

HW 9

Install the gke cloud auth plugin

- gcloud components install gke-gcloud-auth-plugin

Created a docker file using the following command:

Pull from 3.10.4-slim bullseye

Install gcloud

Copy the source code into container

Install dependencies

Copy service account key file and set it to environment

```
gcloud artifacts repositories create hw-9 --repository-format=docker \
--location=us-central1 --description="DS561 HW9"
```

Use the following to verify that artifact was installed correctly:

```
gcloud artifacts repositories list
```

```
gcloud builds submit --region=us-central1 --tag
```

```
us-central1-docker.pkg.dev/ds-561-398918/hw-9/hw9-image:tag1
```

Create GKE Cluster

```
gcloud container clusters create-auto hw-9-cluster \
```

```
--location=us-central1
```

```
gcloud container clusters get-credentials hw-9-cluster \
```

```
--location us-central1
```

```
kubectl create deployment app-server \
```

```
--image=us-central1-docker.pkg.dev/ds-561-398918/hw-9/hw9-image@sha256:608c75bed1343c333e4c9dbb0b0c09e0892768e76601ab0f70f14828149a135d
```

```
kubectl expose deployment app-server \
```

```
--type LoadBalancer \
```

```
--port 80 \
```

```
--target-port 8080
```

```
kubectl get service app-server
```

```
[(base) brycehiraoka@crc-dot1x-nat-10-239-121-45 9-HW-DS561 % kubectl get service app-server]
NAME          TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
app-server    LoadBalancer 34.118.238.132  34.171.88.155    80:31482/TCP     2m54s
```

My 404 and 501 curl case did not work as I believe that this has something to do with my pubsub. I was going to go to office hours to fix this issue however there were no office hours on monday and so I tried and was not able to resolve the problem.

Valid curl: curl "<http://34.171.88.155:80/hw2-vm-bucket/webdir/0.html>"

```
<!DOCTYPE html>
<html>
<body>
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor in
cididunt ut labore et dolore magna aliqua. Ut enim ad
minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea com
modo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non pro
ident, sunt in culpa qui officia deserunt mollit anim id est laborum.
<p>
<a HREF="5227.html"> This is a link </a>
<p>
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor in
cididunt ut labore et dolore magna aliqua. Ut enim ad
minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea com
modo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
```

Created a VM to track requests using the following command:

```
gcloud compute instances create track-requests2 --project=ds-561-398918--zone=us-east1-b
--machine-type=e2-micro
--network-interface=network-tier=PREMIUM,stack-type=IPV4_ONLY,subnet=default
--maintenance-policy=MIGRATE --provisioning-model=STANDARD
--service-account=service-account-key@ds-561-398918.iam.gserviceaccount.com
--scopes=https://www.googleapis.com/auth/cloud-platform --tags=allow-8080
--create-disk=auto-delete=yes,boot=yes,device-name=track-requests,image=projects/debian-clo
ud/global/images/debian-11-bullseye-v20231010,mode=rw,size=10,type=projects/ds-561-39891
8/zones/us-central1-a/diskTypes/pd-balanced --no-shielded-secure-boot --shielded-vtpm
--shielded-integrity-monitoring --labels=goog-ec-src=vm_add-gcloud --reservation-affinity=any
```

Start commands:

```
sudo apt-get update
sudo apt-get install -y python3 python3-pip
gsutil cp -r gs://hw4-vm-bucket/Web-server/track_requests.py .
pip3 install google-cloud-pubsub
python3 track-requests.py
```

Github: https://github.com/Bryce-Hiraoka/DS_561/tree/main/9-HW-DS561