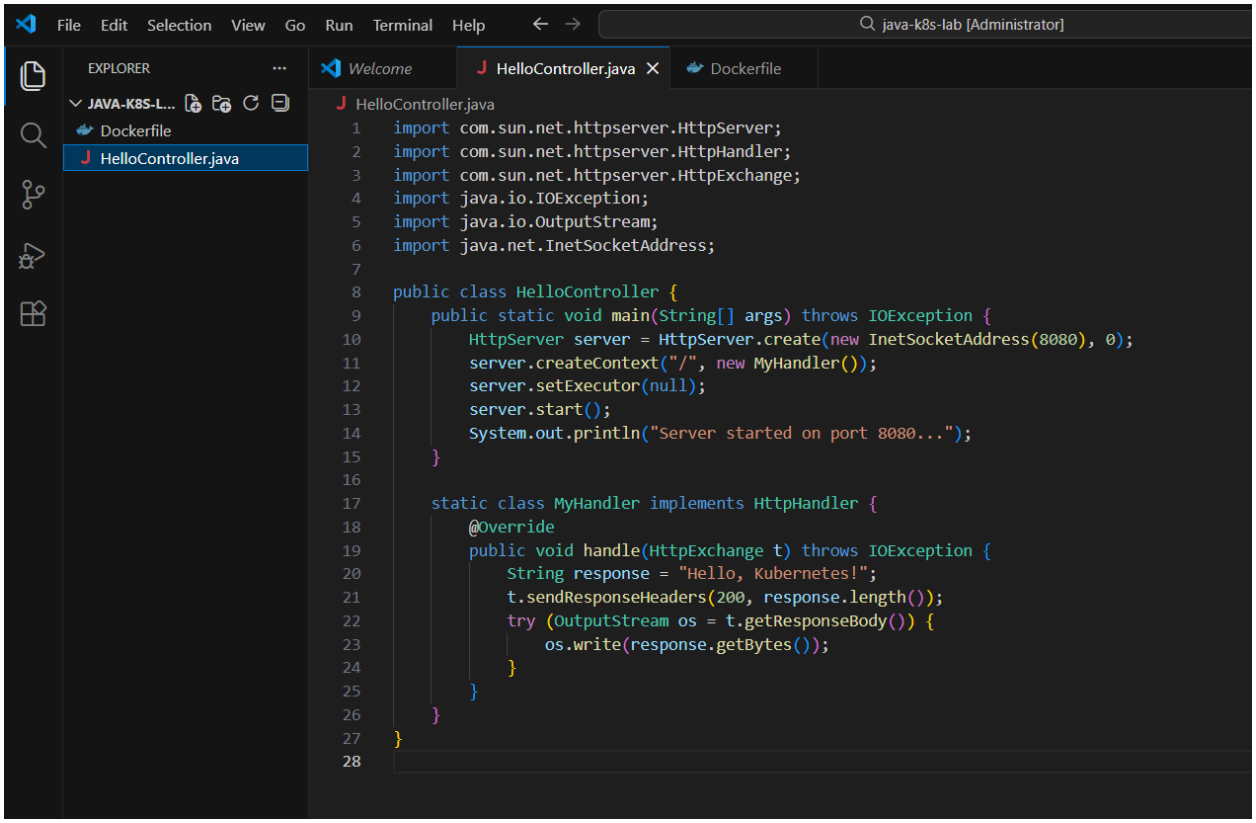
