Steps to Deploy ML Models on Docker

1. Build a Docker : sudo docker build -t gr\_deploy:test .

2. Run a Docker : sudo docker run -d -p 80:5000 gr\_deploy:test

## 80 : local

## 5000 : inside container

3. Check if port is free : netstat -nultp

4. Docker logs : sudo docker logs 2f22d6945655

5. Enter a Docker : sudo docker exec -it 970987e98ece bash

6. Delete all docker images and containers : sudo docker system prune -a

7. Deleting a Docker Container : sudo docker container rm cc3f2ff51cab cd20b396a061

8. Stop a Running Docker Container :sudo docker container stop f9142795b2ce ffda66ea92f1

Steps to Deploy on Kubernetes

1. Tag Image : gcr.io/project-id/image-name:tag

sudo docker tag gr\_deploy:v1 gcr.io/project-id/image-name:tag

2. Push the docker image to registry. Registry stores docker image

sudo docker push gcr.io/project-id/image-name:tag

3. Update the pushed image-name in yaml file

4. Create GKE Cluster

5. Install kubectl

Link: https://kubernetes.io/docs/tasks/tools/install-kubectl/#install-kubectl-on-linux

6. Go to cluster. Click connect. Copy command and run in local

7. sudo kubectl get nodes

To validate connection with cluster

8. kubectl apply -f kubernetes.yaml

9. Verify deployment pods and services on cluster

kubectl get pods, svc

10. For accessing the URL, create proxy

Go to GKE console

Go to Service and Ingress.

Click on Service.

Scroll Down. Go to Ports. Click Port Forwarding.

Copy the command and execute in local.