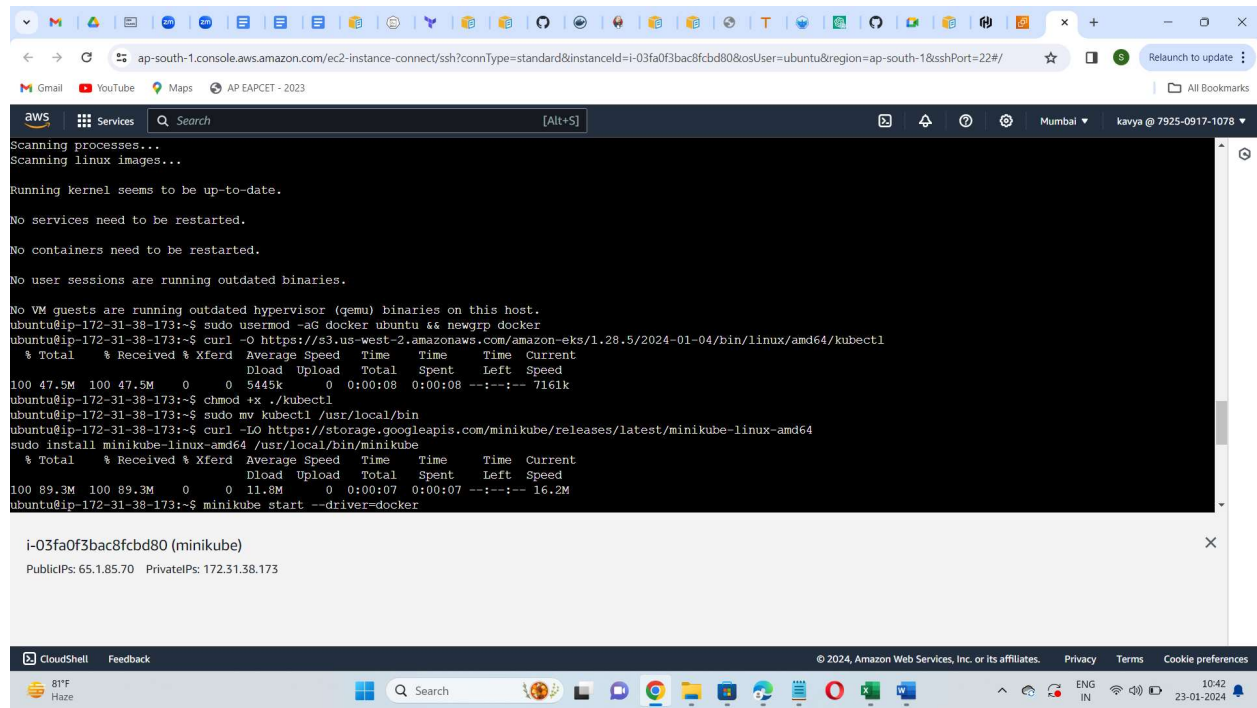


Setup minikube at your local and explore creating namespaces (Go through official documentation)

