

## 1- What changed:

Deployment.yaml before update

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nodejs-hello
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nodejs-hello
  template:
    metadata:
      labels:
        app: nodejs-hello
    spec:
      containers:
        - name: nodejs-hello
          image: sotirusama/node-hello:latest
          ports:
            - containerPort: 3000
```

Deployment.yaml After update

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nodejs-hello
spec:
  replicas: 3
  strategy:
    type: RollingUpdate
    rollingUpdate:
      maxSurge: 1
      maxUnavailable: 1
  selector:
    matchLabels:
      app: nodejs-hello
  template:
    metadata:
      labels:
        app: nodejs-hello
    spec:
      containers:
        - name: nodejs-hello
          image: sotirusama/node-hello:latest
          ports:
            - containerPort: 3000
```

Added section

## 2- How the update was triggered:

by running this command “kubectl apply -f deployment.yaml” this automatically triggered a rolling update since the manifest was changed

## 3- How the system behaves during rollout:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl apply -f pvc-node.yaml
persistentvolumeclaim/nodejs-pvc unchanged
PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl apply -f deployment.yaml
deployment.apps/nodejs-hello configured
PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl rollout status deployment/nodejs-hello
waiting for deployment "nodejs-hello" rollout to finish: 2 out of 3 new replicas have been updated...
PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl get pods -o wide
NAME                                READY   STATUS             RESTARTS   AGE   IP              NODE     NOMINATED NODE   READINESS GATES
nodejs-hello-59d456b7fb-88vp5       0/1     ContainerCreating   0          6m43s <none>          minikube <none>           <none>
nodejs-hello-59d456b7fb-f69gm       0/1     ContainerCreating   0          6m44s <none>          minikube <none>           <none>
nodejs-hello-65fbcc5c69-2sj4d       0/1     ImagePullBackOff    0          26m   10.244.0.5      minikube <none>           <none>
nodejs-hello-65fbcc5c69-vxqfc       0/1     ImagePullBackOff    0          26m   10.244.0.4      minikube <none>           <none>
PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl rollout status deployment/nodejs-hello
waiting for deployment "nodejs-hello" rollout to finish: 2 out of 3 new replicas have been updated...
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waiting for deployment "nodejs-hello" rollout to finish: 1 old replicas are pending termination...
waiting for deployment "nodejs-hello" rollout to finish: 1 old replicas are pending termination...
waiting for deployment "nodejs-hello" rollout to finish: 1 old replicas are pending termination...
waiting for deployment "nodejs-hello" rollout to finish: 2 of 3 updated replicas are available...
deployment "nodejs-hello" successfully rolled out
PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl get pods -w
NAME                                READY   STATUS    RESTARTS   AGE
nodejs-hello-59d456b7fb-6c6gd       1/1     Running   0           98s
nodejs-hello-59d456b7fb-88vp5       1/1     Running   0          10m
nodejs-hello-59d456b7fb-f69gm       1/1     Running   0          10m
PS D:\Bank Misr DevOps Internship\Team proj 2> kubectl rollout history deployment/nodejs-hello
deployment.apps/nodejs-hello
REVISION  CHANGE-CAUSE
1          <none>
2          <none>
PS D:\Bank Misr DevOps Internship\Team proj 2>
```