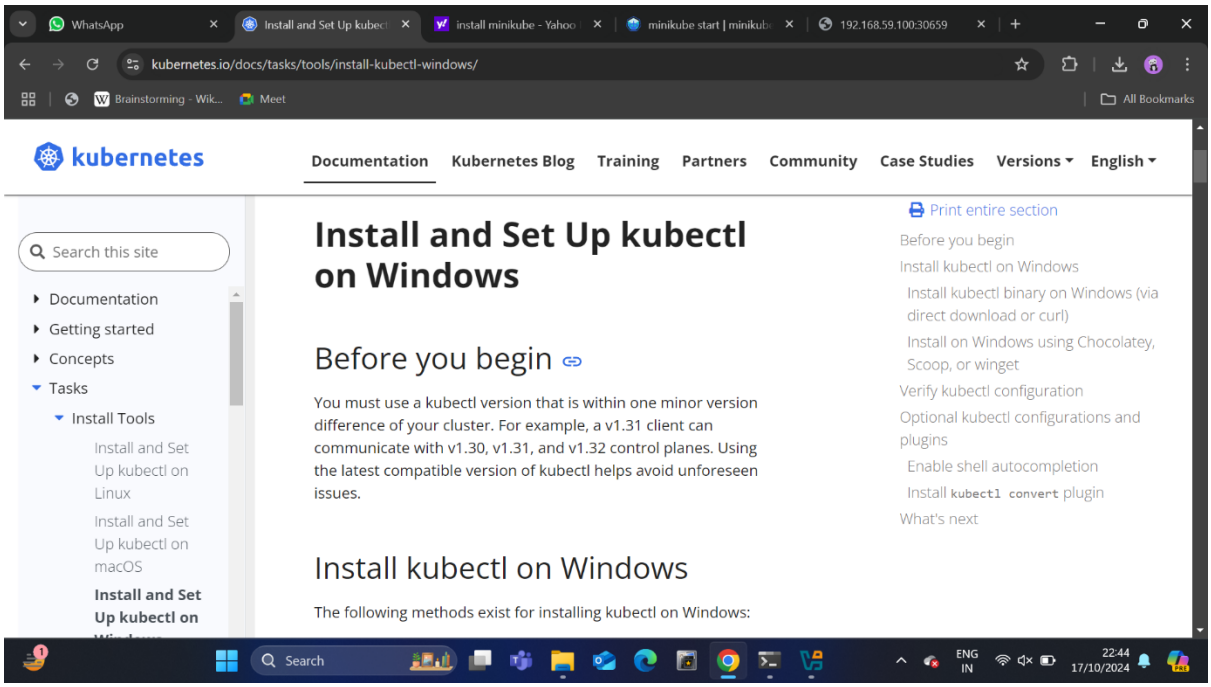
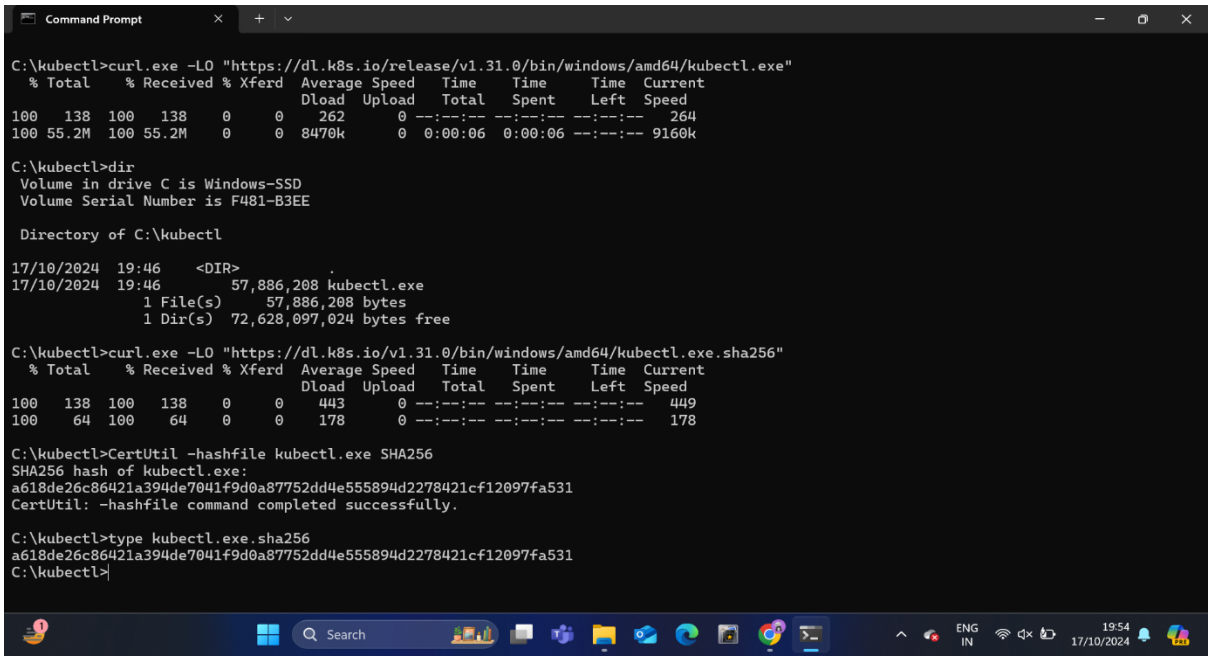
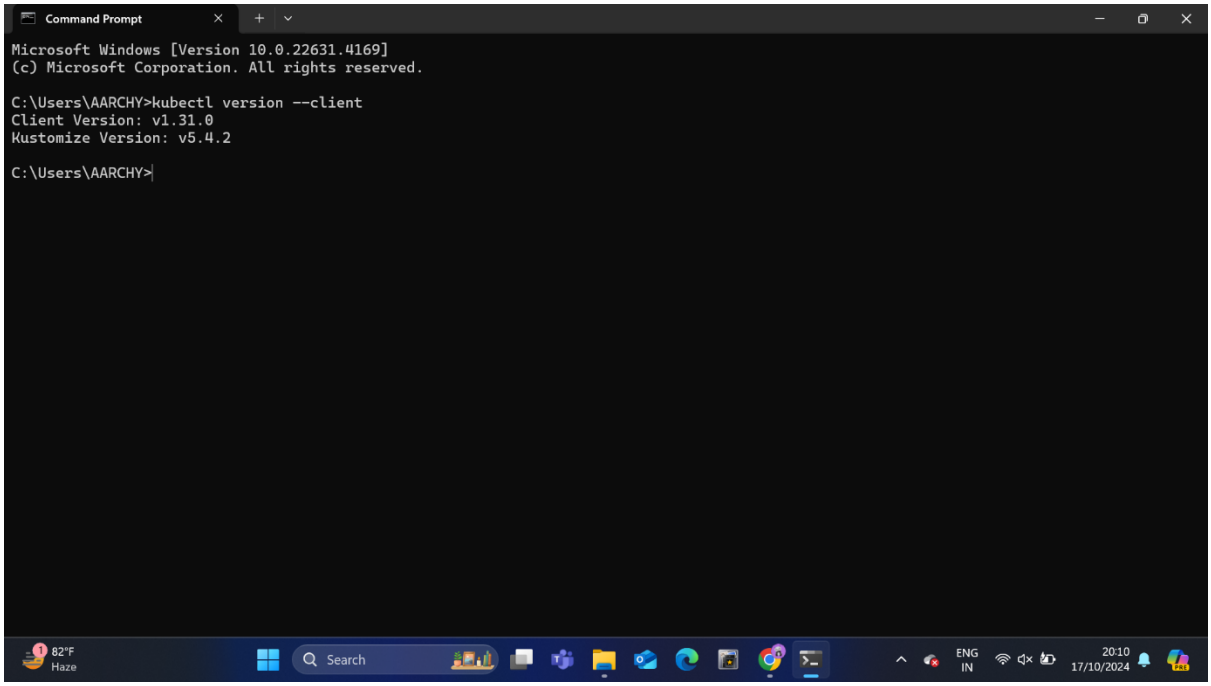
EXP NO 5 KUBERNETES INSTALLATION AND DEPLOY USING VIRTUAL BOX

