

Cloud Computing Lab Report Week - 8

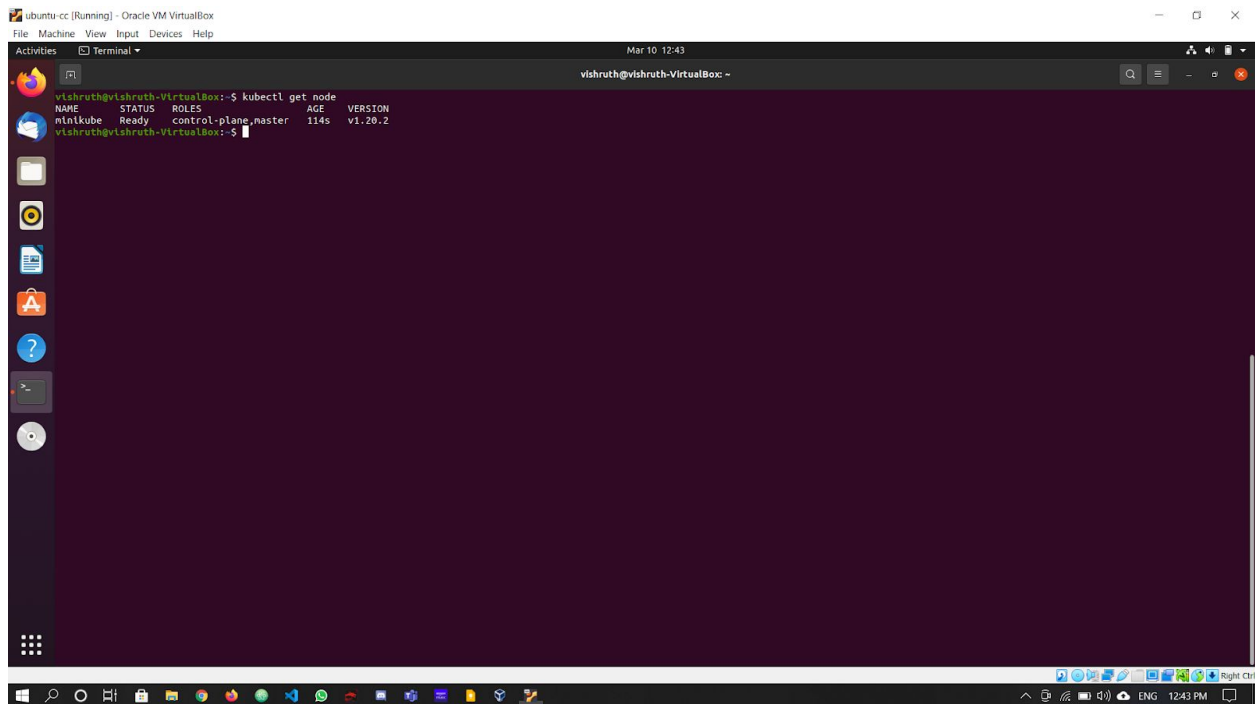
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Semester: 6 Section: D

Roll No.: 6

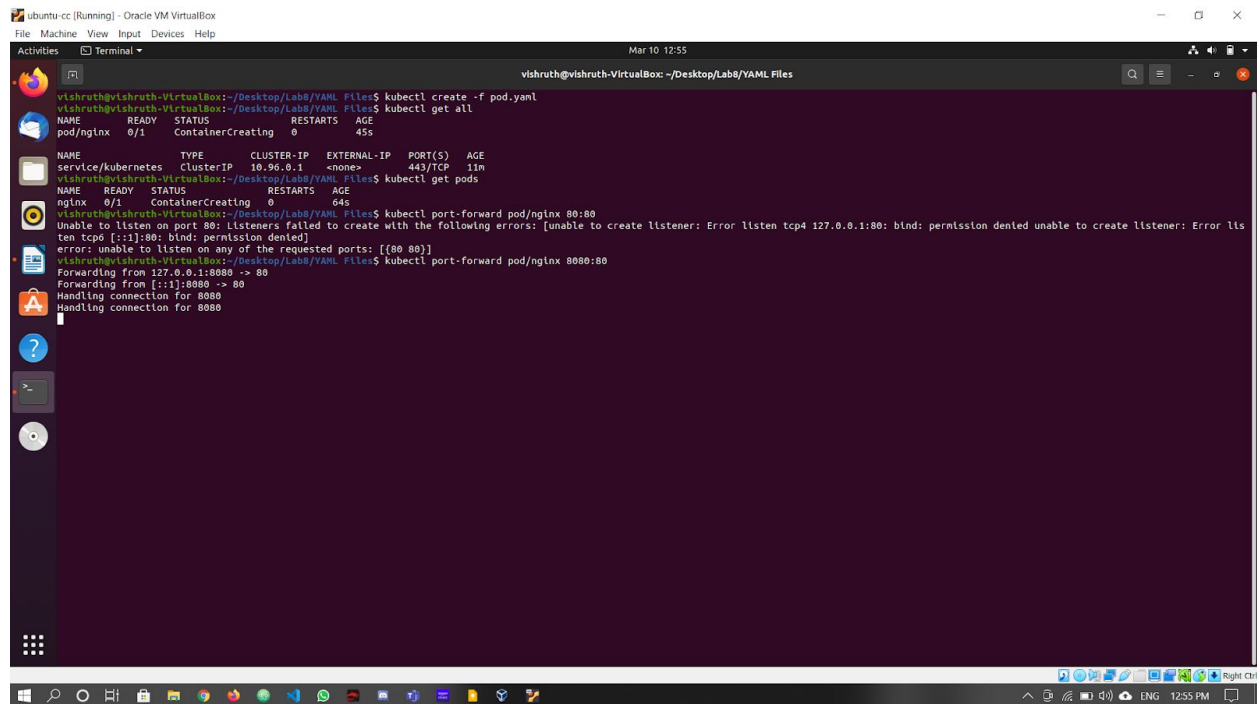
1a.



