

Create the deployment object that we used in the previous lecture:

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: sample-deployment
  labels:
    app: sample-app
spec:
  replicas: 3 # Number of desired pod replicas
  selector:
    matchLabels:
      app: sample-app
  strategy:
    type: RollingUpdate # Type of update strategy
    rollingUpdate:
      maxSurge: 1 # Number of extra pods to create during update
      maxUnavailable: 1 # Number of pods that can be unavailable during update
      minReadySeconds: 10 # Minimum number of seconds for a pod to be ready before considered
available
  revisionHistoryLimit: 5 # Limit on the number of old ReplicaSets to retain
  progressDeadlineSeconds: 600 # Time to wait for deployment to be completed
  template:
    metadata:
      labels:
        app: sample-app
    spec:
      containers:
      - name: sample-container
        image: nginx:1.21 # Container image
        ports:
        - containerPort: 80 # Port exposed by the container
        env:
        - name: ENVIRONMENT
          value: "production" # Sample environment variable
      resources: # Resource requests and limits
        requests:
          cpu: "100m"
          memory: "128Mi"
        limits:
          cpu: "200m"
          memory: "256Mi"
      livenessProbe: # Liveness probe configuration
        httpGet:
          path: /
          port: 80
          initialDelaySeconds: 15
          periodSeconds: 20
      readinessProbe: # Readiness probe configuration
        httpGet:
          path: /
          port: 80
          initialDelaySeconds: 5
          periodSeconds: 10
      volumeMounts: # Volume mounts (optional)
      - name: sample-volume
        mountPath: /usr/share/nginx/html
      volumes: # Define volumes used by containers
      - name: sample-volume
        emptyDir: {} # Using an emptyDir volume for demonstration
```

Create the deployment:

```
kubectl apply -f deploymeny.yaml
```

View the available deployments:

```
kubectl get deployments
```

Change the deployment image to `nginx:1.27.2`

Apply the changed deployment

View the rollout status:

```
kubectl rollout status sample-deployment
```

View the status of the ReplicaSets:

```
kubectl get replicaset -o wide
```