Applied Laboratory 2 Assignment
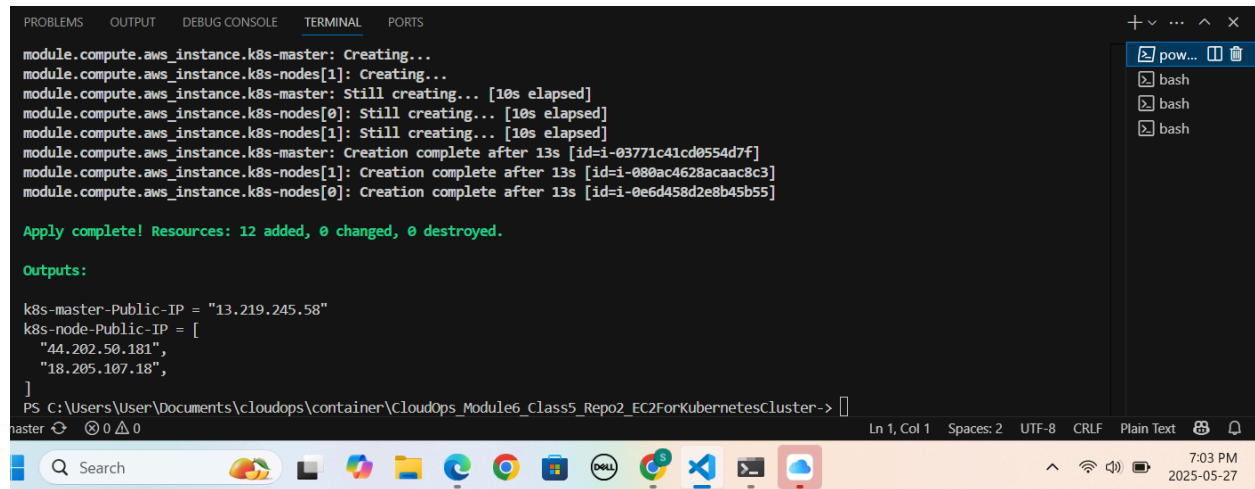

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Submitted By:

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Submitted To:

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Date:

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1.k8s-master-Public-URL and k8s-node-Public-URL values from the end of the Terraform apply output


```
module.compute.aws_instance.k8s-master: Creating...
module.compute.aws_instance.k8s-nodes[1]: Creating...
module.compute.aws_instance.k8s-master: Still creating... [10s elapsed]
module.compute.aws_instance.k8s-nodes[0]: Still creating... [10s elapsed]
module.compute.aws_instance.k8s-nodes[1]: Still creating... [10s elapsed]
module.compute.aws_instance.k8s-master: Creation complete after 13s [id=i-03771c41cd0554d7f]
module.compute.aws_instance.k8s-nodes[1]: Creation complete after 13s [id=i-080ac4628acaac8c3]
module.compute.aws_instance.k8s-nodes[0]: Creation complete after 13s [id=i-0e6d458d2e8b45b55]

Apply complete! Resources: 12 added, 0 changed, 0 destroyed.

Outputs:

k8s-master-Public-IP = "13.219.245.58"
k8s-node-Public-IP = [
  "44.202.50.181",
  "18.205.107.18",
]
PS C:\Users\User\Documents\cloudops\container\CloudOps_Module6_Class5_Repo2_EC2ForKubernetesCluster->
```
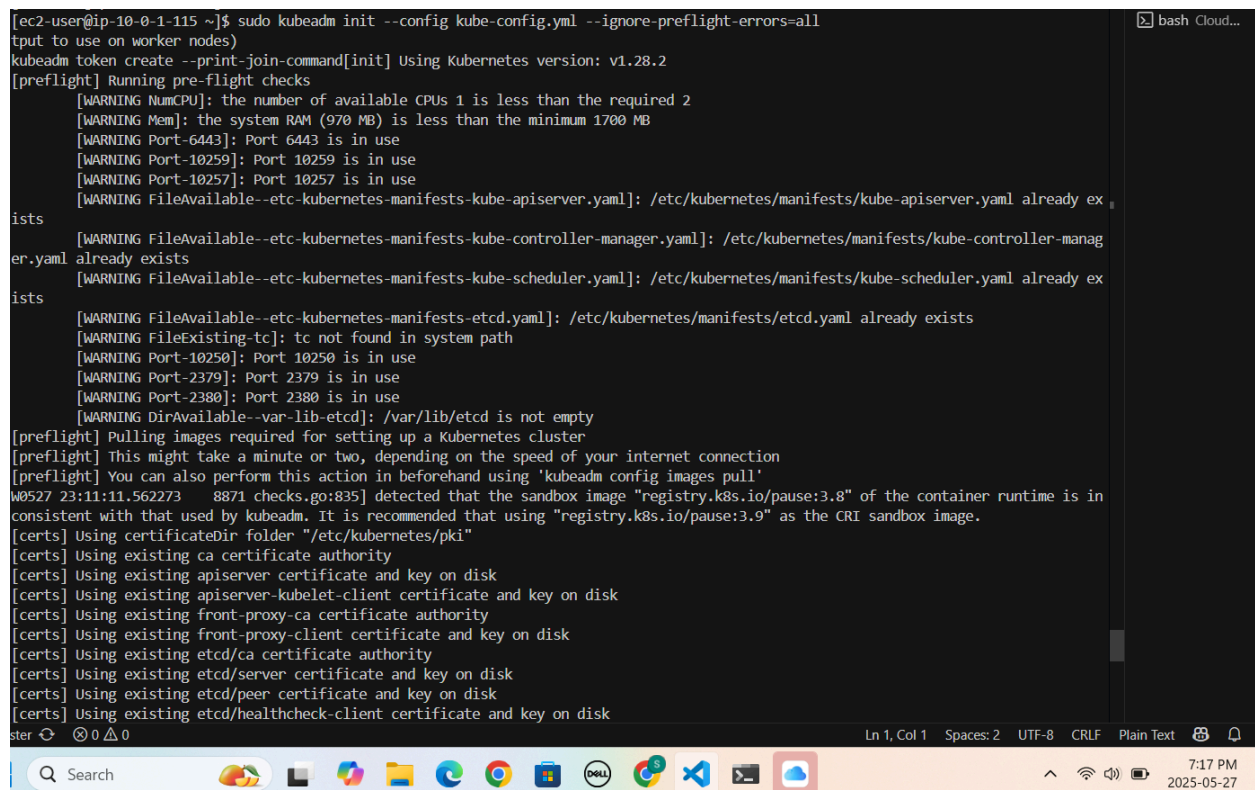
2.Output from the sudo kubeadm init --config kube-config.yml --ignore-preflight-errors=all command


```
[ec2-user@ip-10-0-1-115 ~]$ sudo kubeadm init --config kube-config.yml --ignore-preflight-errors=all
tput to use on worker nodes)
kubeadm token create --print-join-command[init] Using Kubernetes version: v1.28.2
[preflight] Running pre-flight checks
        [WARNING NumCPU]: the number of available CPUs 1 is less than the required 2
        [WARNING Mem]: the system RAM (970 MB) is less than the minimum 1700 MB
        [WARNING Port-6443]: Port 6443 is in use
        [WARNING Port-10259]: Port 10259 is in use
        [WARNING Port-10257]: Port 10257 is in use
        [WARNING FileAvailable--etc-kubernetes-manifests-kube-apiserver.yaml]: /etc/kubernetes/manifests/kube-apiserver.yaml already ex
ists
        [WARNING FileAvailable--etc-kubernetes-manifests-kube-controller-manager.yaml]: /etc/kubernetes/manifests/kube-controller-manag
er.yaml already exists
        [WARNING FileAvailable--etc-kubernetes-manifests-kube-scheduler.yaml]: /etc/kubernetes/manifests/kube-scheduler.yaml already ex
ists
        [WARNING FileAvailable--etc-kubernetes-manifests-etcd.yaml]: /etc/kubernetes/manifests/etcd.yaml already exists
        [WARNING FileExisting-tc]: tc not found in system path
        [WARNING Port-10250]: Port 10250 is in use
        [WARNING Port-2379]: Port 2379 is in use
        [WARNING Port-2380]: Port 2380 is in use
        [WARNING DirAvailable--var-lib-etcd]: /var/lib/etcd is not empty
[preflight] Pulling images required for setting up a Kubernetes cluster
[preflight] This might take a minute or two, depending on the speed of your internet connection
[preflight] You can also perform this action in beforehand using 'kubeadm config images pull'
W0527 23:11:11.562273    8871 checks.go:835] detected that the sandbox image "registry.k8s.io/pause:3.8" of the container runtime is in
consistent with that used by kubeadm. It is recommended that using "registry.k8s.io/pause:3.9" as the CRI sandbox image.
[certs] Using certificateDir folder "/etc/kubernetes/pki"
[certs] Using existing ca certificate authority
[certs] Using existing apiserver certificate and key on disk
[certs] Using existing apiserver-kubelet-client certificate and key on disk
[certs] Using existing front-proxy-ca certificate authority
[certs] Using existing front-proxy-client certificate and key on disk
[certs] Using existing etcd/ca certificate authority
[certs] Using existing etcd/server certificate and key on disk
[certs] Using existing etcd/peer certificate and key on disk
[certs] Using existing etcd/healthcheck-client certificate and key on disk
```

```
[bootstrap-token] Configured RBAC rules to allow the csrapprover controller automatically approve CSRs from a Node Bootstrap Token
[bootstrap-token] Configured RBAC rules to allow certificate rotation for all node client certificates in the cluster
[bootstrap-token] Creating the "cluster-info" ConfigMap in the "kube-public" namespace
[kubelet-finalize] Updating "/etc/kubernetes/kubelet.conf" to point to a rotatable kubelet client certificate and key
[addons] Applied essential addon: CoreDNS
[addons] Applied essential addon: kube-proxy

Your Kubernetes control-plane has initialized successfully!
```