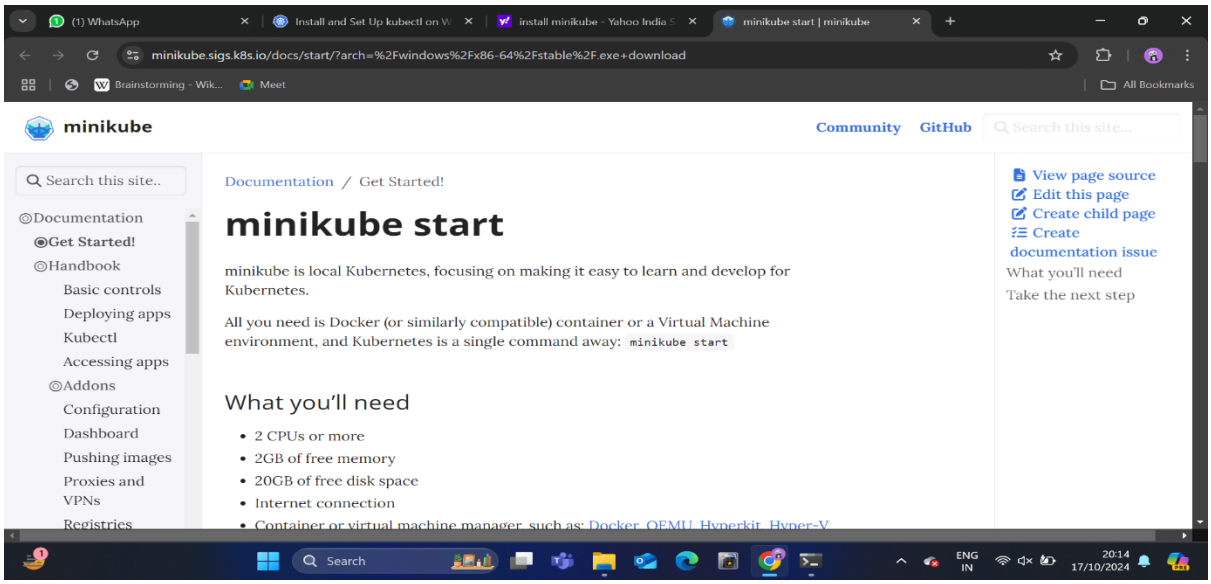
Installing kubectl:

