Task1

export REGION=us-central1

export ZONE=us-central1-c

export ADDITIONAL\_ENGINEER\_EMAIL=student-00-b66f8a456a0a@qwiklabs.net

gcloud compute networks create griffin-dev-vpc --subnet-mode=custom

gcloud compute networks subnets create griffin-dev-wp --network=griffin-dev-vpc --region=$REGION --range=192.168.16.0/20

gcloud compute networks subnets create griffin-dev-mgmt --network=griffin-dev-vpc --region=$REGION --range=192.168.32.0/20

Task2

gcloud compute networks create griffin-prod-vpc --subnet-mode=custom

gcloud compute networks subnets create griffin-prod-wp --network=griffin-prod-vpc --region=$REGION --range=192.168.48.0/20

gcloud compute networks subnets create griffin-prod-mgmt --network=griffin-prod-vpc --region=$REGION --range=192.168.64.0/20

Task3

* Navigate to **VM instances**.
* Click **Create instance**.
* Name it griffin-bastion.
* Select e2-medium as the machine type.
* Under **Networking**, add two network interfaces:
* The first interface connected to griffin-dev-mgmt
* The second interface connected to griffin-prod-mgmt
* Allow SSH connections.
* Click **Create**.

gcloud compute firewall-rules create griffin-dev-allow-ssh --network=griffin-dev-vpc --allow=tcp:22 --source-ranges=0.0.0.0/0 --target-tags=bastion --description="Allow SSH access to bastion host"

gcloud compute firewall-rules create griffin-prod-allow-ssh --network=griffin-prod-vpc --allow=tcp:22 --source-ranges=0.0.0.0/0 --target-tags=bastion --description="Allow SSH access to bastion host in production"

Task4

gcloud sql instances create griffin-dev-db --database-version=MYSQL\_5\_7 --tier=db-n1-standard-1 --region=$REGION

gcloud sql databases create wordpress --instance=griffin-dev-db

gcloud sql users create wp\_user --host=% --instance=griffin-dev-db --password=password123

gcloud sql connect griffin-dev-db --user=root << EOF

CREATE DATABASE wordpress;

CREATE USER 'wp\_user'@'%' IDENTIFIED BY 'stormwind\_rules';

GRANT ALL PRIVILEGES ON wordpress.\* TO 'wp\_user'@'%';

FLUSH PRIVILEGES;

EOF

Task5

gcloud container clusters create griffin-dev --zone=$ZONE --num-nodes=2 --machine-type=e2-standard-4 --network=griffin-dev-vpc --subnetwork=griffin-dev-wp

Task6

gsutil cp -r gs://cloud-training/gsp321/wp-k8s .

cd wp-k8s

ls

nano wp-env.yaml

Update the values of username to wp\_user and password to stormwind\_rules

gcloud iam service-accounts keys create key.json \

--iam-account=cloud-sql-proxy@$GOOGLE\_CLOUD\_PROJECT.iam.gserviceaccount.com

kubectl create secret generic cloudsql-instance-credentials \

--from-file key.json

Task7

gcloud sql instances describe griffin-dev-db --format='value(connectionName)'

nano wp-deployment.yaml

cat wp-deployment.yaml

kubectl apply -f wp-env.yaml

kubectl apply -f wp-deployment.yaml

kubectl apply -f wp-service.yaml

Task 8

kubectl get services

1. Go to the Google Cloud Console.
2. Navigate to **Monitoring**.
3. Select **Uptime Checks** from the menu.
4. Click on **Create Uptime Check**.
5. Fill in the required details:

* **Title**: Griffin Dev WP Uptime Check
* **Resource Type**: URL
* **Hostname**: $WORDPRESS\_SITE\_URL (use the actual external IP address, e.g., 34.48.95.59)
* **Path**: /
* **Port**: 80
* **Check Frequency**: 5 minutes

**Timeout**: 10 seconds

Task9

gcloud projects add-iam-policy-binding $GOOGLE\_CLOUD\_PROJECT \

--member="user:$ADDITIONAL\_ENGINEER\_EMAIL" \

--role="roles/editor"