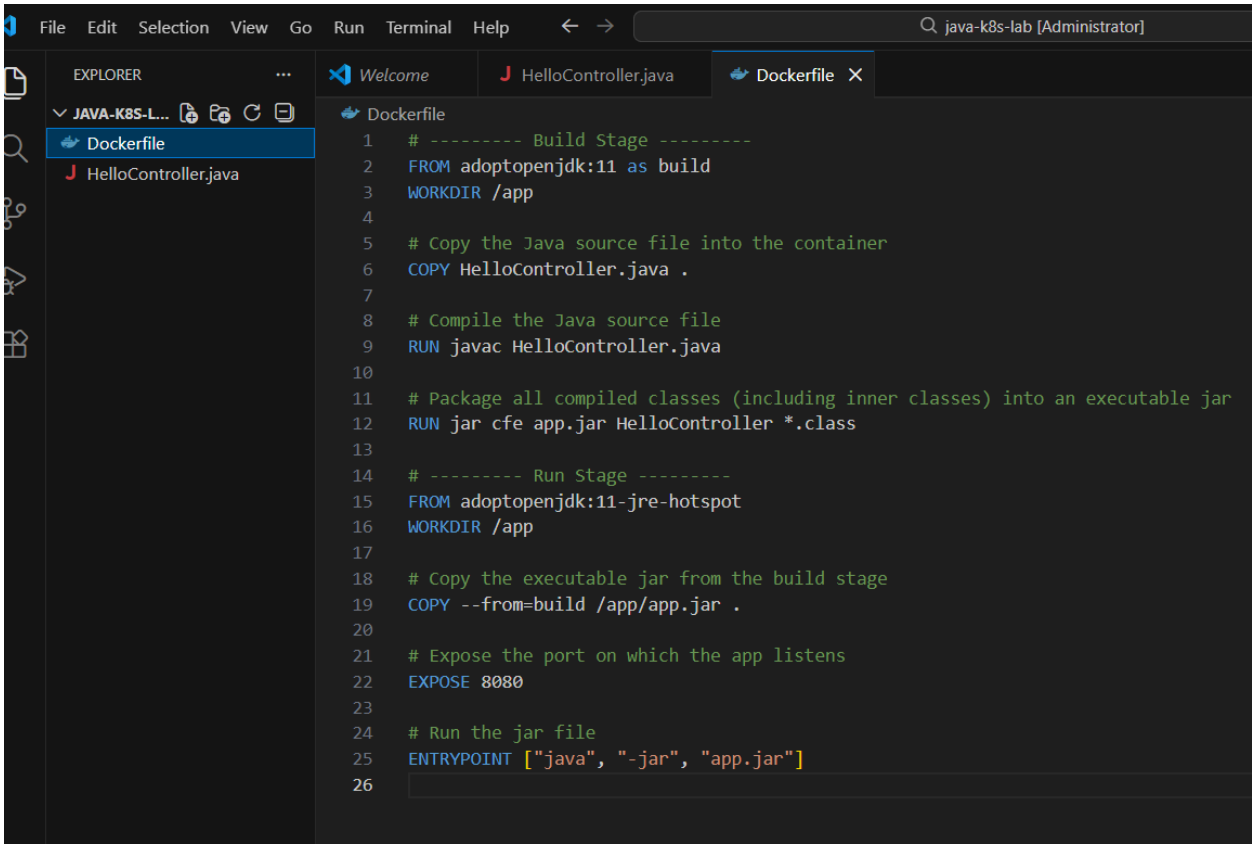
Lab - Simple Java App on K8s

