Getting started...!

1.go to google cloud console

2.go to APIs and Services

3.make sure to enable Deployment manager and compute engine instance

4.go to google cloud console

5.go to VPC Network and created a VPC network with Name "deva-vpc".

- Created a custom subnet

  name   :"deva-subnet"

region :us-central1-a

ip-address : 10.0.2.0/24

- Dynamic Routing model : Regional

6.go to google cloudshell

7.gcloud auth list

8.gcloud config list project

9.gcloud config set project <project-id>

10.get the MY_ZONE variable location and assign "us-central1-a" by using command

 export MY_ZONE=us-central1-a

11.copy the mydeploy.yaml file from google source repository by using command

gsutil cp gs://cloud-training/gcpfcoreinfra/mydeploy.yaml mydeploy.yaml

12.extract project id from developer cloud shell and write in mydeploy.yaml file

 sed -i -e "s/PROJECT_ID/$DEVSHELL_PROJECT_ID/" mydeploy.yaml   /*we can direct give in yaml file */

13.extract the zone from MY_ZONE variable and write in mydeploy.yaml file

 sed -i -e "s/ZONE/$MY_ZONE/" mydeploy.yaml   /*we can direct give in yaml file */

14.edit mydeploy.yaml file with our requirements by using command

nano mydeploy.yaml (I have changed the instance-name "deva-deployment-instance" and changed machine type N1-standard-1 to f1-micro and changed the network to subnetwork and given the path of subnet.)

15.deploy the yaml file and created the instance by executing the following command.

 gcloud deployment-manager deployments create deva-deployment --config mydeploy.yaml

VM instance deployment completed.

16.go to "VPC-Network" and go to Firewall create 2 firewall rules.one is for allowing HTTP traffic and another is for allowing VM's SSH on port 22.

- Firewall 1. name :deva-firewall

network :deva-vpc

ip range :0.0.0.0/0

specified protocols and ports : tcp::80

- Firewall 2. name :deva-firewall-1

network :deva-vpc

ip range :0.0.0.0/0

specified protocols and ports : tcp::22

17.go to ssh

18.sudo apt-get update.

19.sudo apt-get install nginx.

20. sudo nano /var/www/html/index.nginx-debin.html.

21.after going to external link we can able to see the deployed application

22.go to "compute engine" instance templete and create a new templete

- Name :deva-instance-templete
- Series :N1
- Machine-type :f1-micro
- Allow http traffic
- Go to Management, security, disks, networking, sole tenancy
- Go to networks and select deva-vpc and deva-subnet as network
- Create

23.go to "compute engine" instance group and create a new instance group

- Name :deva-instance-group
- Loation : multiple zone (high availability)
- Instance templete : deva-instance-templete
- Give auto scale option and keep remain cpu utilization 60%
- Minimum number of instances :1 and maximum number of instances : 3
- Click on create

RESOURCE DELETION

- Deployment Manager :deva-deployment deleted
- Instance :deva-deployment-instance deleted
- Firewall rules :deva-firewall,deva-firewall-1,deva-vpc-allow-http deleted
- Instance-group :deva-instance-group deleted
- Instance-templates :deva-instance-template-deleted
- Vpc-network :deva-vp deleted