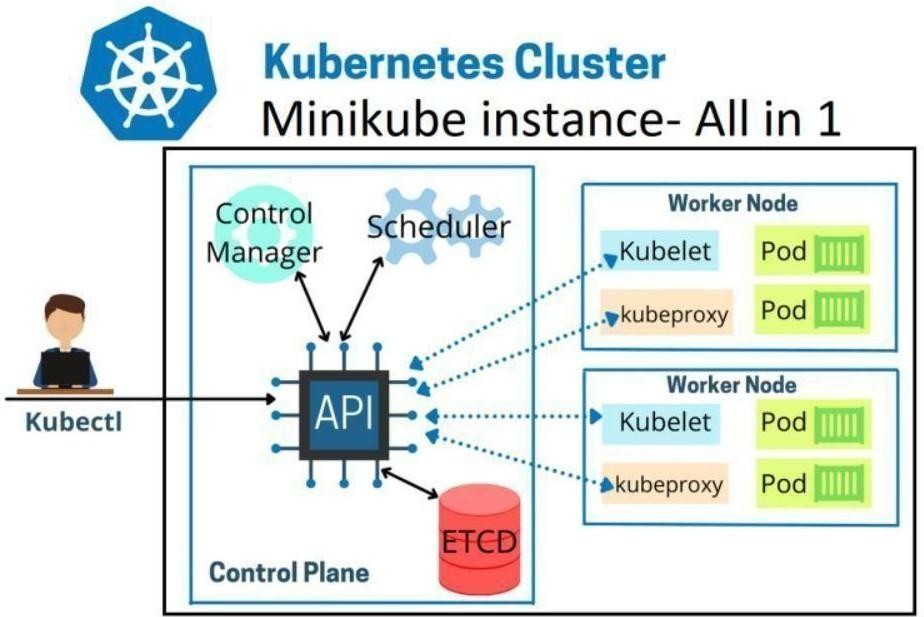
KUBERNETES MINIKUBE INSTALLATION



**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.

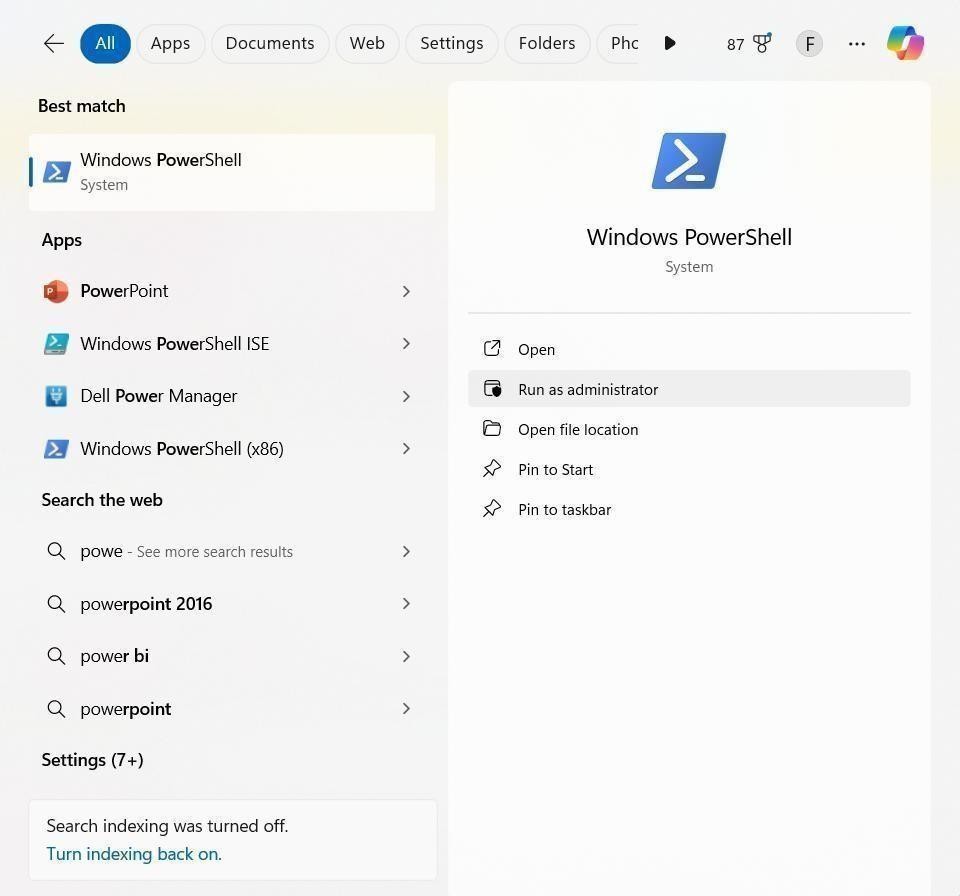
**Recommend** ye karoga ke **System Format** kardo.

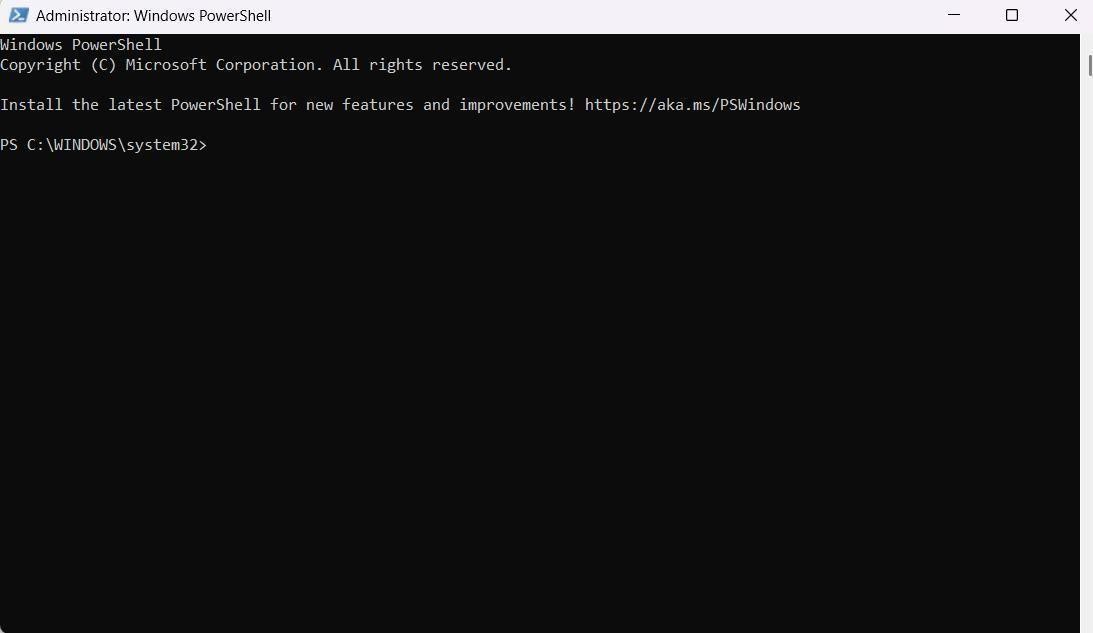
Minikube install karne ke liye ye Tools install karne honge

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

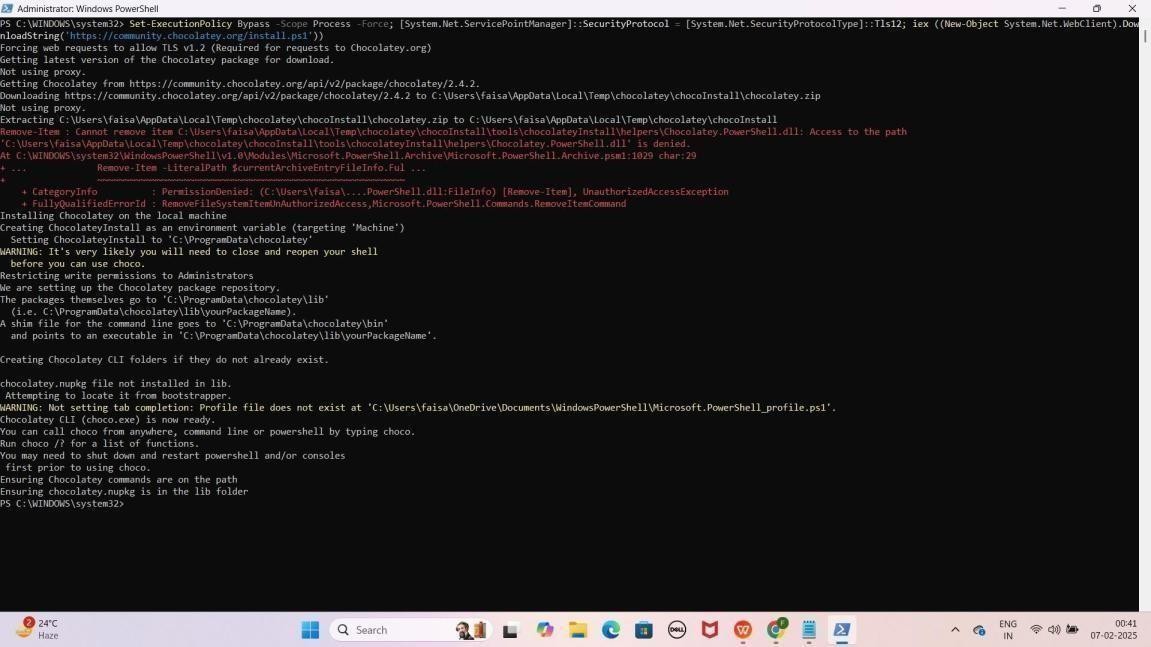
Chocolatey ek package manager hai jo Windows pe software install karna easy banata hai.

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'))

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'))

