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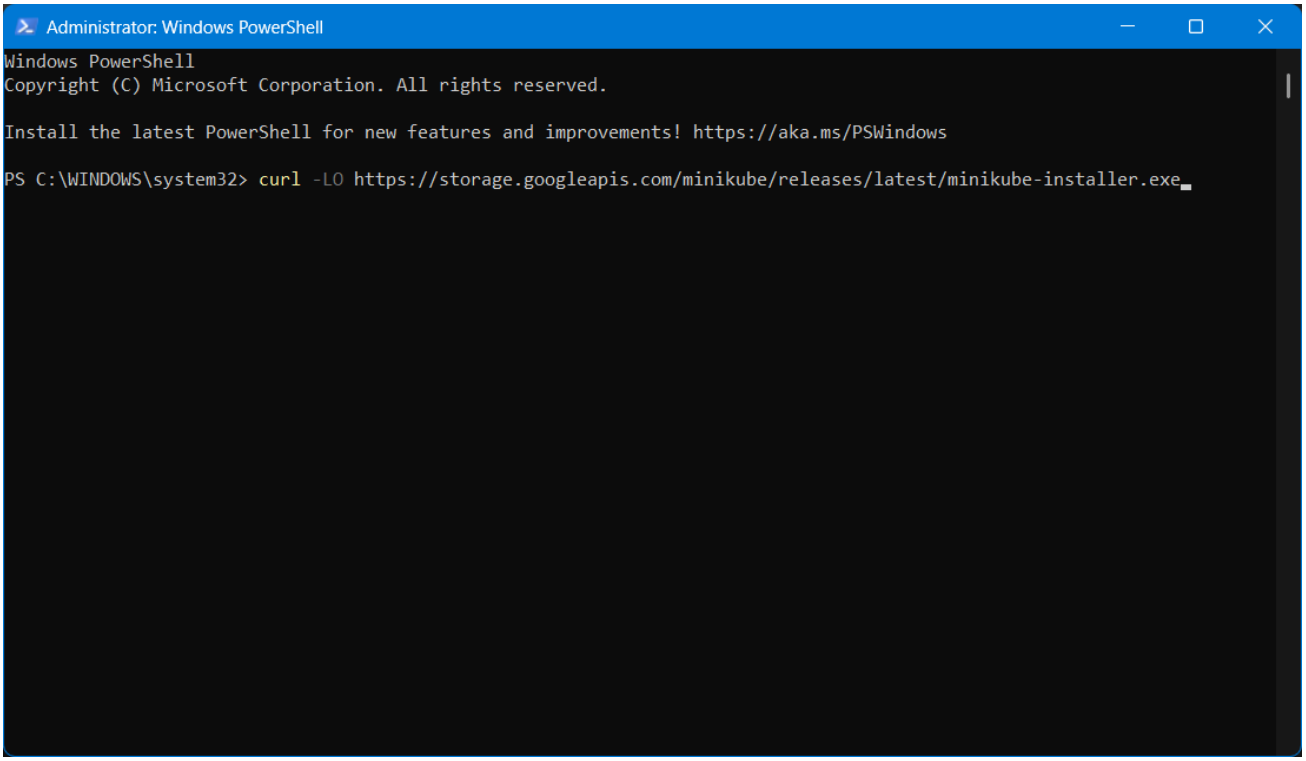
Working with minikube and Nagios

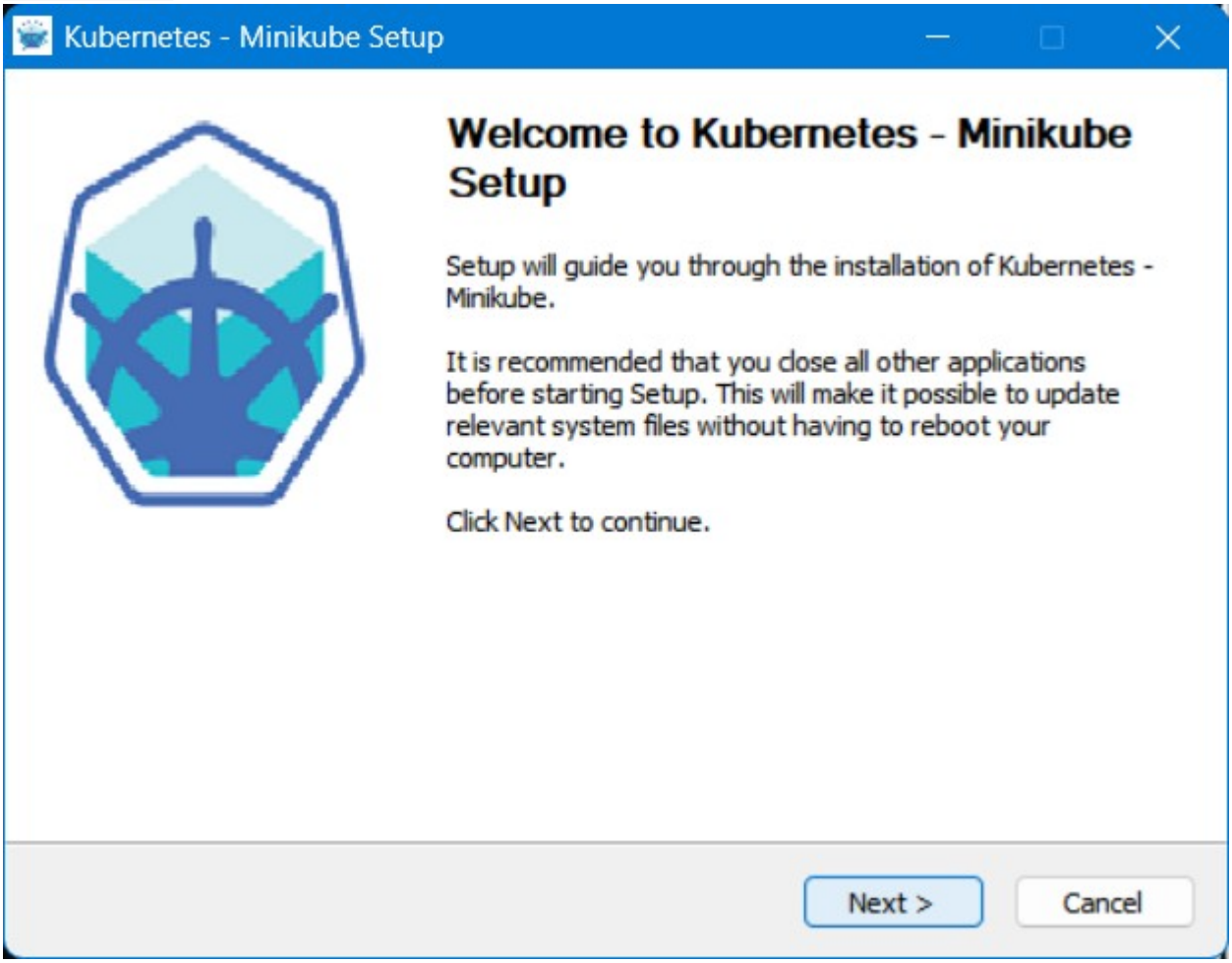
Minikube Installation :

