

A pod is a collection of containers and its storage inside a node of a Kubernetes cluster. It is possible to create a pod with multiple containers inside it. For example, keeping a database container and data container in the same pod.

Types of Pod

There are two types of Pods –

- Single container pod

- Multi container pod

Single Container Pod

They can be simply created with the `kubectl run` command, where you have a defined image on the Docker registry which we will pull while creating a pod.

```
$ kubectl run <name of pod> --image=<name of the image from registry>
```

Example – We will create a pod with a tomcat image which is available on the Docker hub.

```
$ kubectl run tomcat --image = tomcat:8.0
```

This can also be done by creating the **yaml** file and then running the **kubectl create** command.

```
apiVersion: v1
kind: Pod
metadata:
  name: Tomcat
spec:
  containers:
  - name: Tomcat
    image: tomcat: 8.0
    ports:
  containerPort: 7500
  imagePullPolicy: Always
```

Once the above **yaml** file is created, we will save the file with the name of **tomcat.yml** and run the create command to run the document.

```
$ kubectl create -f tomcat.yml
```

It will create a pod with the name of tomcat. We can use the describe command along with **kubectl** to describe the pod.

Multi Container Pod

Multi container pods are created using **yaml** with the definition of the containers.

```
apiVersion: v1
kind: Pod
metadata:
```

```
  name: Tomcat
spec:
  containers:
  - name: Tomcat
    image: tomcat: 8.0
    ports:
  containerPort: 7500
  imagePullPolicy: Always
  -name: Database
  Image: mongoDB
  Ports:
  containerPort: 7501
  imagePullPolicy: Always
```

In the above code, we have created one pod with two containers inside it, one for tomcat and the other for MongoDB.