

Lab Guide 3:

Deployment:

Q.1 Create A deployment using CLi Method using mdhack/myapache image and deployment name should be test1.

Q.2 Create A deployment using dryrun Method using mdhack/myserver image and deployment name should be test2.

Q.3 Create a deployment using image quay.io/mayank123modi/simple-webapp.

Ans: 1

```
kubectl create deployment test1 --image mdhack/myapache
```

```
kubectl get deployments.apps
```

```
kubectl get all
```

```
kubectl get rs
```

```
kubectl get pods
```

```
kubectl describe deployments.apps test1
```

```
kubectl describe rs <rs name>
```

```
kubectl describe pod test1-59bcf5dfd-6sf2l
```

```

root@master:~# kubectl create deployment test1 --image mdhack/myapache
deployment.apps/test1 created
root@master:~# kubectl get deployments.apps
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
quiz      1/1     1            1           3m51s
test1     1/1     1            1           4s
root@master:~# kubectl get all
NAME                                READY   STATUS    RESTARTS   AGE
pod/quiz-8bdf978c5-5lxzs           1/1     Running   0           3m52s
pod/test1-59bcf5dfd-6sf2l          1/1     Running   0           6s

NAME              TYPE          CLUSTER-IP      EXTERNAL-IP   PORT(S)          AGE
service/quiz      NodePort      10.104.217.19   <none>        80:31086/TCP     3m37s

NAME                                READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/quiz                1/1     1            1           3m53s
deployment.apps/test1              1/1     1            1           6s

NAME                                DESIRED   CURRENT   READY   AGE
replicaset.apps/quiz-8bdf978c5      1         1         1       3m52s
replicaset.apps/test1-59bcf5dfd     1         1         1       6s
root@master:~# kubectl get rs
NAME                                DESIRED   CURRENT   READY   AGE
quiz-8bdf978c5                      1         1         1       3m54s
test1-59bcf5dfd                     1         1         1       8s
root@master:~# kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
quiz-8bdf978c5-5lxzs               1/1     Running   0           3m57s
test1-59bcf5dfd-6sf2l              1/1     Running   0           11s

```

```

root@master:~# kubectl describe deployments.apps test1
Name:          test1
Namespace:     learning
CreationTimestamp: Fri, 05 May 2023 05:15:27 +0000
Labels:        app=test1
Annotations:    deployment.kubernetes.io/revision: 1
Selector:      app=test1
Replicas:      1 desired | 1 updated | 1 total | 1 available | 0 unavailable
StrategyType:  RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=test1
  Containers:
    myapache:
      Image:   mdhack/myapache
      Port:    <none>
      Host Port: <none>
      Environment: <none>
      Mounts:    <none>
      Volumes:    <none>
Conditions:
  Type           Status  Reason
  ----           -
  Available      True    MinimumReplicasAvailable
  Progressing    True    NewReplicaSetAvailable
OldReplicaSets: <none>
NewReplicaSet:  test1-59bcf5dfd (1/1 replicas created)
Events:
  Type    Reason              Age   From                  Message
  ----    -
  Normal  ScalingReplicaSet   2m41s deployment-controller  Scaled up replica set test1-59bcf5dfd to 1

```

Ans: 2

```
kubectl create deployment test2 --image mdhack/myserver --dry-run -o yaml > dep1.yaml
```

```
cat dep1.yaml
```

```
kubectl create -f dep1.yaml
```

```
kubectl get pods
```

```
kubectl get rs
```

```
root@master:~# kubectl create deployment test2 --image mdhack/myserver --dry-run -o yaml > dep1.yaml
W0505 05:19:40.845882 6273 helpers.go:636] --dry-run is deprecated and can be replaced with --dry-run=client.
root@master:~# kubectl create -f dep1.yaml
kubedeployment.apps/test2 created
root@master:~# kubectl get deployments.apps
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
quiz      1/1     1             1           8m9s
test1     1/1     1             1           4m22s
test2     0/1     1             0           2s
root@master:~# kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
quiz-8bdf978c5-5lxzs                1/1     Running   0           8m9s
test1-59bcf5dfd-6sf2l               1/1     Running   0           4m23s
test2-b449f799f-r52mh               1/1     Running   0           3s
root@master:~# kubectl get rs
NAME                                DESIRED   CURRENT   READY   AGE
quiz-8bdf978c5                      1         1         1       8m11s
test1-59bcf5dfd                     1         1         1       4m25s
test2-b449f799f                     1         1         1        5s
```

```
root@master:~# cat dep1.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: test2
  name: test2
spec:
  replicas: 1
  selector:
    matchLabels:
      app: test2
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: test2
    spec:
      containers:
      - image: mdhack/myserver
        name: myserver
        resources: {}
status: {}
```

Ans: 3

kubectl create deployment anyname --image quay.io/mayank123modi/simple-webapp

kubectl get deployments.apps

kubectl get pods

```
root@master:~# kubectl create deployment anyname --image quay.io/mayank123modi/simple-webapp
deployment.apps/anyname created
root@master:~# kubectl get deployments.apps
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
anyname    0/1     1             0           5s
quiz      1/1     1             1          10m
test1     1/1     1             1         6m34s
test2     1/1     1             1         2m14s
root@master:~# kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
anyname-bb544bf9-gvpg4             1/1     Running   0           7s
quiz-8bdf978c5-5lxzs               1/1     Running   0          10m
test1-59bcf5dfd-6sf2l              1/1     Running   0         6m36s
test2-b449f799f-r52mh              1/1     Running   0         2m16s
root@master:~#
```

Clean up your environment

```
root@master:~# kubectl delete all --all --force
warning: Immediate deletion does not wait for confirmation that the running
n on the cluster indefinitely.
pod "anyname-bb544bf9-gvpg4" force deleted
pod "quiz-8bdf978c5-5lxzs" force deleted
pod "test1-59bcf5dfd-6sf2l" force deleted
pod "test2-b449f799f-r52mh" force deleted
service "quiz" force deleted
deployment.apps "anyname" force deleted
deployment.apps "quiz" force deleted
deployment.apps "test1" force deleted
deployment.apps "test2" force deleted
replicaset.apps "test2-b449f799f" force deleted
root@master:~#
```