Assignment screenshots

NOTE:—----->>>The below steps I did first to check the app after image build and running the container. Later I changed the name, tagged the image with a different name and implemented the AKS deployment that you will see in the later screenshots in this document and the explanation in the README solution file.

docker build -t fastapi-app:v1 .

***** Curl and check****

- curl http://localhost:8000/
- curl http://localhost:8000/health
- curl "http://localhost:8000/items/42"
- curl "http://localhost:8000/items/42?q=testing"

Example Screenshot after started and stopped the docker container both.

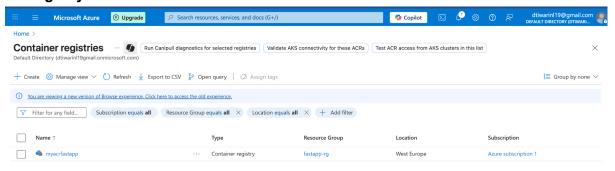******Push the images to the Dockerhub******

https://hub.docker.com/repository/docker/divya19/fastapi-app/general
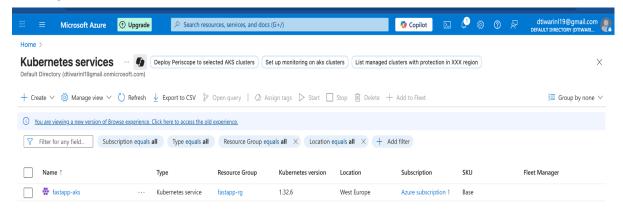
AZURE IMPLEMENTATION

****Tagging and pushing the image to ACR****

```
[dabbutiwari@MacBookPro fastapp % az acr login --name myacrfastapp
Login Succeeded
[dabbutiwari@MacBookPro fastapp % docker tag fastapp:v1 myacrfastapp.azurecr.io/fastapp:v1
[dabbutiwari@MacBookPro fastapp % docker images
REPOSITORY                                  TAG               IMAGE ID        CREATED         SIZE
fastapp                                     v1                6d44fb46b4e3    2 hours ago     172MB
myacrfastapp.azurecr.io/fastapp             v1                6d44fb46b4e3    2 hours ago     172MB
gcr.io/k8s-minikube/kicbase                 v0.0.47           795ea6a69ce6    3 months ago    1.31GB
envoyproxy/envoy                            v1.32.0           dd82be9261b2    10 months ago   156MB
kindest/node                                v1.31.1           af9b9022bb7b    10 months ago   1.04GB
docker/desktop-cloud-provider-kind          v0.3.0-desktop.3  9bbe2ec55346    11 months ago   422MB
docker/desktop-containerd-registry-mirror   v0.0.2            4ab6ed46705f    12 months ago   29.8MB
[dabbutiwari@MacBookPro fastapp % docker push myacrfastapp.azurecr.io/fastapp:v1
The push refers to repository [myacrfastapp.azurecr.io/fastapp]
7e0f380d3dd6: Pushed
fdaef4ab4ebb: Pushed
a8cee1f90cfd: Pushed
4bbc031dc79f: Pushed
6e1bd383ccba: Pushed
e33228fe7708: Pushed
07cd4433de32: Pushed
11a4ec4d004e: Pushed
e6a3842ebc7f: Pushed
v1: digest: sha256:058e31b445eed8fb5bdb77905f42211a0855a94fc384ece65c7656c9c3258142 size: 2201
dabbutiwari@MacBookPro fastapp %
```

****Registry****

	Name ↑		Type	Resource Group	Location	Subscription
	myacrfastapp	...	Container registry	fastapp-rg	West Europe	Azure subscription 1

****AKS****

	Name ↑		Type	Resource Group	Kubernetes version	Location	Subscription	SKU	Fleet Manager
	fastapp-aks	...	Kubernetes service	fastapp-rg	1.32.6	West Europe	Azure subscription 1	Base	

****Curl endpoints with outputs****

```
                    ~/Desktop/study2/fastAPI_app/fastapp-k8-deploy/terraform — -zsh

[dabbutiwari@MacBookPro terraform % kubectl get nodes
NAME                              STATUS   ROLES     AGE    VERSION
aks-default-37462899-vmss000000   Ready    <none>    175m   v1.32.6
aks-fastappnp-36236070-vmss000000 Ready    <none>    170m   v1.32.6
[dabbutiwari@MacBookPro terraform % kubectl get pods
NAME                        READY   STATUS    RESTARTS   AGE
fastapp-54b5f586c4-hw4rl    1/1     Running   0          11m
[dabbutiwari@MacBookPro terraform % kubectl get svc
NAME         TYPE           CLUSTER-IP    EXTERNAL-IP    PORT(S)        AGE
fastapp      LoadBalancer   10.0.14.175   4.245.91.247   80:31074/TCP   34m
kubernetes   ClusterIP      10.0.0.1      <none>         443/TCP        177m
dabbutiwari@MacBookPro terraform % kubectl get svc fastapp

NAME      TYPE           CLUSTER-IP    EXTERNAL-IP    PORT(S)        AGE
fastapp   LoadBalancer   10.0.14.175   4.245.91.247   80:31074/TCP   34m
[dabbutiwari@MacBookPro terraform % curl http://4.245.91.247/
[{"Hello":"World"}%
dabbutiwari@MacBookPro terraform % curl http://4.245.91.247/health
[{"status":"ok"}%
dabbutiwari@MacBookPro terraform % curl "http://4.245.91.247/items/42?q=testing"
[{"item_id":42,"q":"testing"}%
dabbutiwari@MacBookPro terraform % curl "http://4.245.91.247/items/42"
{"item_id":42,"q":null}%
dabbutiwari@MacBookPro terraform % 
```