Task1 Create a Docker image and store the Dockerfile

```
gcloud auth list
gsutil cat gs://cloud-training/gsp318/marking/setup_marking_v2.sh | bash
gcloud source repos clone valkyrie-app
cd valkyrie-app
cat > Dockerfile <<EOF
FROM golang:1.10
WORKDIR /go/src/app
COPY source .
RUN go install -v
ENTRYPOINT ["app","-single=true","-port=8080"]
EOF
docker build -t <Docker Image>:<Tag Name> .
cd ..
cd marking
./step1_v2.sh
```

Task - 2 : Test the created Docker image

```
cd ..
cd valkyrie-app
docker run -p 8080:8080 <Docker Image>:<Tag Name> &
cd ..
cd marking
./step2_v2.sh
```

Task - 3 : Push the Docker image in the Google Container Repository

```
cd ..
cd valkyrie-app
docker tag <Docker Image>:<Tag Name> gcr.io/$GOOGLE_CLOUD_PROJECT/<Docker Image>:<Tag Name>
docker push gcr.io/$GOOGLE_CLOUD_PROJECT/<Docker Image>:<Tag Name>
```

Task - 4 : Create and expose a deployment in Kubernetes

```
sed -i s#IMAGE_HERE#gcr.io/$GOOGLE_CLOUD_PROJECT/<Docker Image>:<Tag Name>#g k8s/deployment.yaml
gcloud container clusters get-credentials valkyrie-dev --zone us-east1-d
kubectl create -f k8s/deployment.yaml
kubectl create -f k8s/service.yaml
```

Task - 5 : Update the deployment with a new version of valkyrie-app

git merge origin/kurt-dev
kubectl edit deployment valkyrie-dev
change replicas from 1 to <Replicas Count>
change <Tag Name> to <Updated Version> in two places
docker build -t gcr.io/$GOOGLE_CLOUD_PROJECT/<Docker Image>:<Updated Version> .
docker push gcr.io/$GOOGLE_CLOUD_PROJECT/<Docker Image>:<Updated Version>

Task - 6 : Create a pipeline in Jenkins to deploy your app

docker ps
docker kill <take container_id from above command>

export POD_NAME=$(kubectl get pods --namespace default -l "app.kubernetes.io/component=jenkins-master" -l "app.kubernetes.io/instance=cd" -o jsonpath="{.items[0].metadata.name}")
kubectl port-forward $POD_NAME 8080:8080 >> /dev/null &
printf $(kubectl get secret cd-jenkins -o jsonpath="{.data.jenkins-admin-password}" | base64 –decode);echo

netlink:
https://www.courseintern.com/post/qwiklabs/challenge-labs/gsp318-deploy-to-kubernetes-in-google-cloud/