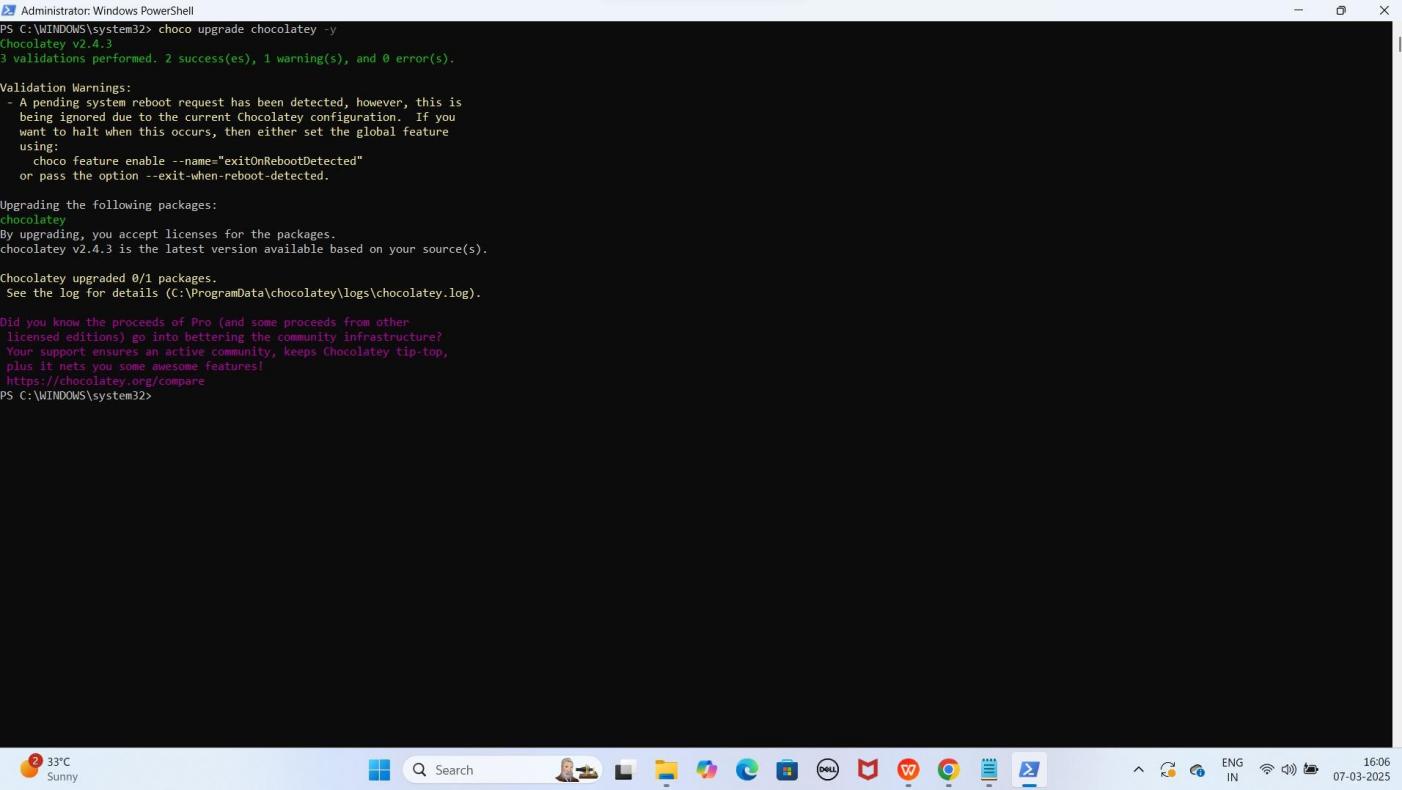
YE KUCH ISTARHA LAGEGA



1. **Chocolatey update karne ke liye ye command run kariye**

choco upgrade chocolatey -y

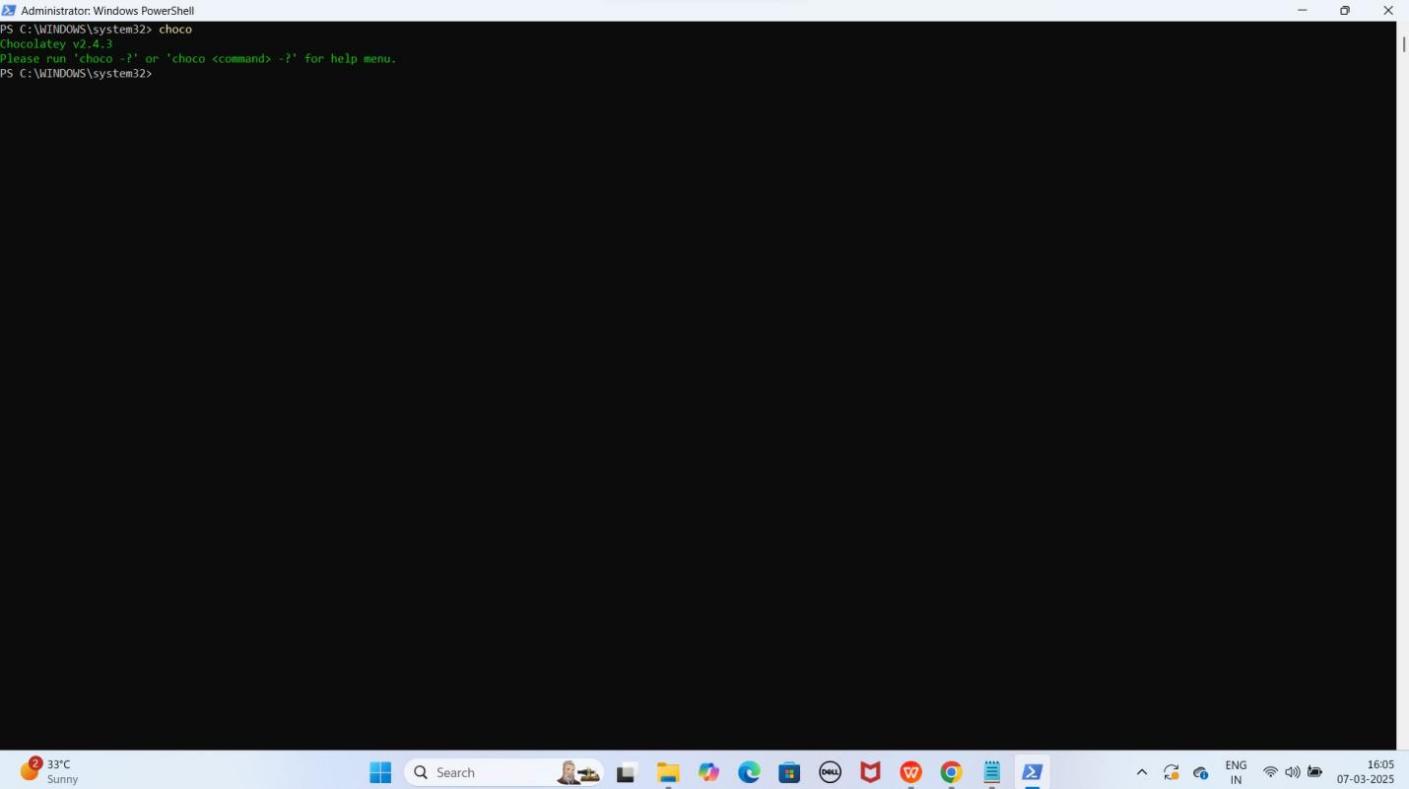
YE KUCH ISTARHA LAGEGA



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

choco

YE KUCH ISTARHA LAGEGA



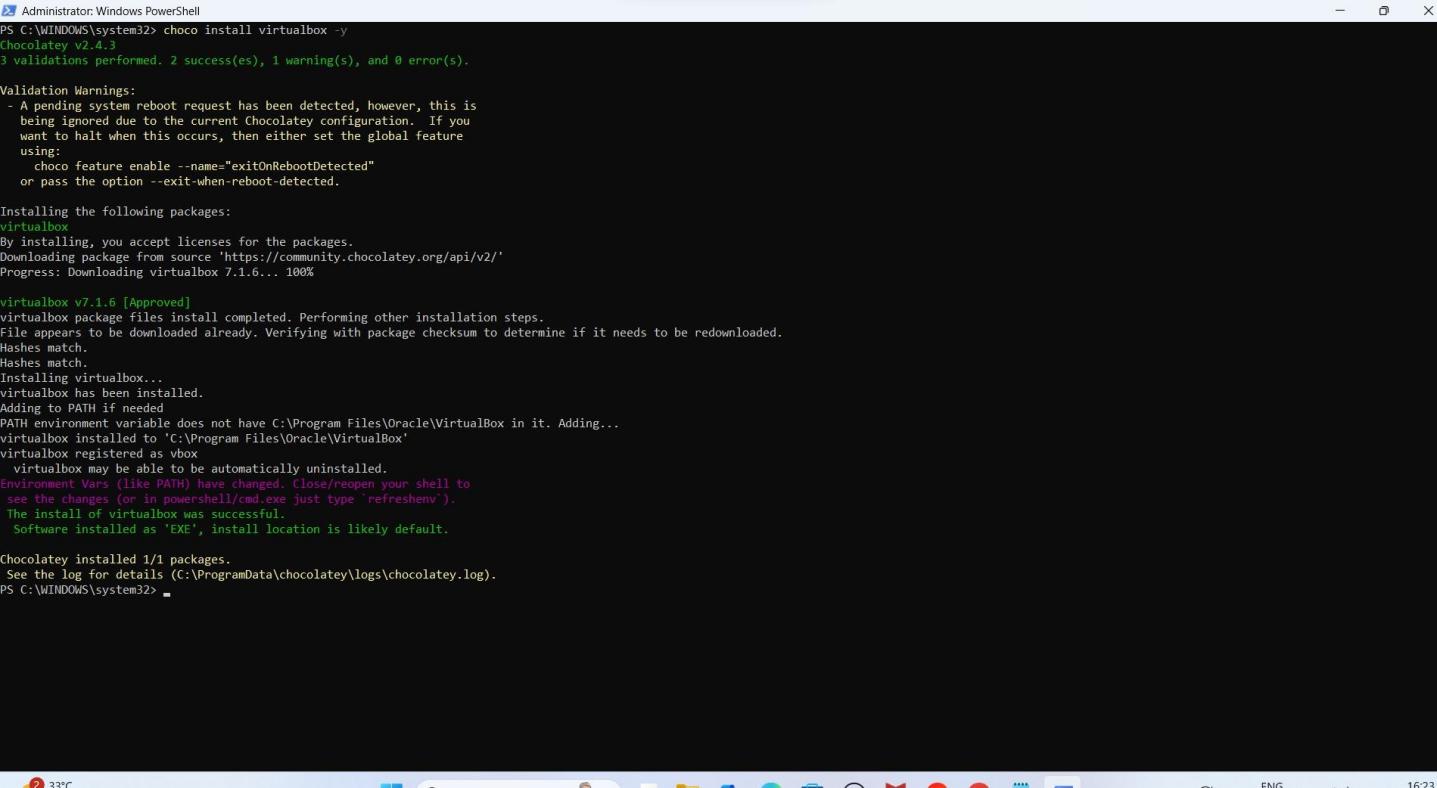
# Step 2: Oracle VirtualBox Install Karna

**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

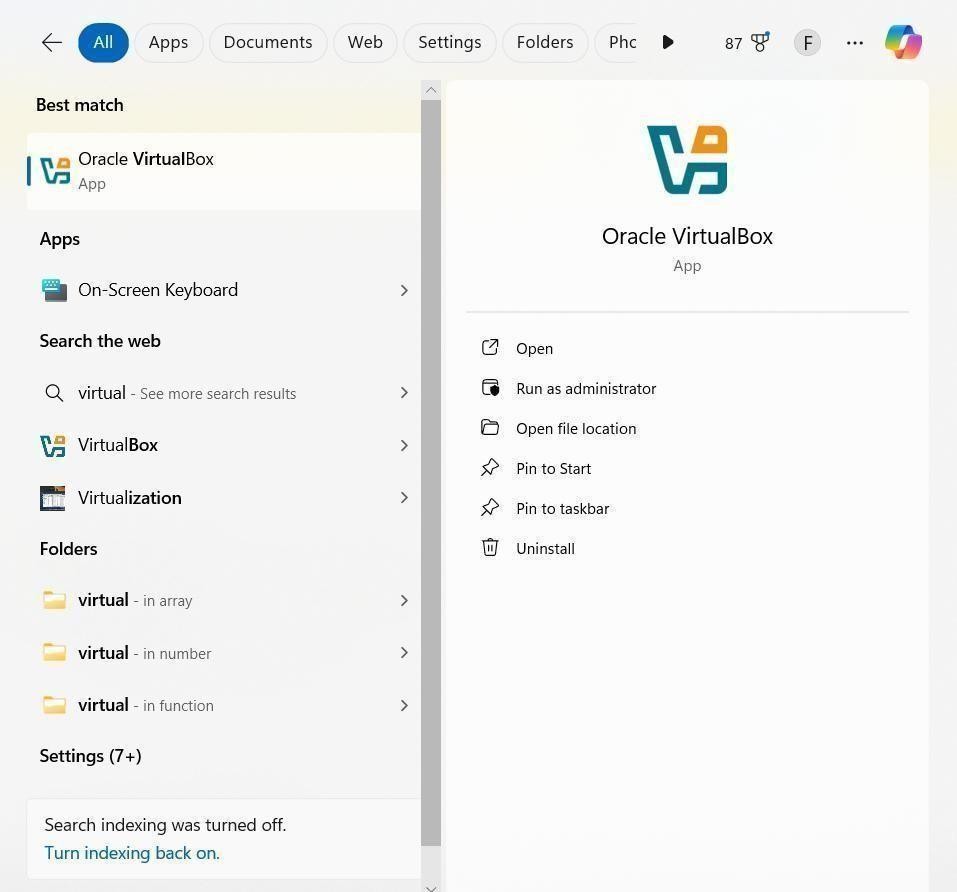
YE KUCH ISTARHA LAGEGA



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.

