



APPLICATION CONTAINERIZATION AND ORCHESTRATION LAB

STUDENT

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SUBMITTED TO

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Lab Exercise 9– Creating Replicaset in Kubernetes

Step 1: Create a ReplicaSet Configuration File

Create a file named replicaset.yaml with the following configuration:

```
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  name: my-nginx-rs
spec:
  replicas: 3
  selector:
    matchLabels:
      app: lbnginx
  template:
    metadata:
      labels:
        app: lbnginx
    spec:
      containers:
        - name: nginx
          image: nginx
```

Step 2: Apply the ReplicaSet Configuration

Apply the configuration to create the ReplicaSet:

```
● sachinaggarwal@Sachins-MacBook-Air acoexp9 % kubectl apply -f replicaset.yaml
replicaset.apps/my-nginx-rs created
○ sachinaggarwal@Sachins-MacBook-Air acoexp9 %
```

Step 3: View the ReplicaSet and Pods

View the created ReplicaSet and the associated Pods:

```
sachinaggarwal@Sachins-MacBook-Air acoexp9 % kubectl get replicaset
```

NAME	DESIRED	CURRENT	READY	AGE
my-nginx-rs	3	3	0	37s

```
sachinaggarwal@Sachins-MacBook-Air acoexp9 % kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
my-nginx-rs-4k9br	0/1	ImagePullBackOff	0	51s
my-nginx-rs-59fmp	0/1	ContainerCreating	0	51s
my-nginx-rs-wdshc	0/1	ContainerCreating	0	51s

Step 4: Scale the ReplicaSet

Scale the ReplicaSet to 5 replicas:

```
sachinaggarwal@Sachins-MacBook-Air acoexp9 % kubectl scale replicaset my-nginx-rs --replicas=5
```

```
replicaset.apps/my-nginx-rs scaled
```

Step 5: Delete the ReplicaSet

Delete the ReplicaSet:

```
sachinaggarwal@Sachins-MacBook-Air acoexp9 % kubectl delete replicaset my-nginx-rs
```

```
replicaset.apps "my-nginx-rs" deleted
```