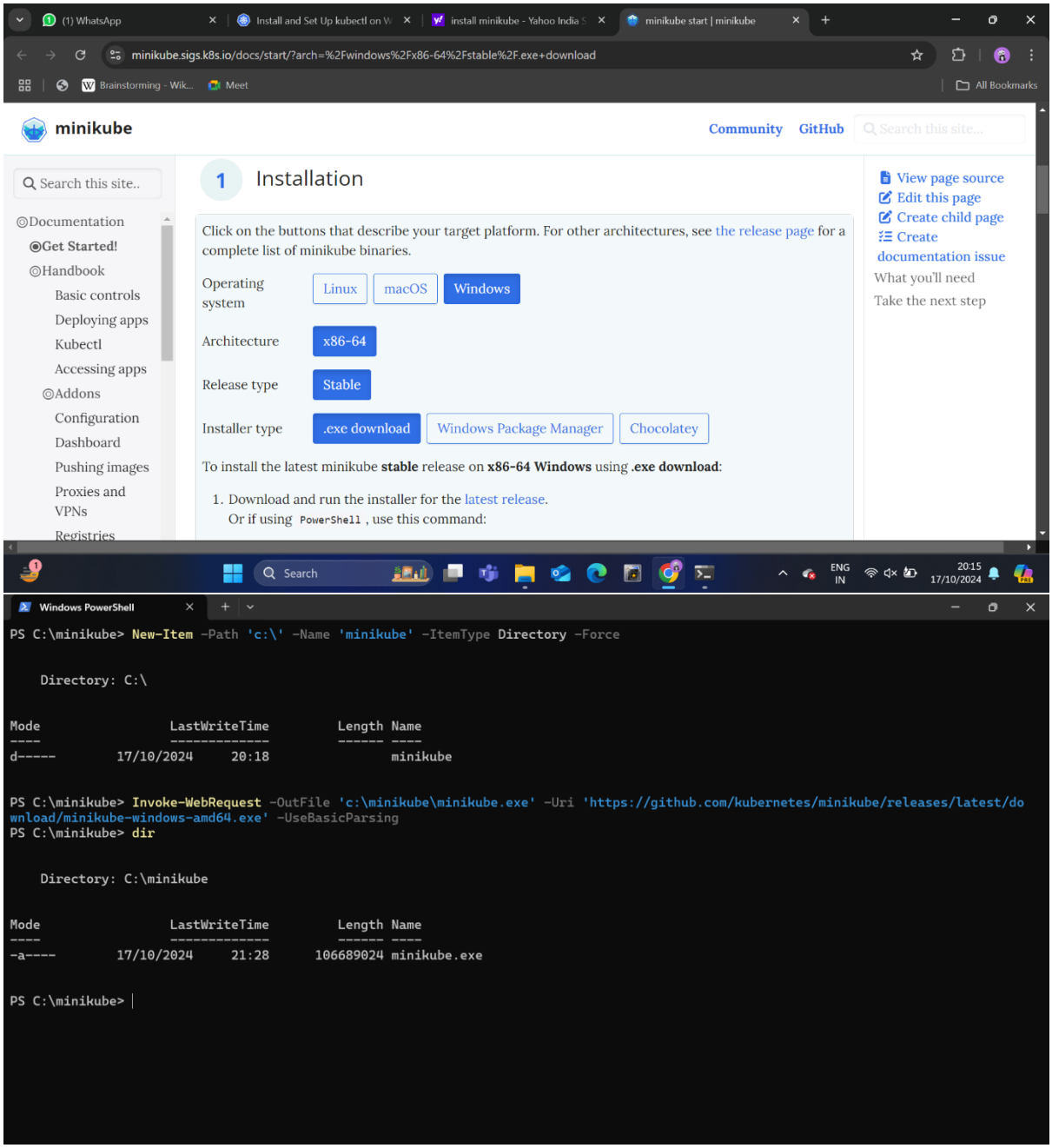




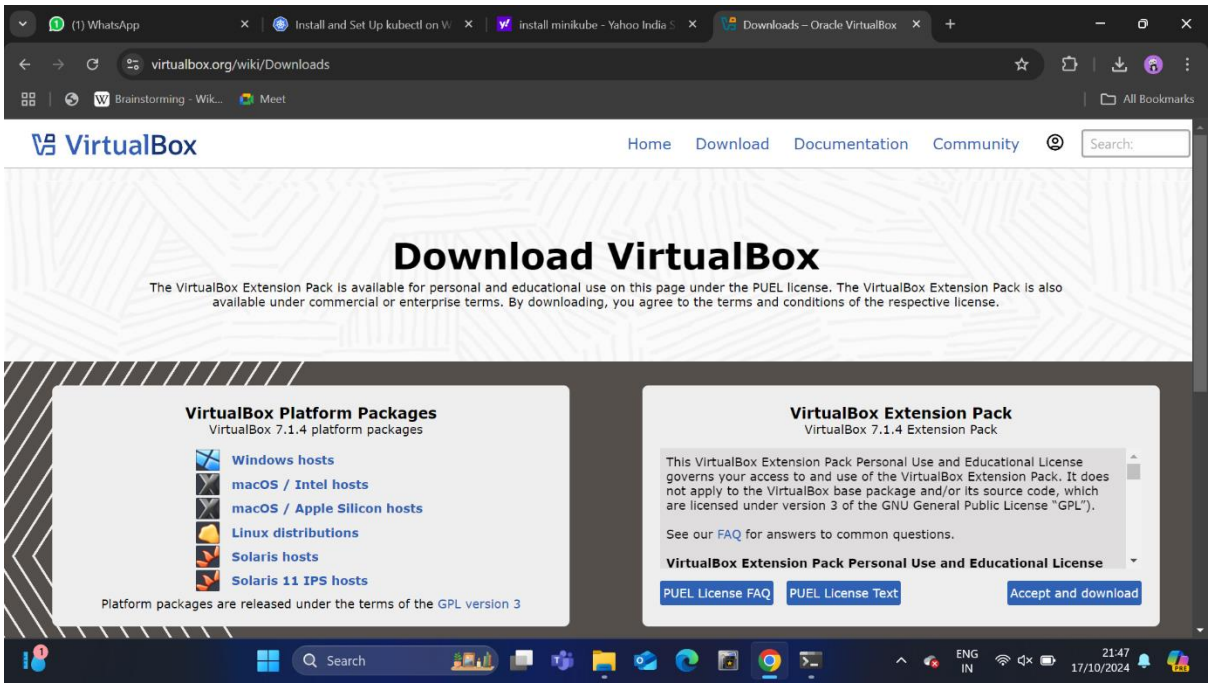


