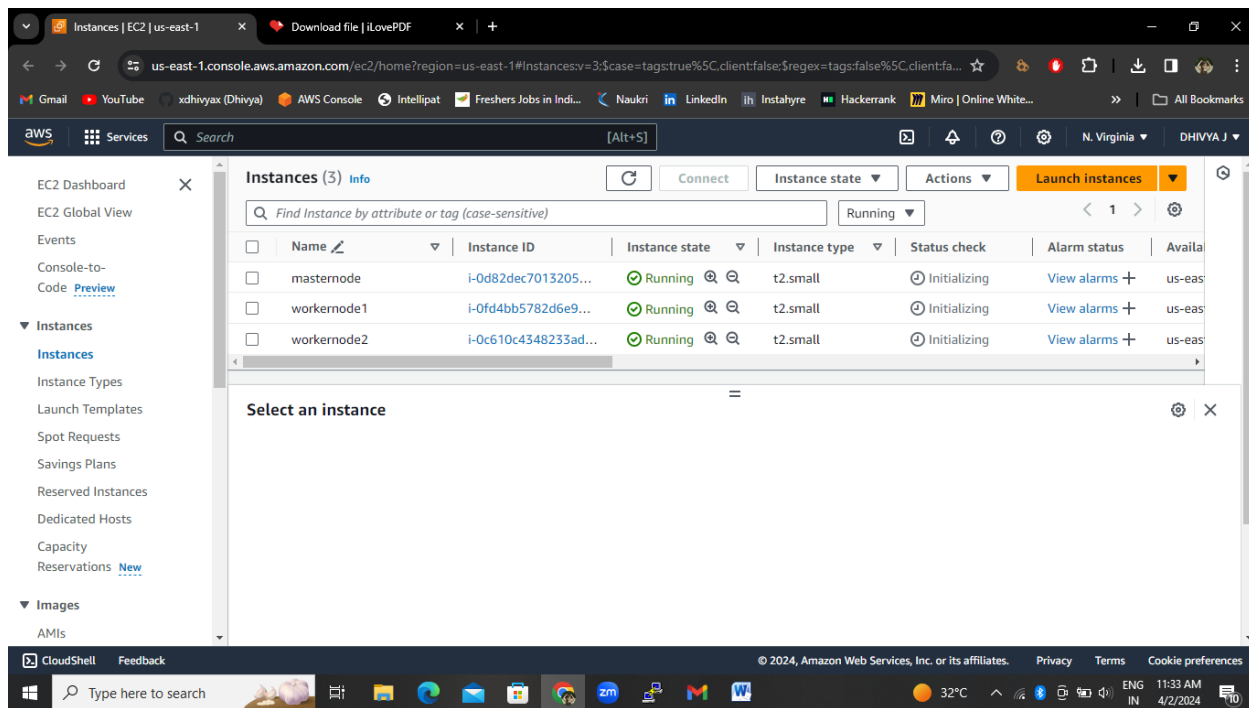


Module-9: Kubernetes Assignment - 1

You have been asked to:

- Deploy a Kubernetes Cluster for 3 nodes
- Create a nginx deployment of 3 replicas



The screenshot displays the AWS Management Console for the 'us-east-1' region. The 'Instances' page is active, showing a list of three EC2 instances: 'masternode', 'workernode1', and 'workernode2'. All instances are in the 'Running' state and are of type 't2.small'. The 'Status check' for each instance is 'Initializing'. The 'Alarm status' for each instance is 'View alarms +'. The 'Availability Zone' for all instances is 'us-east-1a'. A 'Select an instance' dialog box is open in the foreground, showing a search bar and a list of instances.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
masternode	i-Od82dec7013205...	Running	t2.small	Initializing	View alarms +	us-east-1a
workernode1	i-0fd4bb5782d6e9...	Running	t2.small	Initializing	View alarms +	us-east-1a
workernode2	i-0c610c4348233ad...	Running	t2.small	Initializing	View alarms +	us-east-1a

