

Pods Hands-on

Creating a pod and describing

Step 1: Write a yaml file for the pod that you are creating

```
apiVersion: v1

kind: Pod

metadata:

name: intellipaat

spec:

containers:

- name: sise

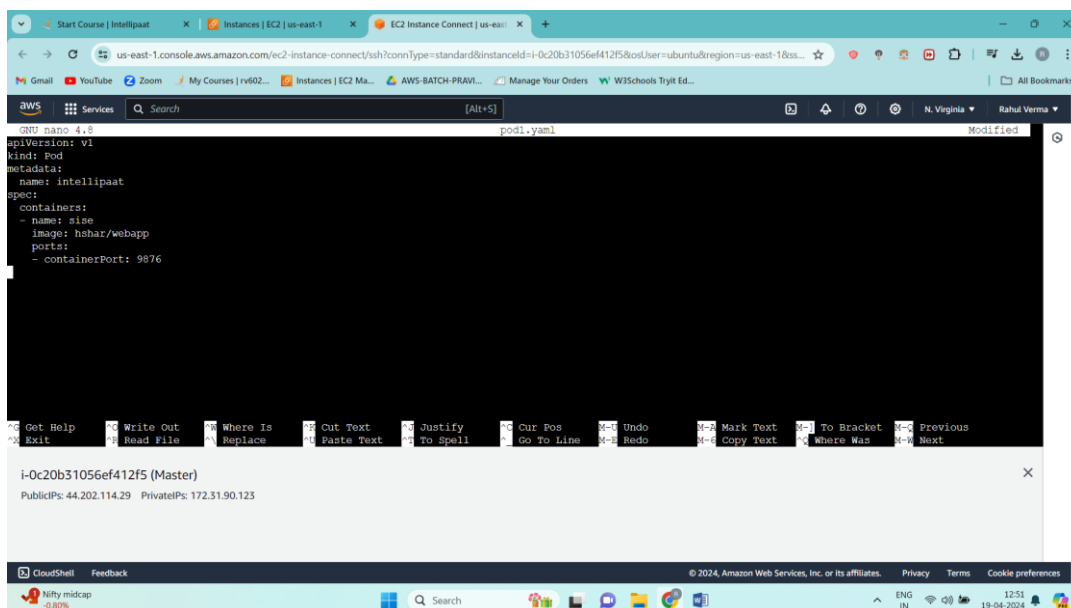
image: hshar/webapp

ports:

- containerPort: 9876
```

Go to command line and create a yaml file and paste the above created specs.

nano <file name>.yaml e.g- nano pod1.yaml



Once done hit Ctrl+s (save) and then Ctrl+x to exit

Step 2: next thing to do is create the pod yaml file.

kubectl create -f <file name>

```
ubuntu@ip-172-31-90-123:~$ kubectl create -f pod1.yaml
pod/intellipaas created
ubuntu@ip-172-31-90-123:~$
```

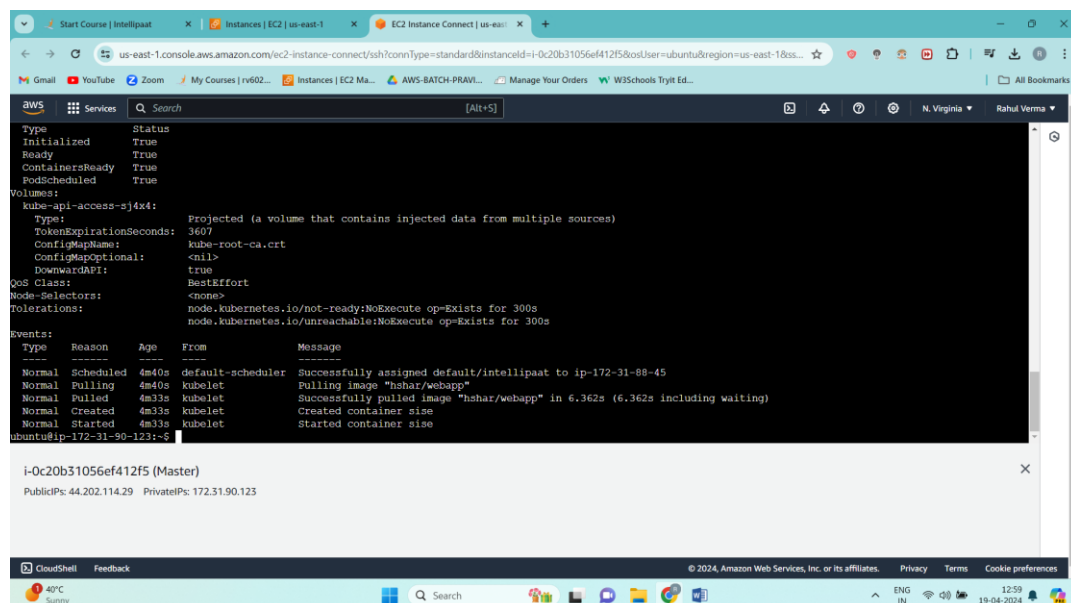
Step 3: Retrieve the pods.

