TASK 3-Minikube Deployment Task

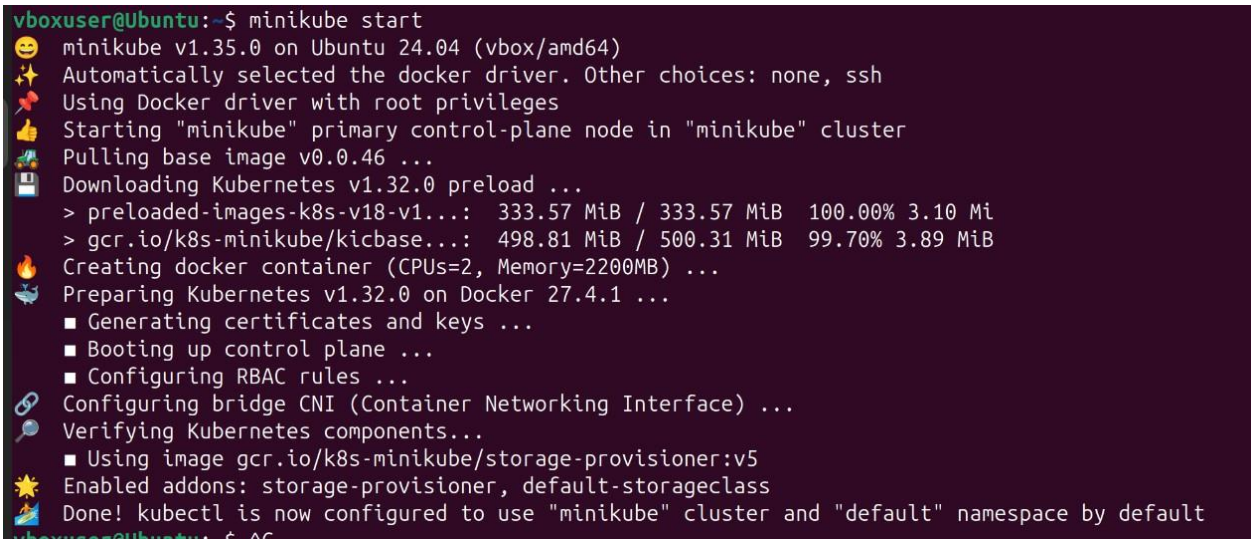
NAME : SANDEEP P S

ROLLNUM : 22CSL261

Step 1: Start Minikube

Start the Minikube cluster using the following command:

minikube start



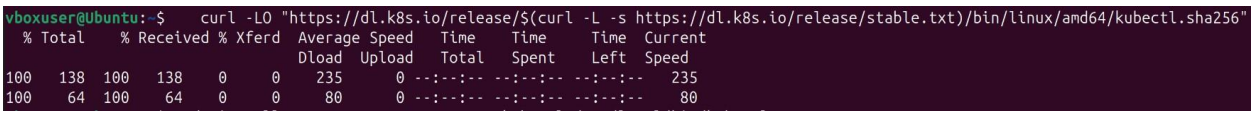
This initializes the Minikube cluster using Docker as the driver.

Step 2: Install Kubectl

Since Kubectl is not found, install it with the following command:

sudo snap install kubectl --classic

Alternatively, you can download it using curl:

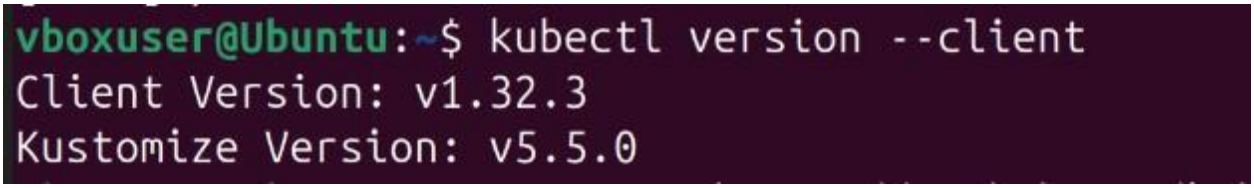


curl -LO "https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"
sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl

Step 3: Verify Kubectl Installation

Check the client version to confirm successful installation:

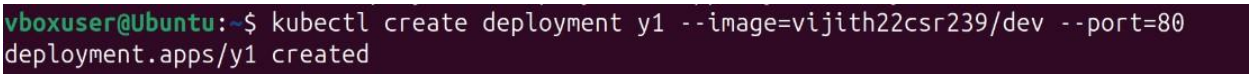
kubectl version –client



Step 4: Create a Deployment

Create a deployment named `pod1` with the image `shankar4112/devops-training`:

kubectl create deployment y1 --image=vijith22csr239/dev --port=80



Step 5: Expose the Deployment

Expose the deployment as a NodePort service:

kubectl expose deployment y1 --port=80 --type=NodePort

```
vboxuser@Ubuntu:~$ kubectl expose deployment y1 --port=80 --type=NodePort
service/y1 exposed
```

Step 6: Verify the Pod

Check the running pods:

kubectl get pods

```
vboxuser@Ubuntu:~$ kubectl get pods
NAME                  READY   STATUS    RESTARTS   AGE
y-7c59f4b849-gg67g    1/1     Running   0          3m39s
y1-5db6df44bc-c7cfc   1/1     Running   0          112s
```

Step 7: Access the Service

Expose the service using Minikube and get the URL:

minikube service y1

```
vboxuser@Ubuntu:~$ minikube service y1
|-----------|------|-------------|--------------------------|
| NAMESPACE | NAME | TARGET PORT |           URL            |
|-----------|------|-------------|--------------------------|
| default   | y1   |          80 | http://192.168.49.2:30814 |
|-----------|------|-------------|--------------------------|
🎉  Opening service default/y1 in default browser...
vboxuser@Ubuntu:~$ update.go:85: cannot change mount namespace according to change mount (/run/user/1000/doc/by-app/snap.firefox /run/user/1000/doc none bind,rw,x-snapd.ignore-missing 0 0): cannot inspect "/run/user/1000/doc": lstat /run/user/1000/doc: permission denied
Gtk-Message: 06:00:47.333: Not loading module "atk-bridge": The functionality is provided by GTK natively. Please try to not load it.
[25255, Main Thread] WARNING: Failed to read portal settings: GDBus.Error:org.freedesktop.DBus.Error.AccessDenied: Portal operation not allowed:
Unable to open /proc/25255/root: 'glib warning', file /build/firefox/parts/firefox/build/toolkit/xre/nsSigHandlers.cpp:201

(firefox_firefox:25255): Gdk-WARNING **: 06:00:47.417: Failed to read portal settings: GDBus.Error:org.freedesktop.DBus.Error.AccessDenied: Portal operation not allowed: Unable to open /proc/25255/root
vboxuser@Ubuntu:~$
```

Step 8: Output in the Web Browser