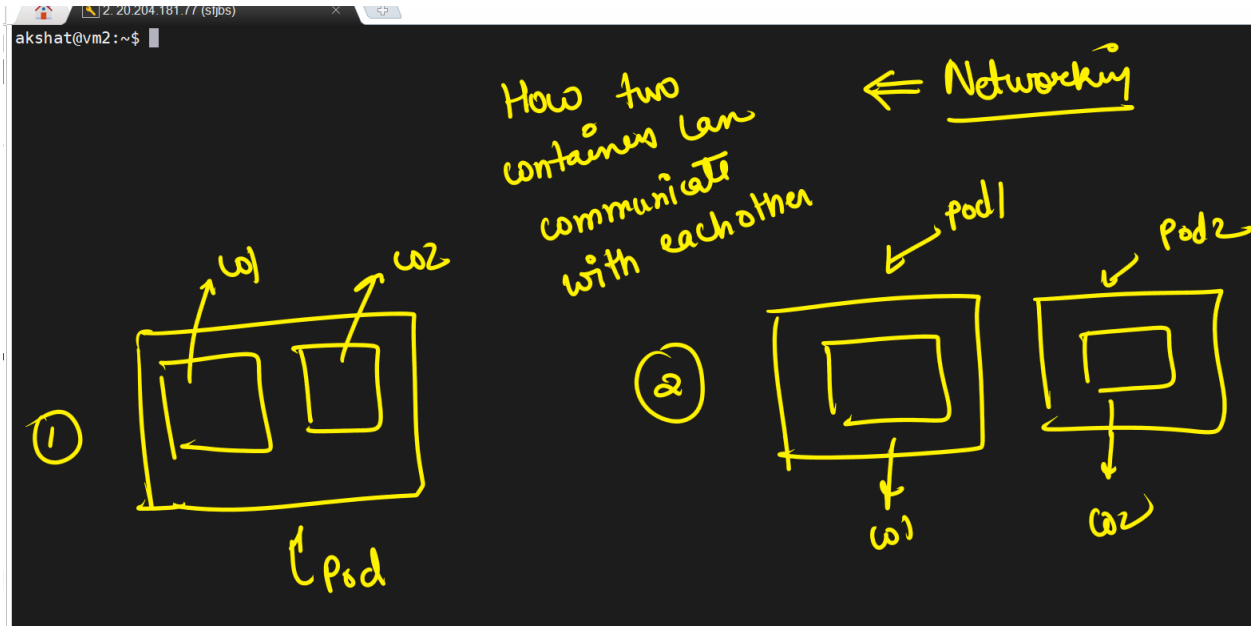
Networking and eni



Create two container in a single pod and check if they are able to communicate with each other or not

We will get inside the pod and in container c00 and check if we are able to access web server httpd via that or not

```
kind: Pod
apiVersion: v1
metadata:
     name: testpod1
spec:
     containers:
             - name: c00
               image: ubuntu
               command: ["/bin/bash","-c", "while true; do echo Hello akshat; sleep 5; done"]
             - name: c01
               image: httpd
               ports:
                   - containerPort: 80
~
~
~
~
```

```
akshat@vm2:~$ vi podnet.yml
akshat@vm2:~$ kubectl apply -f podnet.yml
pod/testpod1 created
akshat@vm2:~$
```

```
akshat@vm2:~$ kubectl get pods
NAME        READY   STATUS    RESTARTS   AGE
testpod1    2/2     Running   0          13s
akshat@vm2:~$
```

Now we will enter inside the c00 of pod testpod1 and check if we are able to access the files or not

```
akshat@vm2:~$ kubectl exec testpod1 -it -c c00 -- /bin/bash
```