1. **Check karne ke liye**

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

YE KUCH ISTARHA LAGEGA

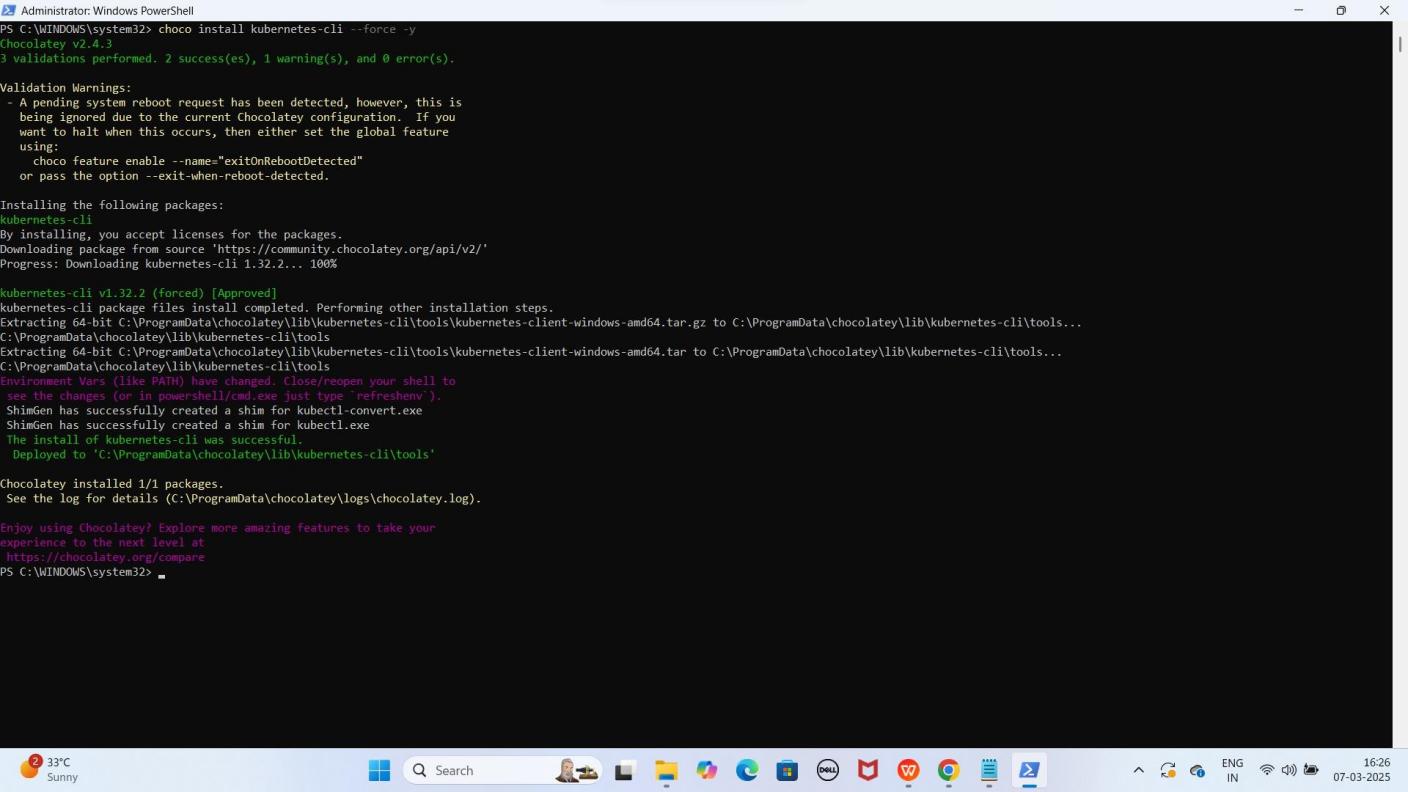
# Step 3: Kubectl Install Karna

**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

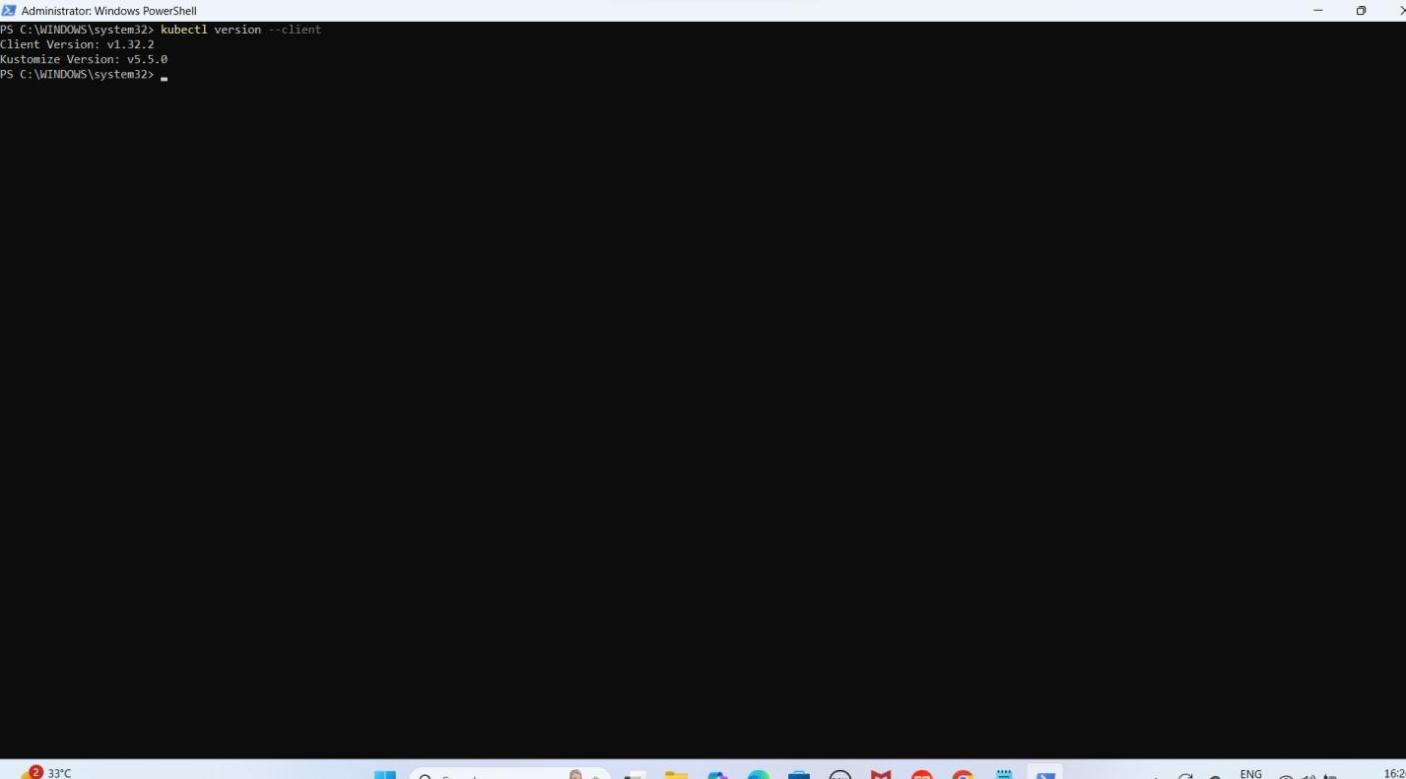
YE KUCH ISTARHA LAGEGA



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

kubectl version --client

YE KUCH ISTARHA LAGEGA

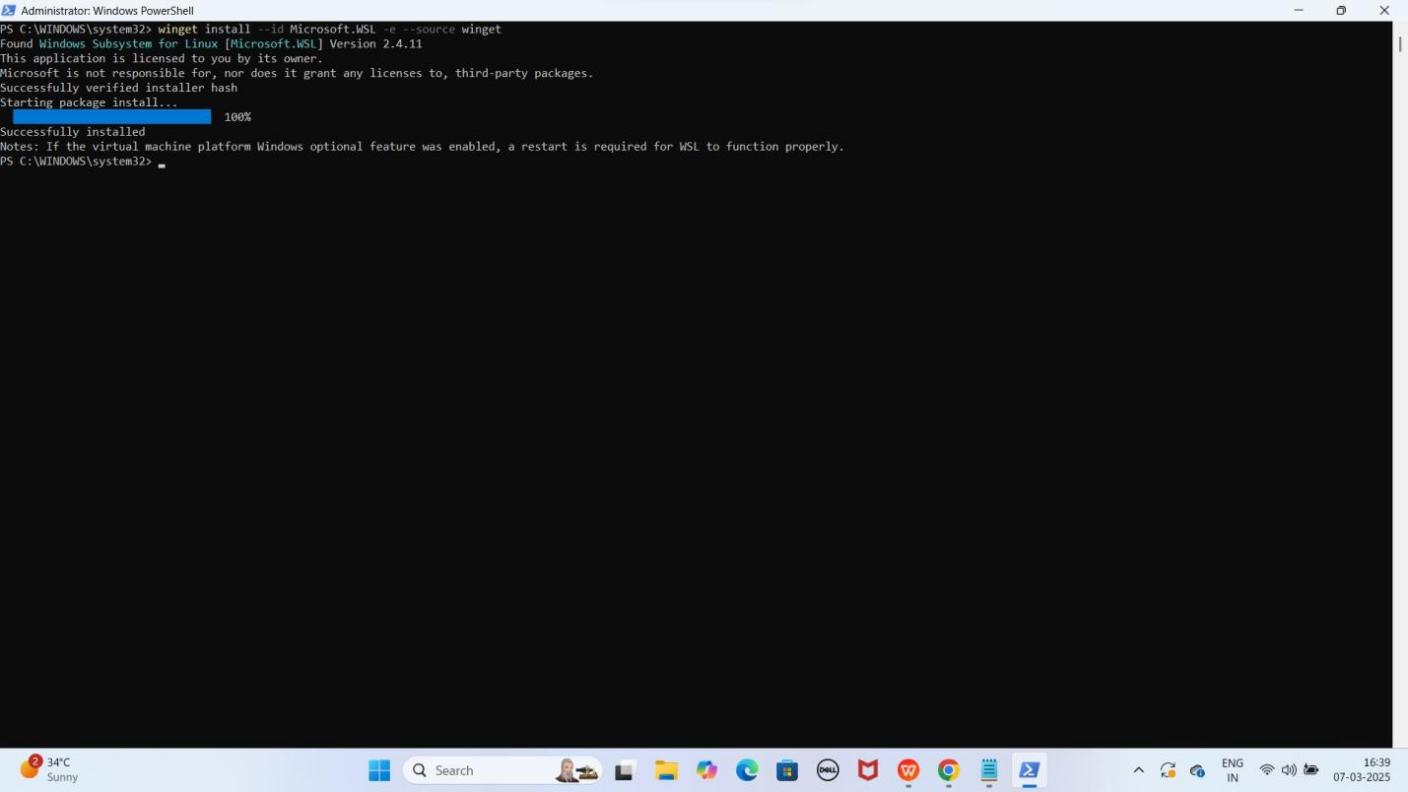


# Step 4: WSL Install Karna (Future purpose ke liye)

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

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

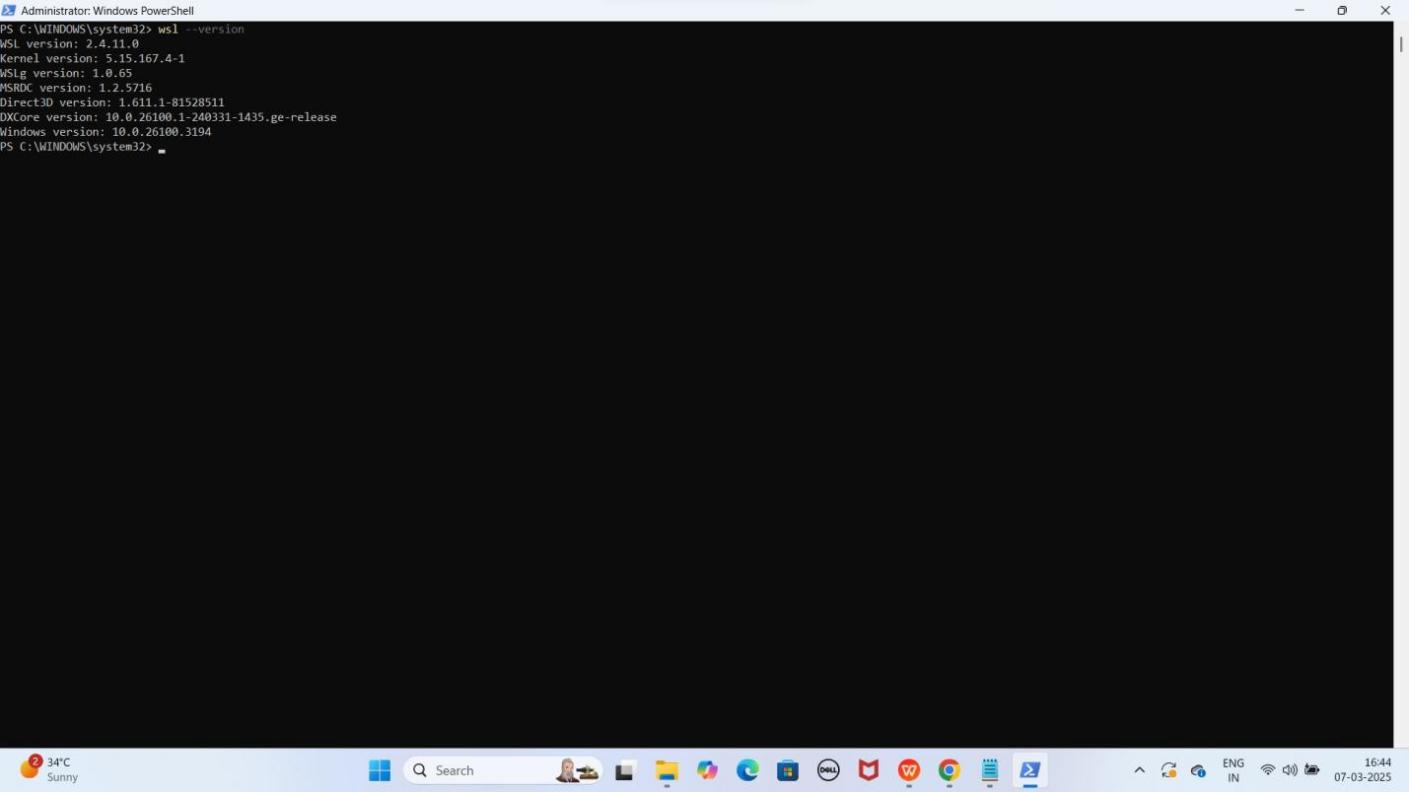
winget install --id Microsoft.WSL -e --source winget

YE KUCH ISTARHA LAGEGA

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

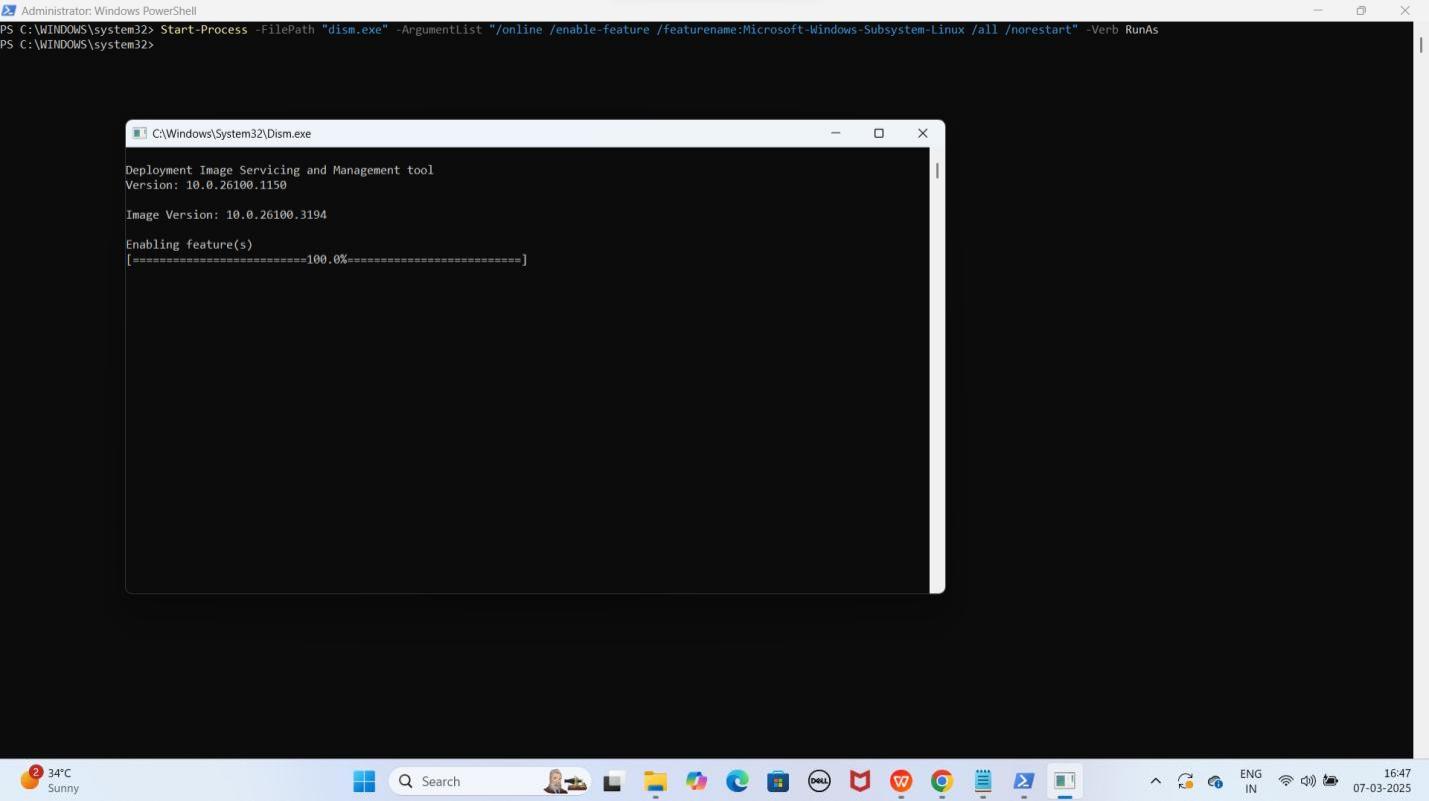
wsl --version

YE KUCH ISTARHA LAGEGA



1. **Required features enable karne ke liye ye commands run kariye**

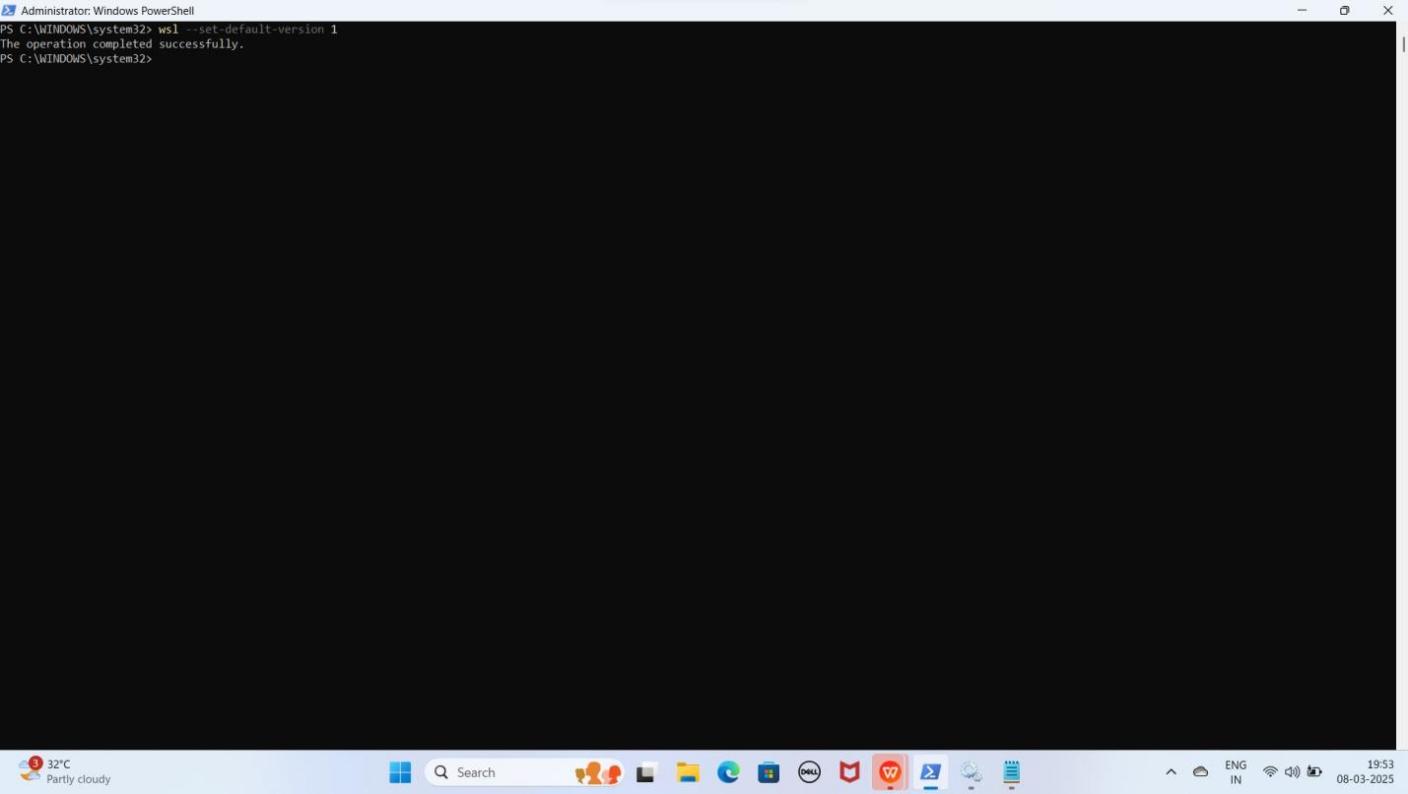
Start-Process -FilePath "dism.exe" -ArgumentList "/online /enable-feature

/featurename:Microsoft-Windows-Subsystem-Linux /all /norestart" -Verb RunAs YE KUCH ISTARHA LAGEGA

