Task 3 & 4

```
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get pods
NAME                              READY   STATUS    RESTARTS   AGE
my-replicaset-fbmkr               1/1     Running   0          35m
my-replicaset-nzrm8               1/1     Running   0          35m
my-replicaset-x7nqq               1/1     Running   0          35m
nginx-deployment-58cdc7b878-bfw58 1/1     Running   0          31m
nginx-deployment-58cdc7b878-tcbhh 1/1     Running   0          31m
nginx-deployment-58cdc7b878-txgk5 1/1     Running   0          31m
react-ecommerce-7797fb496d-gnrjd  1/1     Running   0          4m43s
react-ecommerce-7797fb496d-jlbl8  1/1     Running   0          4m43s
kesavaprabha@LAPTOP-IQ521VJC:~$ minikube ip
192.168.49.2
kesavaprabha@LAPTOP-IQ521VJC:~$ cd capstone
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ curl 192.168.49.2:30007
<!doctype html><html lang="en"><head><meta charset="utf-8"/><link rel="icon" href="/favicon.ico"/><meta name="viewport" content="width=device-width,initial-
scale=1"/><meta name="theme-color" content="#000000"/><meta name="description" content="Web site created using create-react-app"/><link rel="apple-touch-ico
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://cdn.jsdelivr.net/npm/bootstrap-icons@1.10.5/font/bootstrap-icons.css"><title>React App</title><script defer="defer" src="/static/js/main.f1c48542.js"></s
cript><link href="/static/css/main.cf5c13c5.css" rel="stylesheet"></head><body><noscript>You need to enable JavaScript to run this app.</noscript><div id="r
oot"></div></body></html>kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl get deployment
NAME               READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   3/3     3            3           61m
react-ecommerce    2/2     2            2           34m
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl delete pod nginx-deployment-58cdc7b878-bfw58
pod "nginx-deployment-58cdc7b878-bfw58" deleted
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl get pods
NAME                              READY   STATUS    RESTARTS   AGE
my-replicaset-fbmkr               1/1     Running   0          74m
my-replicaset-nzrm8               1/1     Running   0          74m
my-replicaset-x7nqq               1/1     Running   0          74m
nginx-deployment-58cdc7b878-6pdhn 1/1     Running   0          15s
nginx-deployment-58cdc7b878-tcbhh 1/1     Running   0          71m
nginx-deployment-58cdc7b878-txgk5 1/1     Running   0          71m
react-ecommerce-7797fb496d-gnrjd  1/1     Running   0          44m
react-ecommerce-7797fb496d-jlbl8  1/1     Running   0          44m
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl scale deployment nginx-deployment --replicas=5
deployment.apps/nginx-deployment scaled
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl set image deployment/nginx-deployment nginx-container=nginx:1.19
deployment.apps/nginx-deployment image updated
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$
```

```
NAME               READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   0/3     3            0           5s
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl create deployment react-ecommerce --image=kesavaprabhal/kesava:latest --replicas=2
deployment.apps/react-ecommerce created
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get pods
NAME                              READY   STATUS    RESTARTS   AGE
my-replicaset-fbmkr               1/1     Running   0          35m
my-replicaset-nzrm8               1/1     Running   0          35m
my-replicaset-x7nqq               1/1     Running   0          35m
nginx-deployment-58cdc7b878-bfw58 1/1     Running   0          31m
nginx-deployment-58cdc7b878-tcbhh 1/1     Running   0          31m
nginx-deployment-58cdc7b878-txgk5 1/1     Running   0          31m
react-ecommerce-7797fb496d-gnrjd  1/1     Running   0          4m43s
react-ecommerce-7797fb496d-jlbl8  1/1     Running   0          4m43s
kesavaprabha@LAPTOP-IQ521VJC:~$ minikube ip
192.168.49.2
kesavaprabha@LAPTOP-IQ521VJC:~$ cd capstone
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ curl 192.168.49.2:30007
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react-ecommerce    2/2     2            2           34m
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pod "nginx-deployment-58cdc7b878-bfw58" deleted
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl get pods
NAME                              READY   STATUS    RESTARTS   AGE
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my-replicaset-nzrm8               1/1     Running   0          74m
my-replicaset-x7nqq               1/1     Running   0          74m
nginx-deployment-58cdc7b878-6pdhn 1/1     Running   0          15s
nginx-deployment-58cdc7b878-tcbhh 1/1     Running   0          71m
nginx-deployment-58cdc7b878-txgk5 1/1     Running   0          71m
react-ecommerce-7797fb496d-gnrjd  1/1     Running   0          44m
react-ecommerce-7797fb496d-jlbl8  1/1     Running   0          44m
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$
```

```
 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl create -f deployment.yml
service/react-ecommerce-service created
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl get deployments
No resources found in default namespace.