-it : interactive terminal

- c : container

/bin/bash : bash terminal

apt update -y

apt install curl -y

curl localhost:80

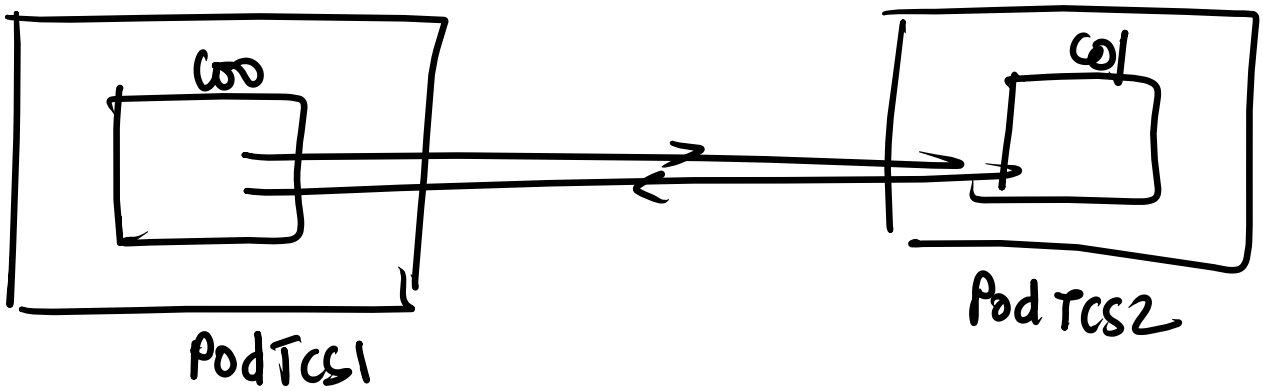
```
root@testpod1:/# curl localhost:80
<html><body><h1>It works!</h1></body></html>
root@testpod1:/#
```

exit

Two containers in the same pod can communicate with each other directly

---

TWO PODS HAVING TWO DIFFERENT CONTAINERS



```
akshat@vm2:~$ vi podtcs1.yml
```

```
2. 20.204.181.77 (sfjbs)
kind: Pod
apiVersion: v1
metadata:
        name: testpodtcs1
spec:
        containers:
                - name: c01
                  image: nginx
                  ports:
                      - containerPort: 80

~
~
```

```
akshat@vm2:~$ kubectl apply -f podtcs1.yml
pod/testpodtcs1 created
akshat@vm2:~$
```

Now lets create another pod :

vi testpodtcs2.yml

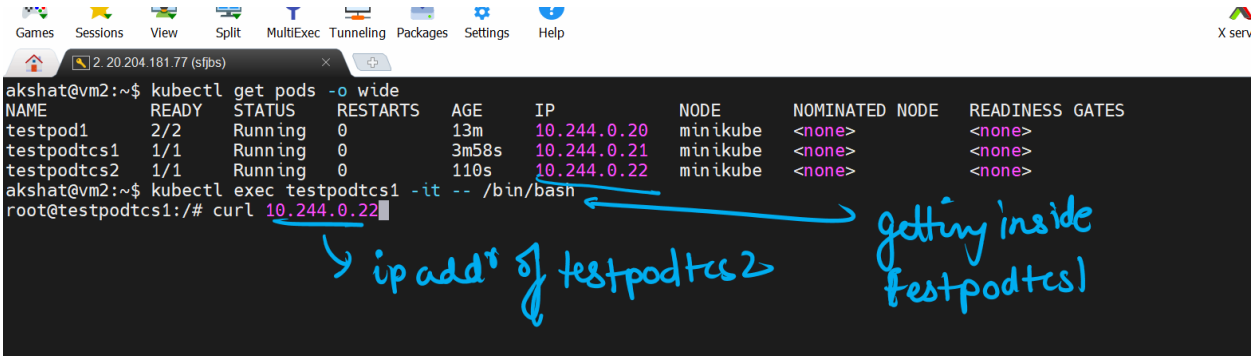
Games Sessions View Split MultiExec Tunneling Packages Settings Help