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

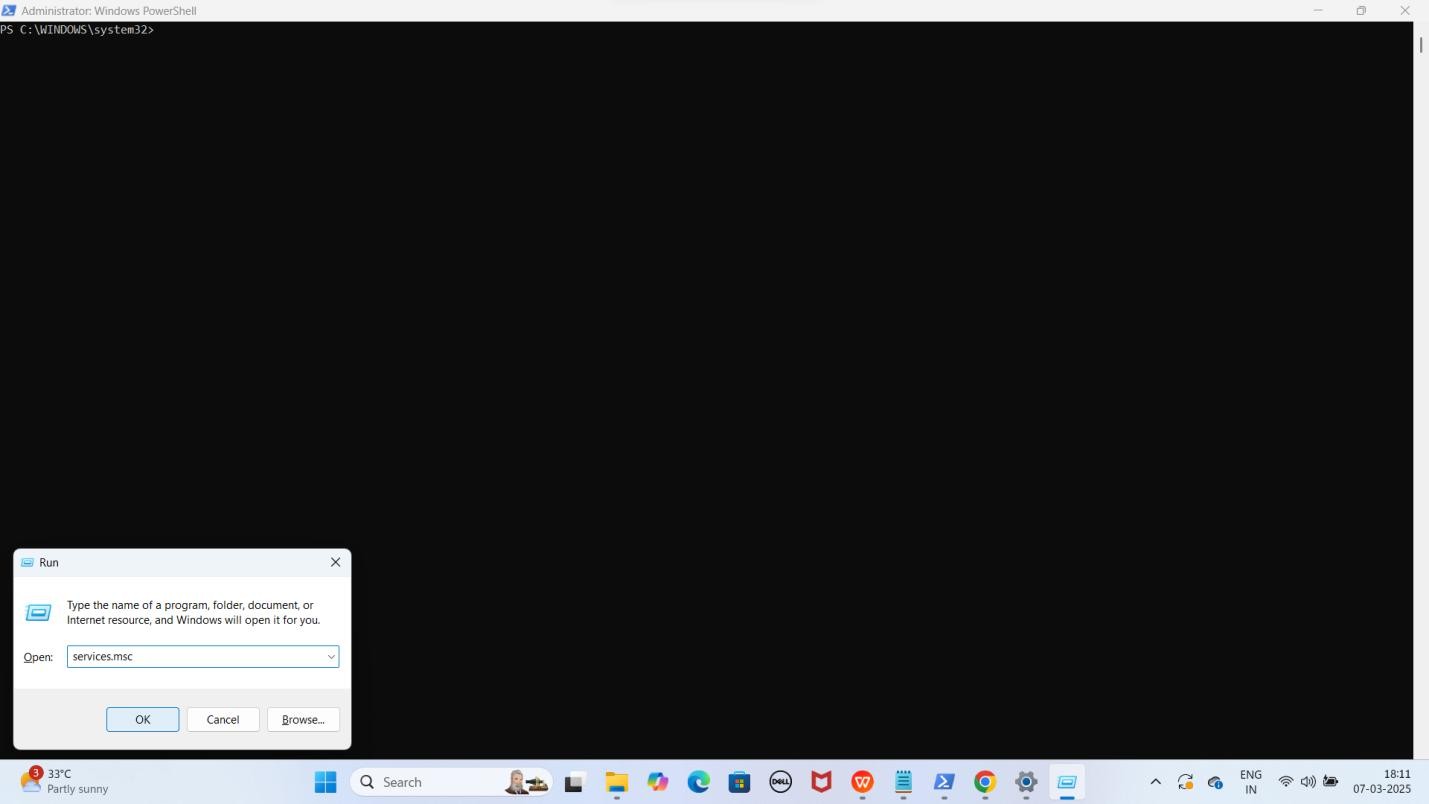
wsl --set-default-version 1

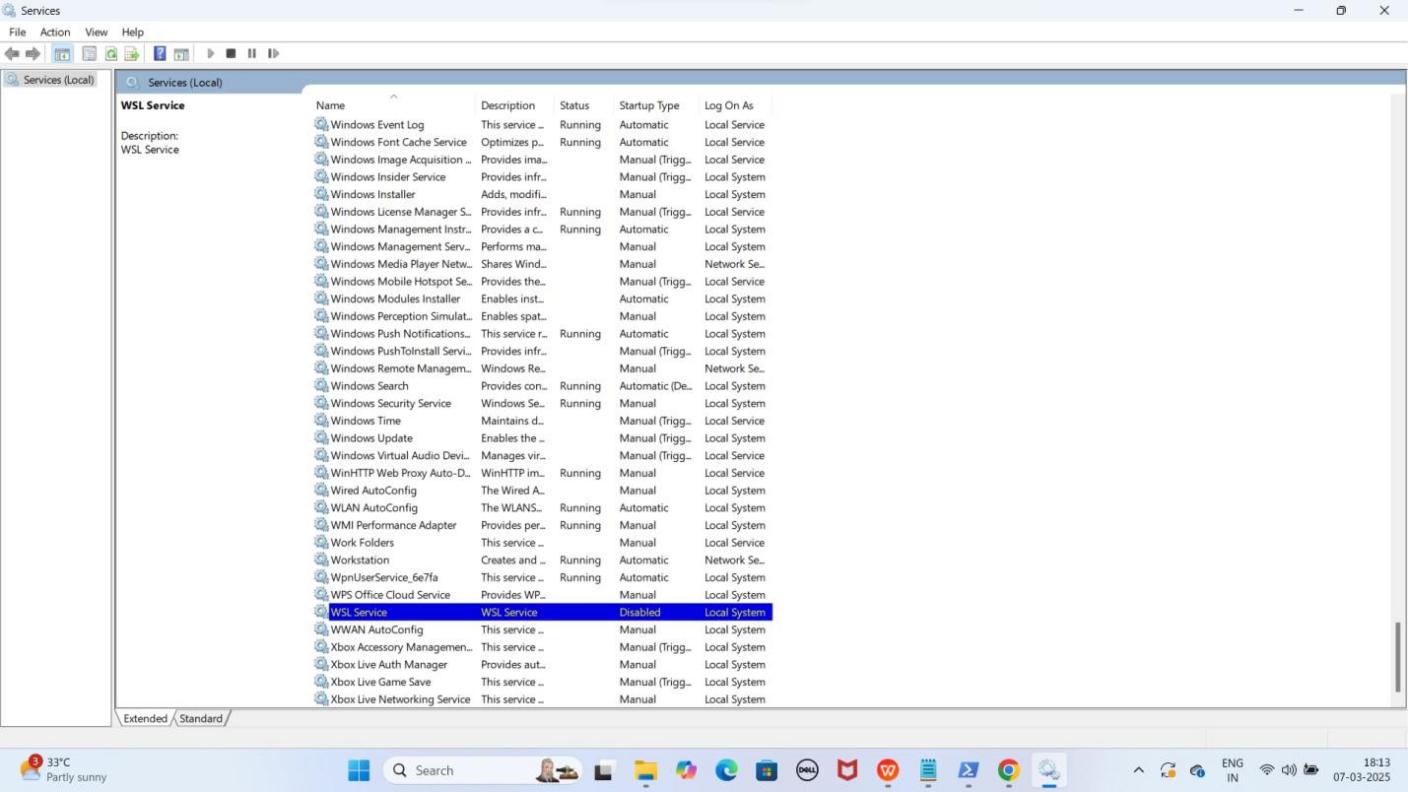
YE KUCH ISTARHA LAGEGA

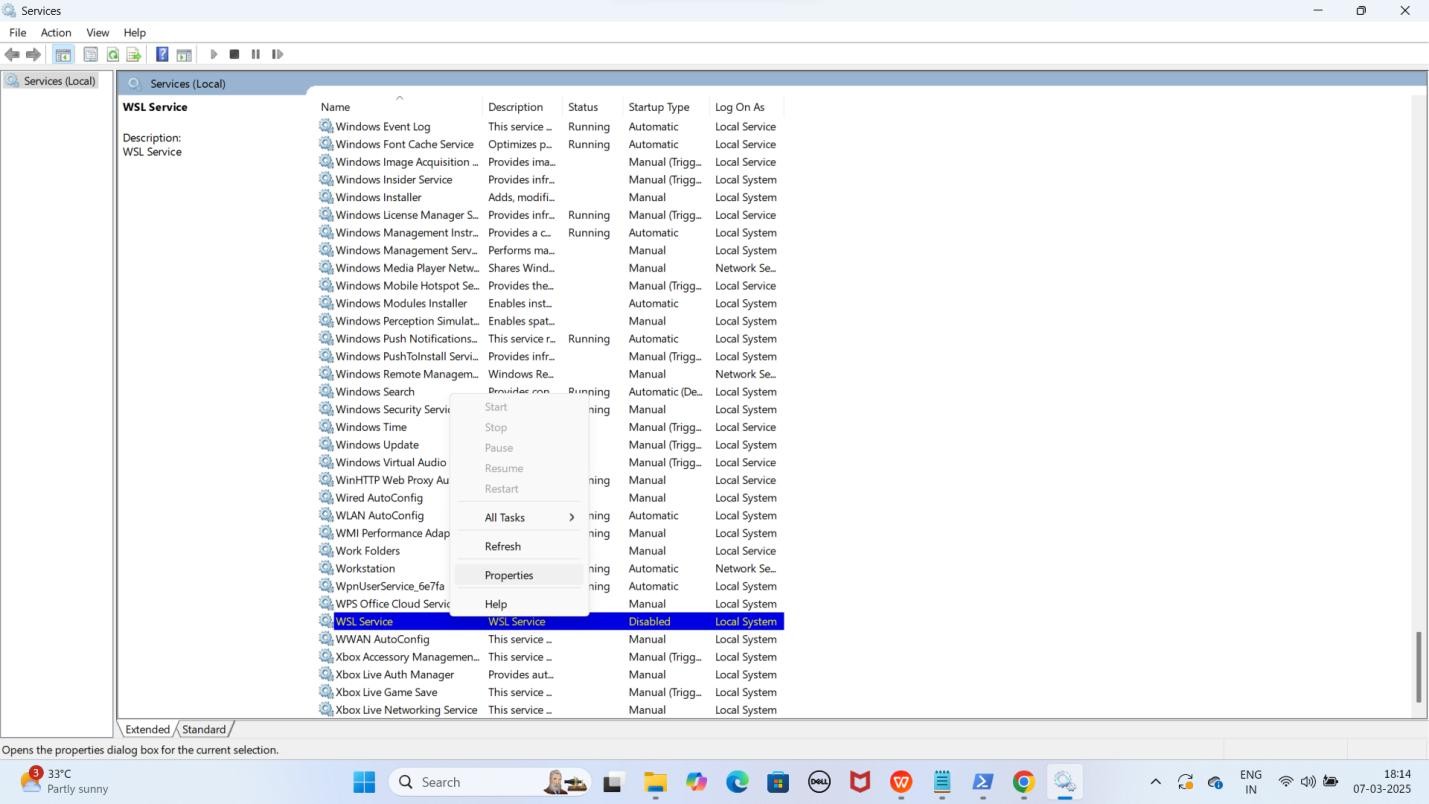


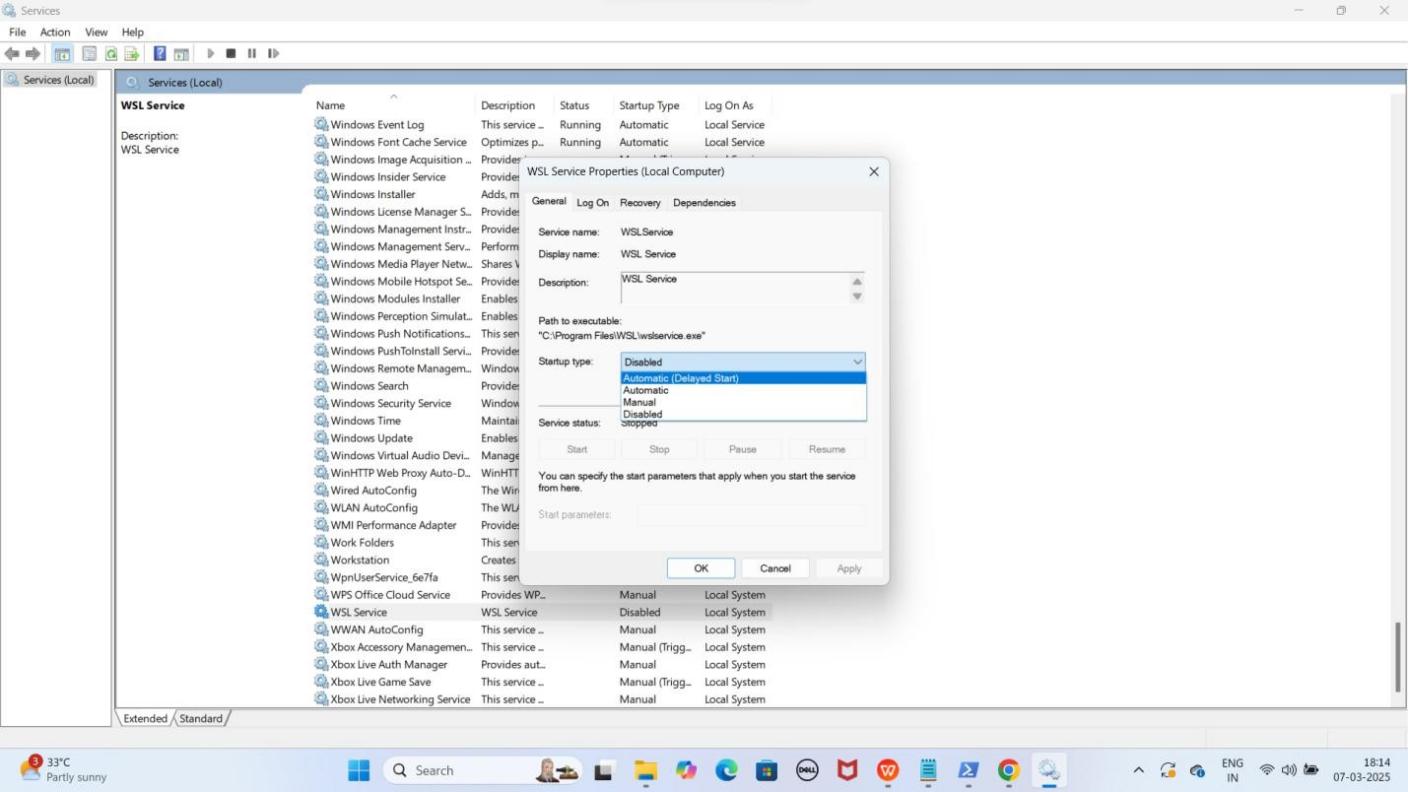
1. **Manually Enable WSL Service**
   * **Win + R** dabao, **services.msc** likho aur **Enter** karo.
   * **"WSL service"** service dhundo.
   * Agar **Disabled** hai, to **Right-click → Properties → Startup type: Automatic(Delayed Start) → OK → Start** karo.

