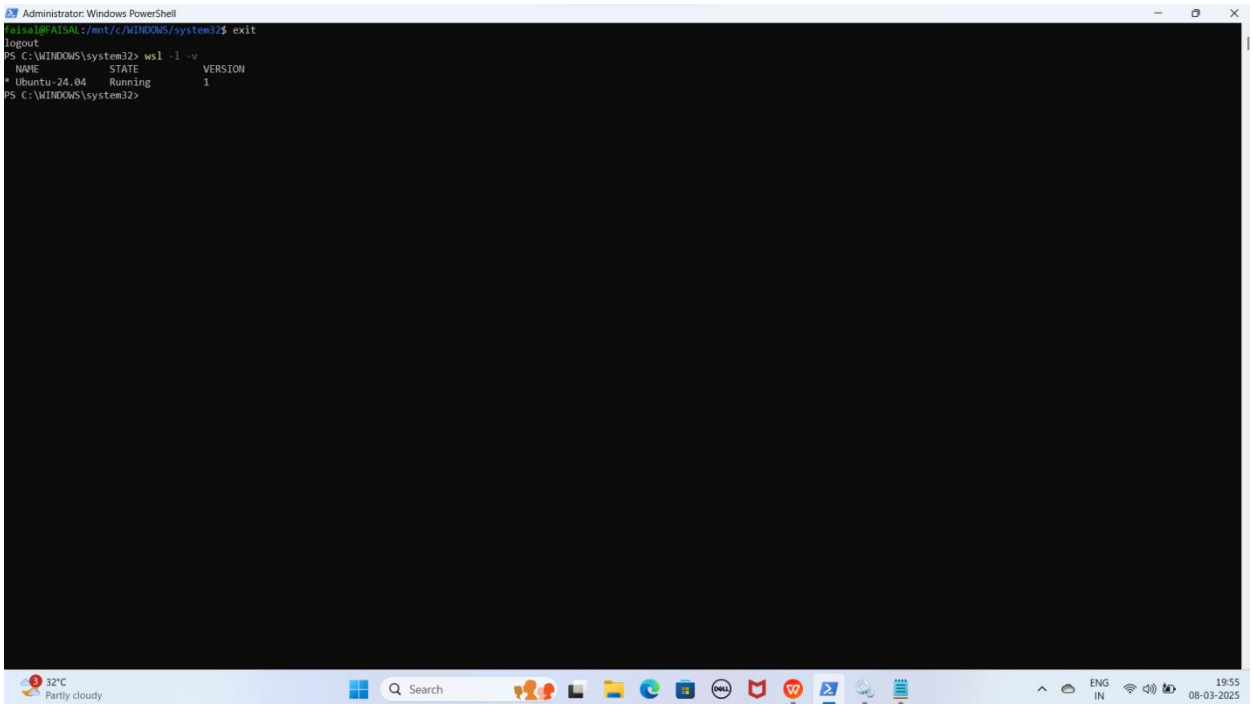


NOTE: Aapko password set karte waqt nahi dikhega. Or jaise hi WSL install hoga, aap by default WSL me enter ho jaoge. Lekin aapko exit hokar WSL Version 1 par Enable hai ya nahi check karne hoga

3. Check karne ke liye ye command run kariye

wsl -l -v

YE KUCH ISTARHA LAGEGA

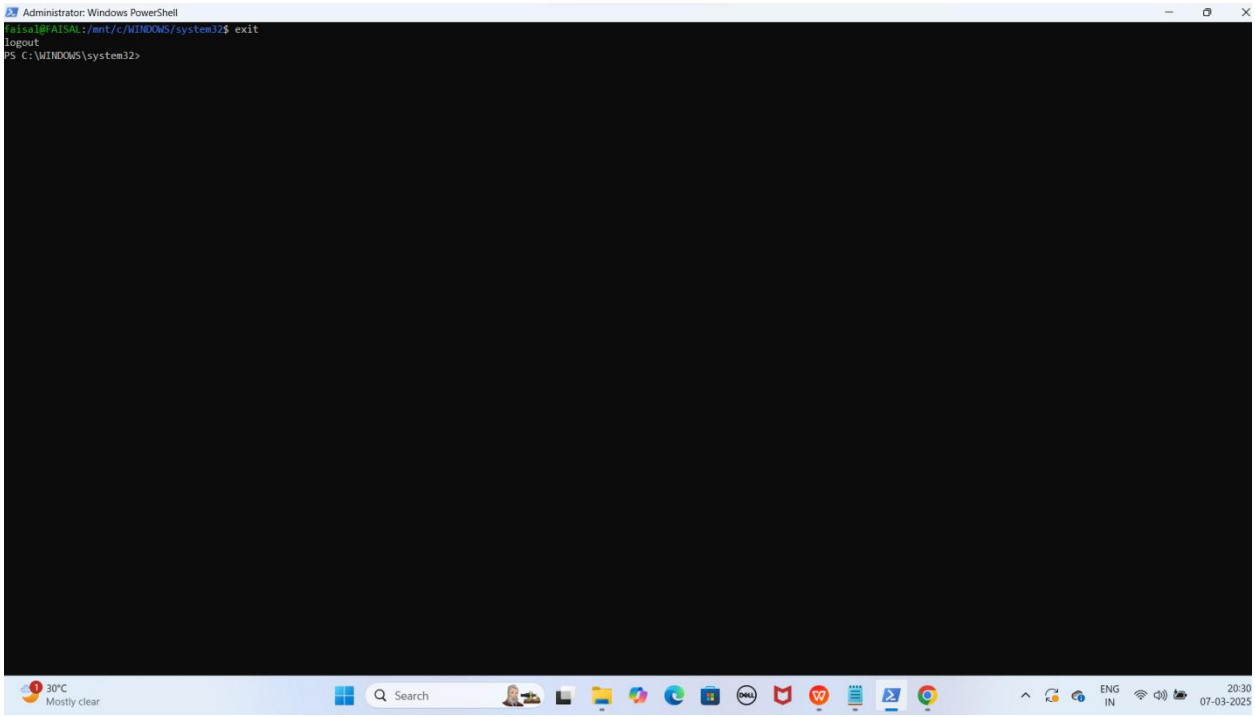


NOTE: Agar aapko STATE Running and VERSION 1 show horaha matlab aapka WSL version 1 par Enable hai and run ho raha hai

