



Summary

- Command to delete all the pods in one go
 - **kubectl delete pods --all**

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl delete pods --all
pod "mypod3" deleted

C:\Users\Vimal Daga\Documents\Container2021-ws>
```

- Labels help in resource filtering & mapping
- How to set labels in the YAML file

```
apiVersion: v1
kind: Pod
metadata:
  name: "mypod3"
  labels:
    dc: IN
    team: team1

spec:
  containers:
  - name: "myc2"
    image: "httpd"
```

- How to check the labels of the pods
 - **Command: kubectl describe pods**

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl describe pods
Name:          mypod3
Namespace:     default
Priority:       0
Node:          minikube/192.168.59.104
Start Time:    Tue, 30 Nov 2021 21:57:14 +0530
Labels:        dc=IN
               team=team1
Annotations:   <none>
Status:        Running
IP:            172.17.0.3
IPs:
  IP: 172.17.0.3
```

- **Command: kubectl get pods --show-labels**

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get pods --show-labels
NAME      READY   STATUS    RESTARTS   AGE   LABELS
mypod3    1/1     Running   0           3m18s   dc=IN,team=team1
mypod4    1/1     Running   0           104s    dc=IN,team=team2
mypod5    1/1     Running   0           53s     dc=US,team=team1

C:\Users\Vimal Daga\Documents\Container2021-ws>
```

- Types of selectors
 - Equality based selectors (= → equality , != → not equal to)

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get pods --selector "dc=US"
NAME      READY   STATUS    RESTARTS   AGE
mypod5    1/1     Running   0           3m31s

C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get pods --selector "dc=US" --show-labels
NAME      READY   STATUS    RESTARTS   AGE   LABELS
mypod5    1/1     Running   0           3m55s   dc=US,team=team1

C:\Users\Vimal Daga\Documents\Container2021-ws>cls
```

- Set-based selectors (in, not in)

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get pods --selector "dc=US"
NAME      READY   STATUS    RESTARTS   AGE
mypod5    1/1     Running   0           3m31s

C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get pods --selector "dc=US" --show-labels
NAME      READY   STATUS    RESTARTS   AGE   LABELS
mypod5    1/1     Running   0           3m55s   dc=US,team=team1

C:\Users\Vimal Daga\Documents\Container2021-ws>cls
```

- The replication controller in Kubernetes is responsible ensures that a specified number of pod replicas are running at any point in time
- The replication controller can scale the pods
- The replication controller searches & selects the pods with the help of labels
- How to create a replication controller
 - **Command: kubectl create -f (filename)**

```
apiVersion: v1
kind: ReplicationController
metadata:
  name: myrc1
spec:
  replicas: 3
  selector:
    dc: IN
  template:
    metadata:
      name: "mypod"
      labels:
        dc: IN
    spec:
      containers:
        - name: "myc2"
          image: "httpd"
```

- In the replication controller if the desired state of the container is equal to the current state no pods will be created
- In the replication controller if the desired state of the container is not equal to the current state pods will be created
- How to update changes in the replication controller
 - **Command: kubectl apply -f (file name)**

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl apply -f rc.yml
Warning: resource replicationcontrollers/myrc1 is missing the kubectl.kubernetes.io/last-applied-configuration
annotation which is required by kubectl apply. kubectl apply should only be used on resources created directly
by either kubectl create --save-config or kubectl apply. The missing annotation will be patched automatically.
replicationcontroller/myrc1 configured

C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get rc
NAME      DESIRED   CURRENT   READY   AGE
myrc1     3         3         3       5m33s
```