Source Code/Dockerfile





Deploy to Kubernetes

```
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ docker build -t my-java-app:1.0 .
failed to fetch metadata: fork/exec /usr/local/lib/docker/cli-plugins/docker-buildx: no such file or directory

DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon  4.096kB
```

```
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ docker images
REPOSITORY                    TAG                 IMAGE ID       CREATED          SIZE
my-java-app                   1.0                 4aae8f8d24ab   4 seconds ago    244MB
```

```
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ docker run -d -p 8080:8080 --name test-java-app my-java-app:1.0
4c66a529572efd0437a67db55375350b618332a0dd10c781f5cdd36fb17405a5
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ curl http://localhost:8080
Hello, Kubernetes!vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ docker rm -f test-java-app
test-java-app
```

```
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ docker tag my-java-app:1.0 vijayagagla123/my-java-app:1.0
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ docker push vijayagagla123/my-java-app:1.0
The push refers to repository [docker.io/vijayagagla123/my-java-app]
b8c689a7dab2: Pushed
ed51034fefbd: Pushed
83b767b06655: Mounted from library/adoptopenjdk
14fbd8039ba4: Mounted from library/adoptopenjdk
da55b45d310b: Mounted from library/adoptopenjdk
1.0: digest: sha256:d0a1329b1f10b030e9b78157401e286fd5735b68979300e7ca4015e2f0e2c260 size: 1367
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ kubectl apply -f deployment.yaml
deployment.apps/java-app-deployment created
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ kubectl get deployments
NAME                 READY   UP-TO-DATE   AVAILABLE   AGE
hello                3/3     3            3           3d6h
java-app-deployment  0/1     1            0           9s
nginx-deployment     10/10   10           10          6h32m
nginx-webserver      1/1     1            1           4h56m
redis-deployment     1/1     1            1           109m
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ kubectl apply -f service.yaml
service/java-app-service created
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ kubectl get svc
NAME              TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)          AGE
hello             NodePort    10.99.6.155     <none>        8080:32345/TCP   3d6h
java-app-service  NodePort    10.106.46.159   <none>        80:30080/TCP     8s
kubernetes        ClusterIP   10.96.0.1       <none>        443/TCP          3d6h
redis-service     NodePort    10.101.251.26   <none>        6379:30079/TCP   110m
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ minikube service java-app-service
|-----------|------------------|-------------|---------------------------|
| NAMESPACE |       NAME       | TARGET PORT |            URL            |
|-----------|------------------|-------------|---------------------------|
| default   | java-app-service | 80          | http://192.168.49.2:30080 |
|-----------|------------------|-------------|---------------------------|
```

Test the Application

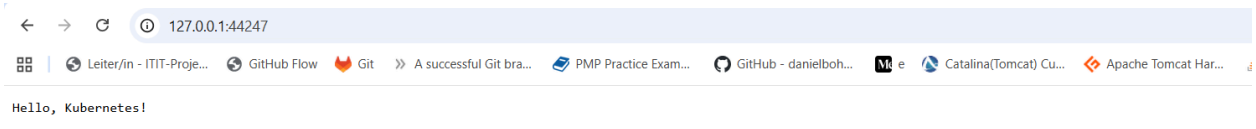
```
vijayagagla@DESKTOP-FP4OP26:~/kubernetes/java-k8s-lab$ minikube service java-app-service
```

NAMESPACE	NAME	TARGET PORT	URL
default	java-app-service	80	http://192.168.49.2:30080

```
🔗  Starting tunnel for service java-app-service.
```

NAMESPACE	NAME	TARGET PORT	URL
default	java-app-service		http://127.0.0.1:44247

```
🎉  Opening service default/java-app-service in default browser...
/usr/bin/xdg-open: 882: x-www-browser: not found
/usr/bin/xdg-open: 882: firefox: not found
/usr/bin/xdg-open: 882: iceweasel: not found
/usr/bin/xdg-open: 882: seamonkey: not found
/usr/bin/xdg-open: 882: mozilla: not found
/usr/bin/xdg-open: 882: epiphany: not found
/usr/bin/xdg-open: 882: konqueror: not found
/usr/bin/xdg-open: 882: chromium: not found
/usr/bin/xdg-open: 882: chromium-browser: not found
/usr/bin/xdg-open: 882: google-chrome: not found
/usr/bin/xdg-open: 882: www-browser: not found
/usr/bin/xdg-open: 882: links2: not found
/usr/bin/xdg-open: 882: elinks: not found
/usr/bin/xdg-open: 882: links: not found
/usr/bin/xdg-open: 882: lynx: not found
/usr/bin/xdg-open: 882: w3m: not found
xdg-open: no method available for opening 'http://127.0.0.1:44247'
```



Hello, Kubernetes!