Cloud - Assignment 2

Exersice 1

Create the App Engine Configuration

```
  GNU nano 6.2
runtime: python39
entrypoint: gunicorn -b :$PORT app:app

handlers:
  - url: /.*
    script: auto
```

Deploy the Application

```
Creating App Engine application in project [assigment2-436209] and region [asia-east1]....done.
Services to deploy:

descriptor:                [/home/maxdoma03/flask-app/app.yaml]
source:                    [/home/maxdoma03/flask-app]
target project:            [assigment2-436209]
target service:            [default]
target version:            [20241003t095907]
target url:                [https://assigment2-436209.de.r.appspot.com]
target service account:    [assigment2-436209@appspot.gserviceaccount.com]


Do you want to continue (Y/n)?  Y

Beginning deployment of service [default]...
Uploading 655 files to Google Cloud Storage
5%
10%
15%
20%
25%
```

```
←  →  C   ⊡  assigment2-436209.de.r.appspot.com
```
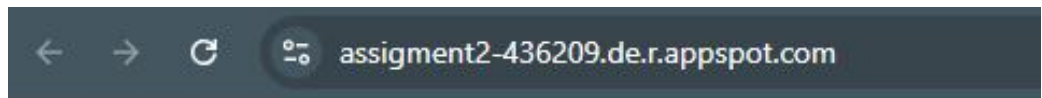
Hello, World!

Exersice 2 - Google Cloud Functions

Deploy the Function

```
Deploying function (may take a while - up to 2 minutes)...done.
automaticUpdatePolicy: {}
availableMemoryMb: 256
buildId: 0026a26c-7794-4b3d-a8d1-e24f28542b81
buildName: projects/367135725347/locations/us-central1/builds/0026a26c-7794-4b3d-a8d1-e24f285
buildServiceAccount: projects/assigment2-436209/serviceAccounts/367135725347-compute@develope
dockerRegistry: ARTIFACT_REGISTRY
entryPoint: helloWorld
httpsTrigger:
  securityLevel: SECURE_ALWAYS
  url: https://us-central1-assigment2-436209.cloudfunctions.net/helloWorld
ingressSettings: ALLOW_ALL
labels:
  deployment-tool: cli-gcloud
name: projects/assigment2-436209/locations/us-central1/functions/helloWorld
runtime: nodejs18
serviceAccountEmail: assigment2-436209@appspot.gserviceaccount.com
sourceUploadUrl: https://storage.googleapis.com/uploads-717174621030.us-central1.cloudfunction
status: ACTIVE
timeout: 60s
updateTime: '2024-10-03T10:34:36.651Z'
```

```
←  →  C   ⊡  us-central1-assigment2-436209.cloudfunctions.net/helloWorld
```
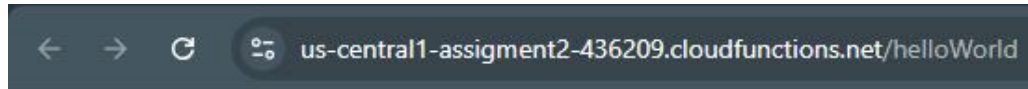
Hello, World!

Exersice 3 - Containerizing Applications

Create a Dockerfile

```
maxdoma03@cloudshell:~/docker-test (assigment2-436209)$ nano app.py
maxdoma03@cloudshell:~/docker-test (assigment2-436209)$ nano Dockerfile
maxdoma03@cloudshell:~/docker-test (assigment2-436209)$ docker build -t hello-world-app .
[+] Building 5.5s (4/7)                                                              docker:default
 => [internal] load build definition from Dockerfile                                       0.0s
 => => transferring dockerfile: 296B                                                       0.0s
 => [internal] load metadata for docker.io/library/python:3.9-slim                         3.0s
 => [internal] load .dockerignore                                                          0.0s
 => => transferring context: 2B                                                            0.0s
 => [internal] load build context                                                          0.0s
 => => transferring context: 373B                                                          0.0s
 => [1/3] FROM docker.io/library/python:3.9-slim@sha256:49f94609e5a997dc16086a66ac9664591854031d48e375945a9dbf4d1  2.4s
```

Run the Docker Container

```
docker run —rm hello-world-app
```

```
 => => extracting sha256:62a08b8dd4f53ad5493dabf2afd0ccde31abb3771fb2187040bcf2fe94a7oed
 => [2/3] WORKDIR /app
 => [3/3] COPY . /app
 => exporting to image
 => => exporting layers
 => => writing image sha256:8444fbefa2a99012bb6f8a5e573c61231fefdc0147314435c042dbcfba9ff
 => => naming to docker.io/library/hello-world-app
maxdoma03@cloudshell:~/docker-test (assigment2-436209)$ docker run --rm hello-world-app
Hello from inside the container!
maxdoma03@cloudshell:~/docker-test (assigment2-436209)$ █
```