3.Output from the kubectl get nodes command on the Master Node

```
[ec2-user@ip-10-0-1-115 ~]$ kubectl get nodes
NAME                        STATUS    ROLES           AGE     VERSION
ip-10-0-1-115.ec2.internal  Ready     control-plane   11m     v1.28.2
ip-10-0-2-182.ec2.internal  Ready     <none>          5m38s   v1.28.2
ip-10-0-2-29.ec2.internal   Ready     <none>          5m48s   v1.28.2
[ec2-user@ip-10-0-1-115 ~]$
master  ⟳    ⊗ 0 ⚠ 0
```
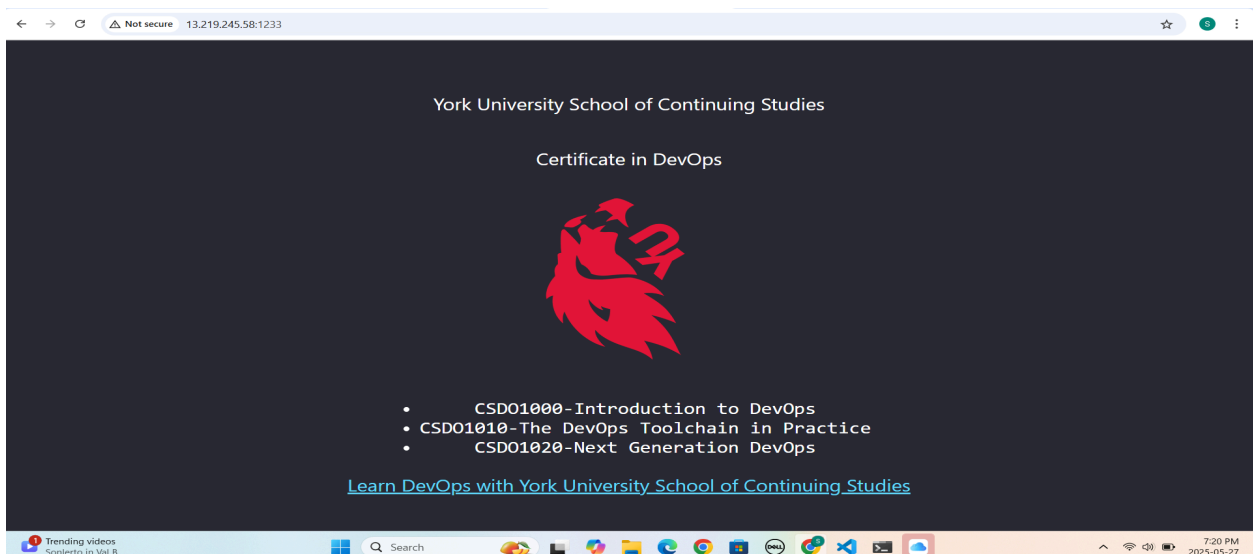
4.Output from the kubectl get services command on the Master Node

```
[ec2-user@ip-10-0-1-115 ~]$ kubectl get services
NAME               TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)       AGE
kubernetes         ClusterIP   10.96.0.1       <none>        443/TCP       11m
react-app-service  NodePort    10.110.33.165   <none>        80:1233/TCP   2m24s
[ec2-user@ip-10-0-1-115 ~]$
master  ⟳    ⊗ 0 ⚠ 0
```

5.Web browser showing address bar with port 1233 loaded for both Master and Worker public IPs

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