4. Ab WSL se exit hojaye

exit

YE KUCH ISTARHA LAGEGA



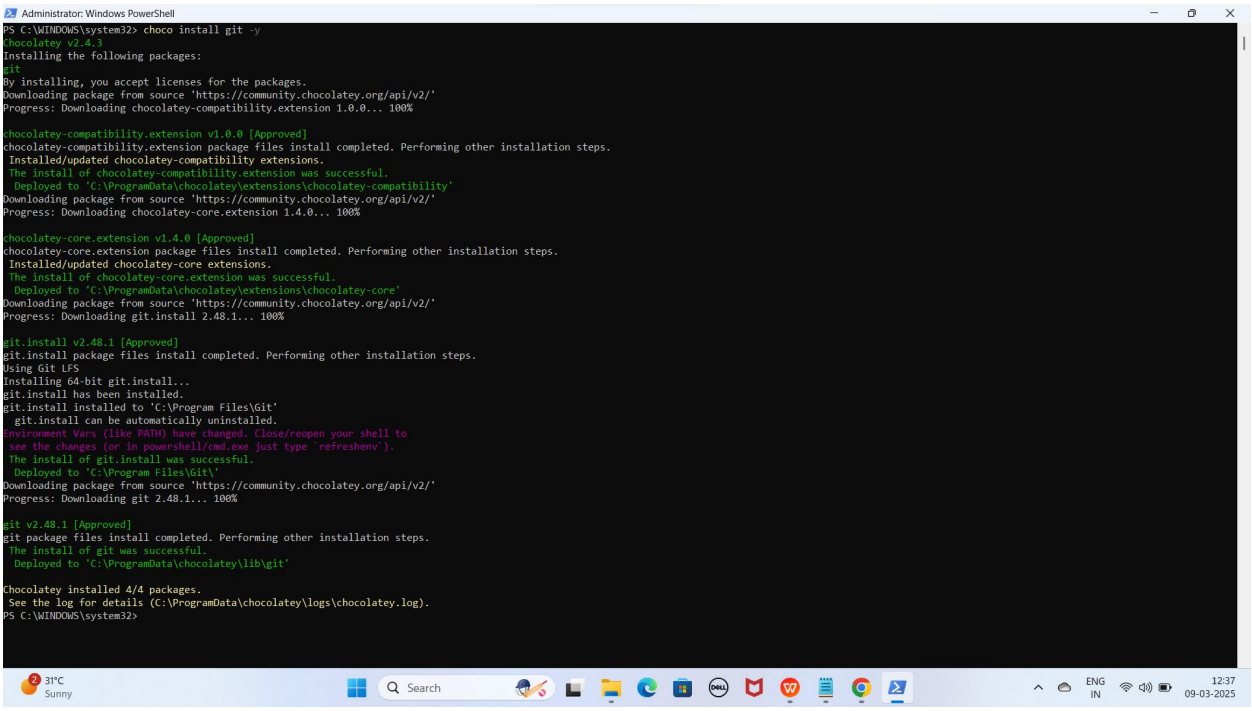
Step 6: Git Install Karo (Future purpose ke liye)

Git ek **version control system (VCS)** hai jo **developers** ko **code** ko **track** karne, **manage** karne, aur **collaborate** karne me madad karta hai.

1. Install karne ke liye ye command run kariye

choco install git -y

YE KUCH ISTARHA LAGEGA



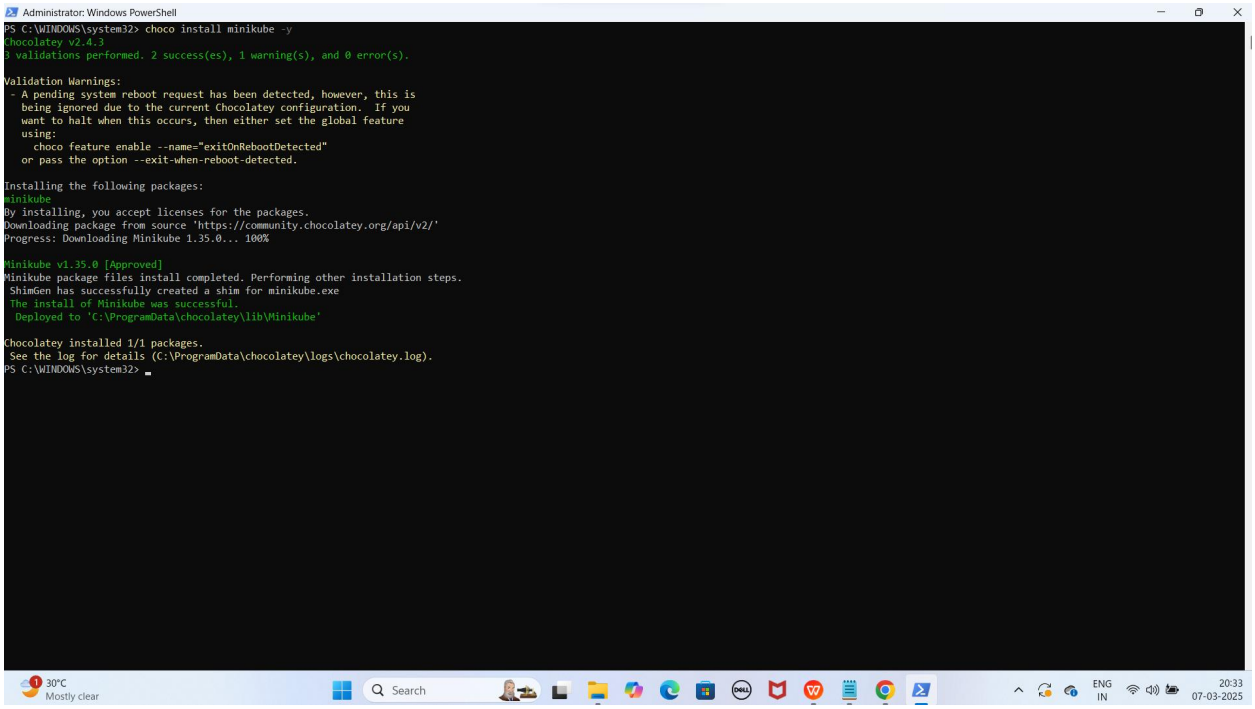
Step 7: Minikube Install Karo

Minikube ek **lightweight Kubernetes cluster** hai jo **local machine** pe **run** karta hai.

