

# KUBERNETES TASK

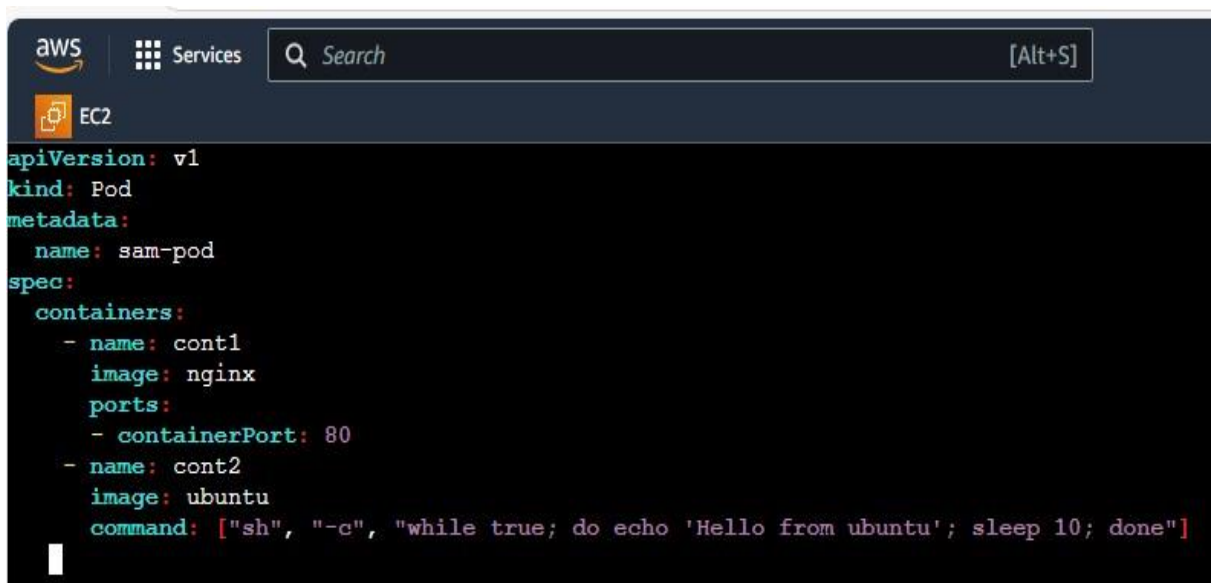
## Steps to create two containers in single pod with manifest file

### Step 1:

1. Create the server with ubuntu flavor
2. Install the docker packages
3. Install the minikube packages
4. Install the kubectl packages

### Step 2:

1. Create the manifest file to create two containers in one pod as shown in below figure

A screenshot of a terminal window with a dark background. The terminal shows a Kubernetes manifest file for a pod named 'sam-pod'. The manifest includes the API version 'v1', the kind 'Pod', and the pod's name. It specifies two containers: 'cont1' using the 'nginx' image on port 80, and 'cont2' using the 'ubuntu' image with a command to echo 'Hello from ubuntu' every 10 seconds.

```
apiVersion: v1
kind: Pod
metadata:
  name: sam-pod
spec:
  containers:
    - name: cont1
      image: nginx
      ports:
        - containerPort: 80
    - name: cont2
      image: ubuntu
      command: ["sh", "-c", "while true; do echo 'Hello from ubuntu'; sleep 10; done"]
```

2. Give command **kubectl get pods** to see all the pods as shown in below figure

```
aws Services Search [Alt+S]
EC2
root@ip-172-31-35-249:~# kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
sam-pod        2/2     Running   0           37m
root@ip-172-31-35-249:~# vi abhi.yml
root@ip-172-31-35-249:~# kubectl describe pod sam-pod
Name:          sam-pod
Namespace:     default
Priority:       0
Service Account: default
Node:          minikube/192.168.49.2
Start Time:    Tue, 19 Nov 2024 08:09:47 +0000
Labels:        <none>
Annotations:   <none>
Status:        Running
IP:            10.244.0.5
IPs:
  IP: 10.244.0.5
Containers:
  cont1:
    Container ID:  docker://9938b3376274c81e6557cfb4ba37d6fa5820f9ce41fd56aeddfeb99fde5c9d3
    Image:         nginx
    Image ID:      docker-pullable://nginx@sha256:bc5eac5eafc581aeda3008b4b1f07ebba230de2f27d47767129a6a905c84f470
    Port:          80/TCP
    Host Port:     0/TCP
    State:         Running
```

3. Give command **kubectl describe pod pod-name** to see complete information about pod as shown in below figure

```
aws Services Search [Alt+S]
EC2
cont2:
  Container ID:  docker://c10c4db1f330c1db6dc1e1b09f9aab1bf50674813d7ca812625ced5b3a9241fa
  Image:         ubuntu
  Image ID:      docker-pullable://ubuntu@sha256:278628f08d4979fb9af9ead44277dbc9c92c2465922310916ad0c46ec9999295
  Port:          <none>
  Host Port:     <none>
  Command:
    sh
    -c
    while true; do echo 'Hello from ubuntu'; sleep 10; done
  State:         Running
  Started:       Tue, 19 Nov 2024 08:09:51 +0000
  Ready:         True
  Restart Count: 0
  Environment:   <none>
  Mounts:
    /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-2sxbk (ro)
Conditions:
  Type                               Status
  PodReadyToStartContainers          True
  Initialized                         True
  Ready                              True
  ContainersReady                    True
  PodScheduled                       True
Volumes:
```