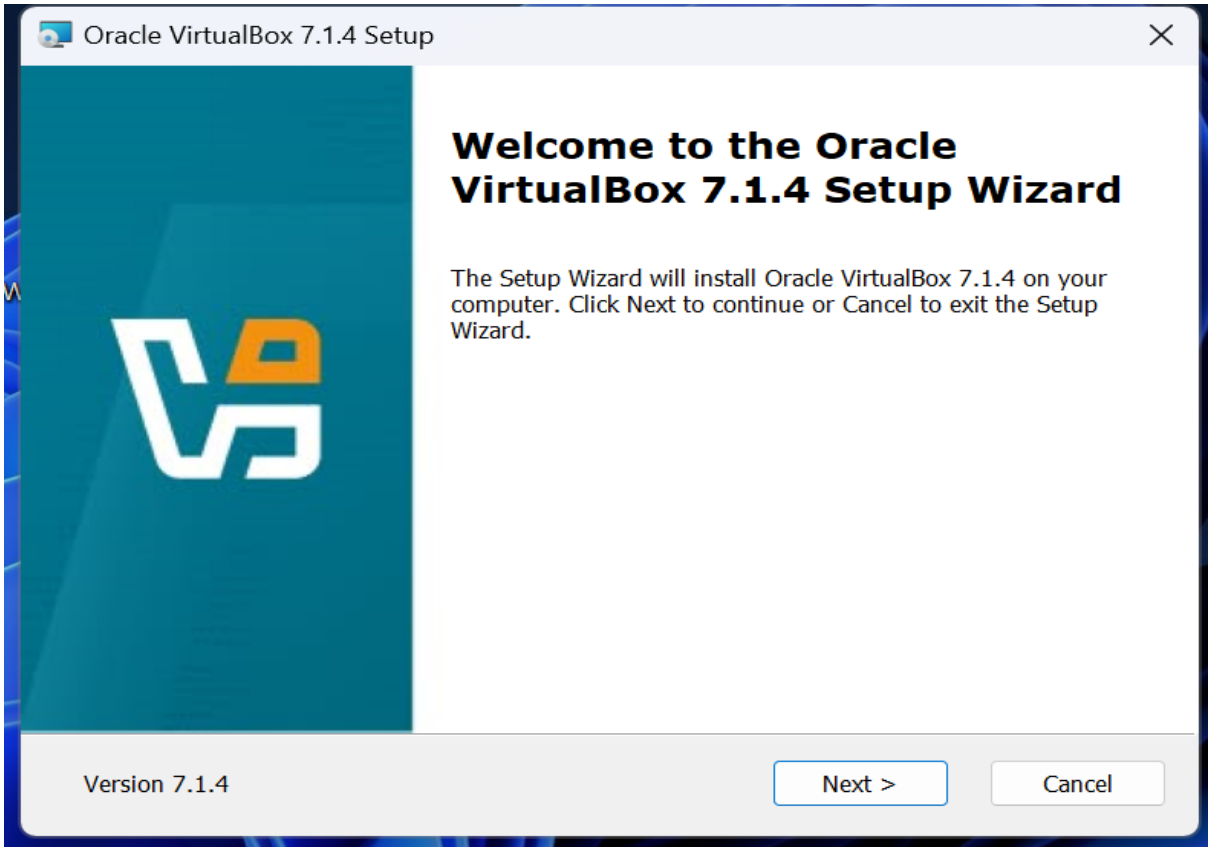
Installing minikube:

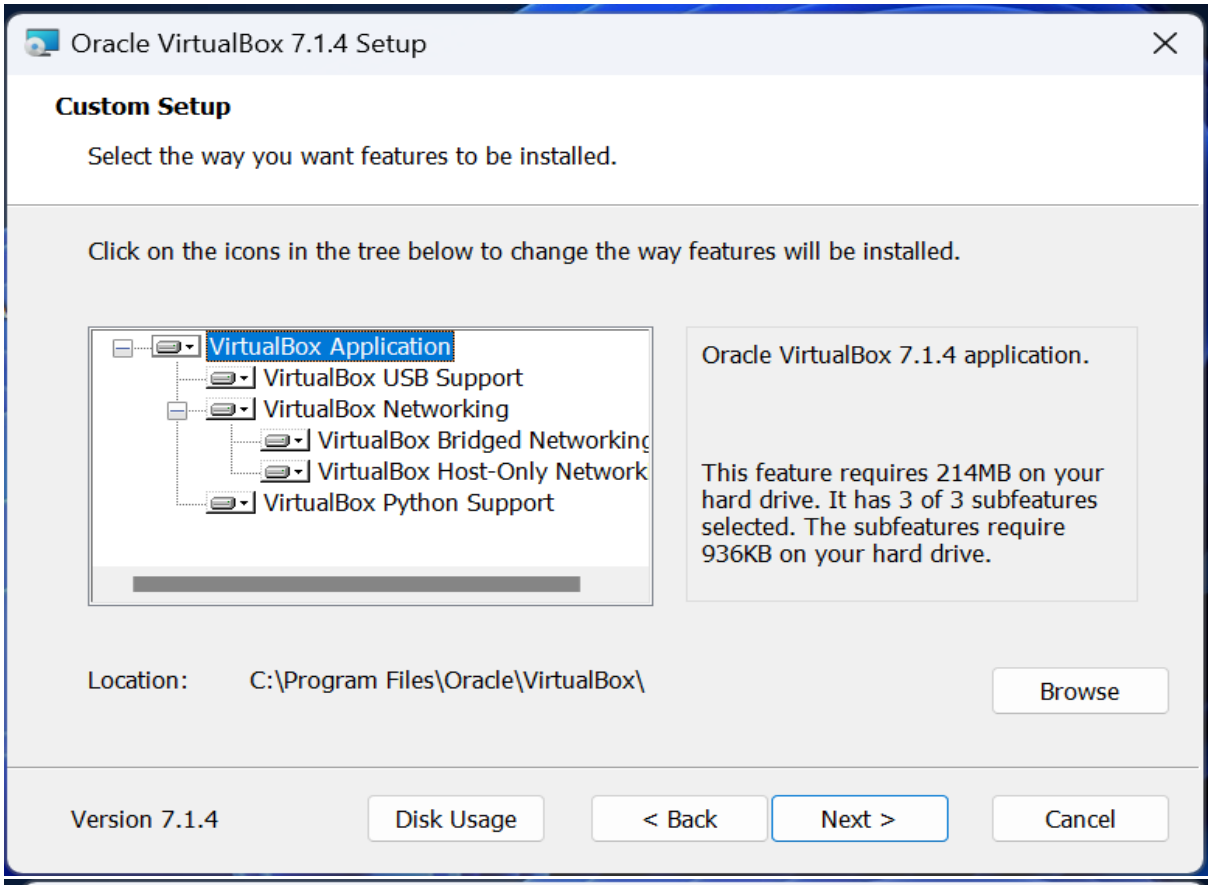


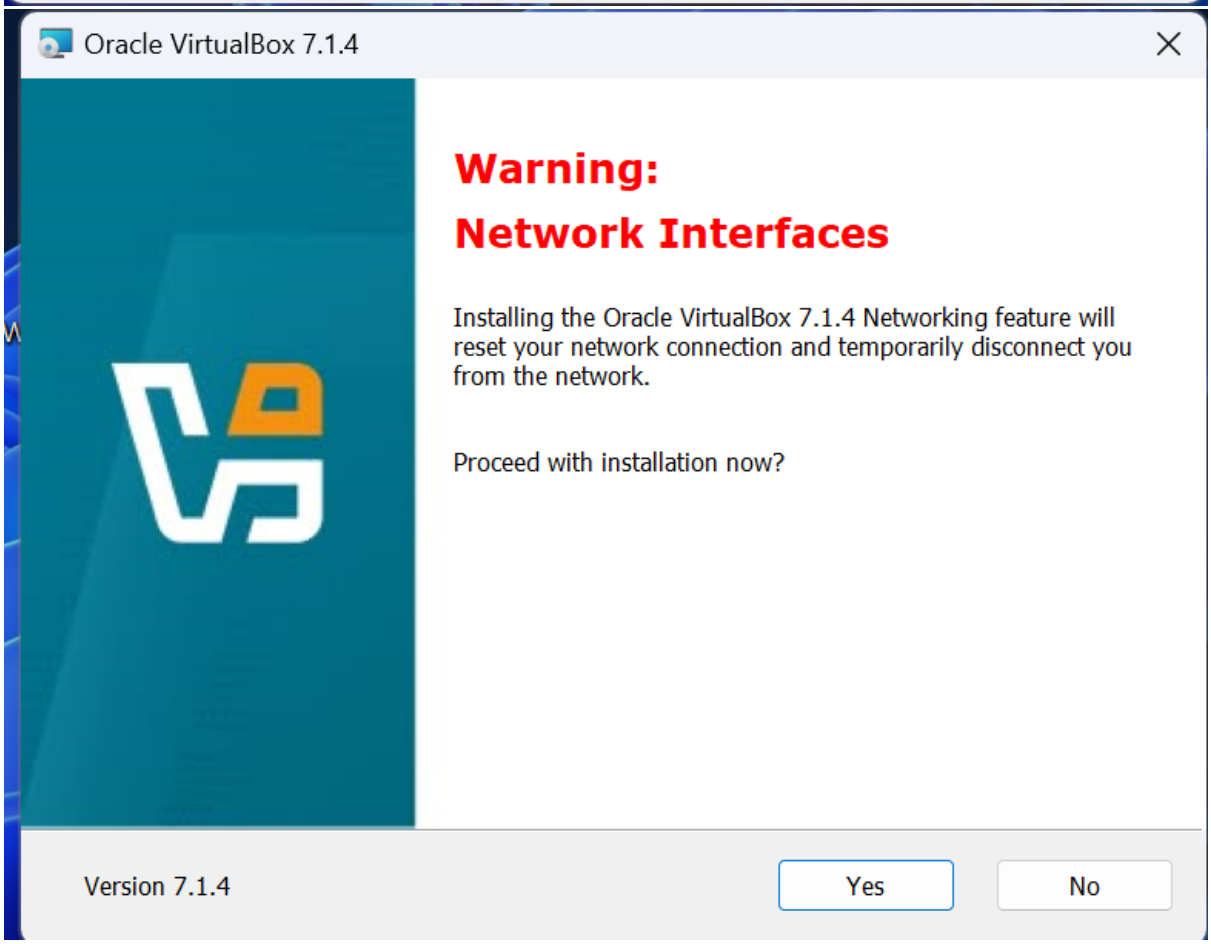

minikube.sigs.k8s.io/docs/start/?arch=%2Fwindows%2Fx86-64%2Fstable%2F.exe+download
minikube
Community
GitHub
Search this site...
Documentation
Get Started!
Handbook
Basic controls
Deploying apps
Kubectl
Accessing apps
Addons
Configuration
Dashboard
Pushing images
Proxies and VPNs
Registries
1 Installation
Click on the buttons that describe your target platform. For other architectures, see the release page for a complete list of minikube binaries.
Operating system
Linux
macOS
Windows
Architecture
x86-64
Release type
Stable
Installer type
.exe download
Windows Package Manager
Chocolatey
To install the latest minikube stable release on x86-64 Windows using .exe download:
1. Download and run the installer for the latest release.
Or if using PowerShell , use this command:
View page source
Edit this page
Create child page
Create documentation issue
What you'll need
Take the next step
Search
ENG IN
20:15
17/10/2024
Windows PowerShell
PS C:\minikube> New-Item -Path 'c:\' -Name 'minikube' -ItemType Directory -Force
Directory: C:\
Mode LastWriteTime Length Name
d----- 17/10/2024 20:18 minikube
PS C:\minikube> Invoke-WebRequest -OutFile 'c:\minikube\minikube.exe' -Uri 'https://github.com/kubernetes/minikube/releases/latest/download/minikube-windows-amd64.exe' -UseBasicParsing
PS C:\minikube> dir
Directory: C:\minikube
Mode LastWriteTime Length Name
-a---- 17/10/2024 21:28 106689024 minikube.exe
PS C:\minikube>