1. **Install karne ke liye ye command run kariye**

   choco install minikube -y

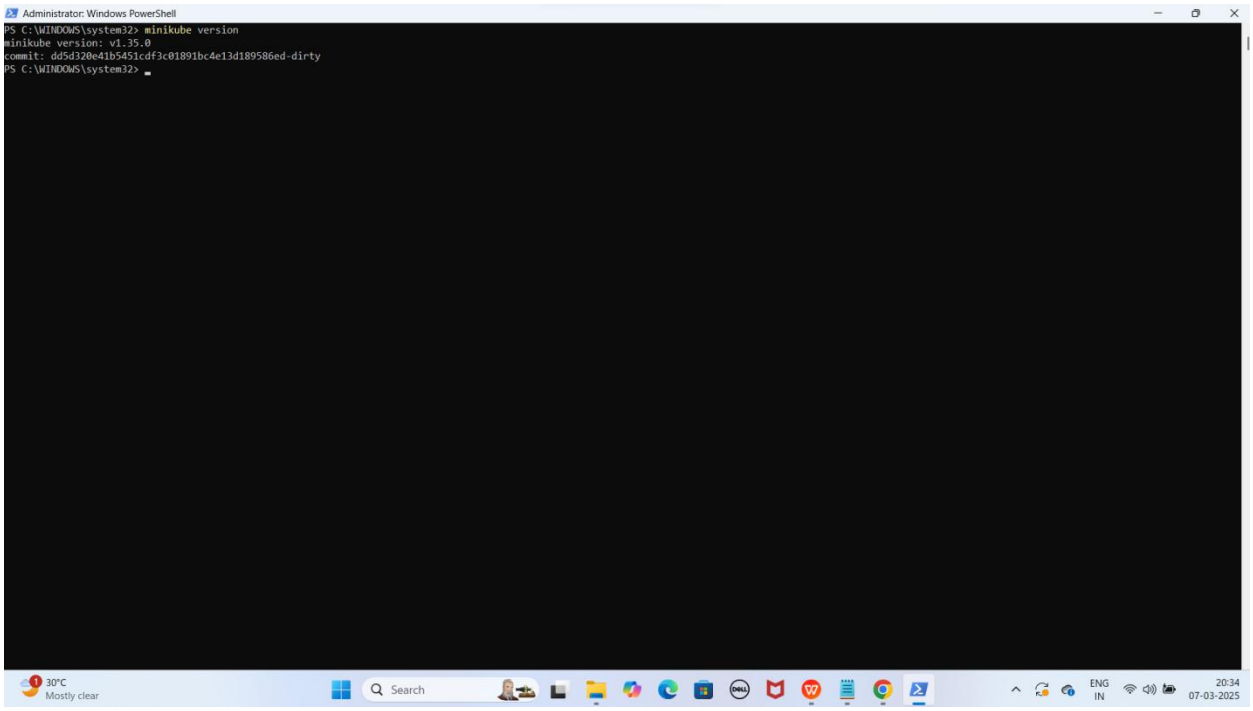
YE KUCH ISTARHA LAGEGA



2. Check karne ke liye ye command run kariye

minikube version

YE KUCH ISTARHA LAGEGA

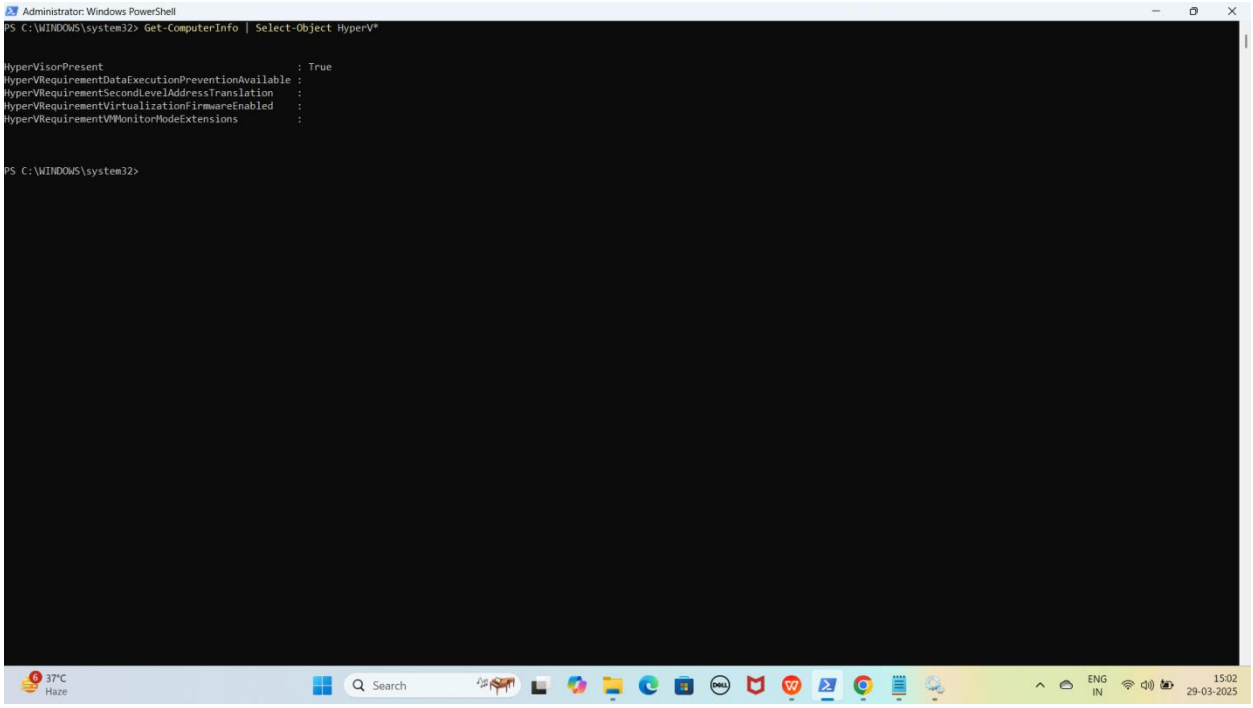


NOTE : Ab aapka Minikube Successfully Install or Configure hogaya hai

3. Hypervisor Disable hona chahiye check karne ke liye ye command run kariye

Get-ComputerInfo | Select-Object HyperV*

YE KUCH ISTARHA LAGEGA

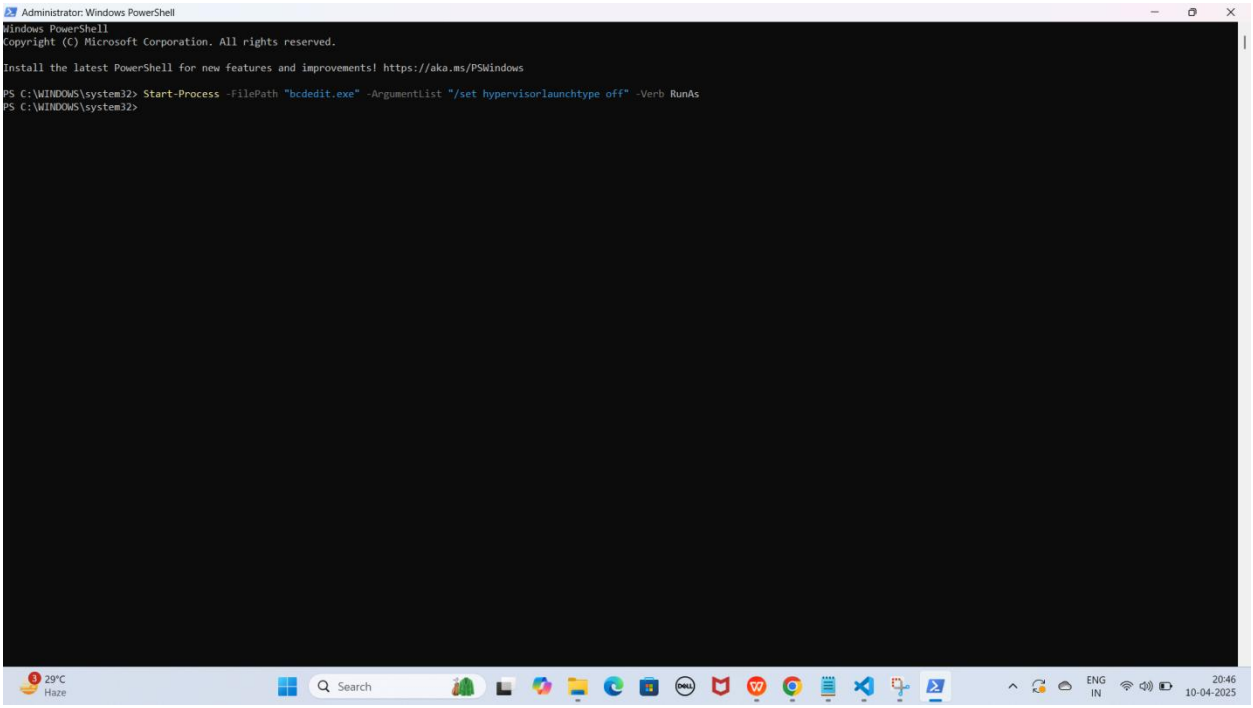


NOTE: Agar aapko HyperVisorPresent : True show karraha hai to aapko Hypervisor Disable karna hoga

4. Hypervisor Disable karne liye ye command run kariye

Start-Process -FilePath "bcdedit.exe" -ArgumentList "/set hypervisorlaunchtype off" -Verb RunAs