The screenshot shows a terminal window titled 'vishruth@vishruth-VirtualBox: ~' with a dark purple background. The terminal displays the output of the command 'kubectl get node'. The output is a table with columns: NAME, STATUS, ROLES, AGE, and VERSION. The table contains one entry: 'm1nkube' with status 'Ready', role 'control-plane,master', age '114s', and version 'v1.20.2'. The terminal window is part of an Ubuntu desktop environment within a VirtualBox VM. The desktop has a sidebar with application icons and a taskbar at the bottom. The system clock in the top right corner of the VM window shows 'Mar 10 12:43'.

```
vishruth@vishruth-VirtualBox:~$ kubectl get node
NAME        STATUS    ROLES                  AGE     VERSION
m1nkube     Ready    control-plane,master   114s    v1.20.2
vishruth@vishruth-VirtualBox:~$
```

2a.

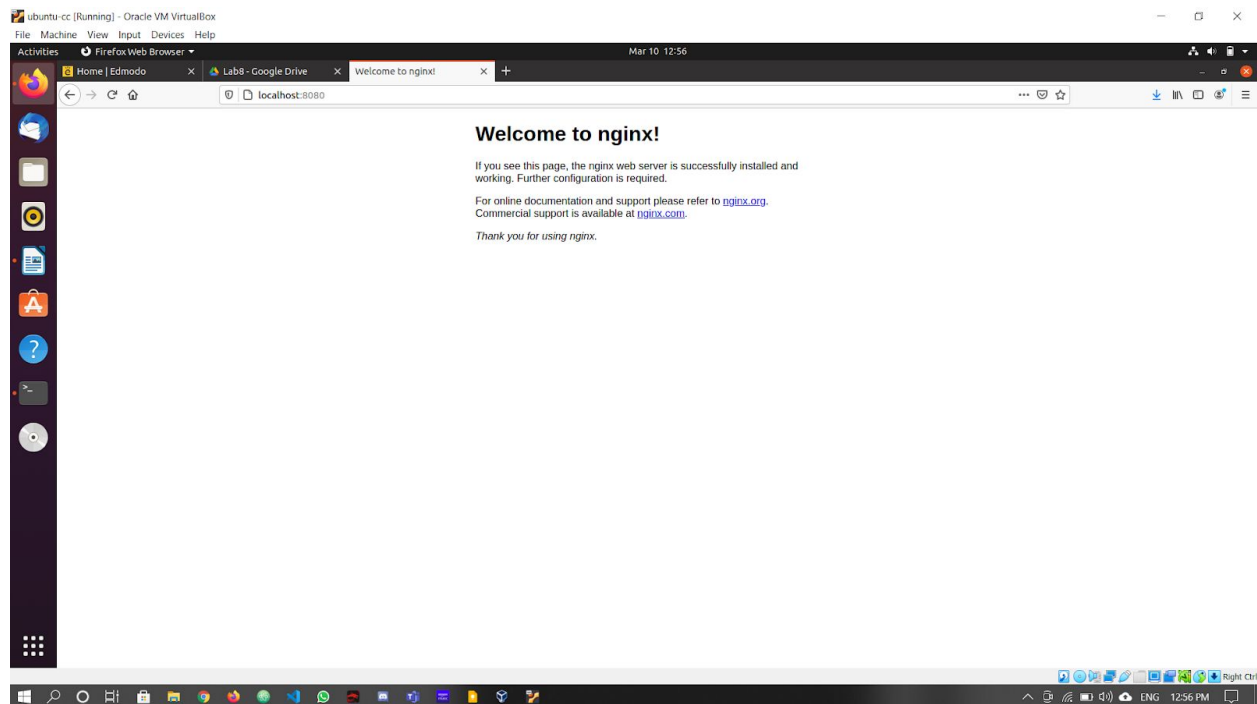


The screenshot shows a terminal window titled "vishruth@vishruth-VirtualBox: ~/Desktop/Lab8/YAML Files". The user is running the following commands and receiving the following output:

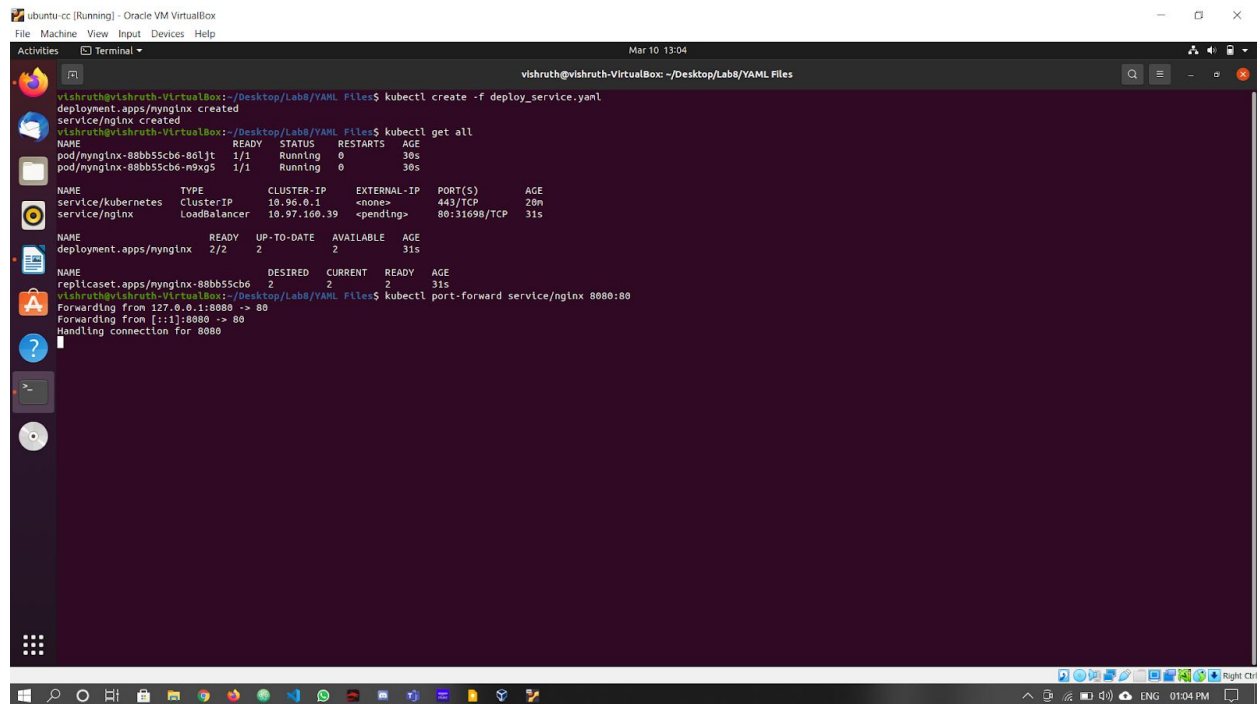
```
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl create -f pod.yaml
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl get all
NAME          READY   STATUS    RESTARTS   AGE
pod/nginx     0/1     ContainerCreating   0          45s

NAME          TYPE          CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
service/kubernetes  ClusterIP   10.96.0.1    <none>        443/TCP   11m
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx         0/1     ContainerCreating   0          64s
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl port-forward pod/nginx 80:80
Unable to listen on port 80: Listeners failed to create with the following errors: [unable to create listener: Error listen tcp4 127.0.0.1:80: bind: permission denied unable to create listener: Error lis
ten tcp6 [::]:80: bind: permission denied]
error: unable to listen on any of the requested ports: [[80 80]]
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl port-forward pod/nginx 8080:80
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::]:8080 -> 80
Handling connection for 8080
Handling connection for 8080
```

2b.



