Building a Multi-Service Application with In-Place Upgrades on Kubernetes

APPLY .YAML

```
PS C:\Users\aleja\documents\kubernetes> kubectl apply -f backend-deployment.yaml
deployment.apps/backend-deployment created
PS C:\Users\aleja\documents\kubernetes> kubectl apply -f backend-service.yaml
service/backend-service created
PS C:\Users\aleja\documents\kubernetes> kubectl apply -f frontend-deployment.yaml
deployment.apps/frontend-deployment created
PS C:\Users\aleja\documents\kubernetes> kubectl apply -f frontend-service.yaml
service/frontend-service created
```

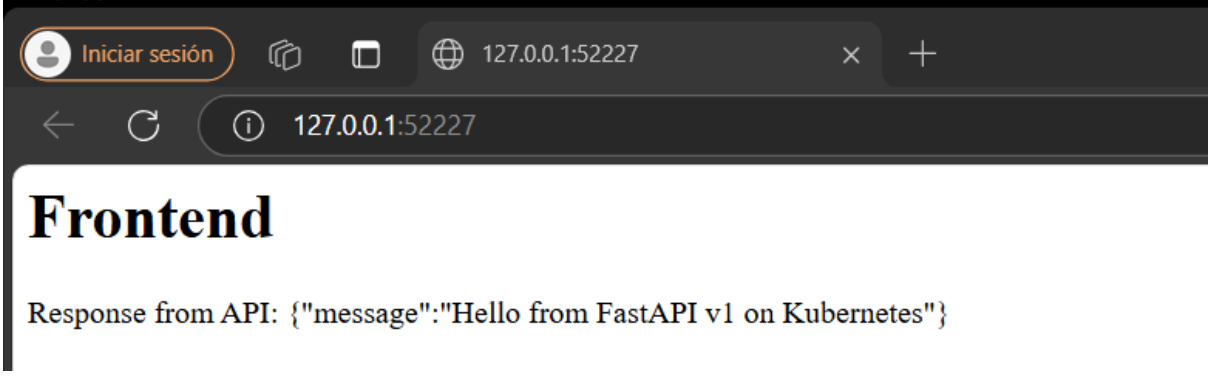
SCREENSHOTS BEFORE UPDATE

Kubectl get pods

```
PS C:\Users\aleja\documents\kubernetes> kubectl get pods
NAME                                  READY   STATUS    RESTARTS   AGE
backend-deployment-6f76f5dd54-kcxxg   1/1     Running   0          55m
backend-deployment-6f76f5dd54-zj54m   1/1     Running   0          55m
frontend-deployment-5c64db6b56-f8sr8  1/1     Running   0          49m
frontend-deployment-5c64db6b56-x5q2v  1/1     Running   0          49m
PS C:\Users\aleja\documents\kubernetes>
```

Frontend

```
PS C:\Users\aleja\documents\kubernetes> minikube service frontend-service --url
http://127.0.0.1:52274
```



SCREENSHOT ROLLOUT

```
PS C:\Users\aleja\documents\kubernetes\backend> kubectl set image deployment/backend-deployment backend=my-fastapi:v2
deployment.apps/backend-deployment image updated
PS C:\Users\aleja\documents\kubernetes\backend> kubectl rollout status deployment/backend-deployment
deployment "backend-deployment" successfully rolled out
```

SCREENSHOTS BEFORE UPDATE

Kubectl get pods

```
PS C:\Users\aleja\documents\kubernetes\backend> kubectl get pods
NAME                                   READY   STATUS    RESTARTS   AGE
backend-deployment-5b4d7bcdd5-9q6rg    1/1     Running   0          7m39s
backend-deployment-5b4d7bcdd5-wkgpk    1/1     Running   0          7m38s
frontend-deployment-5c64db6b56-f8sr8   1/1     Running   0          60m
frontend-deployment-5c64db6b56-x5q2v   1/1     Running   0          60m
PS C:\Users\aleja\documents\kubernetes\backend>
```

Frontend