YE KUCH ISTARHA LAGEGA

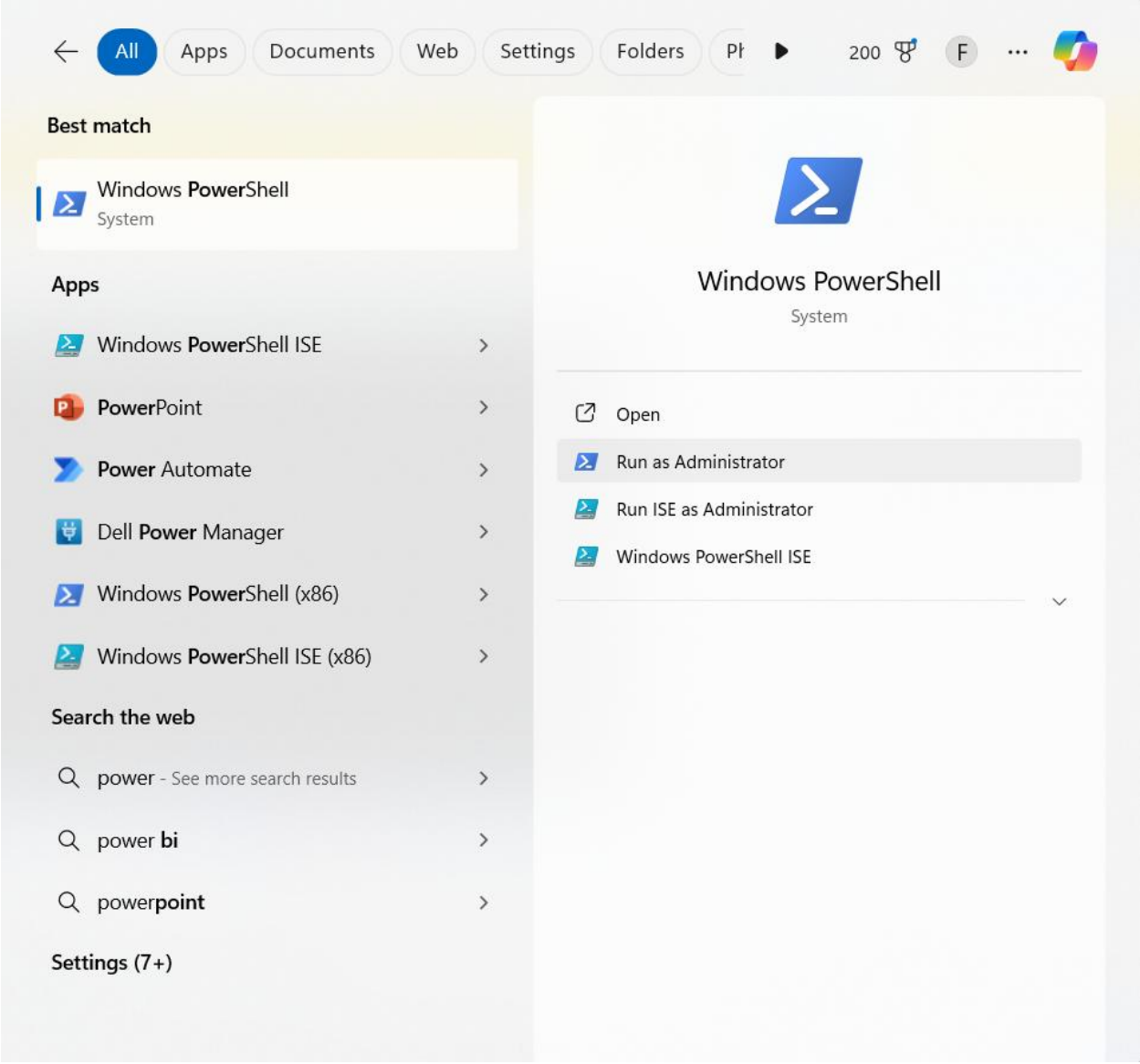


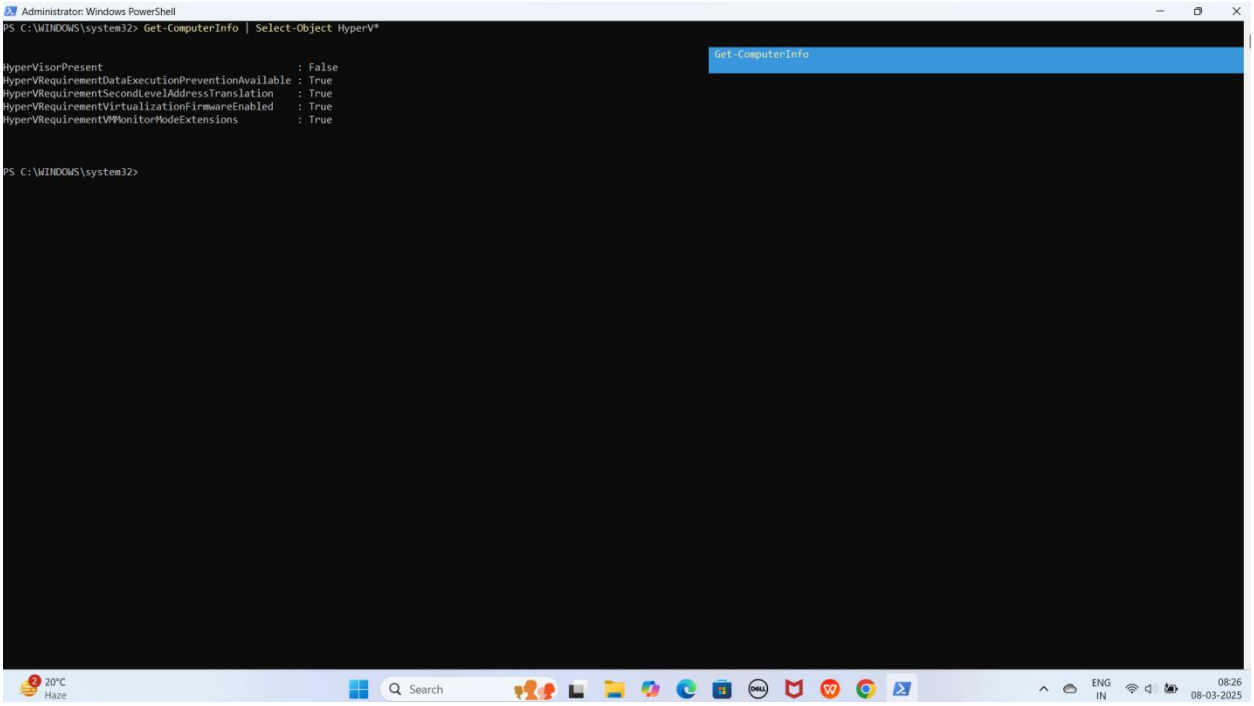
NOTE : Command Run karne ke baad System Restart kariye.

5. **System Restart hone ke baad phir Powershell ko Run as Administrator se open kariye HyperVisor Disable howa