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ cd
kesavaprabha@LAPTOP-IQ521VJC:~$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl apply -f deployment.yml
replicaset.apps/my-replicaset created
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get deployments
No resources found in default namespace.
kesavaprabha@LAPTOP-IQ521VJC:~$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl apply -f deployment.yml
deployment.apps/nginx-deployment created
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get deployments
NAME               READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   0/3     3            0           5s
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl create deployment react-ecommerce --image=kesavaprabhal/kesava:latest --replicas=2
deployment.apps/react-ecommerce created
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
my-replicaset-fbmkr                 1/1     Running   0          35m
my-replicaset-nzrm8                 1/1     Running   0          35m
my-replicaset-x7nqq                 1/1     Running   0          35m
nginx-deployment-58cdc7b878-bfw58   1/1     Running   0          31m
nginx-deployment-58cdc7b878-tcbhh   1/1     Running   0          31m
nginx-deployment-58cdc7b878-txgk5   1/1     Running   0          31m
react-ecommerce-7797fb496d-gnrjd    1/1     Running   0          4m43s
react-ecommerce-7797fb496d-jlbl8    1/1     Running   0          4m43s
kesavaprabha@LAPTOP-IQ521VJC:~$ minikube ip
192.168.49.2
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oot"></div></body></html>kesavaprabha@LAPTOP-IQ521VJC:~/capstone$
        inet 192.168.49.1/24 brd 192.168.49.255 scope global br-982f643d494e
           valid_lft forever preferred_lft forever
24: vethf84246e@if2: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue master docker0 state UP group default
        link/ether 4e:79:35:36:35:8a brd ff:ff:ff:ff:ff:ff link-netnsid 0
        inet6 fe80::4c79:35ff:fe36:358a/64 scope link
           valid_lft forever preferred_lft forever
25: veth5ecb127@if2: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue master docker0 state UP group default
        link/ether f2:09:1f:cf:23:b0 brd ff:ff:ff:ff:ff:ff link-netnsid 1
        inet6 fe80::f009:1fff:fecf:23b0/64 scope link
           valid_lft forever preferred_lft forever
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ minikube start
 minikube v1.35.0 on Ubuntu 24.04 (amd64)
 Using the docker driver based on existing profile
 Starting "minikube" primary control-plane node in "minikube" cluster
 Pulling base image v0.0.46 ...
 Restarting existing docker container for "minikube" ...
 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
 Verifying Kubernetes components...
    ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
 Enabled addons: default-storageclass, storage-provisioner
 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl create -f deployment.yml
service/react-ecommerce-service created
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl get deployments
No resources found in default namespace.
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ cd
kesavaprabha@LAPTOP-IQ521VJC:~$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl apply -f deployment.yml
replicaset.apps/my-replicaset created
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get deployments
No resources found in default namespace.
kesavaprabha@LAPTOP-IQ521VJC:~$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl apply -f deployment.yml
deployment.apps/nginx-deployment created
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl get deployments
NAME               READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   0/3     3            0           5s
kesavaprabha@LAPTOP-IQ521VJC:~$ kubectl create deployment react-ecommerce --image=kesavaprabhal/kesava:latest --replicas=2
deployment.apps/react-ecommerce created
kesavaprabha@LAPTOP-IQ521VJC:~$
```

```
=> => exporting layers
=> => writing image sha256:720e07ec3c6afcbc56ddb217a78bd6f2d8f9ee9d4c83b8522d85fc4d23e55e51
=> => naming to docker.io/kesavaprabhal/kesava
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ docker images
REPOSITORY                        TAG       IMAGE ID       CREATED         SIZE
kesavaprabhal/kesava              latest    720e07ec3c6a   3 minutes ago   195MB
kesavaprabhal/kesava              8         06ef1d12aaf8   7 hours ago     149MB
gcr.io/k8s-minikube/kicbase       v0.0.46   e72c4cbe9b29   2 months ago    1.31GB
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$
```

```
deployment.apps/nginx-deployment scaled
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl set image deployment/nginx-deployment nginx-container=nginx:1.19
deployment.apps/nginx-deployment image updated
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ nano deployment.yml
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl set image deployment/nginx-deployment nginx-container=nginx:1.19
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl expose deployment nginx-deployment --type=NodePort --port=80
service/nginx-deployment exposed
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ kubectl get services
NAME                     TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)        AGE
kubernetes               ClusterIP   10.96.0.1        <none>        443/TCP        26h
nginx-deployment         NodePort    10.104.144.168   <none>        80:31657/TCP   56s
react-ecommerce-service  NodePort    10.106.100.100   <none>        80:30007/TCP   3h23m
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ minikube ip
192.168.49.2
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$ curl 192.168.49.2:31657
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
    body {
        width: 35em;
        margin: 0 auto;
        font-family: Tahoma, Verdana, Arial, sans-serif;
    }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
kesavaprabha@LAPTOP-IQ521VJC:~/capstone$
```