Goal:

Deploy two versions of the same application (Blue = v1, Green = v2), and switch traffic between them **without downtime** using a Route.

```
oc new-project bg-deploy
```

Blue Version Deployment

Deploy v1:

```
oc new-app --name=myapp-blue \
  quay.io/openshift-examples/hello:v1
```

Expose service:

```
oc expose deploy/myapp-blue --port=8080
```

Check:

```
oc get pods
oc get svc
```

Green Version Deployment

Deploy v2:

```
oc new-app --name=myapp-green \
  quay.io/openshift-examples/hello:v2
```

Expose service:

```
oc expose deploy/myapp-green --port=8080
```

```
student@workstation ~]$ oc expose service myapp-blue
oute.route.openshift.io/myapp-blue exposed
```

Check:

```
oc get pods
oc get svc
```

Route Creation

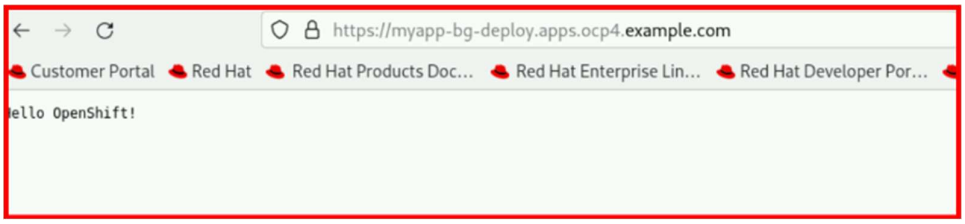
```
oc create route edge myapp --service=myapp-blue
```

Check route:

```
oc get route myapp
```

Test:

```
curl -k https://$(oc get route myapp -o jsonpath='{.spec.host}')
```



You should see **version v1**.

Switch Traffic TO Green

Patch the route → change its backend service.

```
oc patch route myapp \
  -p '{"spec":{"to":{"name":"myapp-green"}}}'
```

```
[student@workstation ~]$ oc patch route myapp -p '{"spec":{"to":{"
name":"myapp-green"}}}'
route.route.openshift.io/myapp patched
[student@workstation ~]$
```

Verify:

```
oc get route myapp -o yaml | grep myapp
```

```
[student@workstation ~]$ oc get route myapp -o yaml | grep myapp
    app: myapp-blue
    app.kubernetes.io/component: myapp-blue
    app.kubernetes.io/instance: myapp-blue
  name: myapp
  host: myapp-bg-deploy.apps.ocp4.example.com
    name: myapp-green
    host: myapp-bg-deploy.apps.ocp4.example.com
```

Test:

```
curl -k https://$(oc get route myapp -o jsonpath='{.spec.host}')
```

Now you should see **version v2**.

This switch happens **instantly** with **zero downtime**.

ROLLBACK TO BLUE

```
oc patch route myapp \
  -p '{"spec":{"to":{"name":"myapp-blue"}}}'
```

```
[student@workstation ~]$ oc patch route myapp -p '{"spec":{"to":{"
name":"myapp-blue"}}}'
route.route.openshift.io/myapp patched
```

Testing Traffic for Blue/Green

BLUE:

```
for i in {1..10}; do curl -k https://$(oc get route myapp -o
jsonpath='{.spec.host}'); done
```

```
[student@workstation ~]$ for i in {1..10}; do curl -k https://$(oc
 get route myapp -o jsonpath='{.spec.host}'); done
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
[student@workstation ~]$
```

GREEN:

```
for i in {1..10}; do curl -k https://$(oc get route myapp -o
jsonpath='{.spec.host}'); done
```

```
[student@workstation ~]$ for i in {1..10}; do curl -k https://$(oc
 get route myapp -o jsonpath='{.spec.host}'); done
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
Hello OpenShift!
```