3a.



The screenshot shows a terminal window titled "vishruth@vishruth-VirtualBox: ~/Desktop/Lab8/YAML Files". The user has executed the following commands and received the following output:

```
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl create -f deploy_service.yaml
deployment.apps/nginx created
service/nginx created
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl get all
```

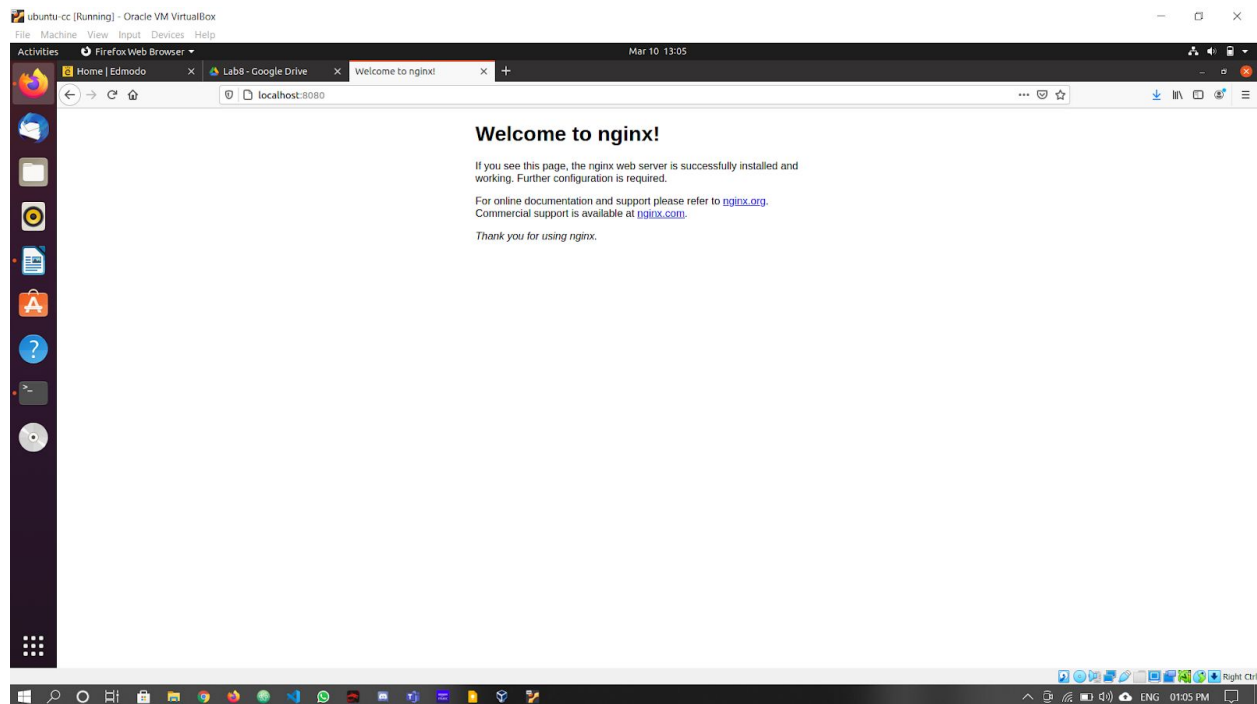
NAME	READY	STATUS	RESTARTS	AGE
pod/nginxln-88bb55cb6-86ljt	1/1	Running	0	30s
pod/nginxln-88bb55cb6-m9xg5	1/1	Running	0	30s

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	20m
service/nginx	LoadBalancer	10.97.160.39	<pending>	80:31698/TCP	31s