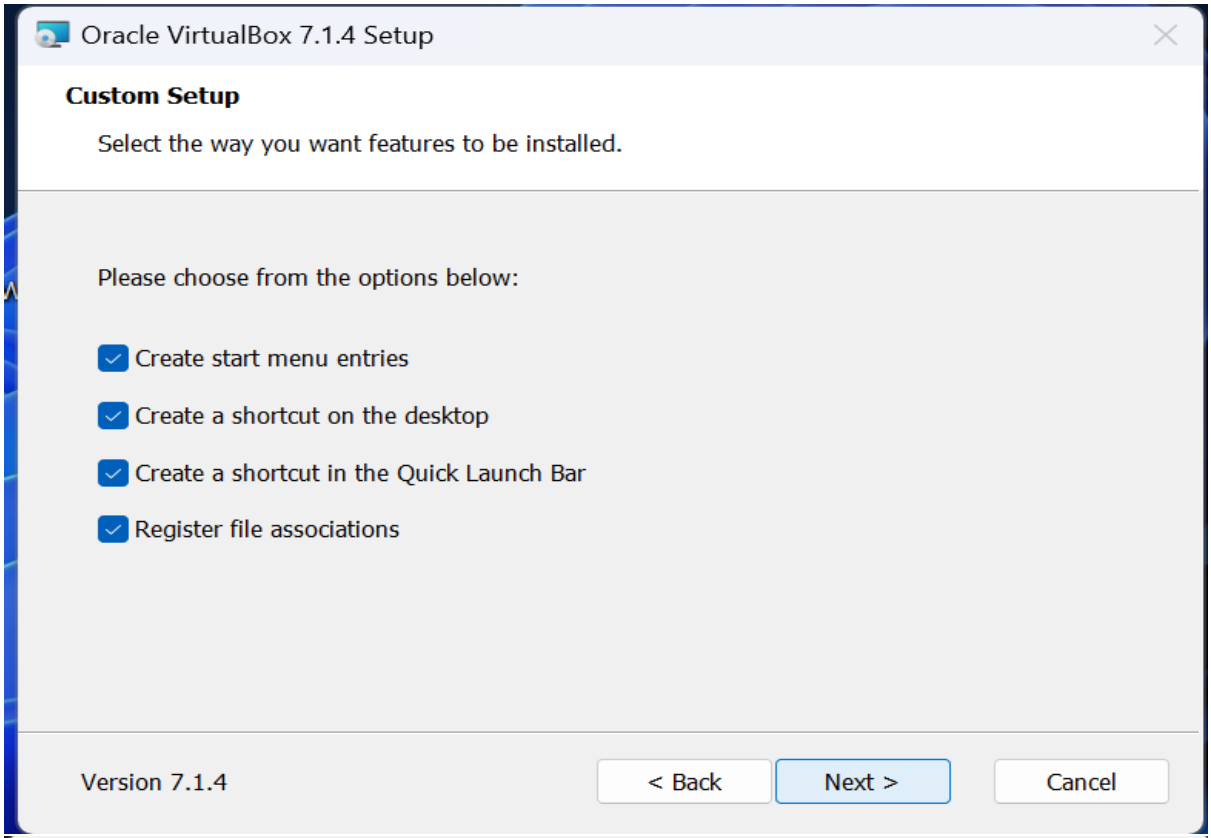
Installing Virtual Box:

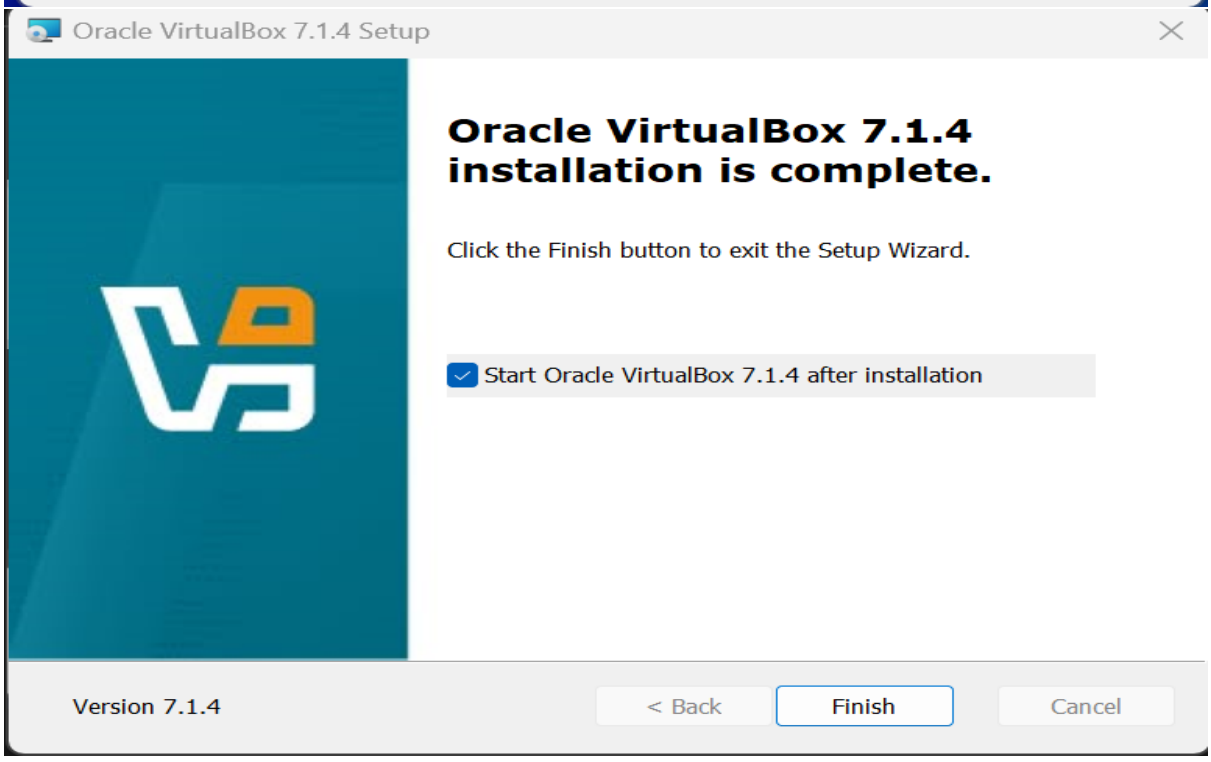


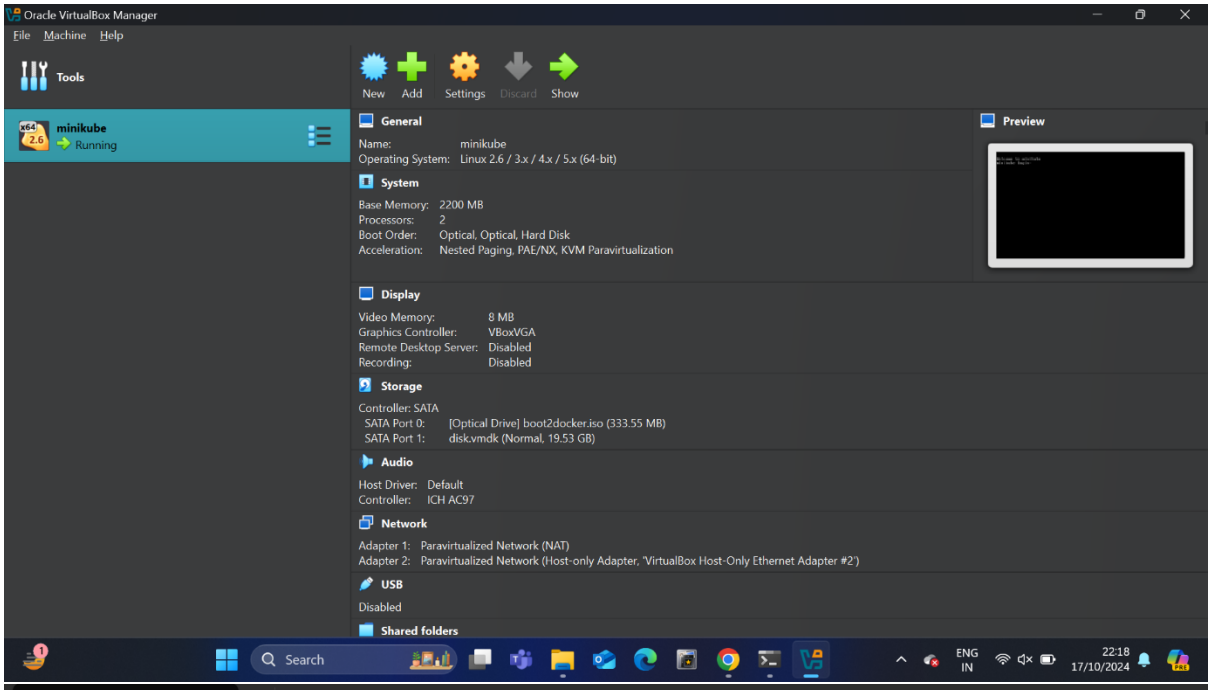


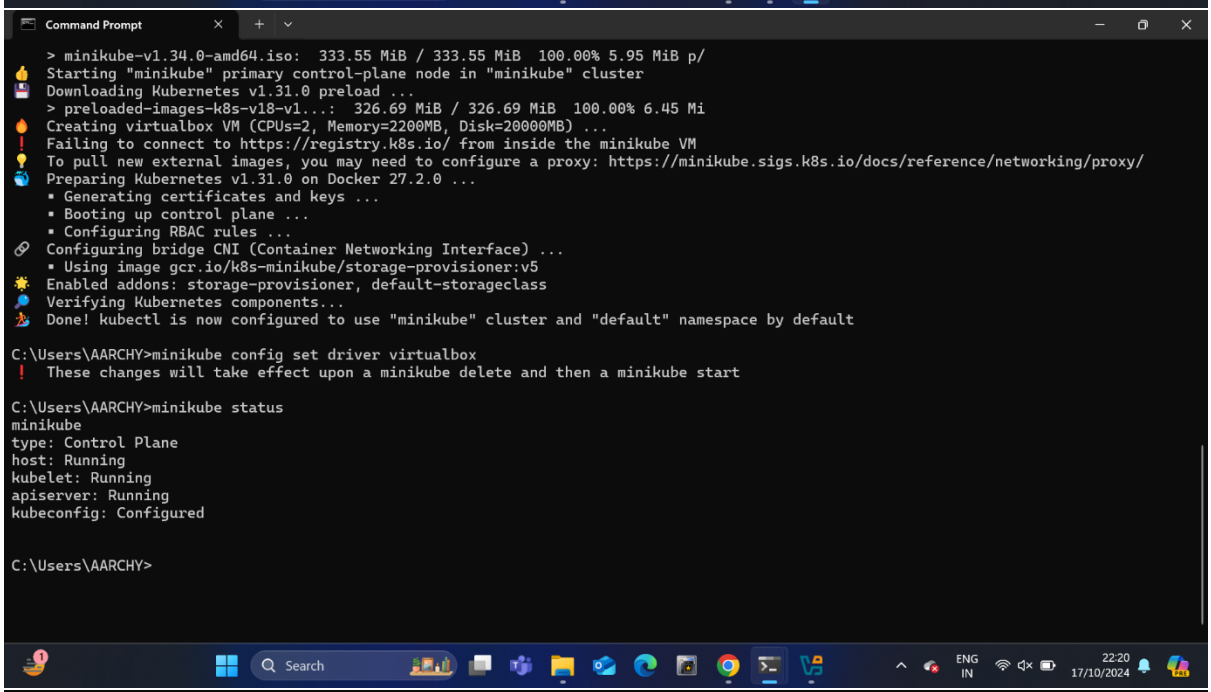

Oracle VirtualBox 7.1.4 Setup
Custom Setup
Select the way you want features to be installed.
Click on the icons in the tree below to change the way features will be installed.
VirtualBox Application
VirtualBox USB Support
VirtualBox Networking
VirtualBox Bridged Networking
VirtualBox Host-Only Network
VirtualBox Python Support
Oracle VirtualBox 7.1.4 application.
This feature requires 214MB on your hard drive. It has 3 of 3 subfeatures selected. The subfeatures require 936KB on your hard drive.
Location:
C:\Program Files\Oracle\VirtualBox\
Browse
Version 7.1.4
Disk Usage
< Back
Next >
Cancel


