GHARDA FOUNDATION
GHARDA INSTITUTE OF TECHNOLOGY, LAVEL
Department of Computer Engineering

Evaluation Sheet

Class: TE-Computer Engineering Sem: V

Subject: **Cloud Computing Lab**

Experiment No: 13

Title of Experiment: To study and Implement container orchestration using Kubernetes.

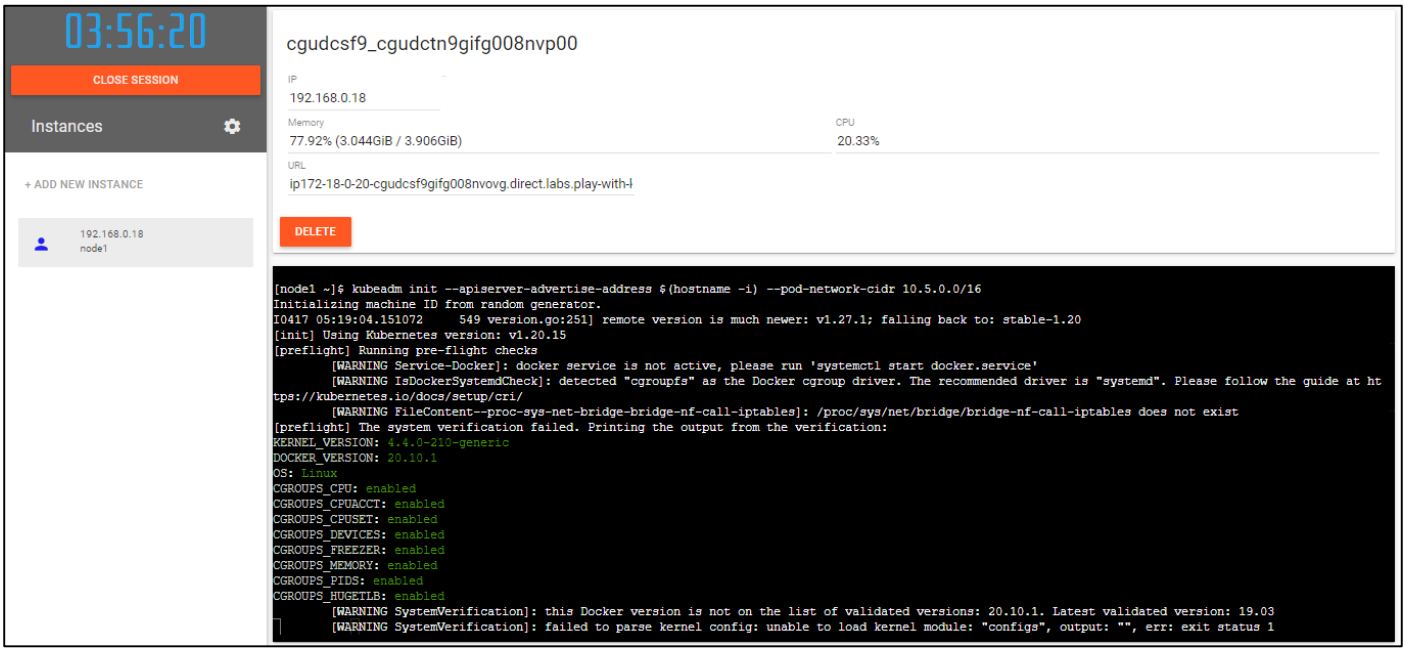
Name of Student: Niraj Nitin Surve Roll No: 68