check karne ke liye ye command run kariye**

Get-ComputerInfo | Select-Object HyperV*

YE KUCH ISTARHA LAGEGA



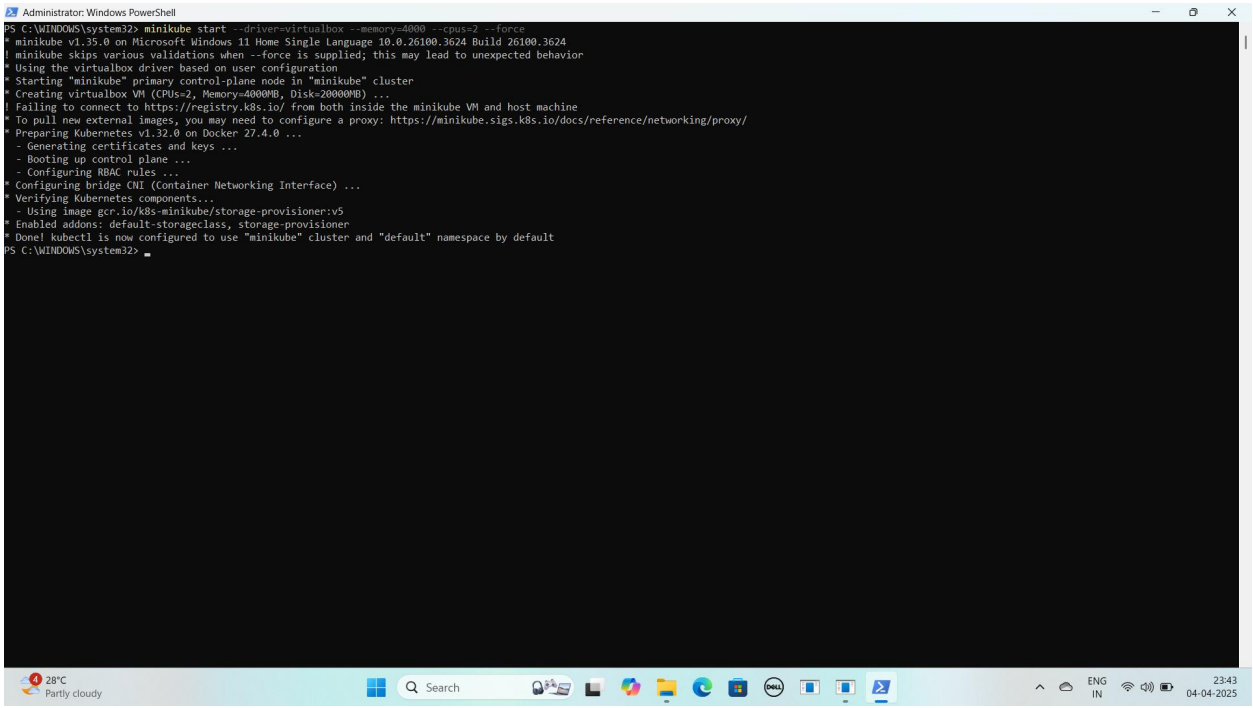


NOTE: Agar aapko HyperVisorPresent : False show kar raha iska matlab aapka Hypervisor Successfully Disable hogaya hai