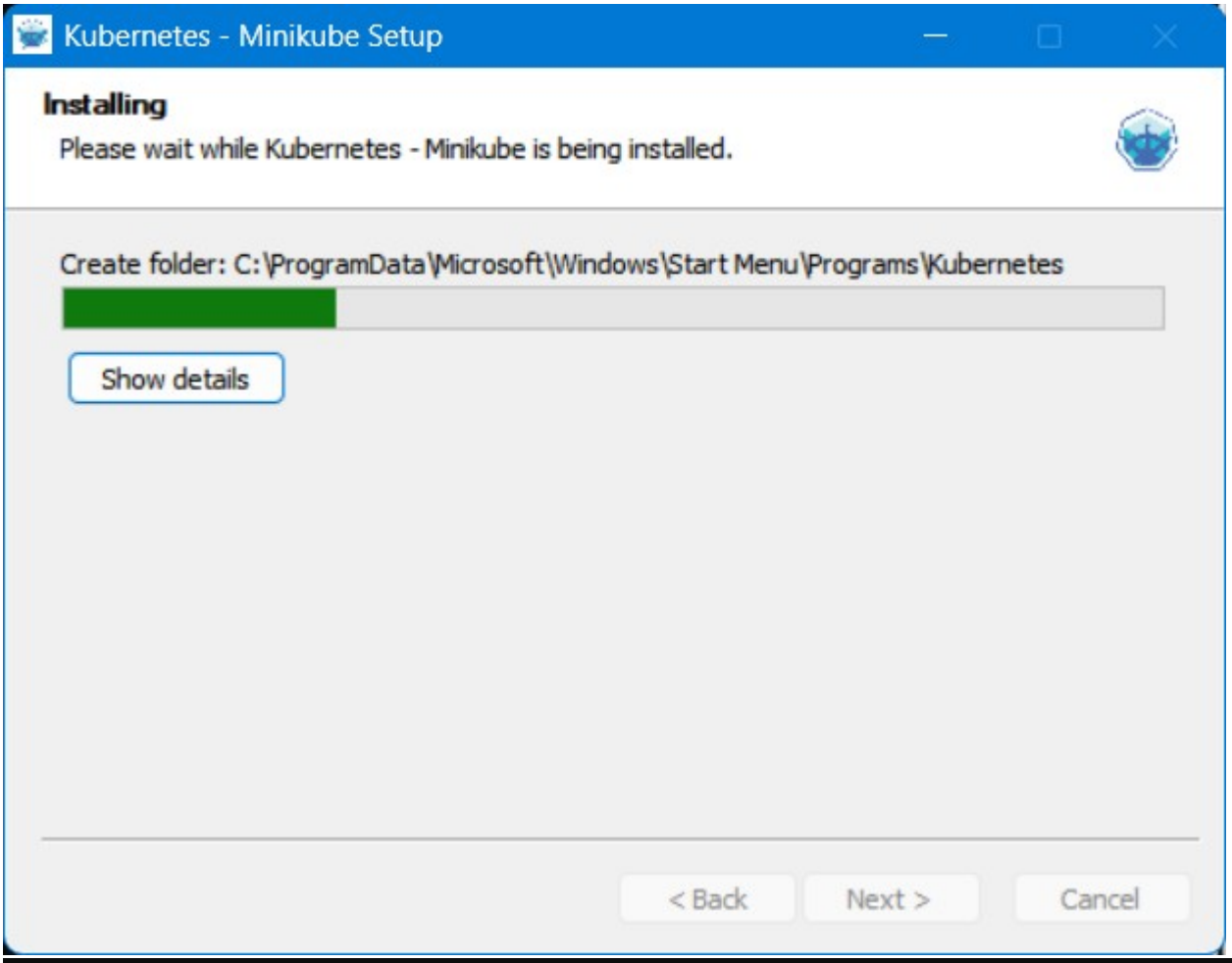
Run command in powershell

curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64



Follow steps:

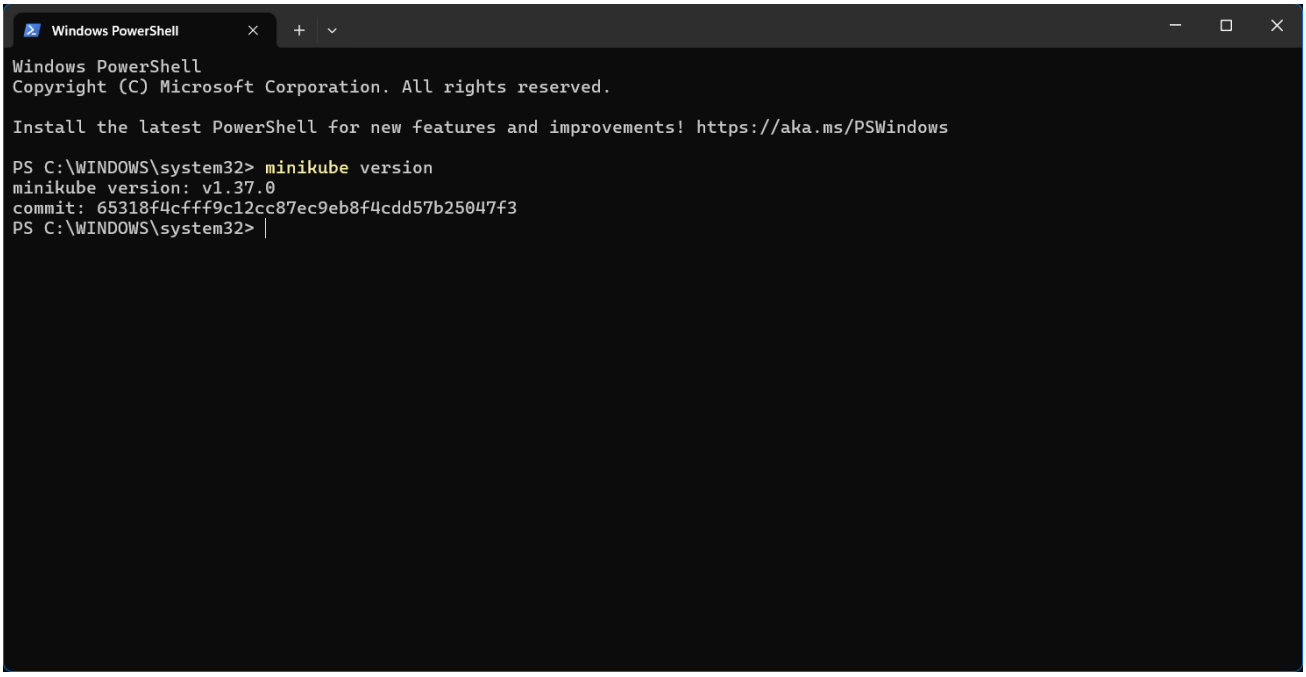





```
C:\Users\andam>curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-installer.exe
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--      0 51.2M    0  6430    0     0  11551      0  1:17:30 --:--:--  1:17:30 115  0
51.2M    0  147k    0     0   103k      0  0:08:28  0:00:01  0:08:27  10  3 51.2M    3 2046k    0     0   849k      0  0:01:01  0:00:02  0:00:59  84 31 51.2
M   31 15.9M    0     0  4803k      0  0:00:10  0:00:03  0:00:07 480 62 51.2M   62 32.0M    0     0  7452k      0  0:00:07  0:00:04  0:00:03 745 94 51.2M
94 48.3M    0     0  9153k      0  0:00:05  0:00:05 --:--:--  9.100 51.2M  100 51.2M    0     0  9377k      0  0:00:05  0:00:05 --:--:-- 12.2M

C:\Users\andam>.\minikube-installer.exe
```

Verify Installation:

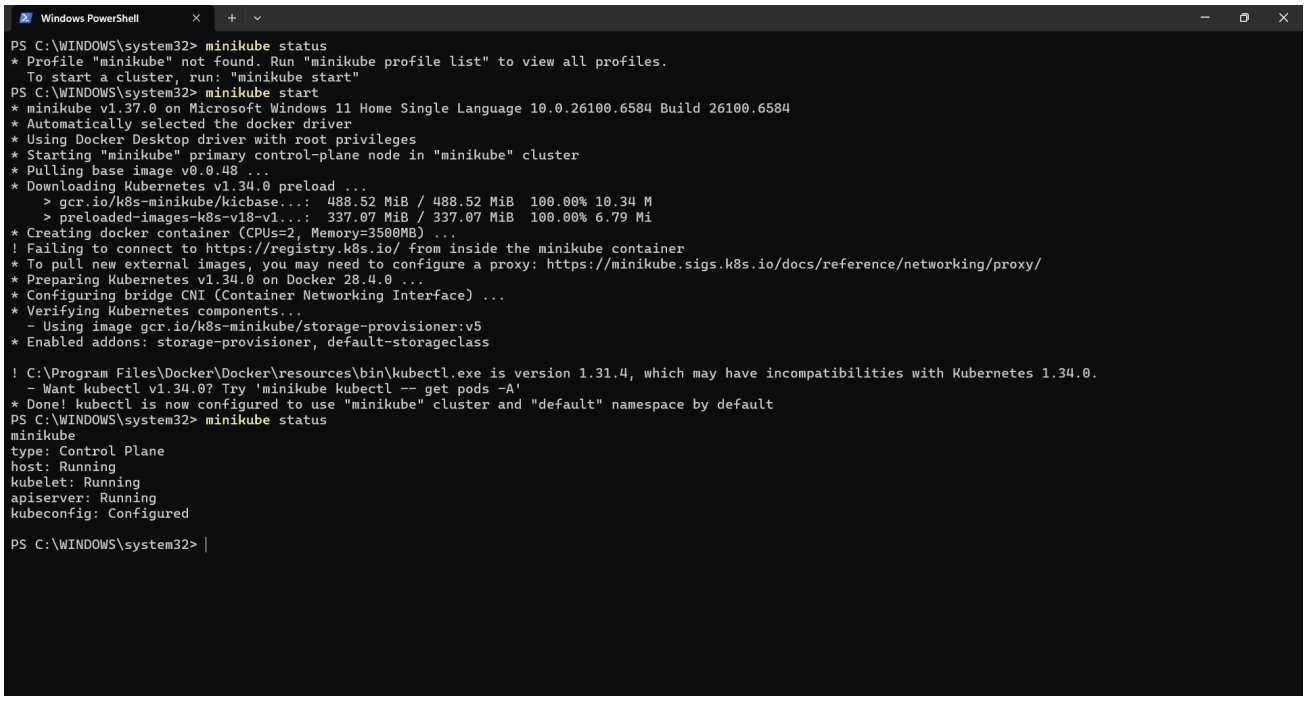


Minikube Automation Steps

Step 1: Start Minikube Cluster

- Open your terminal and run the command:

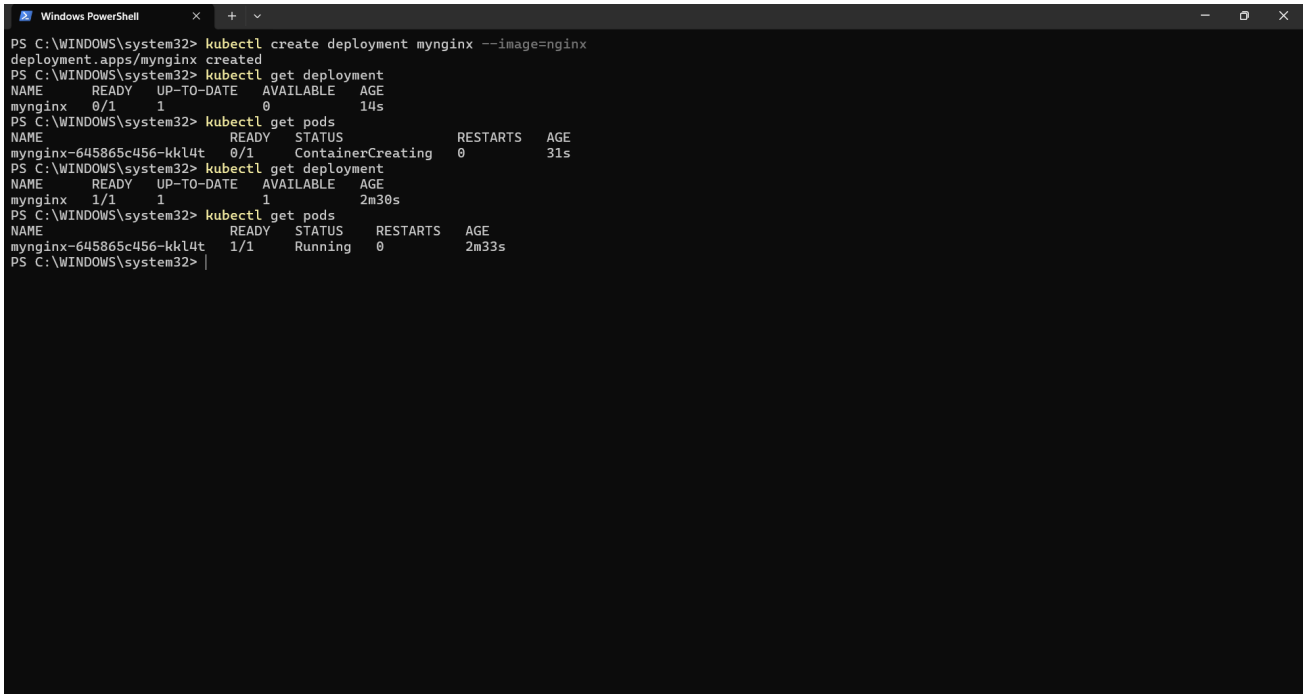
minikube start



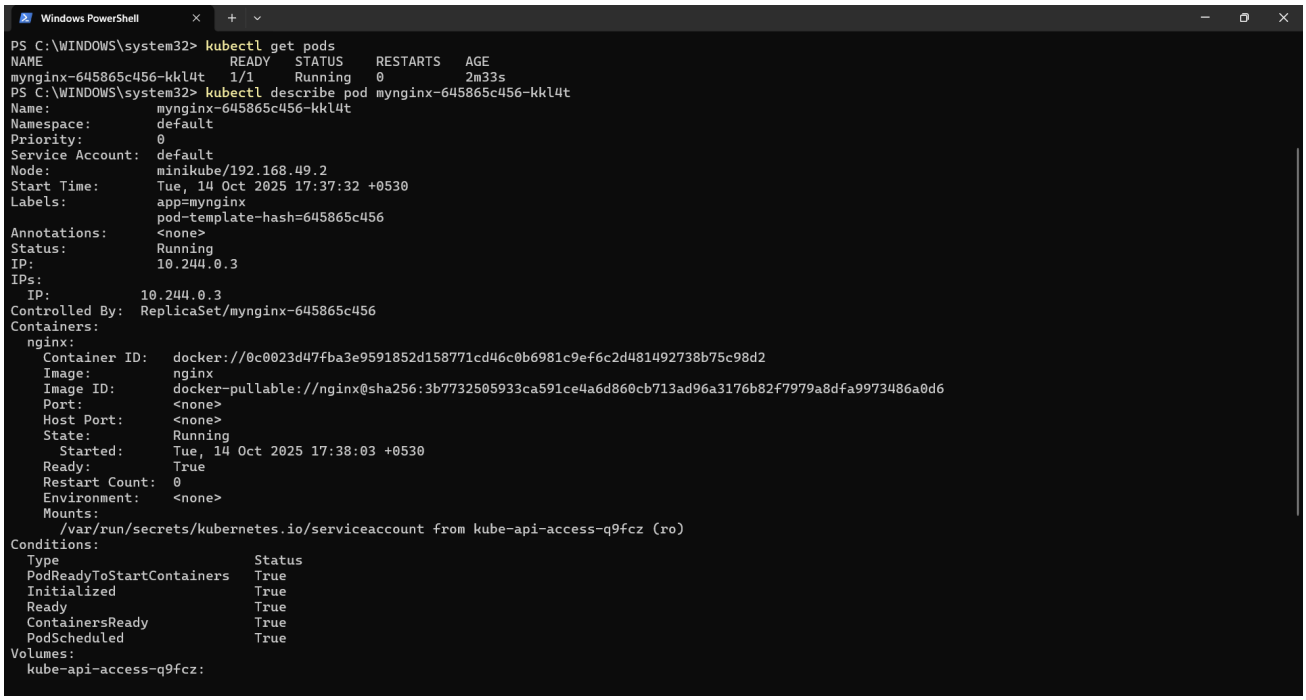
Step 2: Create and Manage Deployment

Create an application in Kubernetes:

kubectl create deployment mynginx --image=nginx



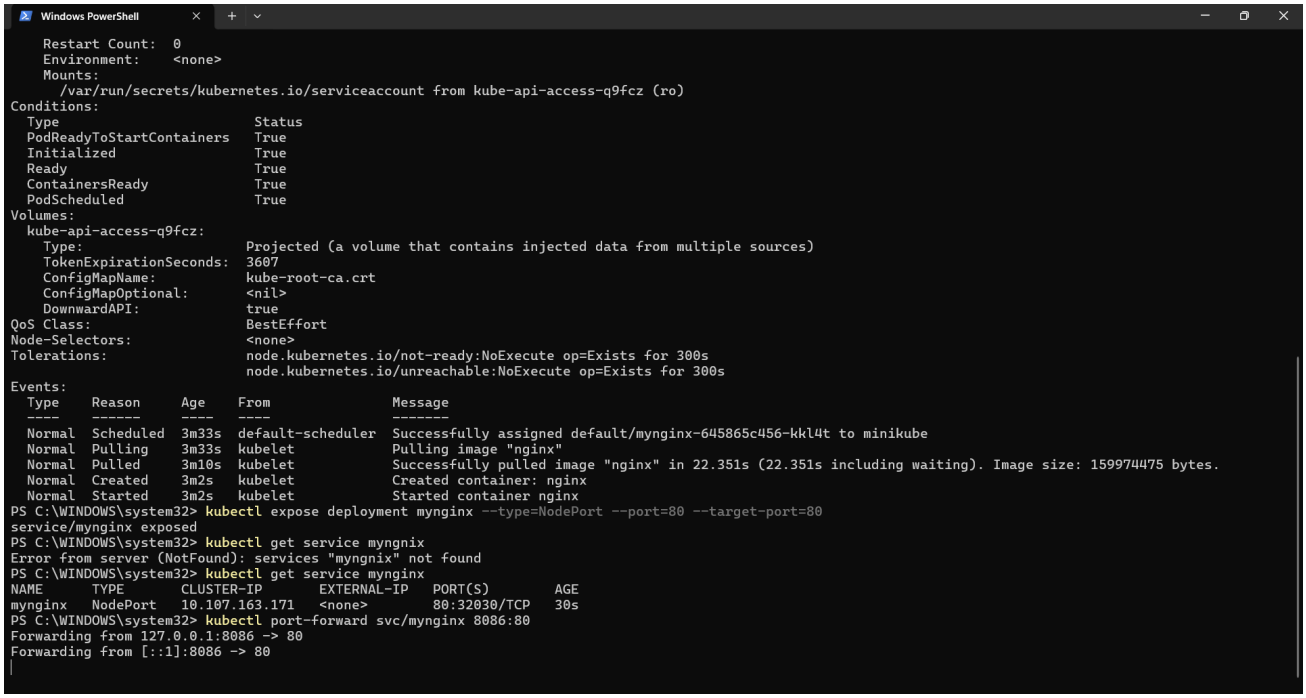
Step 3: Scale the Deployment



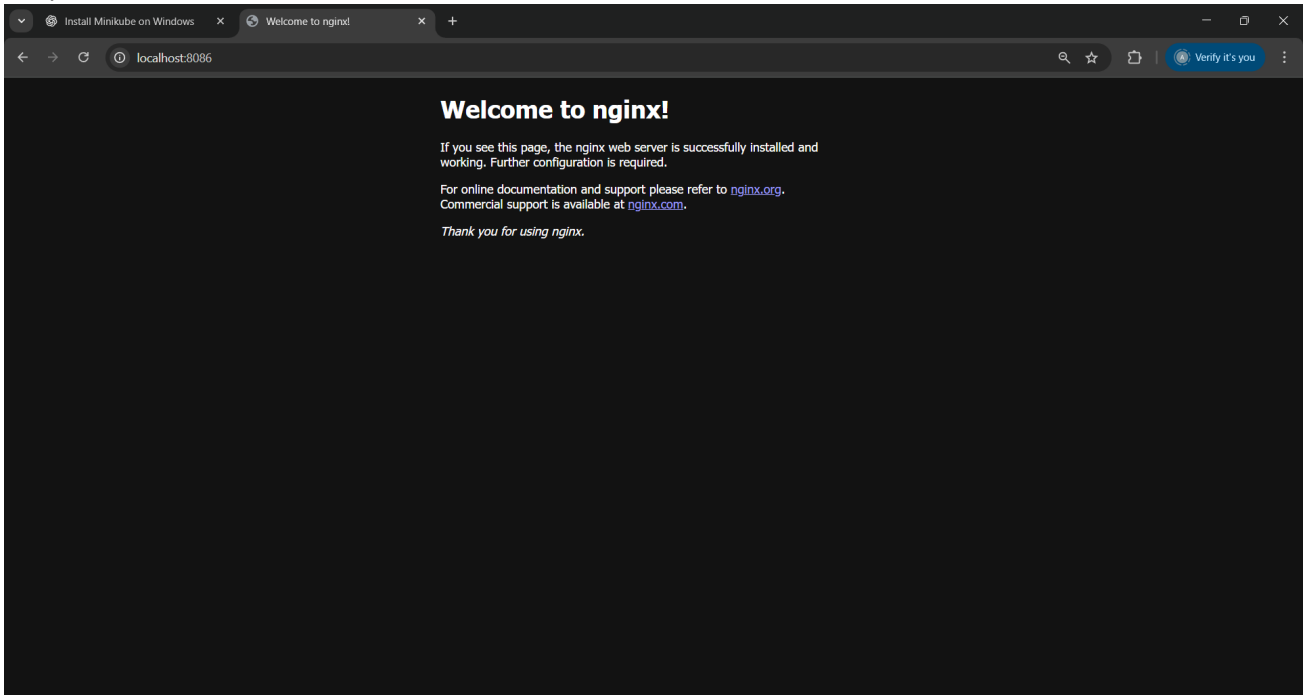
Step 4: Access the Nginx App

1. **Using Port Forwarding:**

   kubectl port-forward svc/mynginx 8081:80



Output:

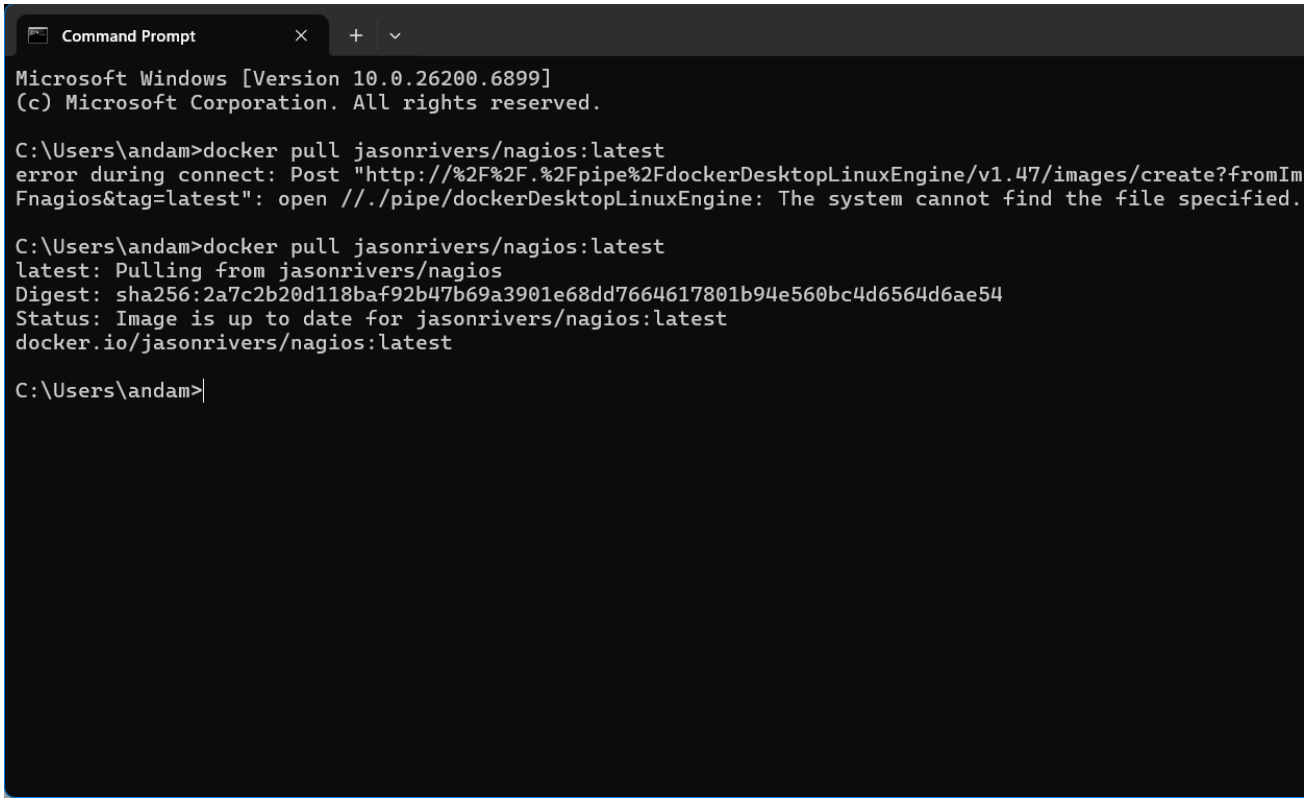


Nagios Automation Steps

Step 1: Pull the Nagios Docker Image

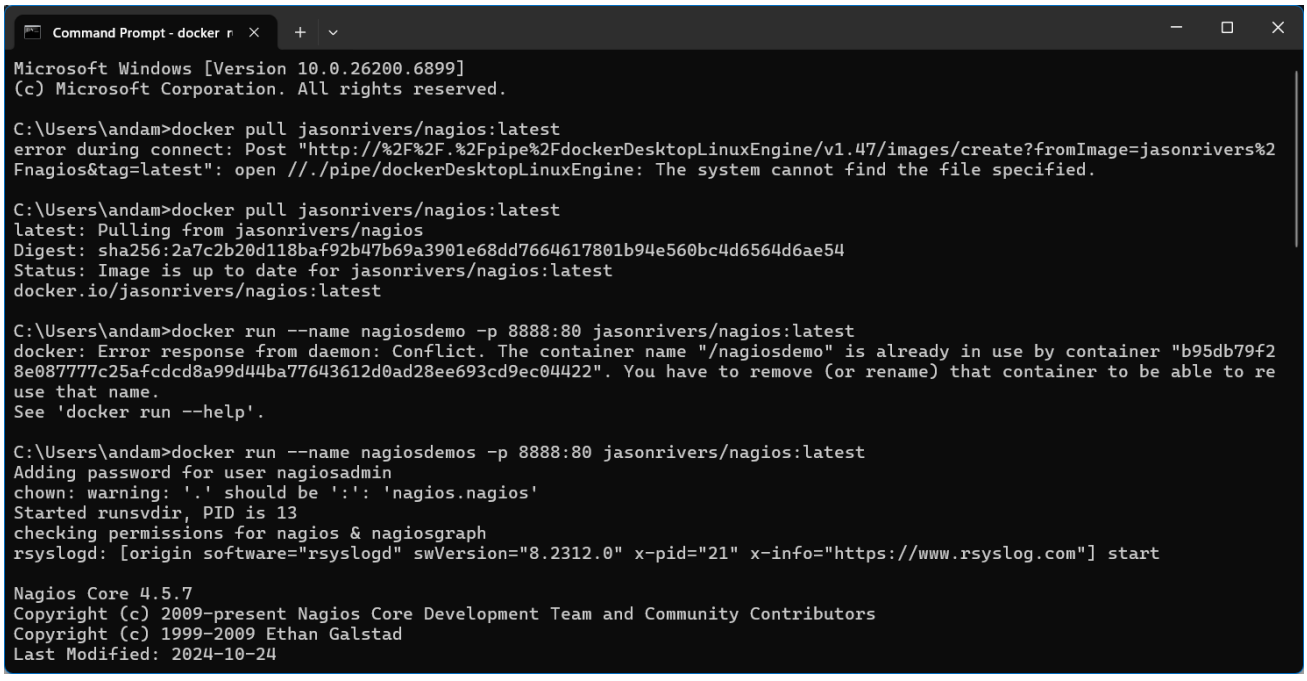
- Open a terminal and run:

docker pull jasonrivers/nagios:latest

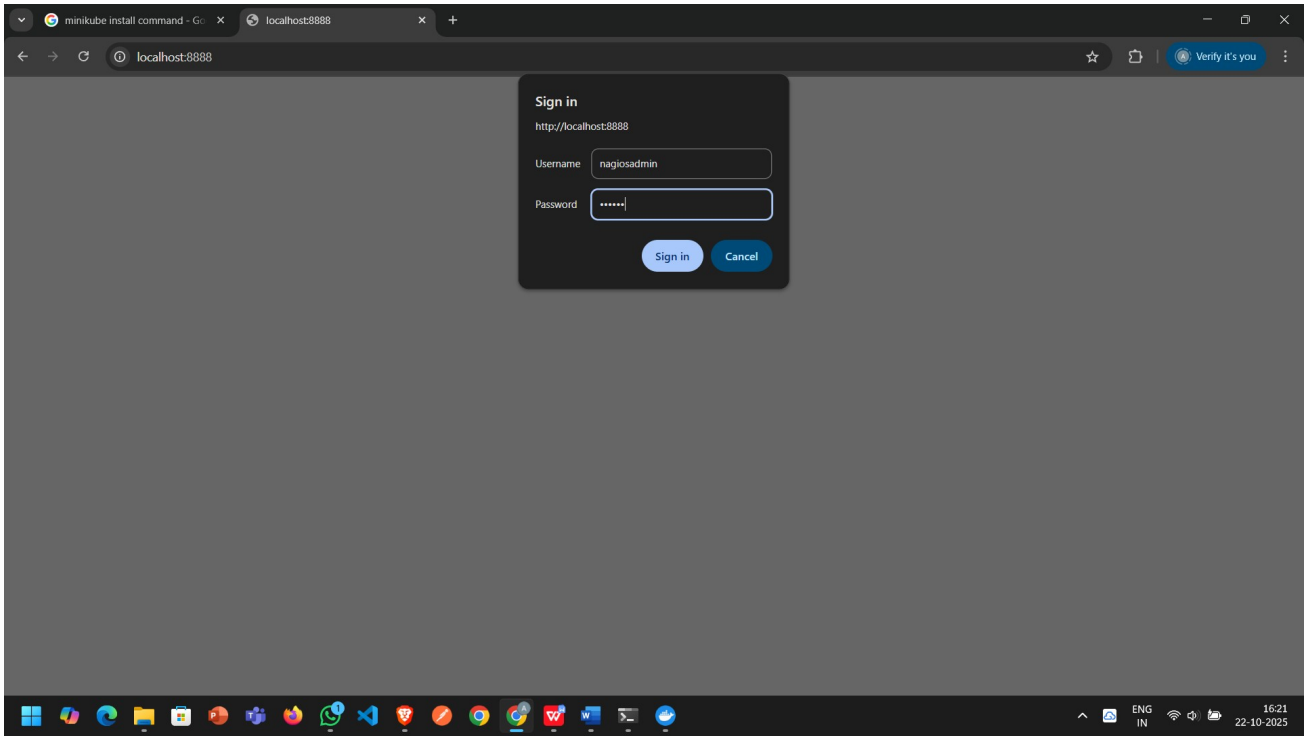


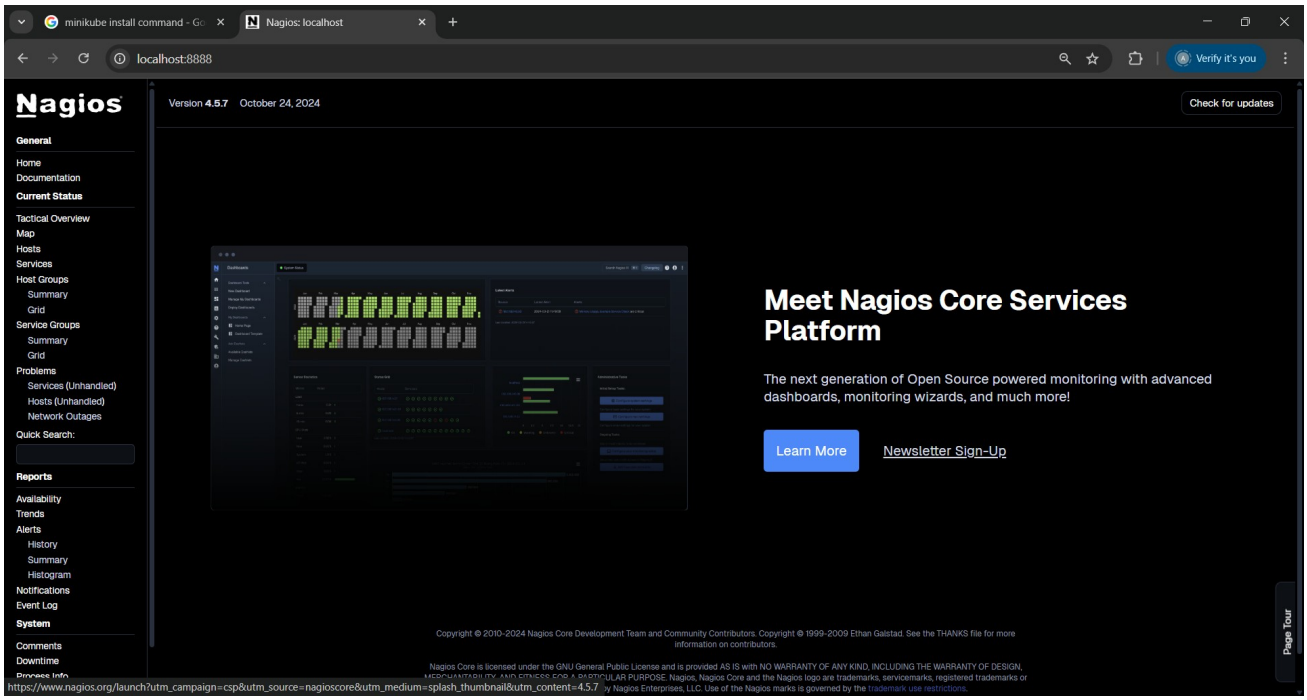
Step 2: Run Nagios

docker run --name nagiosdemo -p 8888:80 jasonrivers/nagios:latest

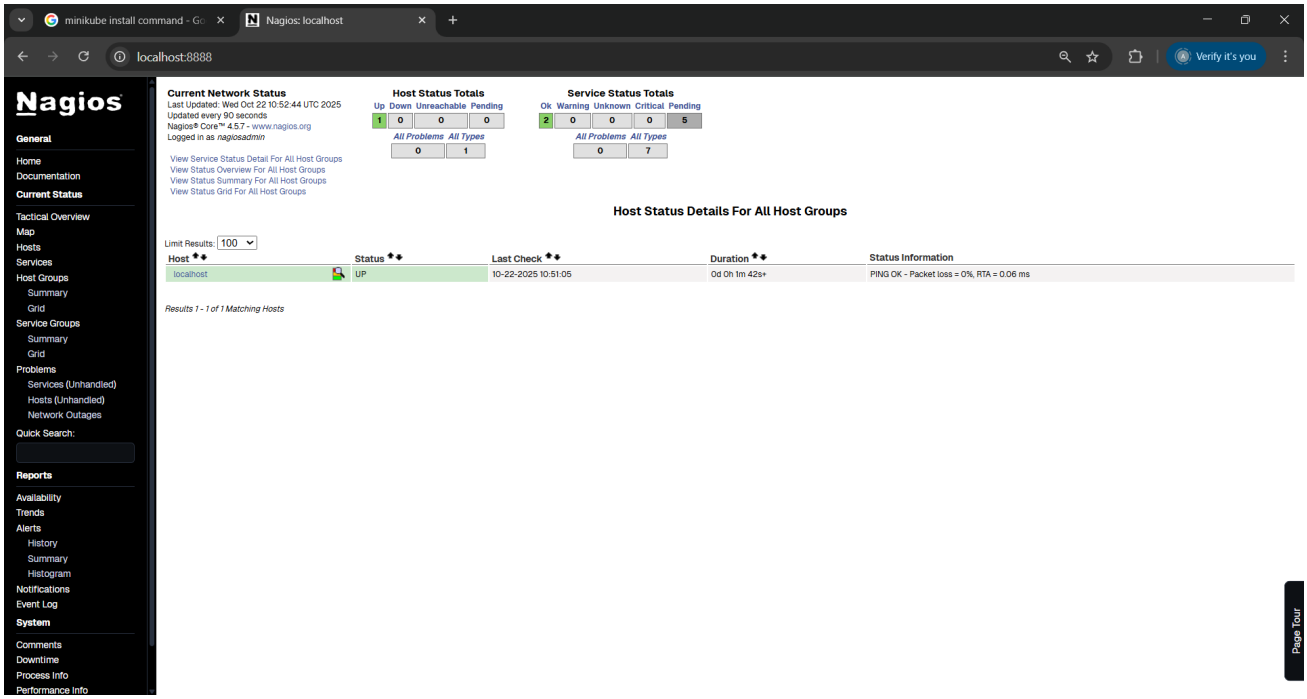


Step 3: Access Nagios Dashboard





Step 4: Monitoring Host Details



SBQ's

1. Your Pod keeps restarting repeatedly. What will you do?

   Describe the pod address the issue and solve it or delete the pod

2. A Kubernetes pod is stuck in a "Pending" state. What could be the possible reasons, and how would you troubleshoot it?

   Reasons may be insufficient resources

   Image pull issue

   Troubleshoot:

   Describe and check FailedScheduling

3. How would you debug a failed deployment in Kubernetes?

   kubectl get deployment deployment-name

   kubectl describe deployment deployment-name

   And check logs

4. You have a Kubernetes Deployment with multiple replicas, and some pods are failing health checks. How would you identify the root cause and fix it?

   Describe the pod and check liveness and readiness probes

5. How do you roll back a faulty deployment?

   kubectl rollout undo deployment/deployment-name

6. How do you debug a running Pod?

   kubectl logs pod-name

7. You need to expose a local service externally.How to do?

   kubectl expose deployment myapp --type=NodePort --port=80 --target-port=80

8. How to Start and stop Nagios

   docker run --name nagiosdemo -p 8888:80 jasonrivers/nagios:latest

   docker stop nagiosdemo

   docker rm nagiosdemo

9. You installed Nagios but the web interface shows *“Unable to connect to Nagios process”*.how to resolve this?

   Verify whether is running

   ps -ef | grep nagios

10. You added a new host in Nagios, but it’s not appearing on the web interface.how to check?

    Verify conf

    nagios -v /usr/local/nagios/etc/nagios.cfg

11. How can you check whether Nagios is running properly?

    docker ps

or web access

12. How do you view Nagios logs in real-time

    docker logs -f nagiosdemo

13. What are the advantages of using Nagios?

    Continuous monitoring of servers, services, and applications