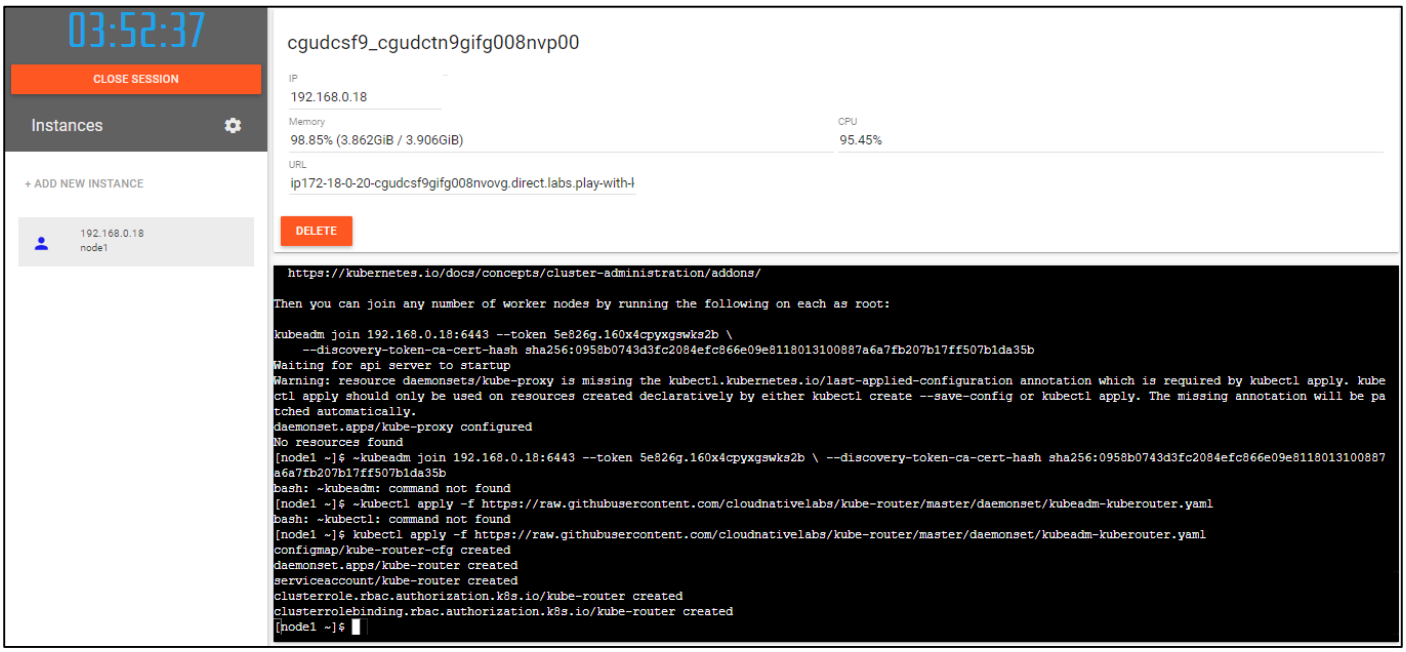
Date of Performance:

Sr. No.	Evaluation Criteria	Max Marks	Marks Obtained
1	Practical Performance	8	
2	Oral	5	
3	Timely Submission	2	
	Total	15	

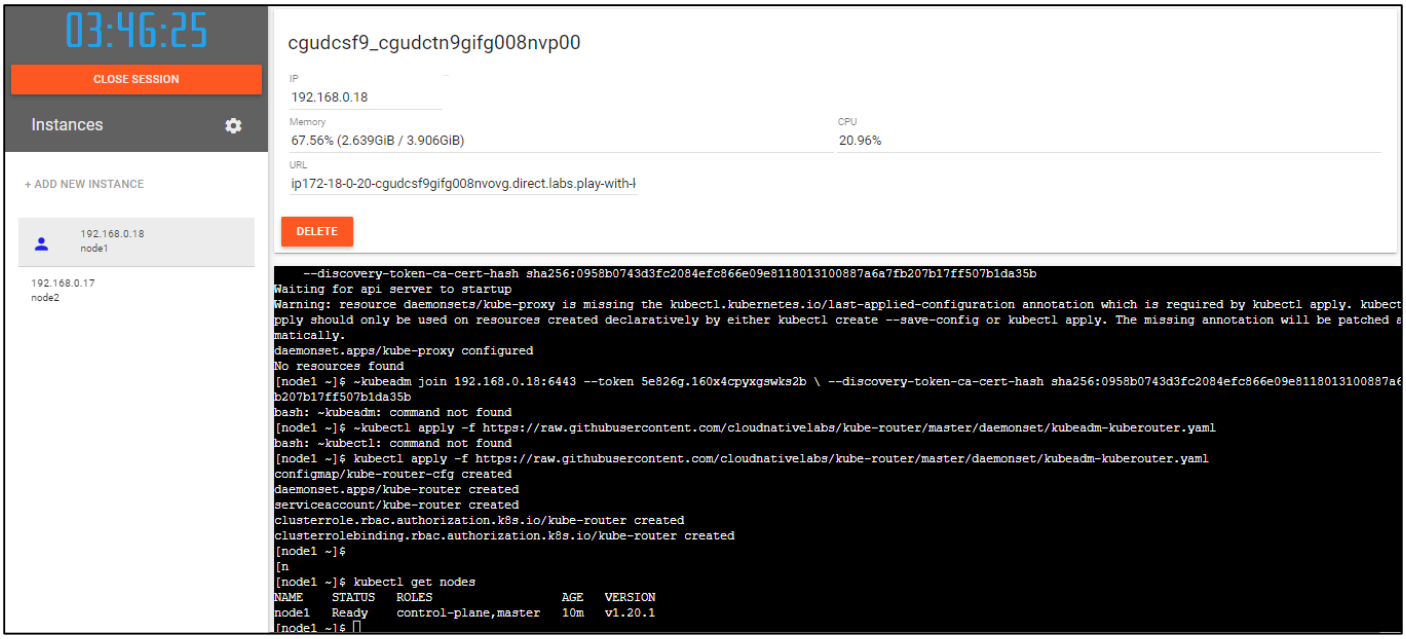
Signature of Subject Teacher
(Mr. S. S. Tathare)