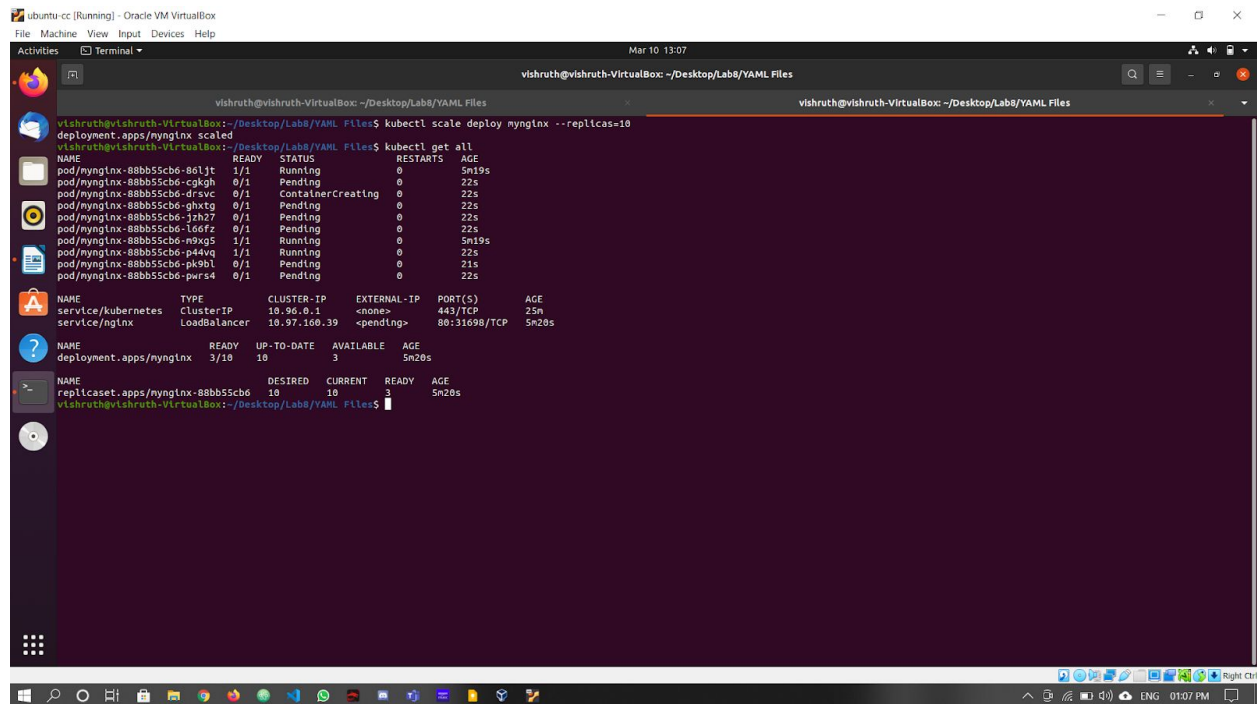
NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/nginx	2/2	2	2	31s

```
vishruth@vishruth-VirtualBox:~/Desktop/Lab8/YAML Files$ kubectl port-forward service/nginx 8080:80
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::]:8080 -> 80
Handling connection for 8080
```

3b.



4a.



The screenshot shows a terminal window titled "vishruth@vishruth-VirtualBox: ~/Desktop/Lab8/YAML Files". The user has executed the command `kubectl scale deploy mynglnx --replicas=10`. The output shows the deployment being scaled and the status of the pods. The terminal also displays the output of `kubectl get all`, showing the deployment, service, and pods.

```
vishruth@vishruth-VirtualBox: ~/Desktop/Lab8/YAML Files$ kubectl scale deploy mynglnx --replicas=10
deployment.apps/mynglnx scaled
vishruth@vishruth-VirtualBox: ~/Desktop/Lab8/YAML Files$ kubectl get all
NAME                                READY    STATUS              RESTARTS   AGE
pod/mynglnx-88bb55cb6-86ljt        1/1     Running            0          5m19s
pod/mynglnx-88bb55cb6-cgkgh        0/1     Pending            0          22s
pod/mynglnx-88bb55cb6-drsvc        0/1     ContainerCreating  0          22s
pod/mynglnx-88bb55cb6-ghxtg        0/1     Pending            0          22s
pod/mynglnx-88bb55cb6-jzh27        0/1     Pending            0          22s
pod/mynglnx-88bb55cb6-l66fz        0/1     Pending            0          22s
pod/mynglnx-88bb55cb6-n9xg5        1/1     Running            0          5m19s
pod/mynglnx-88bb55cb6-p44vq        1/1     Running            0          22s
pod/mynglnx-88bb55cb6-pk9bl        0/1     Pending            0          21s
pod/mynglnx-88bb55cb6-pwrs4        0/1     Pending            0          22s
NAME                                TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
service/kubernetes                  ClusterIP     10.96.0.1       <none>           443/TCP          25m
service/nginx                       LoadBalancer 10.97.160.39    <pending>        80:31698/TCP     5m20s
NAME                                READY    UP-TO-DATE    AVAILABLE    AGE
deployment.apps/mynglnx             3/10    10            3            5m20s
NAME                                DESIRED    CURRENT    READY    AGE
replicaset.apps/mynglnx-88bb55cb6  10        10         3        5m20s
vishruth@vishruth-VirtualBox: ~/Desktop/Lab8/YAML Files$
```