Installing of minikube



```
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

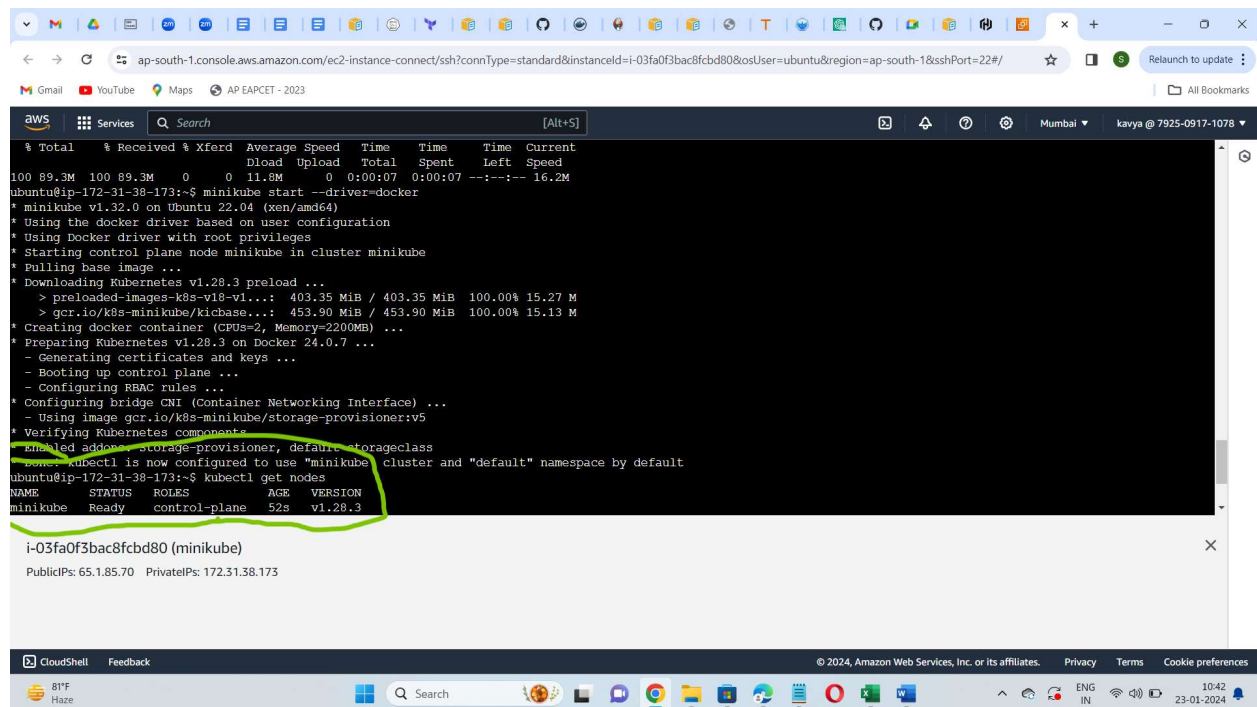
No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-38-173:~$ sudo usermod -aG docker ubuntu && newgrp docker
ubuntu@ip-172-31-38-173:~$ curl -O https://s3.us-west-2.amazonaws.com/amazon-eks/1.28.5/2024-01-04/bin/linux/amd64/kubect1
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 47.5M 100 47.5M 0 0 5445k 0 0:00:08 0:00:08 --:--:-- 7161k
ubuntu@ip-172-31-38-173:~$ chmod +x ./kubect1
ubuntu@ip-172-31-38-173:~$ sudo mv kubect1 /usr/local/bin
ubuntu@ip-172-31-38-173:~$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
sudo install minikube-linux-amd64 /usr/local/bin/minikube
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 89.3M 100 89.3M 0 0 11.8M 0 0:00:07 0:00:07 --:--:-- 16.2M
ubuntu@ip-172-31-38-173:~$ minikube start --driver=docker

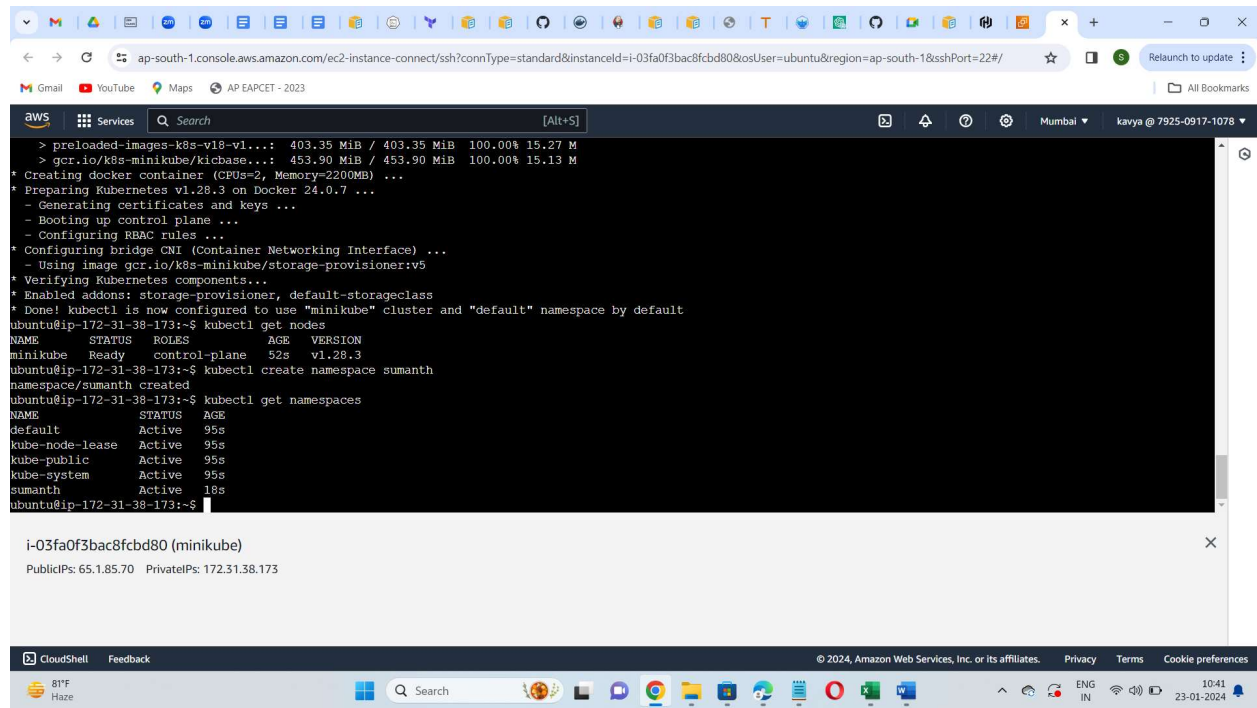
i-03fa0f3bac8fcbd80 (minikube)
PublicIPs: 65.1.85.70 PrivateIPs: 172.31.38.173
```