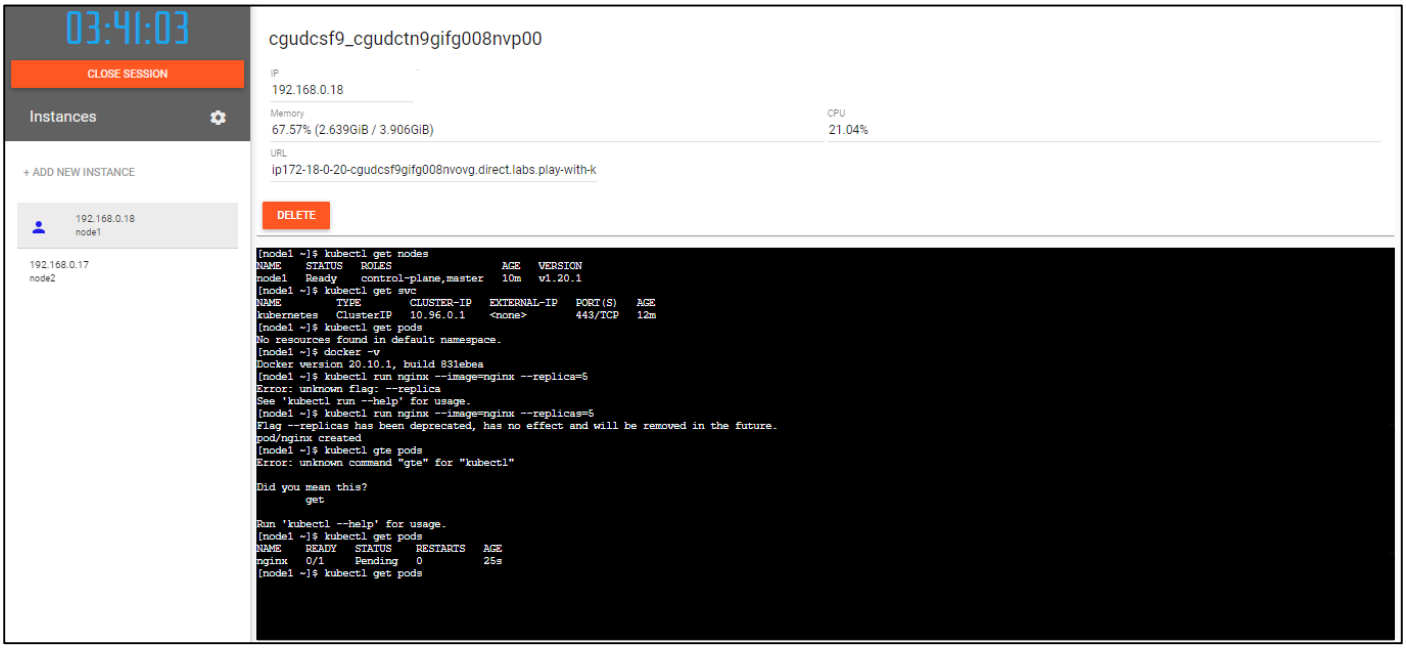
Screenshots –






```
[node2 ~]$ kubeadm join 192.168.0.28:6443 --token lla22i.9vfjliz2ra3tr24n \
>     --discovery-token-ca-cert-hash sha256:83e9f636abe50506bf8276e0311ee14bd42b4dce8cfed0ac9d151a2310f5f2ec
Initializing machine ID from random generator.
[preflight] Running pre-flight checks
        [WARNING Service-Docker]: docker service is not active, please run 'systemctl start docker.service'
        [WARNING IsDockerSystemdCheck]: detected "cgroupfs" as the Docker cgroup driver. The recommended driver is "systemd". Pleas
e follow the guide at https://kubernetes.io/docs/setup/cri/
        [WARNING FileContent--proc-sys-net-bridge-bridge-nf-call-iptables]: /proc/sys/net/bridge/bridge-nf-call-iptables does not e
xist
        [WARNING Swap]: running with swap on is not supported. Please disable swap
[preflight] The system verification failed. Printing the output from the verification:
KERNEL_VERSION: 4.4.0-169-generic
DOCKER_VERSION: 19.03.5
OS: Linux
CGROUPS_CPU: enabled
CGROUPS_CPUACCT: enabled
CGROUPS_CPUSET: enabled
CGROUPS_DEVICES: enabled
CGROUPS_FREEZER: enabled
CGROUPS_MEMORY: enabled
        [WARNING SystemVerification]: this Docker version is not on the list of validated versions: 19.03.5. Latest validated versi
on: 18.09
        [WARNING SystemVerification]: failed to parse kernel config: unable to load kernel module: "configs", output: "", err: exit
 status 1
[preflight] Reading configuration from the cluster...
```