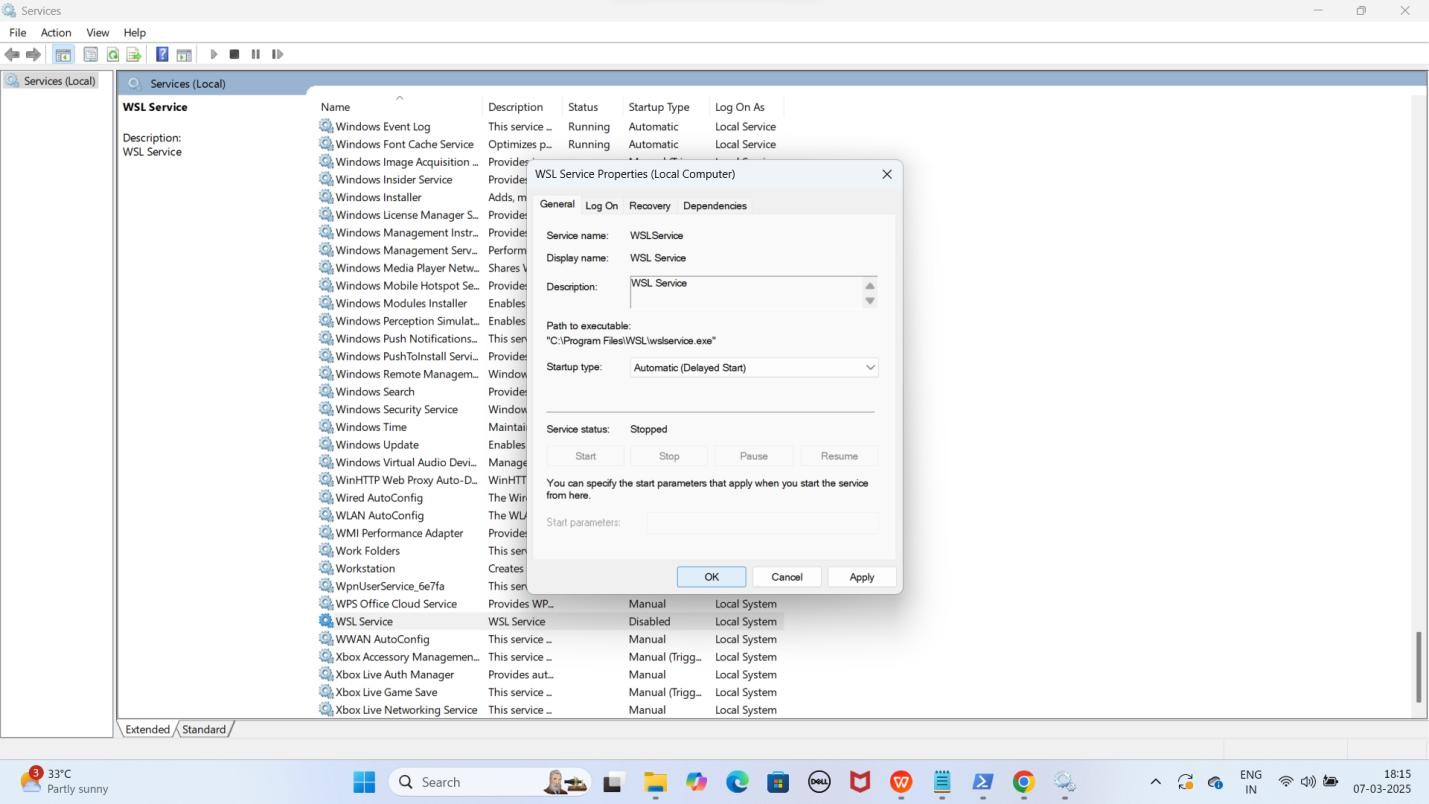
YE KUCH ISTARHA LAGEGA

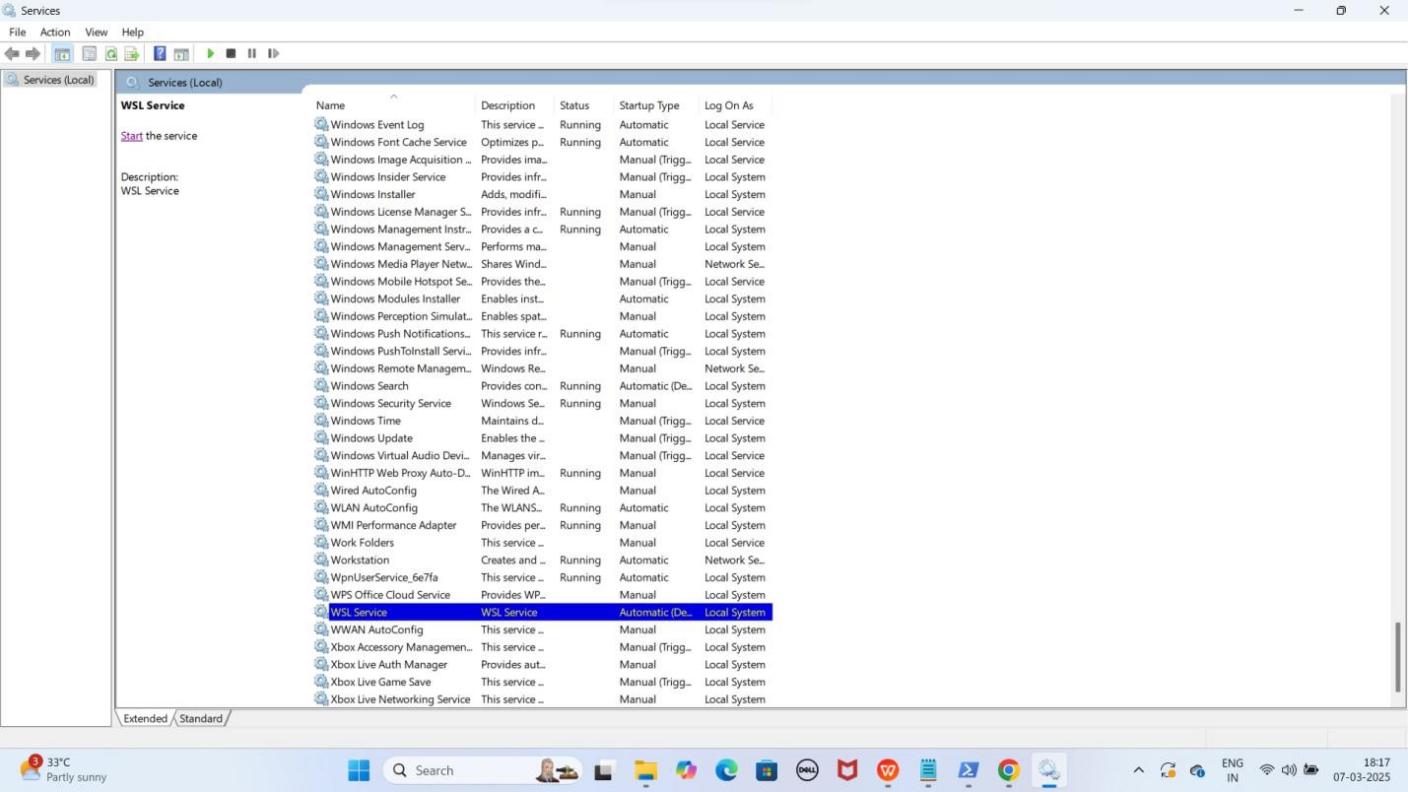


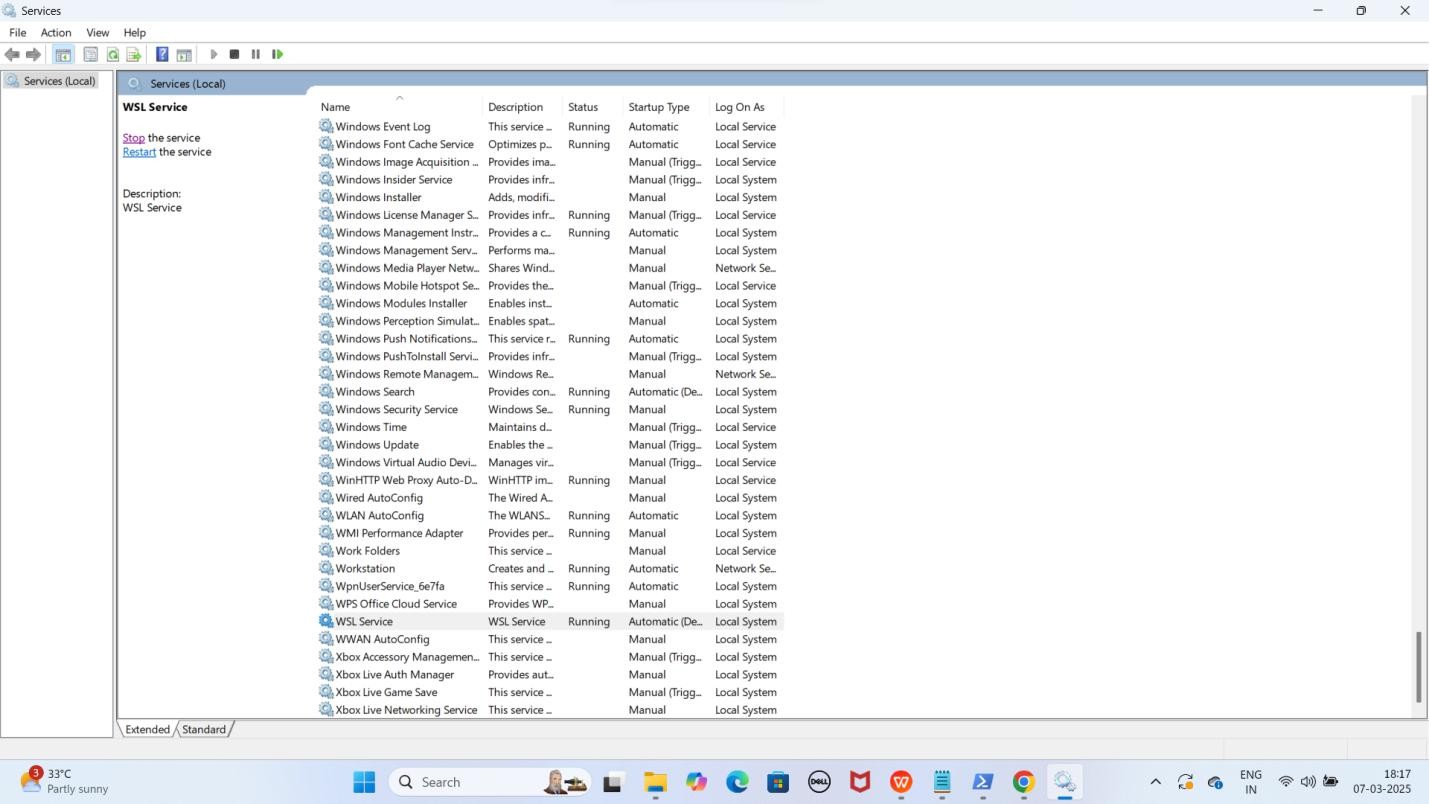












NOTE : Ab aapka WSL Service Enable and Start hogaya hai.

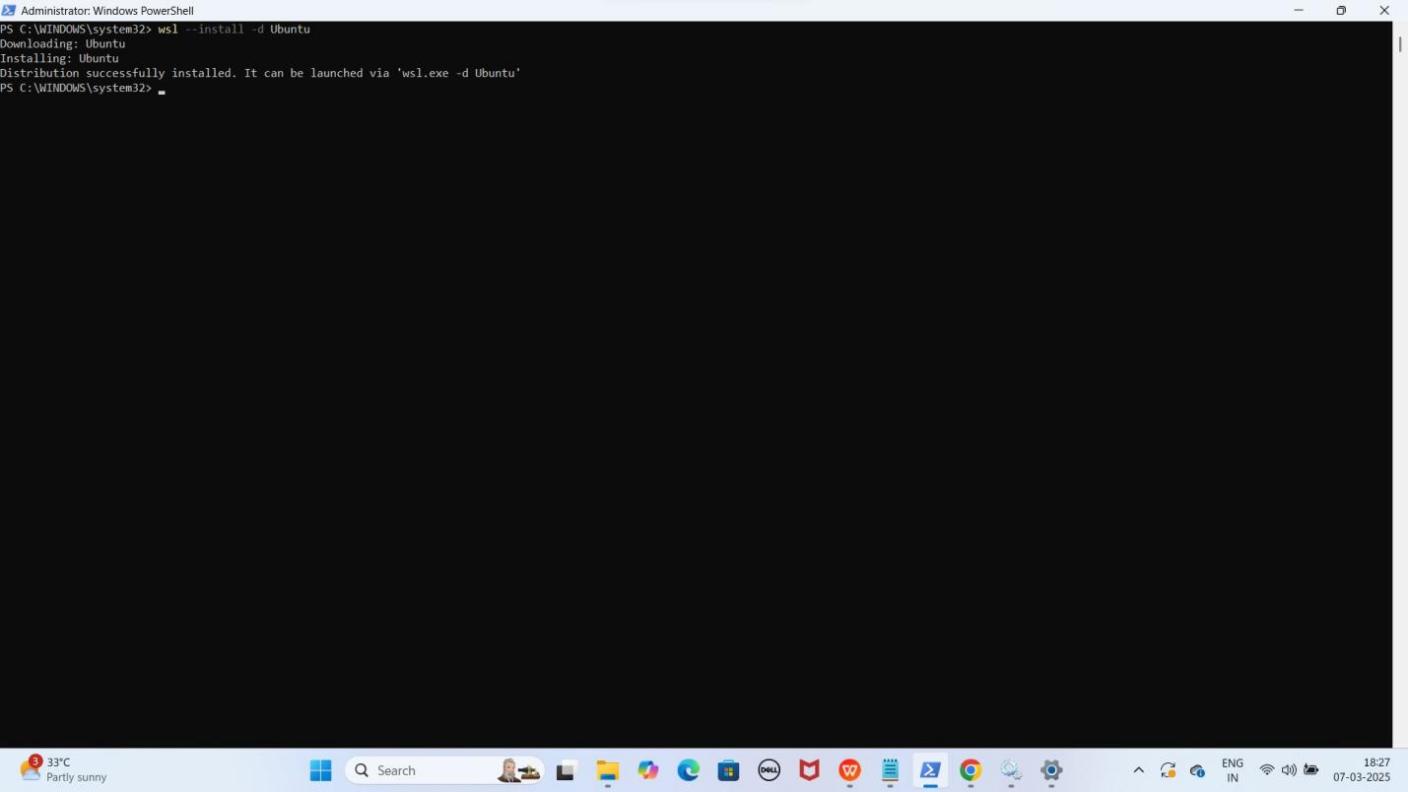
# Step 5: Ubuntu Install Kariye Ye WSL Ki Requirement Hai

Ubuntu WSL ke andar ek Linux distribution hai.

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

wsl --install -d Ubuntu-24.04

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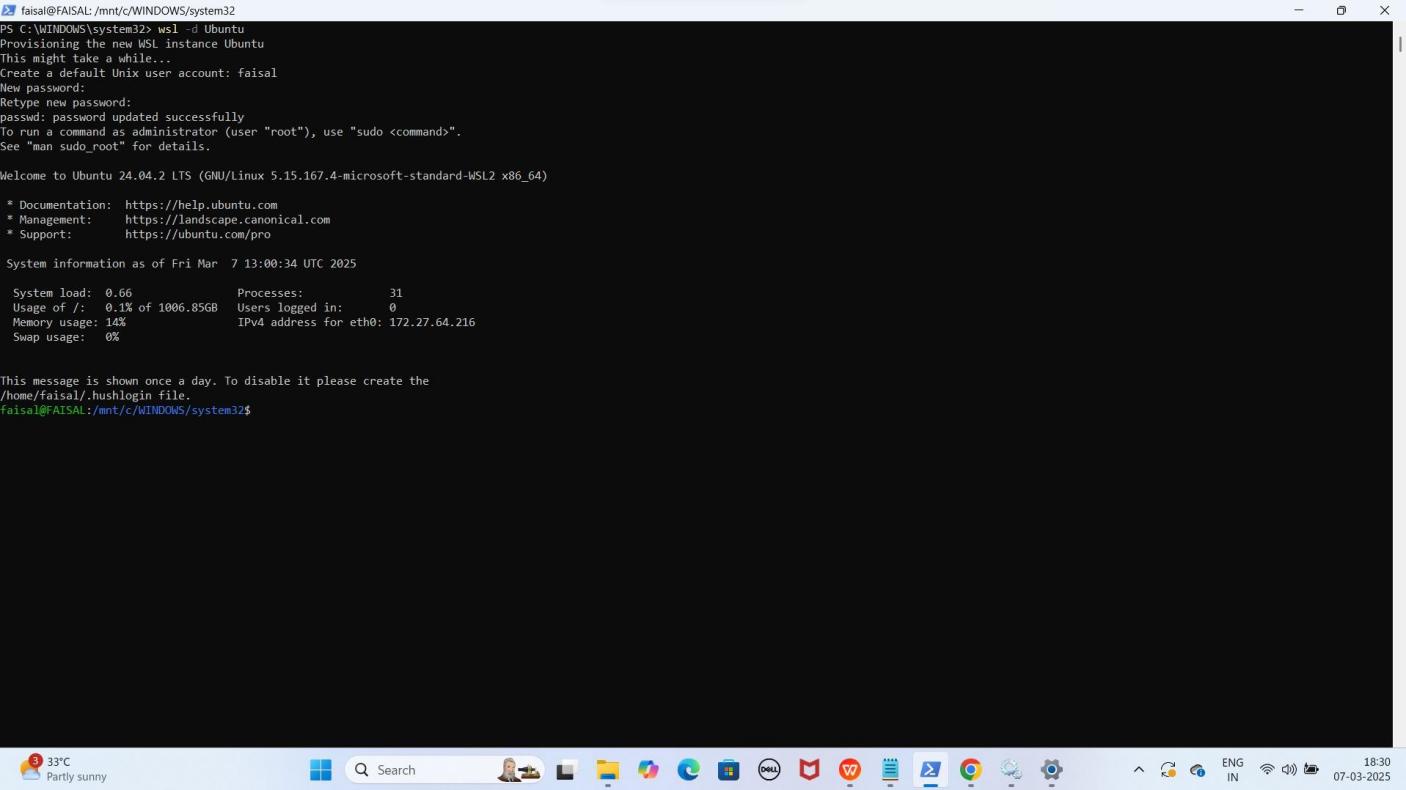
1. **Ubuntu manually launch karne ke lieye ye command run kariye**

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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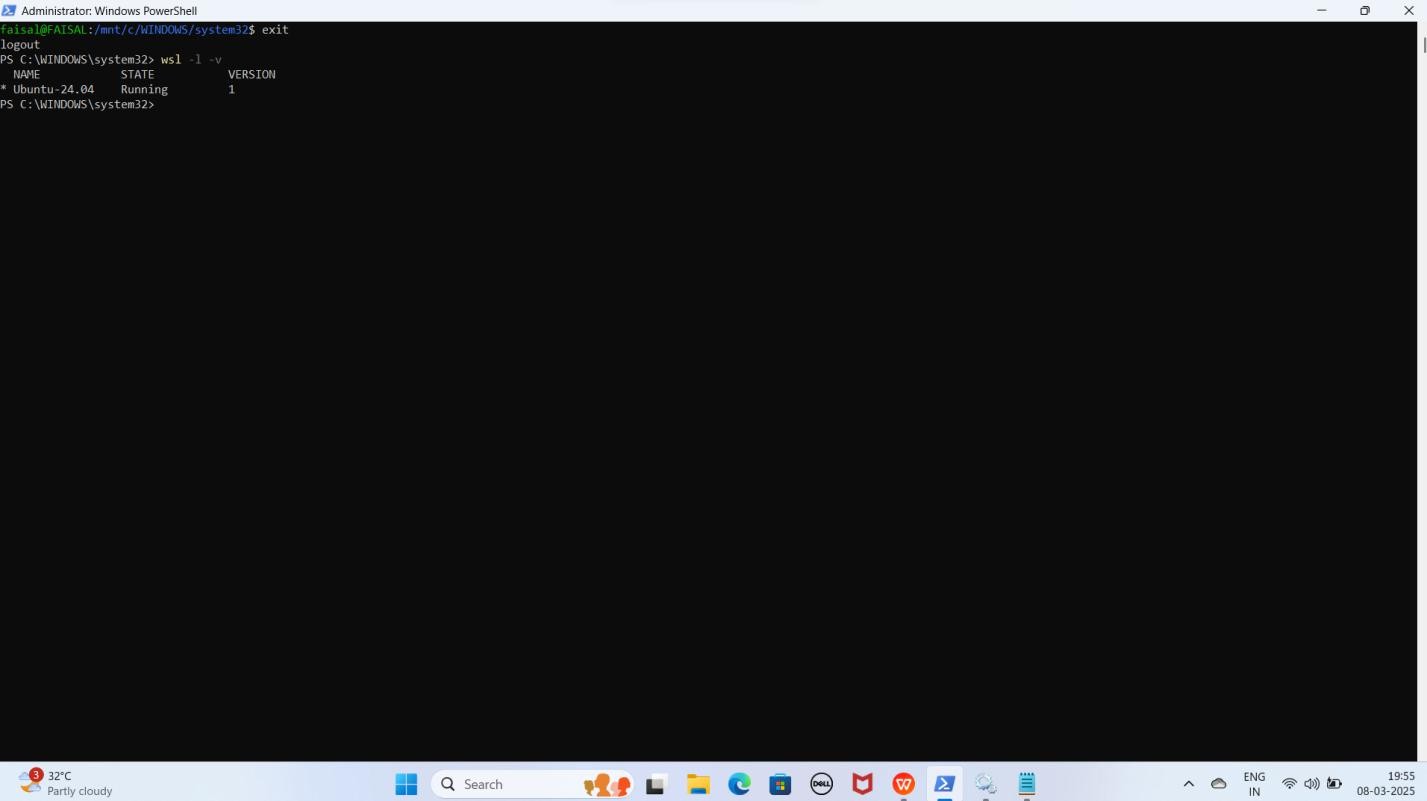


NOTE: Aapko password set karte waqt nahi dikhega. Or jaise hi WSL install hoga, aap by default WSL me enter ho jaoge. Lekin aapko exit hokar WSL Version 1 par Enable hai ya nahi check karne hoga

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

wsl -l -v

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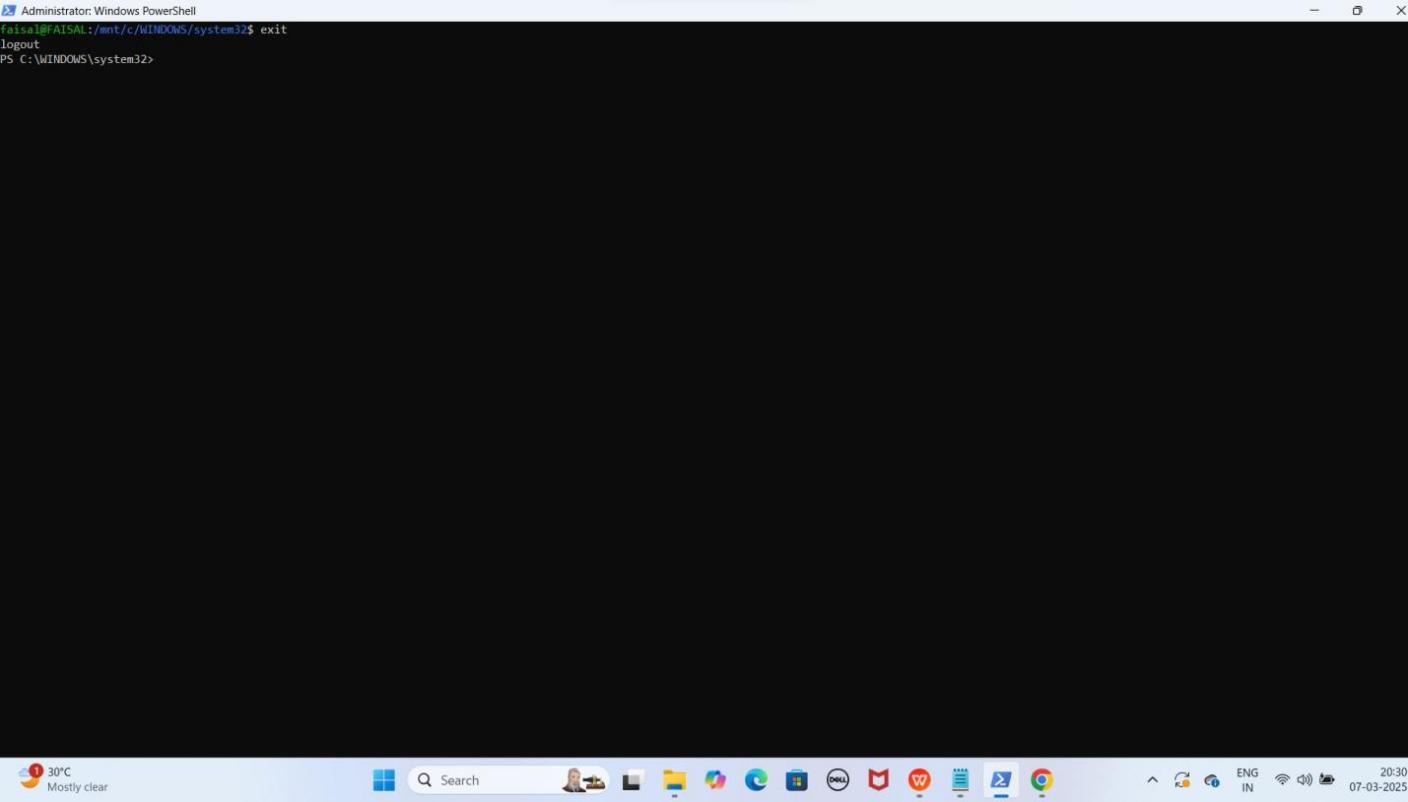


