Creating a Volume

Operation 1: Write a yaml file for the volume that you are creating inside a pod

```
apiVersion: v1
kind: Pod
metadata:
name: sharevol
spec:
containers:
- name: c1
image: centos:7
command:
- "bin/bash"
- "-c"
- "sleep 10000"
volumeMounts:
- name: xchange
mountPath: "/tmp/xchange"
- name: c2
image: centos:7
command:
- "bin/bash"
- "-c"
- "sleep 10000"
volumeMounts:
- name: xchange
mountPath: "/tmp/data"
volumes:
- name: xchange
emptyDir: {}
```

Operations 2: Go to command line and create a yaml file and paste the above created specs.

nano <file name>.yaml

Once done hit Ctrl+s and then Ctrl+x to save & exit

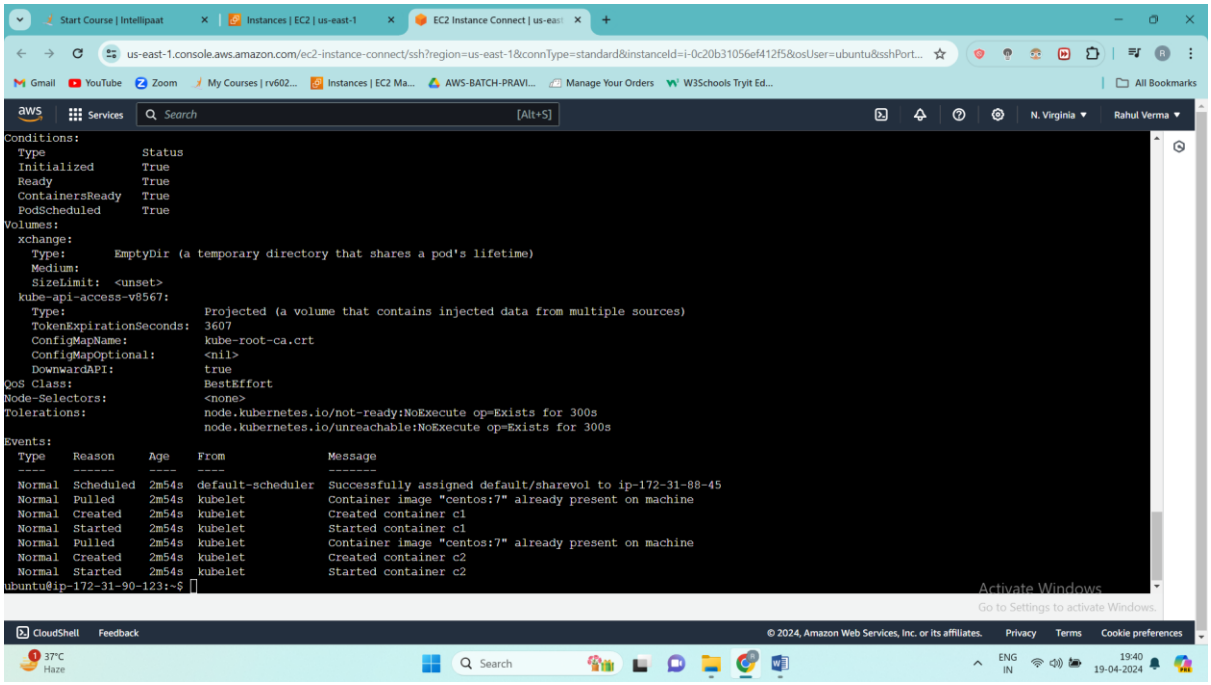
>next thing to do is to create the yaml file.

kubectl create –f <file name>

```
ubuntu@ip-172-31-90-123:~$ nano vol.yaml
ubuntu@ip-172-31-90-123:~$ kubectl create -f vol.yaml
pod/sharevol created
ubuntu@ip-172-31-90-123:~$
```

Operation 3: to check if your volume got created run the following command

kubectl describe pod <pod name>



Operation 4: exec into one of the containers in the pod, c1, check the volume mount and generate some data

kubectl exec -it sharevol -c c1 --bash

mount | grep xchange

```
ubuntu@ip-172-31-90-123:~$ kubectl exec -it sharevol -c c1 -- bash
[root@sharevol /]# mount | grep xchange
/dev/root on /tmp/xchange type ext4 (rw,relatime,discard)
[root@sharevol /]#
```

Now write-

echo “Kubernetes is the best” > /tmp/xchange/data

```
[root@sharevol /]# mount | grep xchange
/dev/root on /tmp/xchange type ext4 (rw,relatime,discard)
[root@sharevol /]# echo “Kubernetes is the best” > /tmp/xchange/data
[root@sharevol /]#
```

Now press ctrl+d to exit

Operation 5: now exec into c2, the second container running in the pod, we can see the volume mounted at /tmp/data and are able to read the data created in the previous step:

kubectl exec -it sharevol -c c2 -- bash

mount | grep /tmp/data

```
[root@sharevol /]# exit
ubuntu@ip-172-31-90-123:~$ kubectl exec -it sharevol -c c2 -- bash
[root@sharevol /]# mount | grep /tmp/data
/dev/root on /tmp/data type ext4 (rw,relatime,discard)
[root@sharevol /]#
```

Now we are on /tmp/data, so to read the file from /tmp/xchange will use the following command

cat /tmp/data/data

```
[root@sharevol /]# cat /tmp/data/data
“Kubernetes is the best”
[root@sharevol /]#
```

So this is working and you can see how the data is being share across different containers inside a one pod and it’s reachable for each of them.