A10: Micro-services Assignment Task 2

In this task we created various Dockerfiles with the purpose of building a docker images from each of our micro-services that we have created in the previous task. Those images then are pushed to the our docker-hub repository so we can use those images to deploy in the kubernetes-dashboard. Each micro-service is deployed with three nodes each.

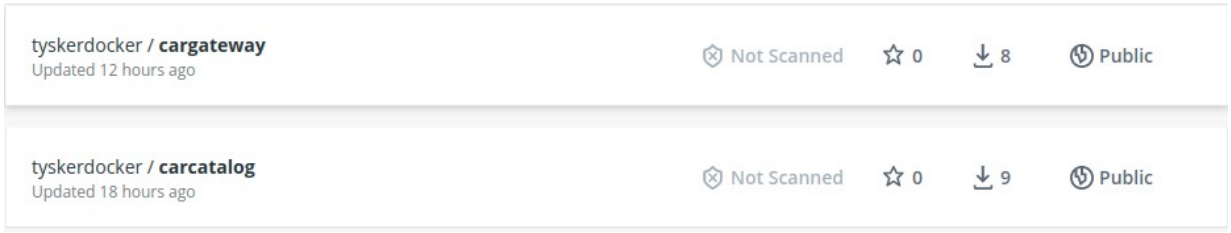
1. Creating a Dockerfile

FROM openjdk:12-alpine
COPY carcatalog.jar /carcatalog.jar
EXPOSE 8090
CMD ["java" , "-jar", "/carcatalog.jar"]

This image is based on a alpine Linux image with java 12 included. It copies a jar file and expose the API on port 8090. The command runs the jar file.

2. Building, tag and push the image to the repo

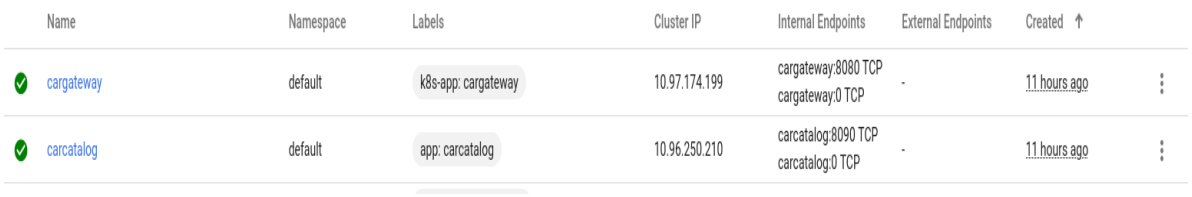
(a) `docker build –tag [name of the tag]:[version]`
(b) `docker tag [image id] [docker username]/[image name]:tag]`
(c) `docker push [docker username]/[image name]`



Docker Hub

3. Deploying the images into Kubernetes

1. logging into Kubernetes dashboard
2. adding the images to kubernetes cluster



Name	Namespace	Labels	Cluster IP	Internal Endpoints	External Endpoints	Created
cargateway	default	k8s-app: cargateway	10.97.174.199	cargateway:8080 TCP cargateway:0 TCP	-	11 hours ago
carcatalog	default	app: carcatalog	10.96.250.210	carcatalog:8090 TCP carcatalog:0 TCP	-	11 hours ago

4. Accessing the API internal

On one of the deployment is accessible on PORT 8090 and one on 8080.