NOTE: Agar aapko STATE Running and VERSION 1 show horaha matlab aapka WSL version 1 par Enable hai and run ho raha hai

1. **Ab WSL se exit hojaye**

exit

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

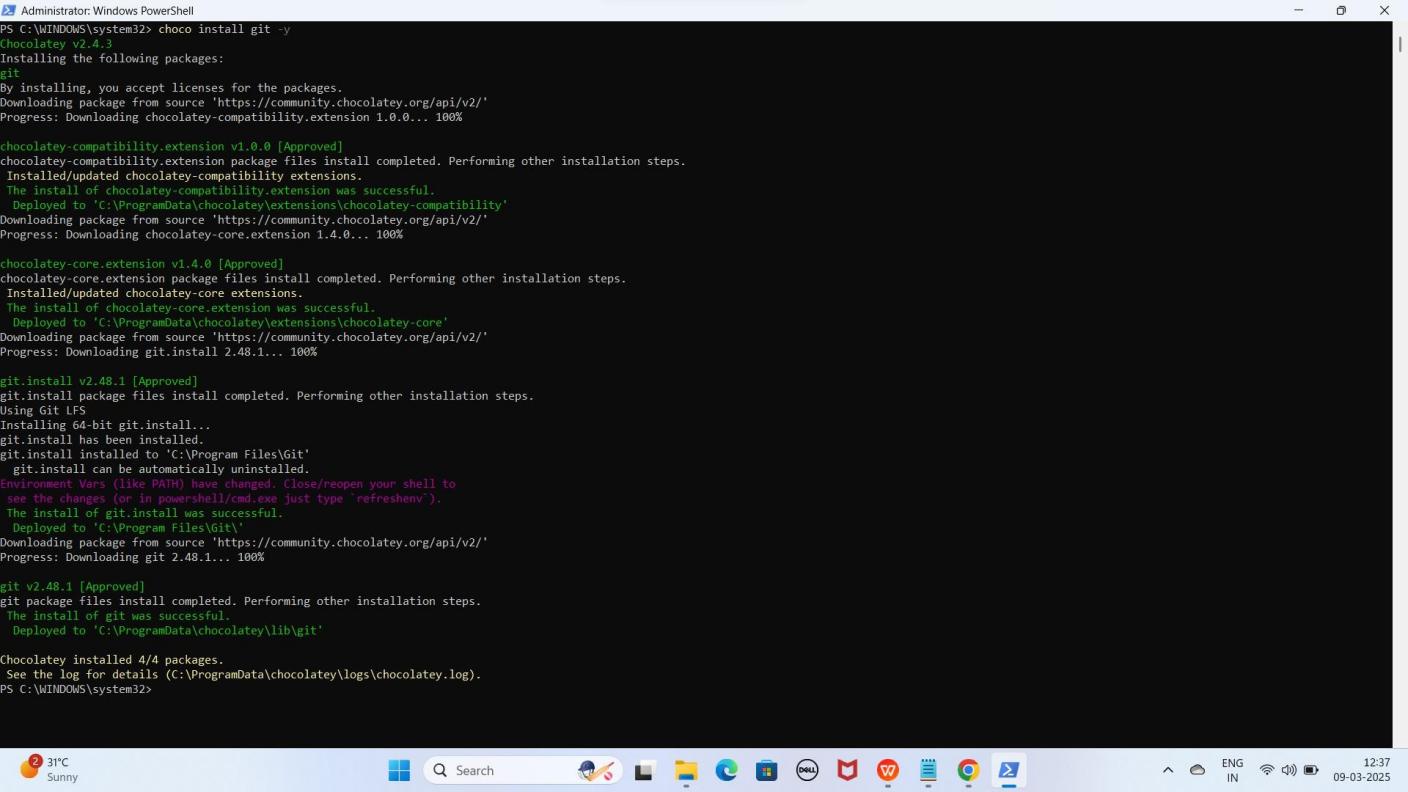
**Git** ek **version control system (VCS)** hai jo **developers** ko **code** ko **track** karne,

**manage** karne, aur **collaborate** karne me madad karta hai.

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

choco install git -y

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# Step 7: Minikube Install Karo

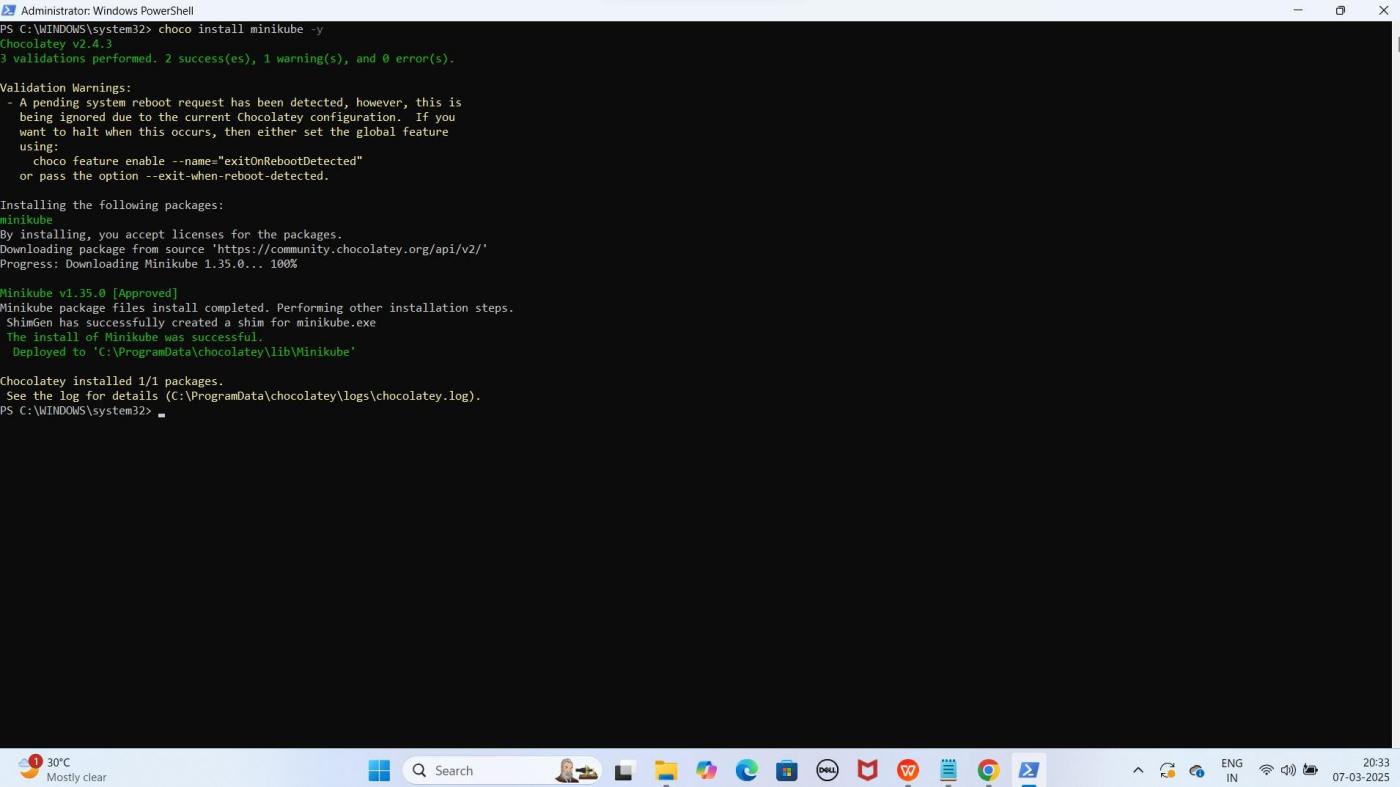
Minikube ek lightweight Kubernetes cluster hai jo local machine pe run

karta hai.

