Runbook of Cloud Application Development Exercise 5 (GCE)

1. Create a GCE instance and get it's IP address

2. Connect into it with ssh and paste these

```
mkdir PhpStormProjects
cd PhpStormProjects
sudo apt update -y
sudo apt-get remove -y nodejs npm
sudo apt-get autoremove -y
sudo apt-get update
sudo apt install -y ca-certificates curl gnupg unzip
curl -fsSL https://deb.nodesource.com/gpgkey/nodesoburce-repo.gpg.key | sudo gpg --dearmor -o /etc/apt/keyrings/nodesource.gpg
NODE_MAJOR=22
echo "deb [signed-by=/etc/apt/keyrings/nodesource.gpg] https://deb.nodesource.com/node_$NODE_MAJOR.x nodistro main" | sudo tee /etc/apt/sources.list.d/nodesource.list
sudo apt update -y
sudo apt install -y nodejs
sudo apt install -y npm
sudo apt install -y mysql-server
sudo apt install -y mysql-client-core-8.0
node -v
npm -v
wget -O CloudAppHW5.zip https://github.com/iambjlu/HTWG-Cloud-App-Dev-HW5/releases/download/1141104/CloudAppHW5.zip
 && unzip -o CloudAppHW5.zip -d CloudAppHW && rm CloudAppHW5.zip
sudo systemctl start mysql
sudo systemctl status mysql
sudo mysql
```

3. Paste these

```
CREATE DATABASE travel_app_db;
CREATE USER 'cloudapp_user'@'localhost' IDENTIFIED BY 'mypassword';
GRANT ALL PRIVILEGES ON travel_app_db.* TO 'cloudapp_user'@'localhost';
FLUSH PRIVILEGES;
EXIT;
```

4. Login to MySQL

```
mysql -u cloudapp_user -p
```

Enter Password

```
mypassword
```

5. Paste these

```
USE travel_app_db;
CREATE TABLE travellers (
    id INT AUTO_INCREMENT PRIMARY KEY,
    email VARCHAR(255) UNIQUE NOT NULL,
    name VARCHAR(255) NOT NULL
);
CREATE TABLE itineraries (
    id INT AUTO_INCREMENT PRIMARY KEY,
    traveller_id INT NOT NULL,
    title VARCHAR(255) NOT NULL,
    destination VARCHAR(255) NOT NULL,
    start_date DATE NOT NULL,
    short_description VARCHAR(80) NOT NULL,
    detail_description TEXT,
    FOREIGN KEY (traveller_id) REFERENCES travellers(id),
    end_date DATE NOT NULL
);
EXIT;
```

6. Edit ~/PhpStormProjects/CloudAppHW/frontend-vue/.env

```
nano /home/iambjlu/PhpStormProjects/CloudAppHW/frontend-vue/.env
```

7. Enter like this

```
VITE_API_BASE_URL=http://192.168.183.140:3000        #backend url


VITE_FIREBASE_API_KEY=AIxxxxxc                        #firebase api key
VITE_FIREBASE_AUTH_DOMAIN=htwg-cloudapp-hw.firebaseapp.com   #firebase auth
domain
```

```
VITE_FIREBASE_PROJECT_ID=htwg-cloudapp-hw              #firebase project id

VITE_FIREBASE_APP_ID=xxxxx                            #firebase app id

VITE_FIREBASE_STORAGE_BUCKET=htwg-cloudapp-hw.firebasestorage.app #firebase
storage bucket

VITE_MEASUREMENTID=G-Z5BGREZS4R                       #measurement id
```

8. Edit ~/PhpStormProjects/CloudAppHW/backend-api/.env

```
nano /home/iambjlu/PhpStormProjects/CloudAppHW/backend-api/.env
```

9. Enter like this

```
# GCP Setting

GCP_SERVICE_ACCOUNT_JSON={  "type": "service_account",  "project_id": "htwg-
cloudapp-hw",  "private_key_id": "xxxxxxxxxxx",  "private_key": "-----BEGIN
PRIVATE KEY-----\nMIIxxxxxxxLII\n-----END PRIVATE KEY-----\n",
"client_email": "xxx",  "client_id": "xxx",  "auth_uri": "https://
accounts.google.com/o/oauth2/auth",  "token_uri": "xxx",
"auth_provider_x509_cert_url": "https://www.googleapis.com/oauth2/v1/certs",
"client_x509_cert_url": "xxx",  "universe_domain": "googleapis.com"}


GEMINI_API_KEY=xxxx

GCP_BUCKET_NAME=htwg-cloudapp-hw.firebasestorage.app



# DB Setting

DB_HOST=localhost           #DB URL

DB_USER=cloudapp_user       # usename

DB_PASSWORD=mypassword      # password

DB_NAME=travel_app_db



# Server Setting

PORT=3000
```

9.
10. Install packages

```
cd ~/PhpStormProjects/CloudAppHW/backend-api

npm install express mysql2 cors dotenv

npm install undici

npm install multer
```

```
npm install @google/generative-ai@latest firebase-admin@latest @google-cloud/
storage@latest


cd ~/PhpStormProjects/CloudAppHW/frontend-vue

npm install axios

npm install firebase
```

9. Run server as sudo su

```
sudo su
```

10. Then paste

```
nohup bash -c 'cd /home/iambjlu/PhpStormProjects/CloudAppHW/backend-api &&
node server.js' >/tmp/backend.log 2>&1 &


nohup bash -c 'cd /home/iambjlu/PhpStormProjects/CloudAppHW/frontend-vue &&
npm run dev -- --host 0.0.0.0' >/tmp/frontend.log 2>&1 &


sudo systemctl start mysql;sudo systemctl status mysql
```