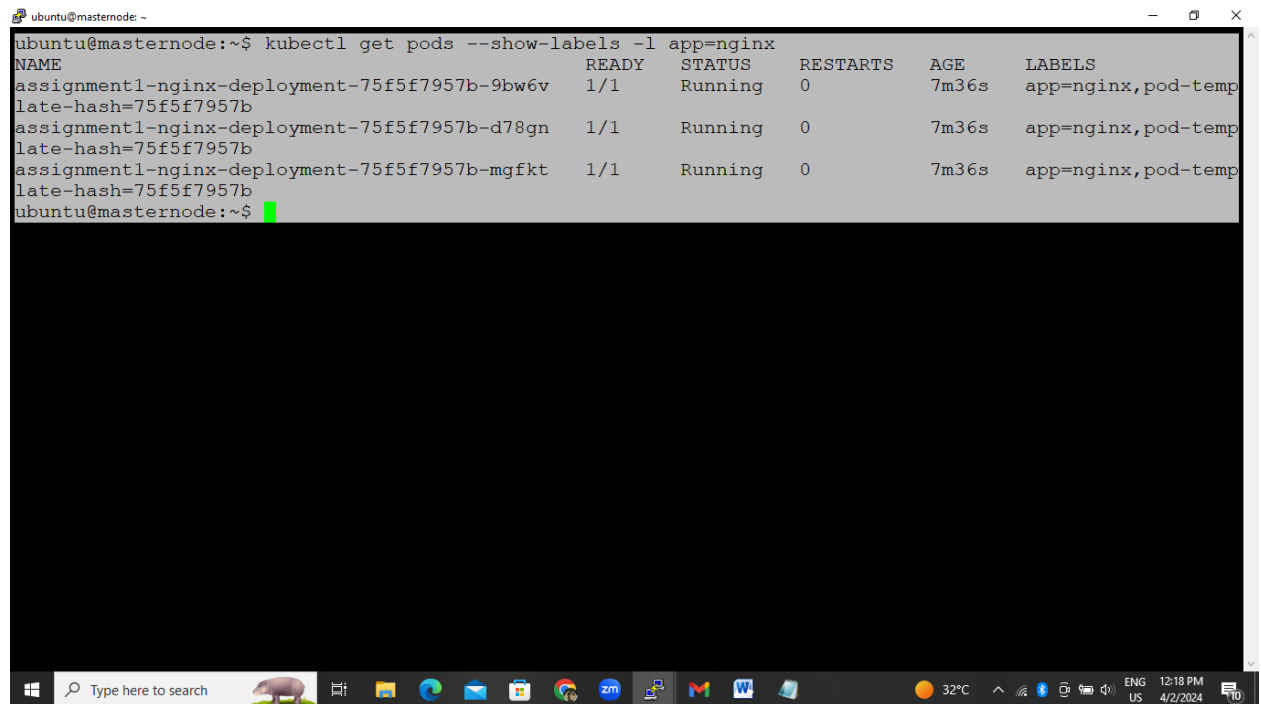
```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl get nodes  
NAME           STATUS    ROLES    AGE   VERSION  
masternode     Ready     control-plane   10m   v1.29.3  
workernode1     Ready     <none>         76s   v1.29.3  
workernode2     Ready     <none>         67s   v1.29.3  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
apiVersion: apps/v1  
kind: Deployment  
metadata:  
  name: assignment1-nginx-deployment  
  labels:  
    app: nginx  
spec:  
  replicas: 3  
  selector:  
    matchLabels:  
      app: nginx  
  template:  
    metadata:  
      labels:  
        app: nginx  
    spec:  
      containers:  
      - name: nginx-container  
        image: nginx  
        ports:  
        - containerPort: 80  
~  
~  
~  
~  
~  
~  
"deployment.yaml" 22L, 357B  
22,0-1 All
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ vi deployment.yaml  
ubuntu@masternode:~$ kubectl apply -f deployment.yaml  
deployment.apps/assignment1-nginx-deployment created  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl get deployment  
NAME                                READY    UP-TO-DATE    AVAILABLE    AGE  
assignment1-nginx-deployment        3/3      3              3             40s  
ubuntu@masternode:~$
```

```
ubuntu@masternode:~$ kubectl get pods --show-labels -l app=nginx
NAME                                READY   STATUS    RESTARTS   AGE      LABELS
assignment1-nginx-deployment-75f5f7957b-9bw6v  1/1     Running   0          7m36s    app=nginx,pod-template-hash=75f5f7957b
assignment1-nginx-deployment-75f5f7957b-d78gn  1/1     Running   0          7m36s    app=nginx,pod-template-hash=75f5f7957b
assignment1-nginx-deployment-75f5f7957b-mgfkt  1/1     Running   0          7m36s    app=nginx,pod-template-hash=75f5f7957b
ubuntu@masternode:~$
```

The image shows a terminal window with a grey background. The terminal output displays the result of a kubectl command, listing three pods in a table format. Below the table, the prompt 'ubuntu@masternode:~\$' is followed by a green cursor. The terminal window is titled 'ubuntu@masternode: ~'. At the bottom of the image, a Windows taskbar is visible, featuring a search bar, several application icons (including File Explorer, Edge, and Zoom), and system status information on the right indicating a temperature of 32°C and the date 4/2/2024.