KUBERNTES SCALING DEPLOYMENT

Custom Image

Index.html

```
# Use the official Nginx image
FROM nginx:alpine

# Copy the index.html to the appropriate directory in the container
COPY index.html /usr/share/nginx/html/index.html

# Expose port 80 to access the web page
EXPOSE 80
```

DockerFile

```
# Use the official Nginx image
FROM nginx:alpine

# Copy the index.html to the appropriate directory in the container
COPY index.html /usr/share/nginx/html/index.html

# Expose port 80 to access the web page
EXPOSE 80
```

DEPLOYMENT.YAML

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment2
spec:
  replicas: 2  # Initial number of replicas
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
```

```
        - name: nginx
          image: vaibhav1502/custom-depo:latest  # Replace with your Docker
image name
          ports:
            - containerPort: 80
```

SERVICE.YAML

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-service2
spec:
  selector:
    app: nginx
  ports:
    - protocol: TCP
      port: 80  # Exposing port 80
      targetPort: 80  # Inside the container
  type: NodePort    # Or you can use NodePort if LoadBalancer isn't available
```

Docker Login

```
PS D:\DEVOPS\kubernetes\customImage> docker login

  USING WEB-BASED LOGIN
  To sign in with credentials on the command line, use 'docker login -u <username>'

  Your one-time device confirmation code is: NHFF-LRJP
  Press ENTER to open your browser or submit your device code here: https://login.docker.com/activate

  Waiting for authentication in the browser…
  Login Succeeded
```

```
PS D:\DEVOPS\kubernetes\customImage> docker build -t custom-depo .
```

```
PS D:\DEVOPS> docker tag custom-depo vaibhav1502/custom-depo:latest
PS D:\DEVOPS> docker push vaibhav1502/custom-depo:latest
The push refers to repository [docker.io/vaibhav1502/custom-depo]
111c8f15e0ab: Pushed
da9db072f522: Pushed
a2eb5282fbec: Pushed
b2eb2b8af93a: Pushed
471412c08d15: Pushed
fbbf7d28be71: Pushed
33023fed5733: Pushed
e10e486de1ab: Pushed
e351ee5ec3d4: Pushed
af9c0e53c5a4: Pushed
latest: digest: sha256:bf37ca476d7d8058f9c28fac397f1c4f76737aa73d4f6531ea65f91c523a6c95 size: 856
```

DEPLOYMENT 2

```
PS D:\DEVOPS\kubernetes\customImage> kubectl apply -f deployment.yaml
deployment.apps/nginx-deployment2 created
PS D:\DEVOPS\kubernetes\customImage> kubectl apply -f service.yaml
service/nginx-service2 created
PS D:\DEVOPS\kubernetes\customImage> kubectl get deployments
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment2   2/2     2            2           23s
```

DEPLOYMENT 5

```
PS D:\DEVOPS\kubernetes\customImage> kubectl scale deployment nginx-deployment2 --replicas=5
deployment.apps/nginx-deployment2 scaled
PS D:\DEVOPS\kubernetes\customImage> kubectl get deployments
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment2   5/5     5            5           73s
PS D:\DEVOPS\kubernetes\customImage> kubectl get services
NAME             TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)        AGE
kubernetes       ClusterIP   10.43.0.1       <none>        443/TCP        45d
nginx-service2   NodePort    10.43.26.110    <none>        80:31593/TCP   77s
```

nginx-service2 : localhost:31593

Welcome to My Docker + Kubernetes Demo

This is a simple web application running in a container!