Oracle VirtualBox 7.1.4
Warning:
Network Interfaces
Installing the Oracle VirtualBox 7.1.4 Networking feature will reset your network connection and temporarily disconnect you from the network.
Proceed with installation now?
Version 7.1.4
Yes
No


Oracle VirtualBox 7.1.4 Setup
Custom Setup
Select the way you want features to be installed.
Please choose from the options below:
Create start menu entries
Create a shortcut on the desktop
Create a shortcut in the Quick Launch Bar
Register file associations
Version 7.1.4
< Back
Next >
Cancel


Oracle VirtualBox 7.1.4 Setup
Oracle VirtualBox 7.1.4 installation is complete.
Click the Finish button to exit the Setup Wizard.
Start Oracle VirtualBox 7.1.4 after installation
Version 7.1.4
< Back
Finish
Cancel

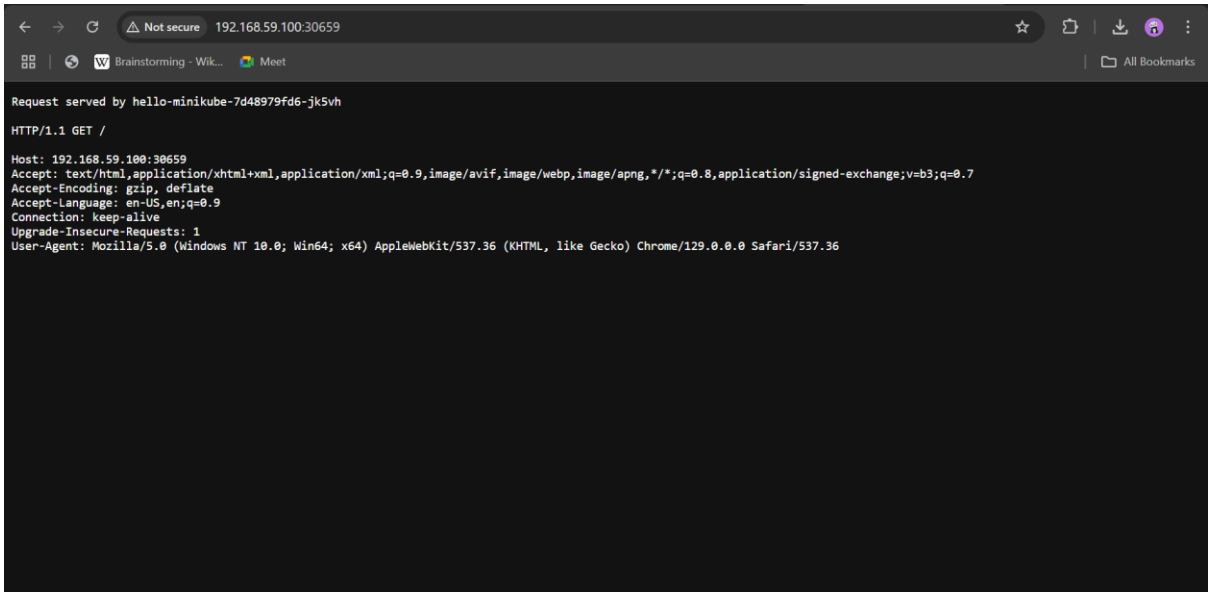





```
C:\Users\AARCHY>kubectl get nodes
NAME       STATUS   ROLES           AGE    VERSION
minikube   Ready    control-plane   6m9s   v1.31.0

C:\Users\AARCHY>kubectl get po -A
NAMESPACE     NAME                               READY   STATUS    RESTARTS        AGE
kube-system   coredns-6f6b679f8f-fmj9r           1/1     Running   0               7m17s
kube-system   etcd-minikube                      1/1     Running   0               7m21s
kube-system   kube-apiserver-minikube            1/1     Running   0               7m23s
kube-system   kube-controller-manager-minikube   1/1     Running   0               7m21s
kube-system   kube-proxy-282l2                   1/1     Running   0               7m17s
kube-system   kube-scheduler-minikube            1/1     Running   0               7m21s
kube-system   storage-provisioner                1/1     Running   1 (6m54s ago)   7m17s
```

Command Prompt

```
C:\Users\AARCHY>kubectl get pods
No resources found in default namespace.

C:\Users\AARCHY>kubectl create deployment hello-minikube --image=kicbase/echo-server:1.0
deployment.apps/hello-minikube created

C:\Users\AARCHY>kubectl get pods
NAME                              READY   STATUS              RESTARTS   AGE
hello-minikube-7d48979fd6-jk5vh   0/1     ContainerCreating   0          7s

C:\Users\AARCHY>kubectl expose deployment hello-minikube --type=NodePort --port=8080
service/hello-minikube exposed

C:\Users\AARCHY>kubectl get pods
NAME                              READY   STATUS    RESTARTS   AGE
hello-minikube-7d48979fd6-jk5vh   1/1     Running   0          59s

C:\Users\AARCHY>kubectl get services hello-minikube
NAME             TYPE       CLUSTER-IP     EXTERNAL-IP   PORT(S)          AGE
hello-minikube   NodePort   10.102.190.5   <none>        8080:30659/TCP   50s
```

Command Prompt

```
C:\Users\AARCHY>minikube service hello-minikube --url
http://192.168.59.100:30659
```