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

choco install minikube -y

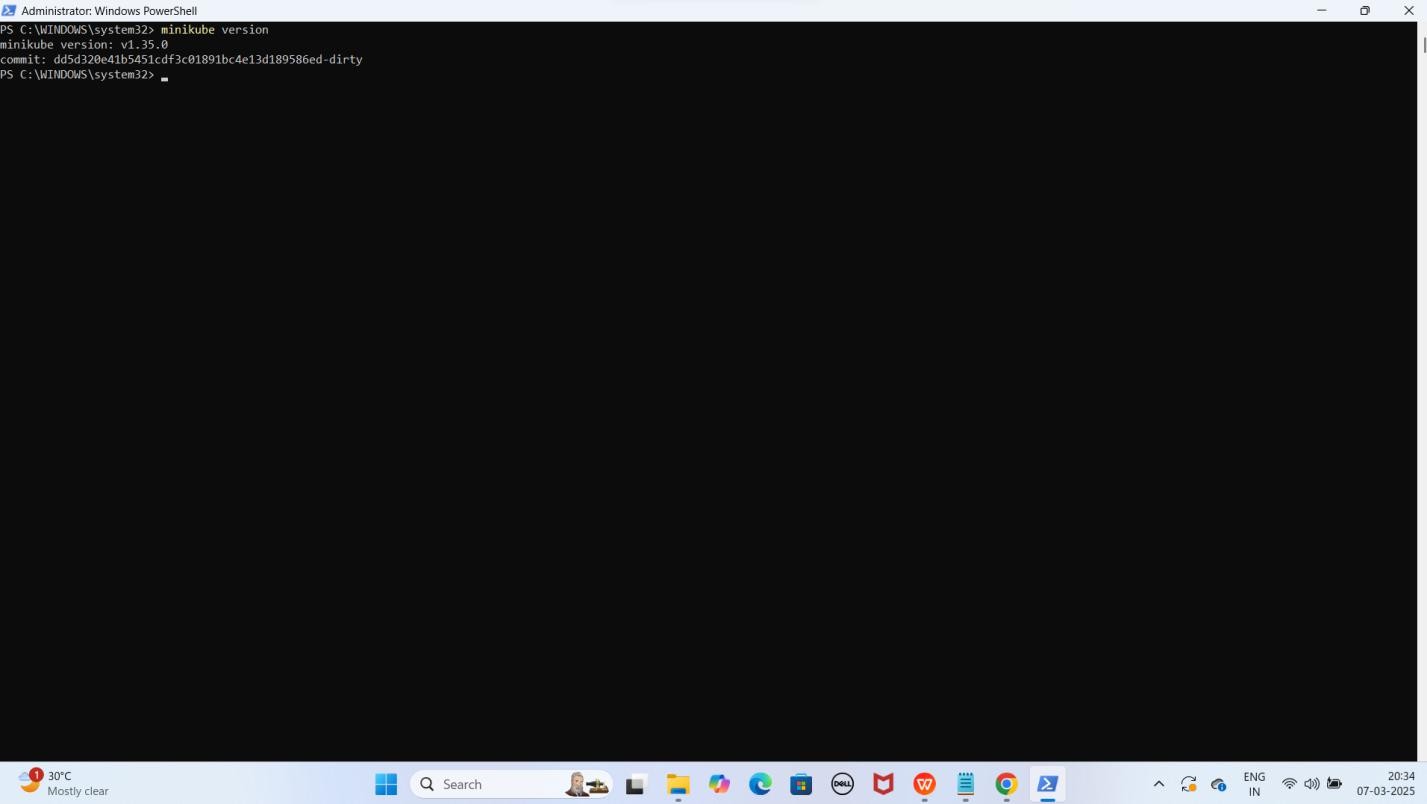
YE KUCH ISTARHA LAGEGA



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

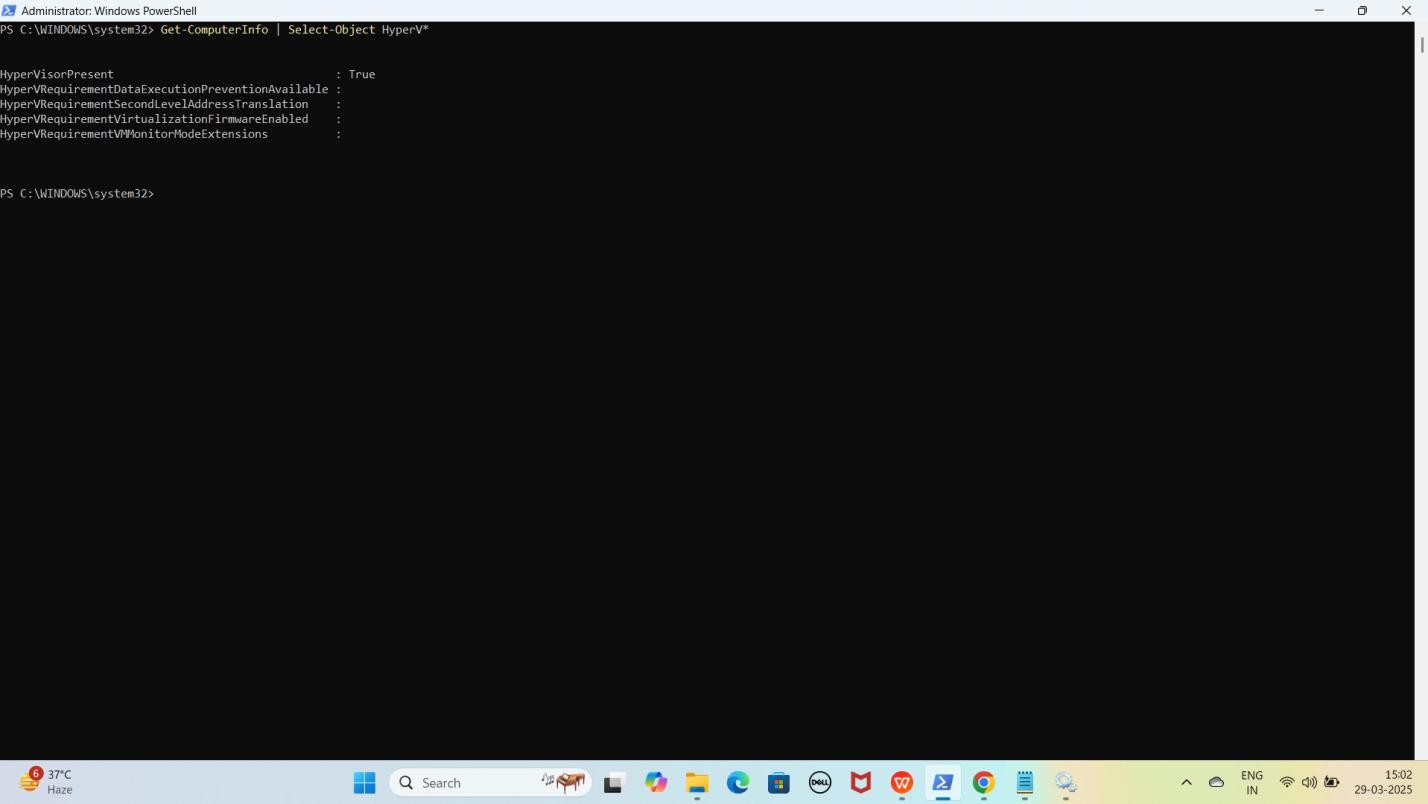
minikube version

YE KUCH ISTARHA LAGEGA



NOTE : Ab aapka Minikube Successfully Install or Configure hogaya hai

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

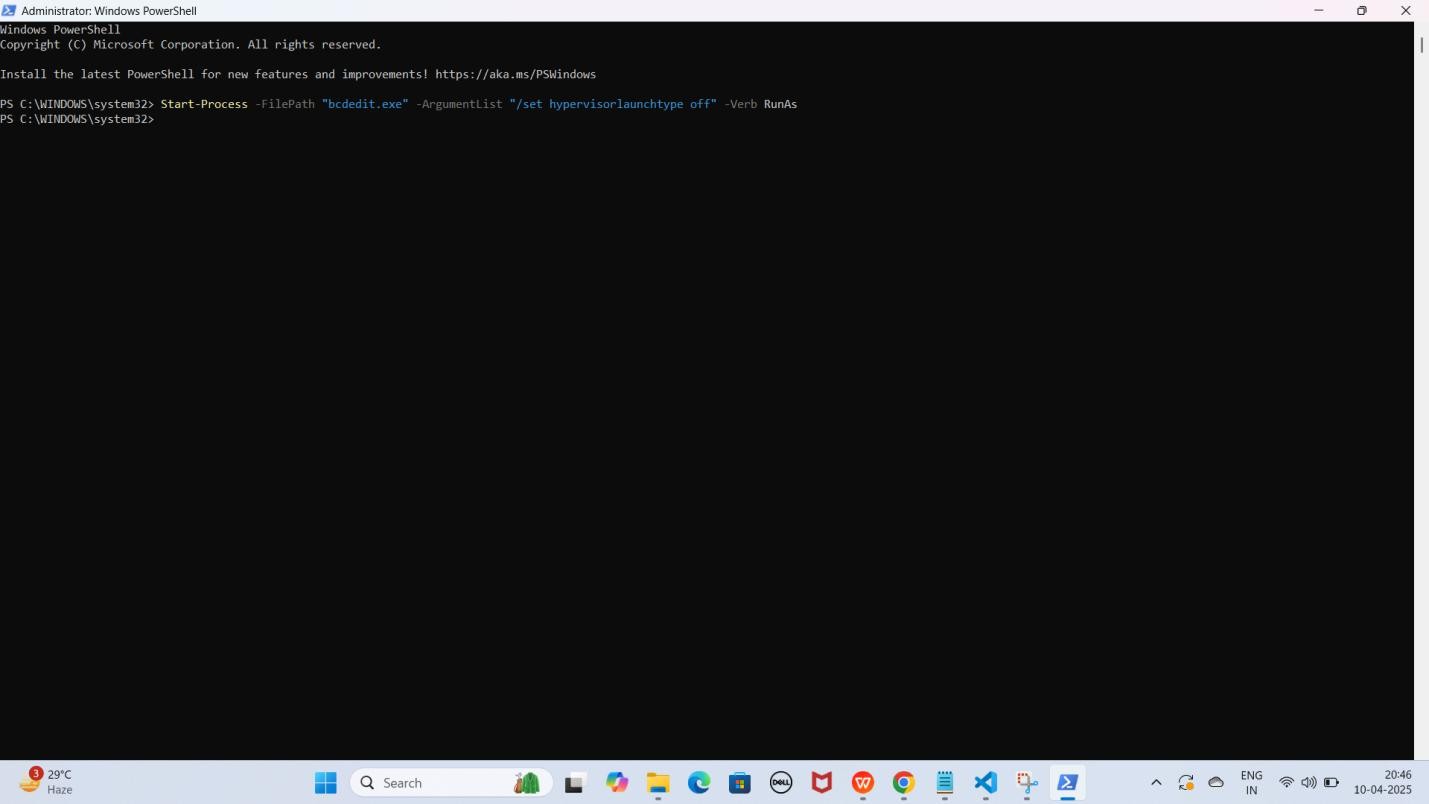
Get-ComputerInfo | Select-Object HyperV\* YE KUCH ISTARHA LAGEGA

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

1. **Hypervisor Disable karne liye ye command run kariye**

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

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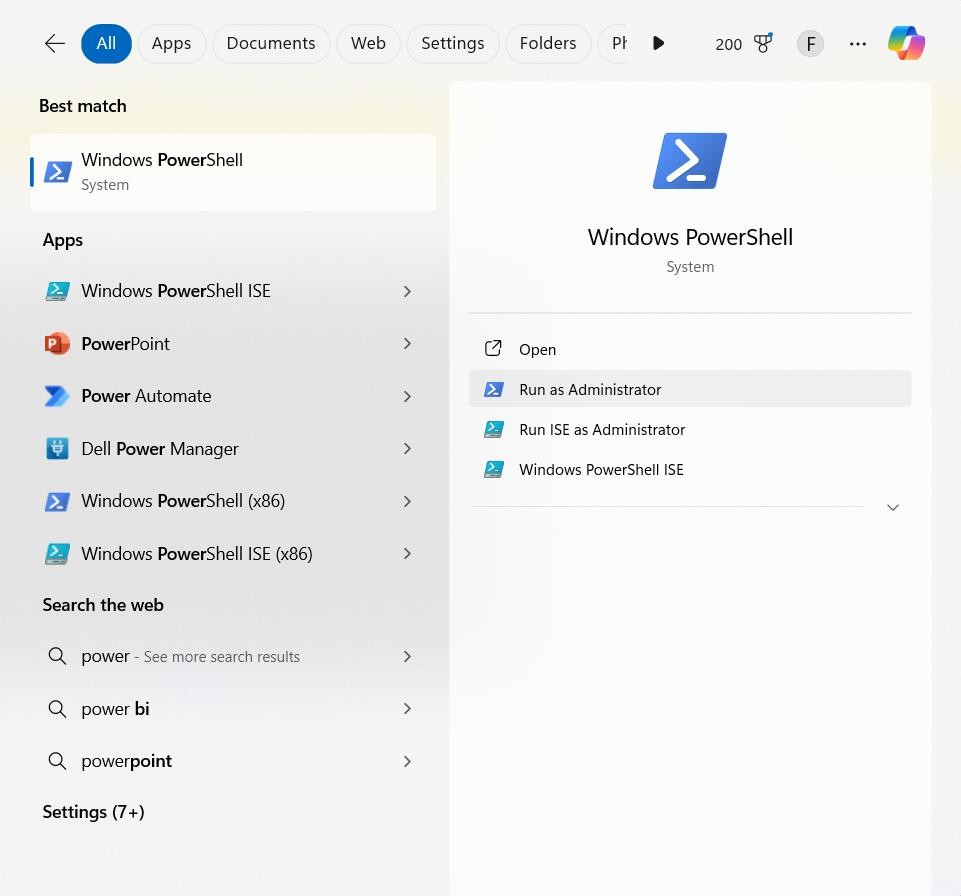


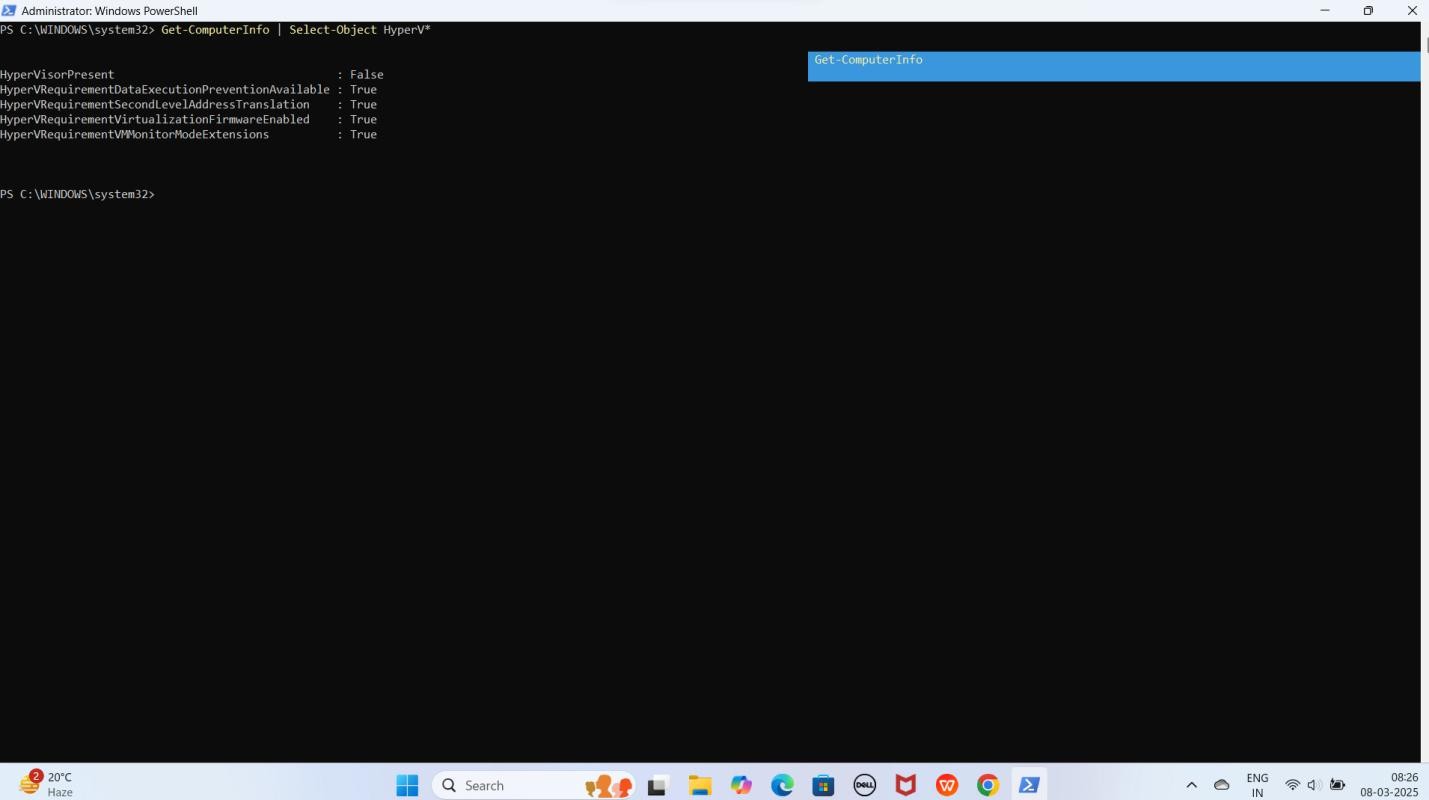
NOTE : Command Run karne ke baad System Restart kariye.

1. **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



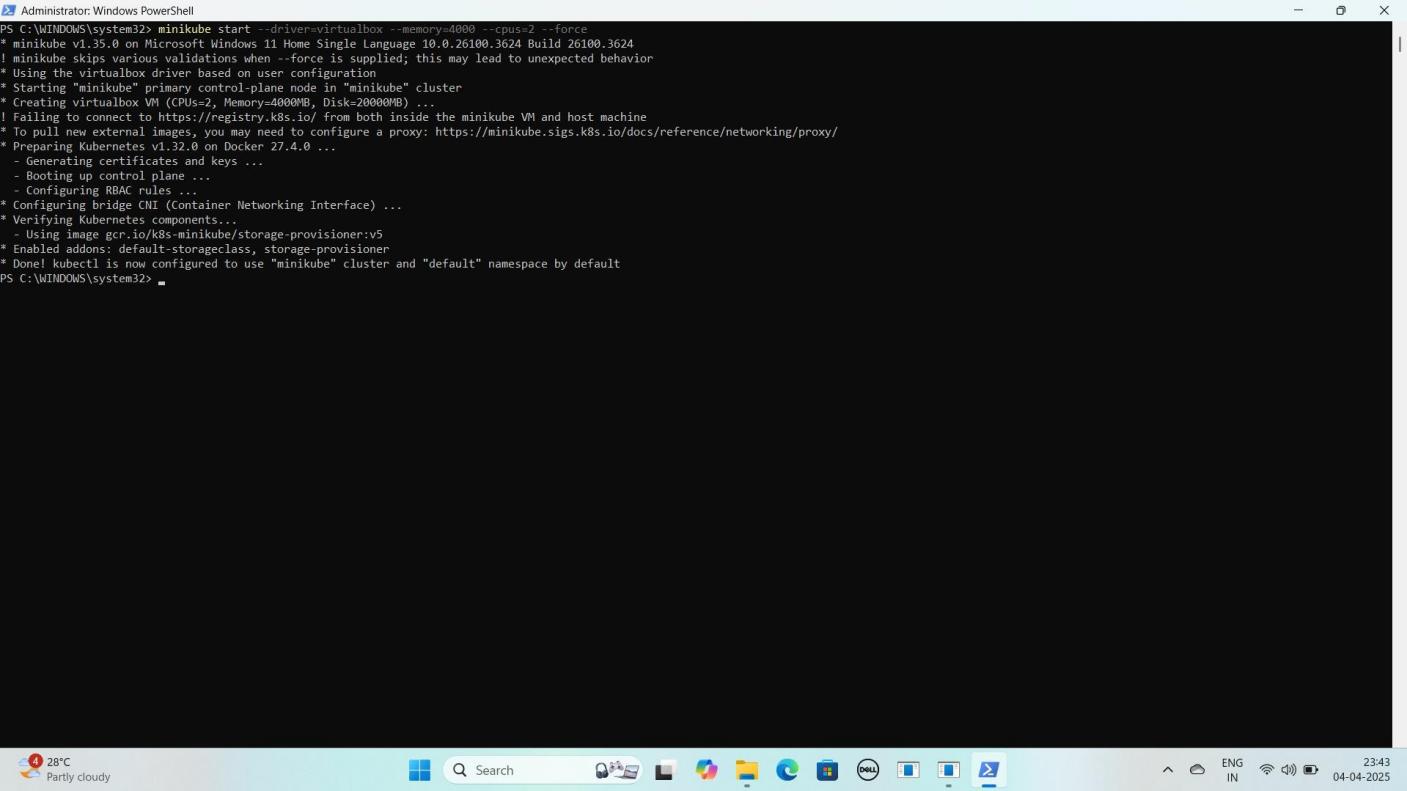


NOTE: Agar aapko HyperVisorPresent : False show kar raha iska matlab aapka Hypervisor Successfully Disable hogaya hai

