**Deploy a Fullstack Application Using Helm and Ingress with Autoscaling**

**Image Creation Source Link**

**https://drive.google.com/drive/folders/12QJYELrw6sbOenWMv4jVgOrK-Y1ZSTDH?usp=sharing**

**1️⃣ Build Docker images**

Make sure you are in the directory containing your Dockerfiles.

**Backend**

docker build -f Dockerfile.backend -t srithar1234/ecommerce-backend1:v1 .

**Frontend**

docker build -f Dockerfile.frontend -t srithar1234/ecommerce-frontend1:v1 .

**2️⃣ Push images to Docker Hub**

docker push srithar1234/ecommerce-backend1:v1

docker push srithar1234/ecommerce-frontend1:v1

**Helm Chart Source Link:**

[**https://drive.google.com/drive/folders/1fHGkEa5lejffFBkxpTTokG0cMnkwyhxA?usp=drive\_link**](https://drive.google.com/drive/folders/1fHGkEa5lejffFBkxpTTokG0cMnkwyhxA?usp=drive_link)

> **helm create frontend** //This commands will help to create a helm chart

**Helm Installation for windows:**

[**https://github.com/helm/helm/releases**](https://github.com/helm/helm/releases)

**Download and set the Environment variable.  
  
>helm version**

**Execution Commands**

> helm install ecommerce-chart-deploy .

>kubectl get deployments

>helm status ecommerce-chart-deploy

**Check status:**

kubectl get all

kubectl get ingress

kubectl get hpa

**Upgrade / update the release**

Change configuration or images without reinstalling:

**helm upgrade ecommerce-chart-deploy . --set backend.image=srithar1234/ecommerce-backend1:v2**

You can override any value from values.yaml.

Examples:

--set backend.replicas=3

--set frontend.nodePort=30085

**Rollback to previous revision**

If an upgrade fails or breaks:

**helm rollback ecommerce-chart-deploy 1**

1 → revision number. Check revisions with:

If you want to delete complete chart,

>helm uninstall ecommerce-chart-deploy