

# LAB 3

## Q1:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl create deployment my-first-deployment --image=nginx:alpine
deployment.apps/my-first-deployment created
```

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl get deployment my-first-deployment
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
my-first-deployment	1/1	1	1	7m38s

## Q2:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl scale --replicas=3 deployment/my-first-deployment
deployment.apps/my-first-deployment scaled
```

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl get deployment my-first-deployment
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
my-first-deployment	3/3	3	3	17m

## Q3:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl scale --replicas=2 deployment/my-first-deployment
deployment.apps/my-first-deployment scaled
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl get deployment my-first-deployment
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
my-first-deployment	2/2	2	2	20m

## Q4:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl set image deployment/my-first-deployment nginx=httpd:alpine
deployment image updated
```

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl describe deployment my-first-deployment -n default
```

Name: my-first-deployment  
Namespace: default  
CreationTimestamp: Sun, 22 Jan 2023 13:21:49 +0200  
Labels: app=my-first-deployment  
Annotations: deployment.kubernetes.io/revision: 2  
Selector: app=my-first-deployment  
Replicas: 2 desired | 2 updated | 2 total | 2 available | 0 unavailable  
StrategyType: RollingUpdate  
MinReadySeconds: 0  
RollingUpdateStrategy: 25% max unavailable, 25% max surge

Pod Template:

Labels:	app=my-first-deployment
Containers:	
nginx:	
Image:	httpd:alpine
Port:	<none>
Host Port:	<none>
Environment:	<none>

## Q5:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl delete deployment my-first-deployment
deployment.apps "my-first-deployment" deleted
```

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~$ kubectl get deployment
```

No resources found in default namespace.

## Q6:

```
salmanyoussef@salmanyoussef-Satellite-C55-B: ~/Documents/ITI-devops/Kubernetes/lab1$ kubectl apply -f frontend-deployment.yaml
deployment.apps/frontend-deployment created
```

## Q7:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl get rs
NAME                                DESIRED  CURRENT  READY  AGE
frontend-deployment-6989b9c8bf      4        4        0      2m16s
new-replica-set                      4        4        0      22h
```

## Q8:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl get pods
NAME                                READY    STATUS    RESTARTS   AGE
frontend-deployment-6989b9c8bf-gzwxh 0/1      ImagePullBackOff  0          7m45s
frontend-deployment-6989b9c8bf-kqt4w 0/1      ImagePullBackOff  0          7m45s
frontend-deployment-6989b9c8bf-rcjgl 0/1      ImagePullBackOff  0          7m45s
frontend-deployment-6989b9c8bf-rp2ln 0/1      ImagePullBackOff  0          7m45s
new-replica-set-dmlgv                 0/1      ImagePullBackOff  0          23h
new-replica-set-f2tbj                 0/1      ImagePullBackOff  0          23h
new-replica-set-mh5vt                 0/1      ImagePullBackOff  0          22h
new-replica-set-pd2rf                 0/1      ImagePullBackOff  0          23h
nginx                                  0/1      Error      0          24h
redis                                  1/1      Running      1 (50m ago)  23h
```

## Q9:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl get pods
NAME                                READY    STATUS    RESTARTS   AGE
frontend-deployment-6989b9c8bf-gzwxh 0/1      ImagePullBackOff  0          7m45s
frontend-deployment-6989b9c8bf-kqt4w 0/1      ImagePullBackOff  0          7m45s
frontend-deployment-6989b9c8bf-rcjgl 0/1      ImagePullBackOff  0          7m45s
frontend-deployment-6989b9c8bf-rp2ln 0/1      ImagePullBackOff  0          7m45s
new-replica-set-dmlgv                 0/1      ImagePullBackOff  0          23h
new-replica-set-f2tbj                 0/1      ImagePullBackOff  0          23h
new-replica-set-mh5vt                 0/1      ImagePullBackOff  0          22h
new-replica-set-pd2rf                 0/1      ImagePullBackOff  0          23h
nginx                                  0/1      Error      0          24h
redis                                  1/1      Running      1 (50m ago)  23h
```

## Q10:

```
salmanyoussef@salmanyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl describe deployment frontend-deployment
Name:                frontend-deployment
Namespace:            default
CreationTimestamp:    Sun, 22 Jan 2023 13:55:35 +0200
Labels:               <none>
Annotations:          deployment.kubernetes.io/revision: 1
Selector:             name=busybox-pod
Replicas:             4 desired | 4 updated | 4 total | 0 available | 4 unavailable
StrategyType:         RollingUpdate
MinReadySeconds:      0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  name=busybox-pod
  Containers:
    busybox-container:
      Image:          busybox888
      Port:           <none>
      Host Port:      <none>
      Command:

```

## Q11:

```
salmanyoussef@salmanyoussef-Satellite-C55-B: ~/Documents/ITI-devops/Kubernetes/lab1$ kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
frontend-deployment-6989b9c8bf-gzwxh	0/1	ImagePullBackOff	0	20m
frontend-deployment-6989b9c8bf-kqt4w	0/1	ImagePullBackOff	0	20m
frontend-deployment-6989b9c8bf-rcjgl	0/1	ImagePullBackOff	0	20m
frontend-deployment-6989b9c8bf-rp2ln	0/1	ImagePullBackOff	0	20m
new-replica-set-dmlgv	0/1	ImagePullBackOff	0	23h
new-replica-set-f2tbj	0/1	ImagePullBackOff	0	23h
new-replica-set-mh5vt	0/1	ErrImagePull	0	22h
new-replica-set-pd2rf	0/1	ImagePullBackOff	0	23h
nginx	0/1	Error	0	24h
redis	1/1	Running	1 (63m ago)	23h

```
salmanyoussef@salmanyoussef-Satellite-C55-B: ~/Documents/ITI-devops/Kubernetes/lab1$ kubectl describe pod frontend-deployment-6989b9c8bf-gzwxh
```

Events:				
Type	Reason	Age	From	Message
Normal	Scheduled	22m	default-scheduler	Successfully assigned default/frontend-deployment-6989b9c8bf-gzwxh to minikube
Normal	Pulling	21m (x4 over 22m)	kubelet	Pulling image "busybox888"
Warning	Failed	21m (x4 over 22m)	kubelet	Failed to pull image "busybox888": rpc error: code = Unknown desc = Error response from daemon: pull access denied for busybox888, repository does not exist or may require 'docker login': denied: requested access to the resource is denied
Warning	Failed	21m (x4 over 22m)	kubelet	Error: ErrImagePull
Warning	Failed	20m (x6 over 22m)	kubelet	Error: ImagePullBackOff
Normal	BackOff	2m45s (x83 over 22m)	kubelet	Back-off pulling image "busybox888"