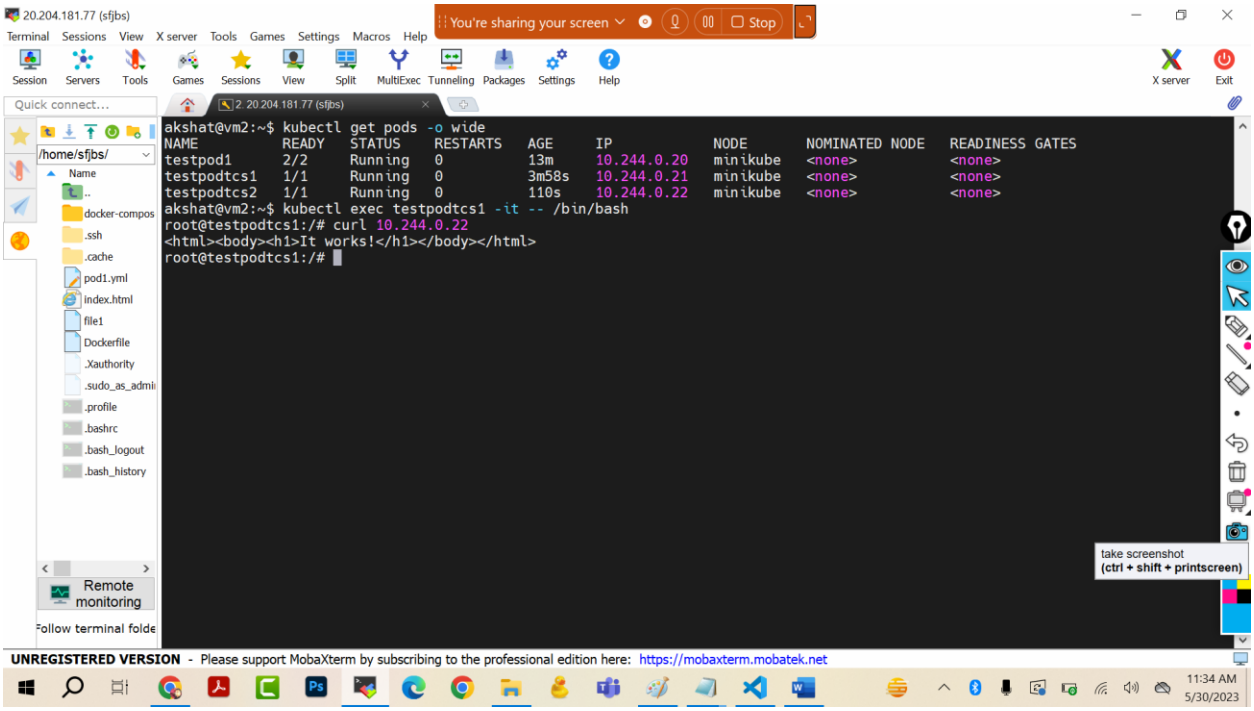
2. 20.204.181.77 (sfjbs)

```yaml
kind: Pod
apiVersion: v1
metadata:
        name: testpodtcs2
spec:
     containers:
             - name: c02
               image: httpd
               ports:
                     - containerPort: 80
~
~
~
~
~
```

```
akshat@vm2:~$ kubectl apply -f testpodtcs.yml
pod/testpodtcs2 created
akshat@vm2:~$
```

```
akshat@vm2:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
testpod1      2/2     Running   0          11m
testpodtcs1   1/1     Running   0          2m28s
testpodtcs2   1/1     Running   0          20s
akshat@vm2:~$
```





exit

now lets get inside the testpodtcs2 and try to access the container webserver of testpodtcs1

kubectl exec testpodtcs2 -it -- /bin/bash

apt update -y

apt install curl -y

curl <<ip address of testpodtcs1>>

```
2. 20.204.181.77 (sfjbs)
root@testpodtcs2:/usr/local/apache2# curl 10.244.0.21
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully instal
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
root@testpodtcs2:/usr/local/apache2#
```

exit

It proves that within the cluster the containers inside the pod can communicate with each other.