The minikube node have created



```
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 89.3M 100 89.3M 0 0 11.8M 0 0:00:07 0:00:07 --:--:-- 16.2M
ubuntu@ip-172-31-38-173:~$ minikube start --driver=docker
* minikube v1.32.0 on Ubuntu 22.04 (xen/amd64)
* Using the docker driver based on user configuration
* Using Docker driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.28.3 preload ...
  > preloaded-images-k8s-v18-v1...: 403.35 MiB / 403.35 MiB 100.00% 15.27 M
  > gcr.io/k8s-minikube/kicbase...: 453.90 MiB / 453.90 MiB 100.00% 15.13 M
* Creating docker container (CPUs=2, Memory=2200MB) ...
* Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
  - Generating certificates and keys ...
  - Booting up control plane ...
  - Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Verifying Kubernetes components ...
  Enabled address: storage-provisioner, default storageclass
  name: kubect1 is now configured to use "minikube" cluster and "default" namespace by default
ubuntu@ip-172-31-38-173:~$ kubect1 get nodes
NAME STATUS ROLES AGE VERSION
minikube Ready control-plane 52s v1.28.3
```

The namespaces that i have created



The screenshot shows an AWS CloudShell terminal window. The terminal output displays the progress of installing minikube, including downloading images, creating the Docker container, and configuring Kubernetes. After the installation is complete, the user runs 'kubectl get nodes' and 'kubectl create namespace sumanth'. The output of 'kubectl get namespaces' shows the 'sumanth' namespace has been created. Below the terminal window, a metadata box for the instance 'i-03fa0f3bac8fcbd80 (minikube)' is visible, showing public and private IP addresses. The bottom of the image shows the Windows taskbar with various application icons and the system clock.

```
> preloaded-images-k8s-v18-v1...: 403.35 MiB / 403.35 MiB 100.00% 15.27 M
> gcr.io/k8s-minikube/kicbase...: 453.90 MiB / 453.90 MiB 100.00% 15.13 M
* Creating docker container (CPUs=2, Memory=2200MB) ...
* Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
  - Generating certificates and keys ...
  - Booting up control plane ...
  - Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Verifying Kubernetes components...
* Enabled addons: storage-provisioner, default-storageclass
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
ubuntu@ip-172-31-38-173:~$ kubectl get nodes
NAME                STATUS    ROLES    AGE   VERSION
minikube             Ready     control-plane  52s   v1.28.3
ubuntu@ip-172-31-38-173:~$ kubectl create namespace sumanth
namespace/sumanth created
ubuntu@ip-172-31-38-173:~$ kubectl get namespaces
NAME                STATUS    AGE
default             Active    95s
kube-node-lease     Active    95s
kube-public         Active    95s
kube-system         Active    95s
sumanth             Active    18s
ubuntu@ip-172-31-38-173:~$
```

i-03fa0f3bac8fcbd80 (minikube)
PublicIPs: 65.1.85.70 PrivateIPs: 172.31.38.173

The following are the commands that i have used to install minikube

#sudo apt update

#sudo apt install docker.io

#sudo usermod -aG docker ubuntu && newgrp docker

#curl -O https://s3.us-west-2.amazonaws.com/amazon-eks/1.28.5/2024-01-04/bin/linux/amd64/kubectl
-----<https://docs.aws.amazon.com/eks/latest/userguide/install-kubectl.html>

#chmod +x ./kubectl -----<https://docs.aws.amazon.com/eks/latest/userguide/install-kubectl.html>

#sudo mv kubectl /usr/local/bin

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

sudo install minikube-linux-amd64 /usr/local/bin/minikube -----<https://minikube.sigs.k8s.io/docs/start/>

#minikube start --driver=docker -----<https://minikube.sigs.k8s.io/docs/start/>

#kubectl get nodes

#kubectl create namespace sumanth

#kubectl get namespaces