6. Ab Minikube ko start karne ke liye ye command run kariye

minikube start --driver=virtualbox --memory=4000 --cpus=2 --force

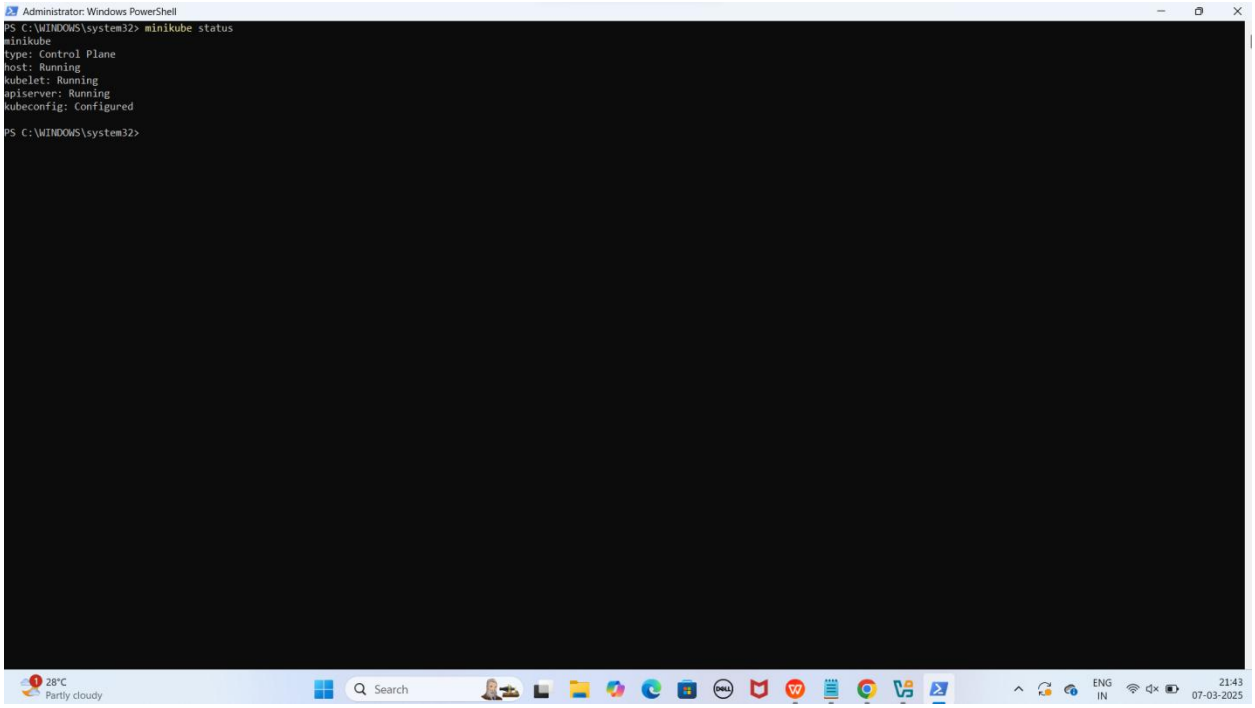
YE KUCH ISTARHA LAGEGA



7. Ab Minikube ka status check karne ke liye ye command run kariye

minikube status

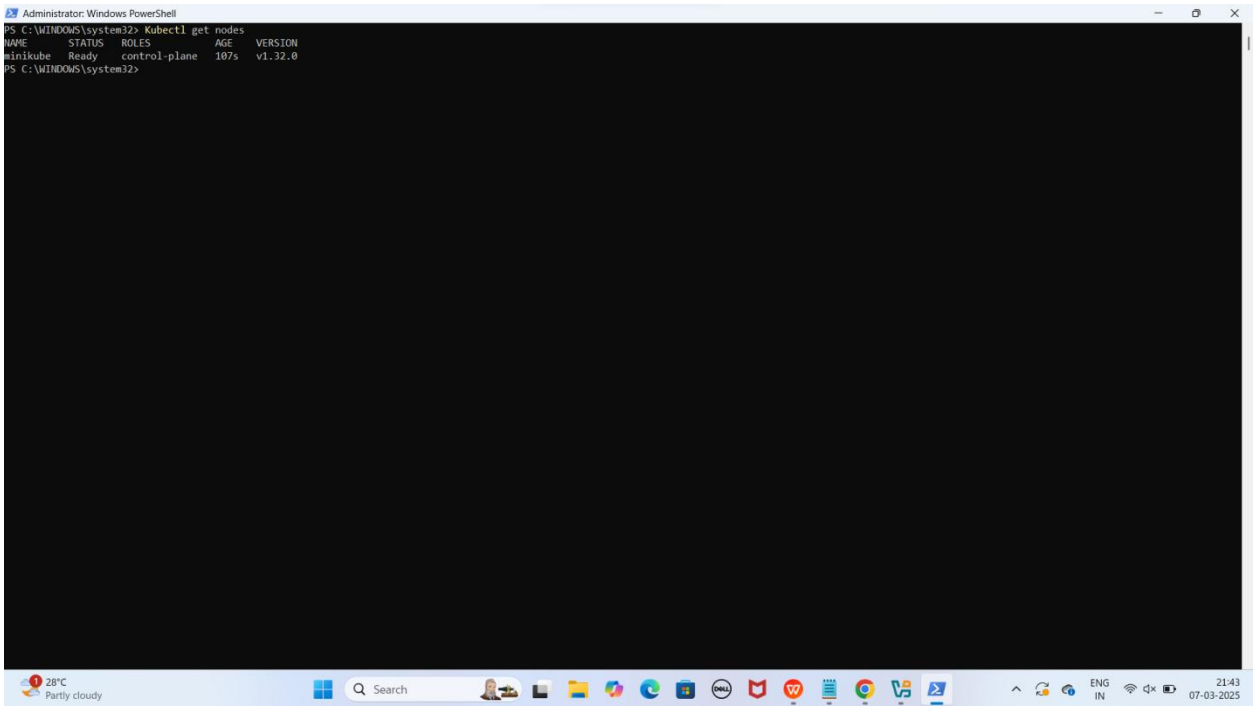
YE KUCH ISTARHA LAGEGA



8. Ab Cluster Nodes check karne ke liye ye command run kariye

kubectl get nodes

YE KUCH ISTARHA LAGEGA

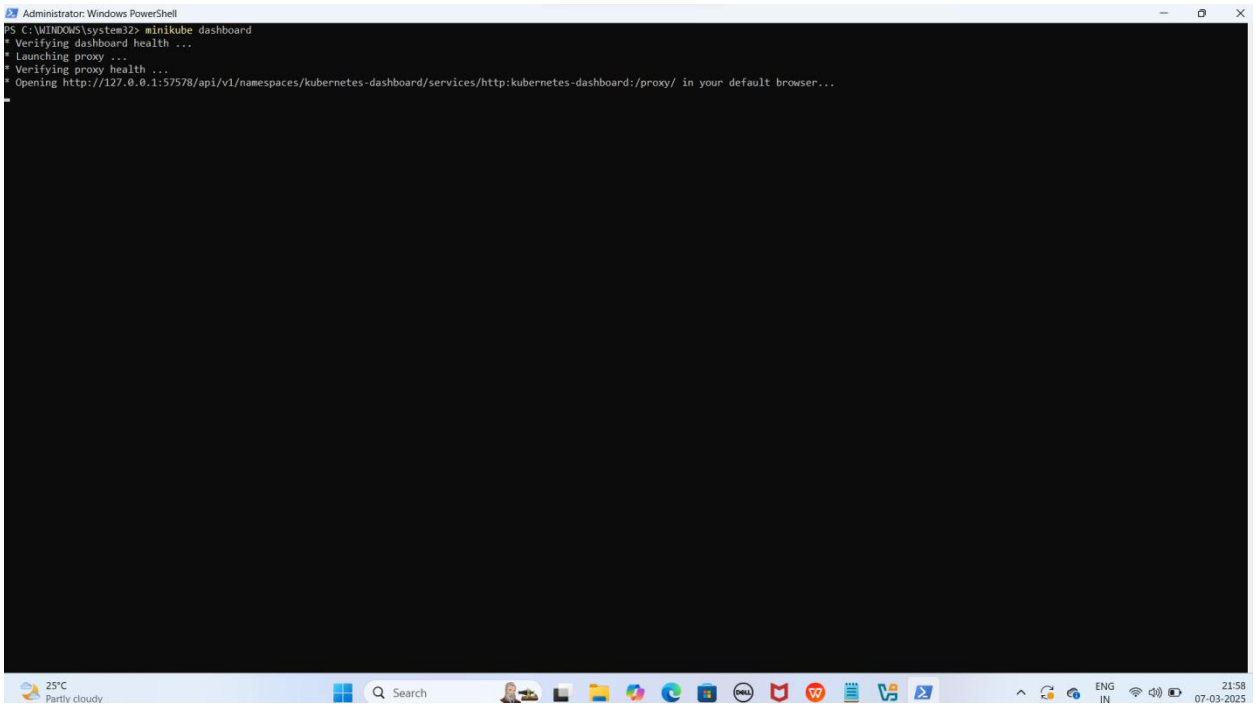