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

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

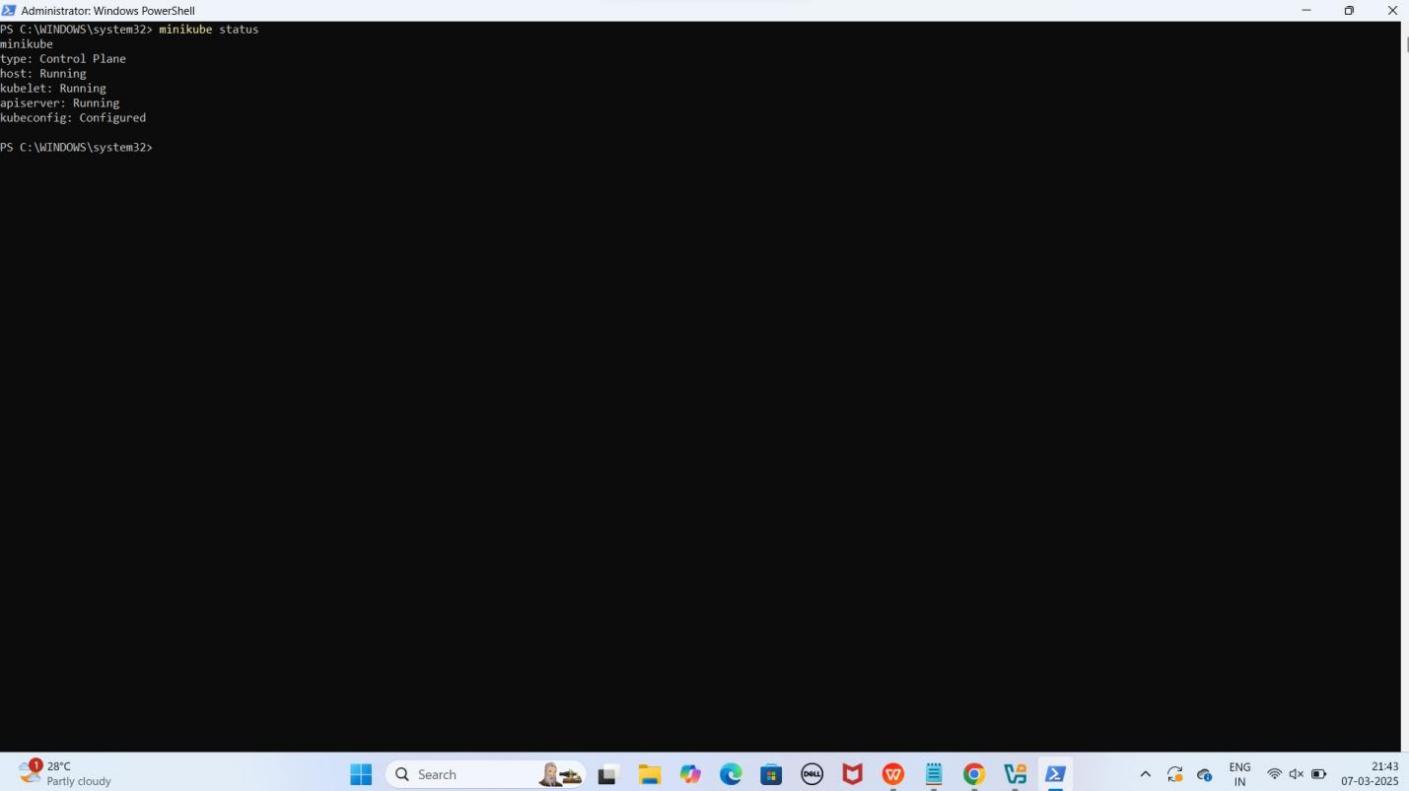
YE KUCH ISTARHA LAGEGA



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

minikube status

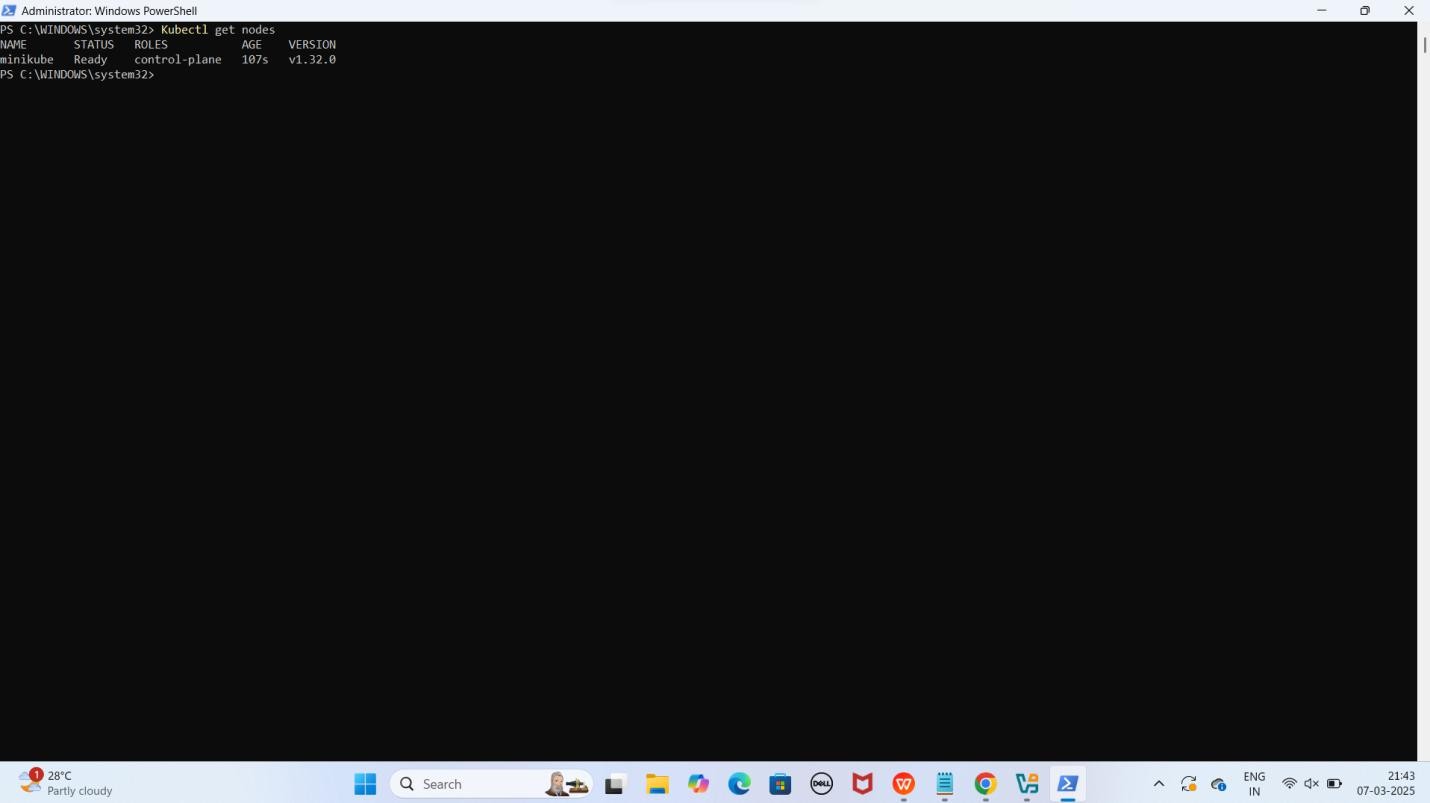
YE KUCH ISTARHA LAGEGA



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

kubectl get nodes

YE KUCH ISTARHA LAGEGA

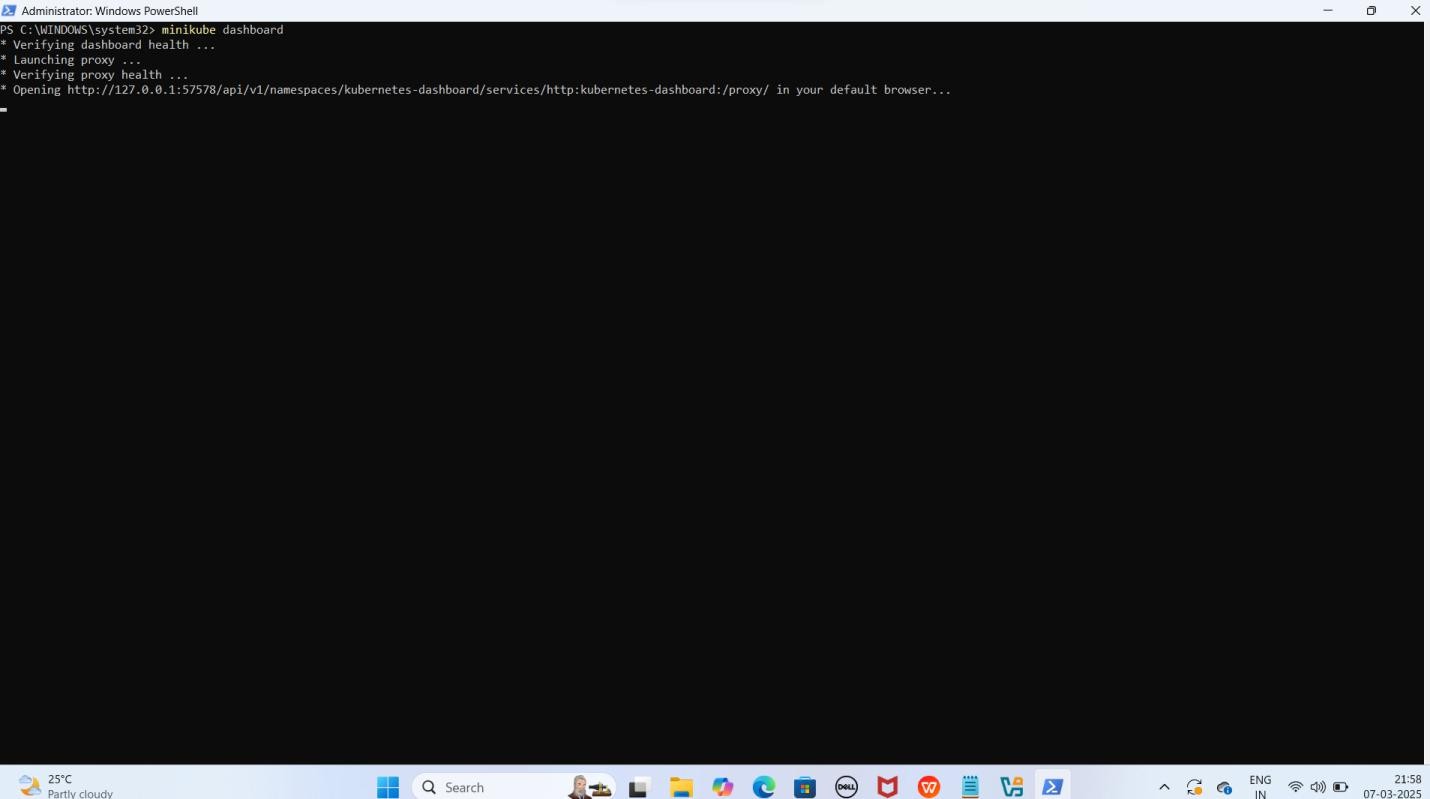


NOTE: Agar STATUS Ready show kar raha hao to Congratulations aapka Minikube successfully Install and Configure hogaya hai ab aap Deployment kar sakte hai

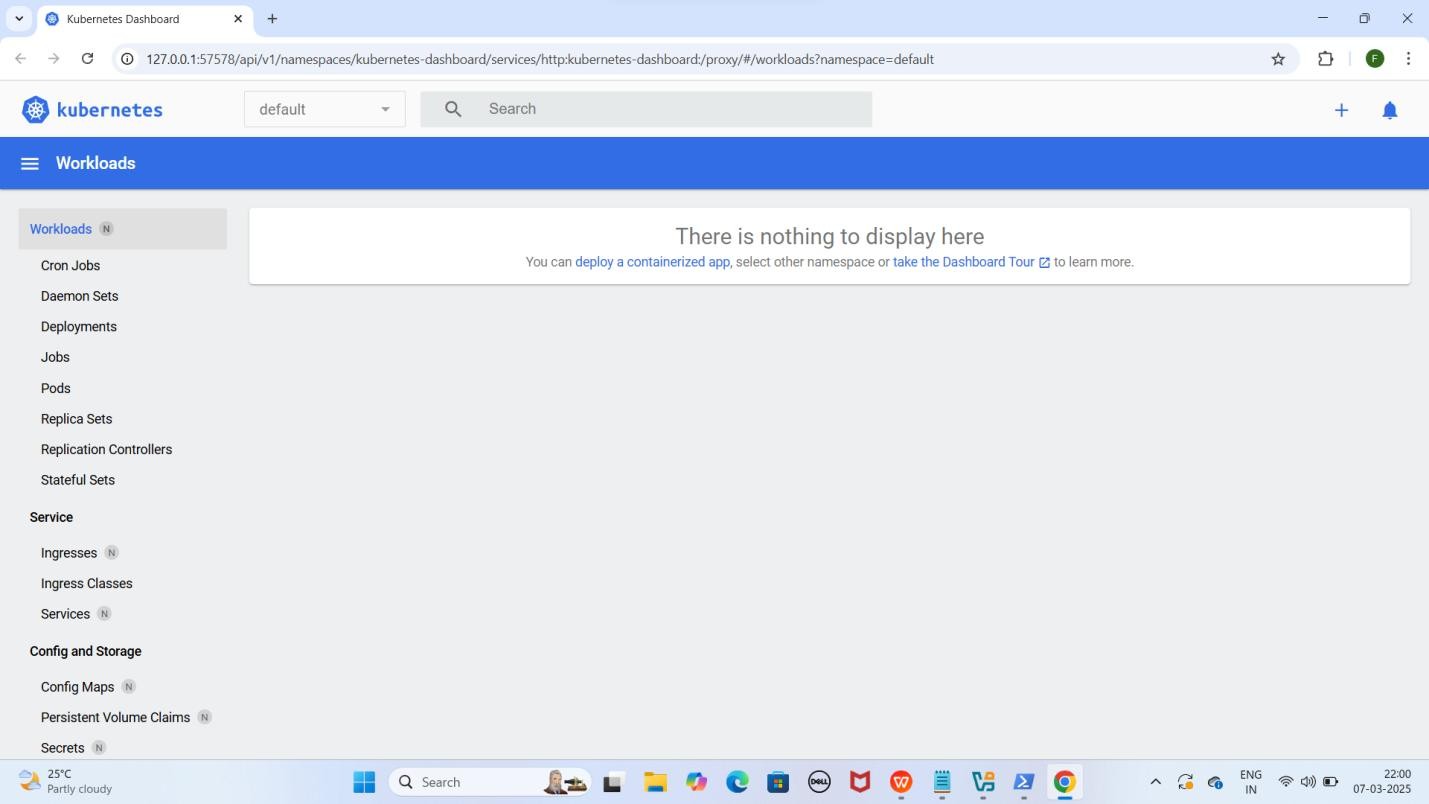
1. **Minikube Dashboard check karna ke liye ye commad run kariye**

minikube dashboard

YE KUCH ISTARHA LAGEGA



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



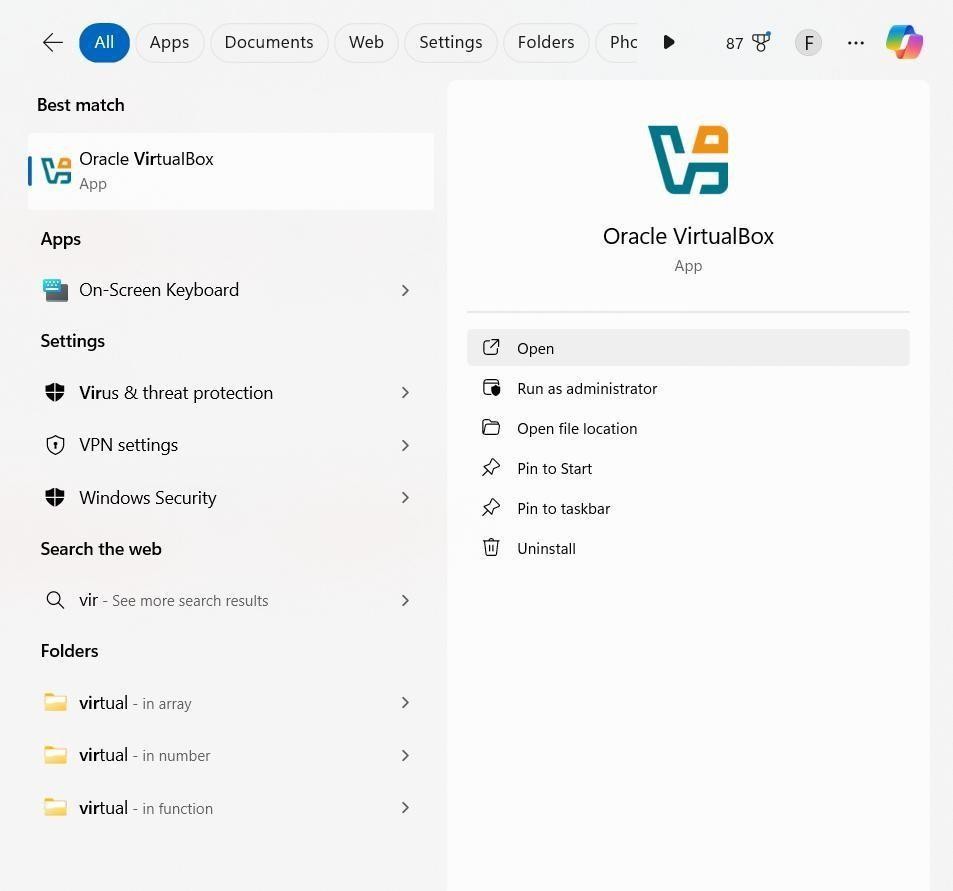
Recommend : Har Step aur Command ko meri Snapshots se Match karein taake Confirm ho sake ke sab kuch sahi tarah se Execute hua hai.

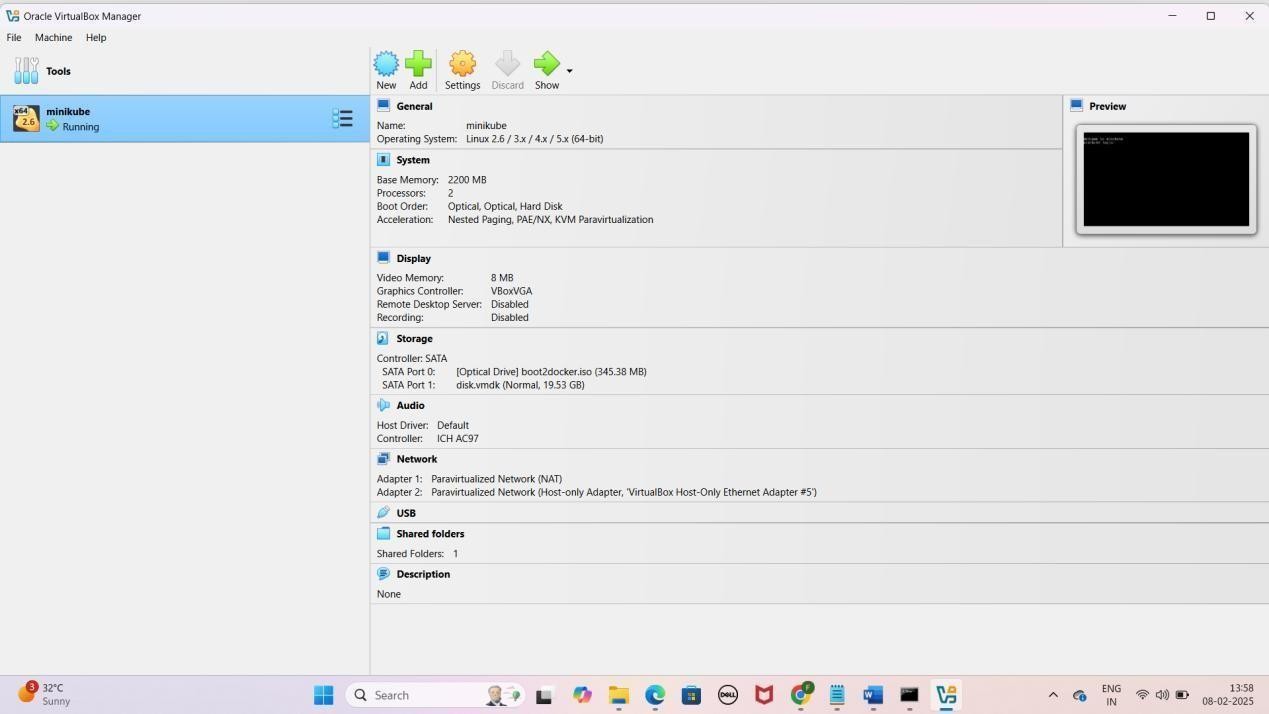
Optional 1: Still agar aapko koi Error aata hai to ye commands run kariye first Minikiube Delete kare phir Start kariye agar Error aata hai to ya minikube sahi se Configure ya start nahi howa hai

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

YE KUCH ISTARHA LAGEGA





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

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

Video Demo : [https://youtu.be/BKldKog24n8](h)