03:46:25
CLOSE SESSION
Instances
+ ADD NEW INSTANCE
192.168.0.18
node1
192.168.0.17
node2
cgudcsf9_cgudctn9gifg008nvp00
IP
192.168.0.18
Memory
67.56% (2.639GiB / 3.906GiB)
CPU
20.96%
URL
ip172-18-0-20-cgudcsf9gifg008nvovg.direct.labs.play-with-l
DELETE
--discovery-token-ca-cert-hash sha256:0958b0743d3fc2084efc866e09e8118013100887a6a7fb207b17ff507b1da35b
Waiting for api server to startup
Warning: resource daemonsets/kube-proxy is missing the kubectl.kubernetes.io/last-applied-configuration annotation which is required by kubectl apply. kubect
pply should only be used on resources created declaratively by either kubectl create --save-config or kubectl apply. The missing annotation will be patched a
matically.
daemonset.apps/kube-proxy configured
No resources found
[node1 ~]$ ~kubeadm join 192.168.0.18:6443 --token 5e826g.160x4cpyxgswks2b \ --discovery-token-ca-cert-hash sha256:0958b0743d3fc2084efc866e09e8118013100887a6
b207b17ff507b1da35b
bash: ~kubeadm: command not found
[node1 ~]$ ~kubectl apply -f https://raw.githubusercontent.com/cloudnativelabs/kube-router/master/daemonset/kubeadm-kuberouter.yaml
bash: ~kubectl: command not found
[node1 ~]$ kubectl apply -f https://raw.githubusercontent.com/cloudnativelabs/kube-router/master/daemonset/kubeadm-kuberouter.yaml
configmap/kube-router-cfg created
daemonset.apps/kube-router created
serviceaccount/kube-router created
clusterrole.rbac.authorization.k8s.io/kube-router created
clusterrolebinding.rbac.authorization.k8s.io/kube-router created
[node1 ~]$
[n
[node1 ~]$ kubectl get nodes
NAME   STATUS   ROLES   AGE   VERSION
node1   Ready   control-plane,master   10m   v1.20.1
[node1 ~]$


03:41:03
CLOSE SESSION
Instances
+ ADD NEW INSTANCE
192.168.0.18
node1
192.168.0.17
node2
cgudcsf9_cgudctn9gifg008nvp00
IP
192.168.0.18
Memory
67.57% (2.639GiB / 3.906GiB)
CPU
21.04%
URL
ip172-18-0-20-cgudcsf9gifg008nvovg.direct.labs.play-with-k
DELETE
[node1 ~]$ kubectl get nodes
NAME   STATUS   ROLES   AGE   VERSION
node1   Ready   control-plane,master   10m   v1.20.1
[node1 ~]$ kubectl get svc
NAME   TYPE   CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
kubernetes   ClusterIP   10.96.0.1   <none>   443/TCP   12m
[node1 ~]$ kubectl get pods
No resources found in default namespace.
[node1 ~]$ docker -v
Docker version 20.10.1, build 831ebea
[node1 ~]$ kubectl run nginx --image=nginx --replica=5
Error: unknown flag: --replica
See 'kubectl run --help' for usage.
[node1 ~]$ kubectl run nginx --image=nginx --replicas=5
Flag --replicas has been deprecated, has no effect and will be removed in the future.
pod/nginx created
[node1 ~]$ kubectl gte pods
Error: unknown command "gte" for "kubectl"
Did you mean this?
get
Run 'kubectl --help' for usage.
[node1 ~]$ kubectl get pods
NAME   READY   STATUS   RESTARTS   AGE
nginx   0/1   Pending   0   25s
[node1 ~]$ kubectl get pods