NOTE: Agar STATUS Ready show kar raha hao to Congratulations aapka Minikube successfully Install and Configure hogaya hai ab aap Deployment kar sakte hai

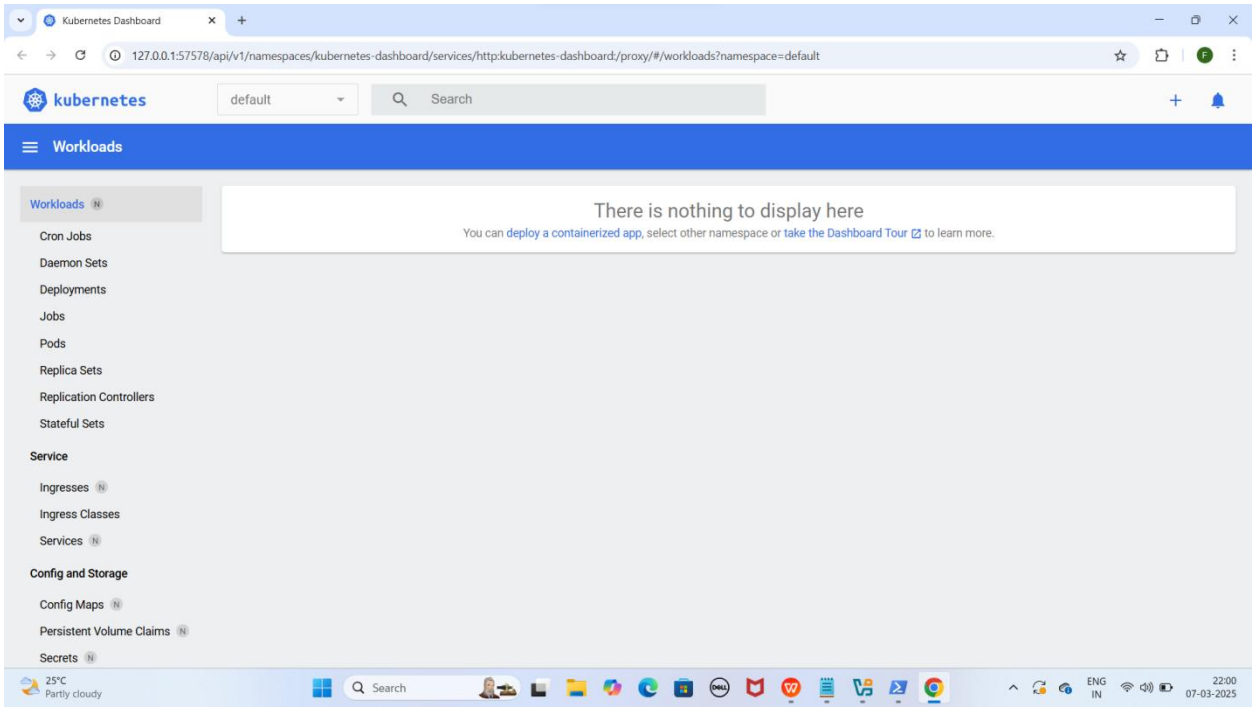
9. Minikube Dashboard check karna ke liye ye commad run kariye

minikube dashboard

YE KUCH ISTARHA LAGEGA



NOTE : Automatically ye Minikube Dashboard ko Browser par open kar dega



Recommend : Har Step aur Command ko meri Snapshots se Match karein taake Confirm ho sake ke sab kuch sahi tarah se Execute hua hai.