kubectl get pods

```
ubuntu@ip-172-31-90-123:~$ kubectl create -f pod1.yaml
pod/intellipaas created
ubuntu@ip-172-31-90-123:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
intellipaas                         1/1     Running   0           2m26s
nginx-deployment-86dcfdf4c6-9xnc2  1/1     Running   1 (20m ago)  43h
nginx-deployment-86dcfdf4c6-g29f9  1/1     Running   1 (20m ago)  43h
nginx-deployment-86dcfdf4c6-r88f6  1/1     Running   0           14m
nginx-deployment-86dcfdf4c6-vqldx  1/1     Terminating 0           43h
ubuntu@ip-172-31-90-123:~$
```

Step 4: Now we need to get the descriptions

kubectl describe pods <pod name>



The screenshot shows a terminal window with the output of the command `kubectl describe pods intellipaas`. The output includes details about the pod's status, volumes, node selectors, tolerations, and events. The pod is in a 'Running' state with 1/1 containers ready. The volume 'kube-api-access-sj4x4' is projected. The node selector is 'node.kubernetes.io/not-ready:NoExecute op=Exists for 300s'. The tolerations are 'node.kubernetes.io/unreachable:NoExecute op=Exists for 300s'. The events show the pod being scheduled, pulling the image 'hshar/webapp', and starting the container.

```

Type:                               Status
Initialized                         True
Ready                               True
ContainersReady                     True
PodScheduled                        True
Volumes:
  kube-api-access-sj4x4:
    Type:                               Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds:              3607
    ConfigMapName:                       kube-root-ca.crt
    ConfigMapOptional:                   <nil>
    DownwardAPI:                         true
    BestEffort:                         <none>
Node-Selectors:
  node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
Tolerations:
  node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Events:
  Type    Reason      Age    From          Message
  ----    -
  Normal  Scheduled   4m40s  default-scheduler  Successfully assigned default/intellipaas to ip-172-31-88-45
  Normal  Pulling     4m40s  kubelet        Pulling image "hshar/webapp"
  Normal  Pulled      4m33s  kubelet        Successfully pulled image "hshar/webapp" in 6.362s (6.362s including waiting)
  Normal  Created     4m33s  kubelet        Created container intellipaas
  Normal  Started     4m33s  kubelet        Started container intellipaas
ubuntu@ip-172-31-90-123:~$
```

Few additional commands-

If you want to label the pod-

```
kubectl label pods <pod name> label_name
```

```
ubuntu@ip-172-31-90-123:~$ kubectl label pods intellipaat dog=cat
pod/intellipaat labeled
ubuntu@ip-172-31-90-123:~$
```

If you want to check labels-

```
kubectl get pods --show-labels <pod name>
```

```
ubuntu@ip-172-31-90-123:~$ kubectl get pods --show-labels intellipaat
NAME          READY   STATUS    RESTARTS   AGE   LABELS
intellipaat    1/1     Running   0          26m   dog=cat
ubuntu@ip-172-31-90-123:~$
```

To delete pods

```
kubectl delete pods <pod name>
```

```
ubuntu@ip-172-31-90-123:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
intellipaat                         1/1     Running   0          16m
nginx-deployment-86dcfdf4c6-9xnc2   1/1     Running   1 (34m ago)  43h
nginx-deployment-86dcfdf4c6-g29f9   1/1     Running   1 (34m ago)  43h
nginx-deployment-86dcfdf4c6-r88f6   1/1     Running   0          28m
nginx-deployment-86dcfdf4c6-vqldx   1/1     Terminating 0          43h
ubuntu@ip-172-31-90-123:~$ kubectl delete pods nginx-deployment-86dcfdf4c6-r88f6
pod "nginx-deployment-86dcfdf4c6-r88f6" deleted
ubuntu@ip-172-31-90-123:~$
```