Optional 1: Still agar aapko koi Error aata hai to ye commands run kariye first Minikiube Delete kare phir Start kariye agar Error aata hai to ya minikube sahi se Configure ya start nahi howa hai

1. minikube delete

2. minikube start --driver=virtualbox --force

Optional 2: Agar aapko minikube virtualbox me check karna hai to Oracle Virtual Box open kare aap waha par minikibe Running State me Dekhenge

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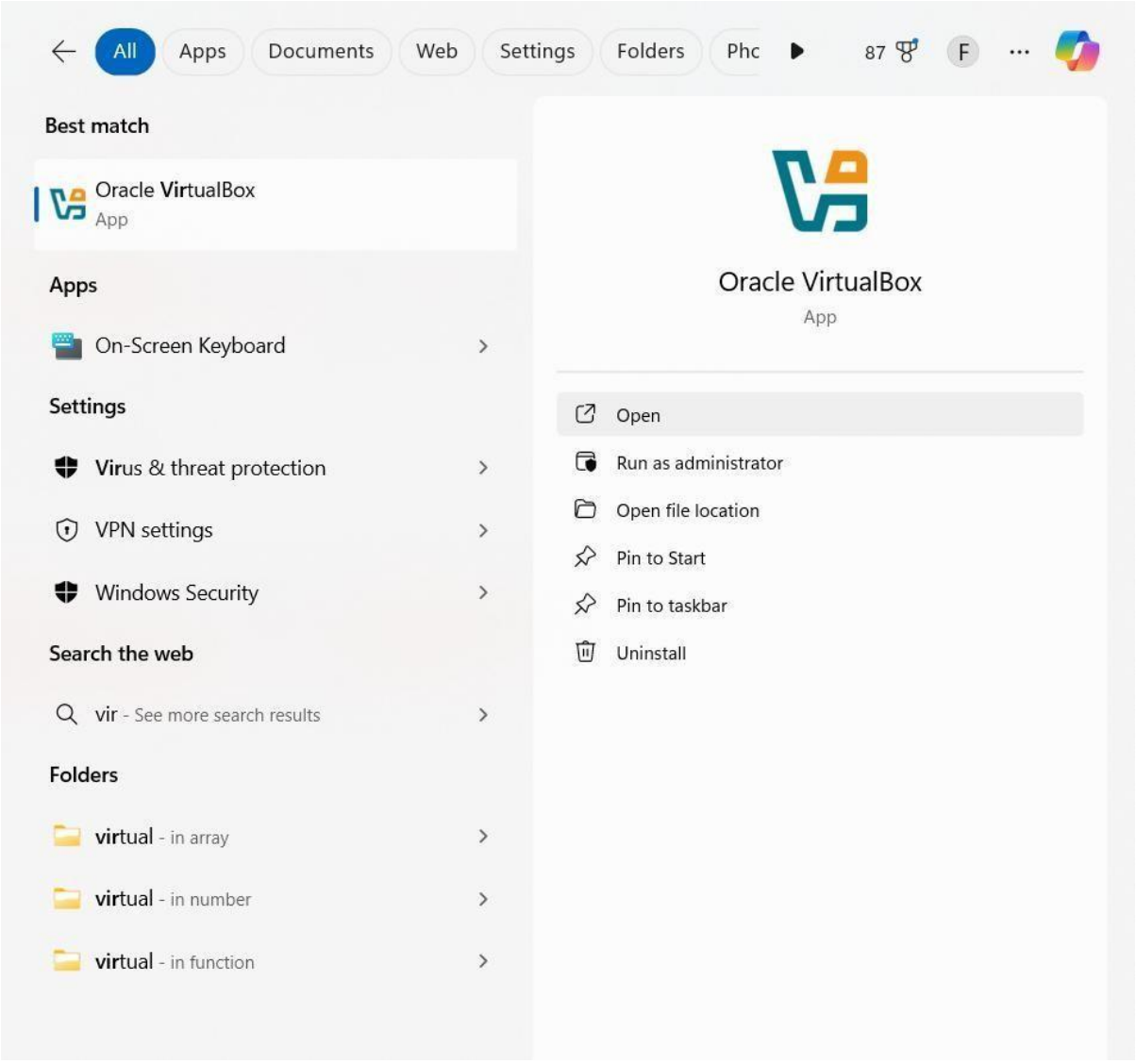

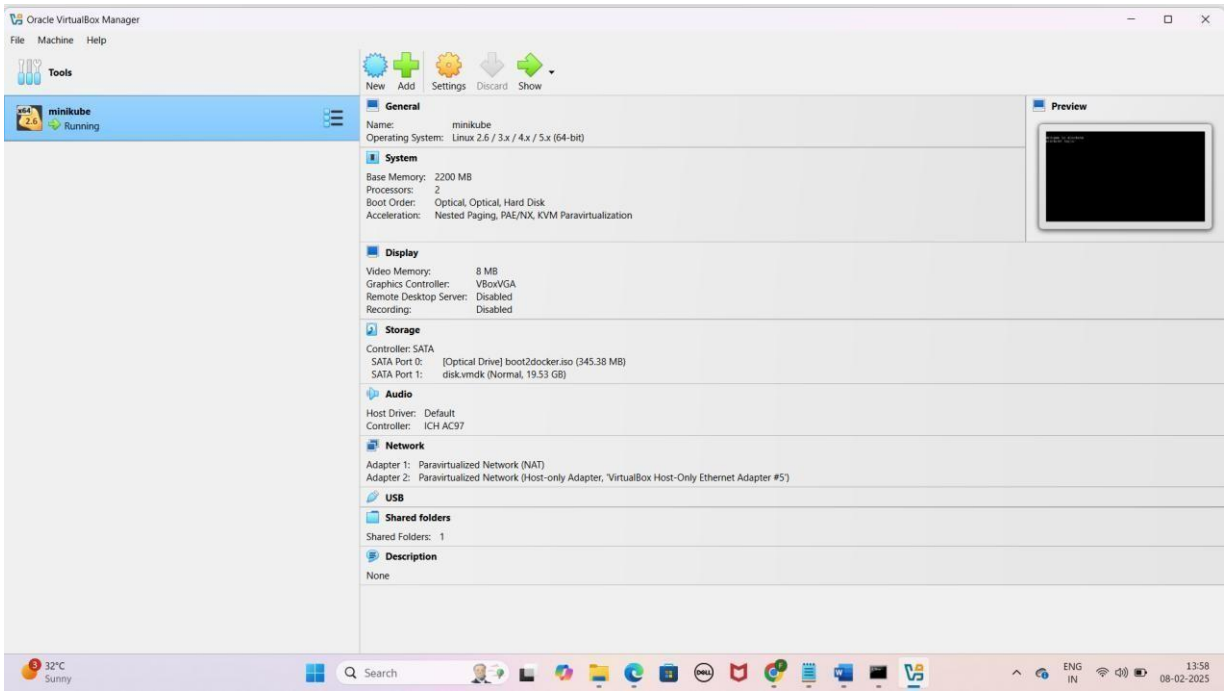

NOTE: Yaad rahe aapko first jo Tools starting me maine bataye the wo aapko Uninstall karne padenge phir choco ke zariye install karne honge tabhi aapka Minikube and WSL sahi Run and Configure hoga. Recommend ye hoga ke System Format kardo