# Conteúdo

# Pre requisite

**Billing:** If you have a new account created on google cloud, ensure that you activated your billing account details or your free testing period on google.
**SDK:** if you do not have the SDK already installed on your desktop, follow the procedure for Installing/Configuring SDK as detailed on this document Apendice A.
**Python framework**: install Python and the necessary modules as detailed on Appendix B.:

# Pre requite before running the Terraform

Download the project from git:

Change to the Terraform project folder downloaded from git

On the google console, execute the following steps

Create a new project called prjdbjsolucx and associate it with your billing account

Create a GSA (google service account) and gives to it the Project->Editor role

Change the content of the terraform-gsa variable on the file terraform.tfvars to the GSA name created on the step before.

Download the GSA json key and rename it as: prjdbjsolucx-gsa.json

On the google console, creates and populate the database. The best practice for using Terraform states that the database schema creation and population should be addressed outside Terraform.

Create the SQL instance on google.

gcloud sql instances create **dbjmysqlterraform** --database-version=MYSQL_5_7 --cpu=2 --memory=8GB --zone=us-central1-a --root-password=password123

Connect to the mysql instance and creates: database, table and one record

gcloud sql connect **dbjmysqlterraform** --user=root

Connecting to database with SQL user [root].Enter password:**password123**

```
mysql> create database exemplo\g
mysql> use exemplo\g
mysql>    create table tabela(
          linha INT NOT NULL AUTO_INCREMENT,
          mensagem VARCHAR(100) NOT NULL,
          PRIMARY KEY ( linha )
          )\g
mysql> insert into tabela (mensagem) VALUES ("Hello World!")\g
mysql> exit
```

Enable High availability

gcloud sql instances patch **dbjmysqlterraform** --availability-type REGIONAL --enable-bin-log --backup-start-time=04:00

Executar o build da imagem

```
gcloud builds submit --tag gcr.io/prjdbjsolucx/helloworld-gke .
```

## Running Terraform

Execute the following command to install the providers defined on the main.tf:

```
terraform init
```

Run the terraform fmt command to check the main.tf for readability and consistency:

```
terraform fmt
```

Run the terraform validate command to check syntax consistency of the main.tf:

```
terraform validate
```

Run the terraform apply command to execute the main.tf. As illustrated by the command bellow:

```
terraform apply -var="cred-file-path=<CRED_FILE>" -var="yaml-file-path=< YAML_FILE >"
```

< CRED_FILE >: deve ser substituido pelo nome complete do arquivo de credenciais prjdbjsolucx-gsa.json.
< YAML_FILE >: deve ser substituido pelo nome complete do arquivo deployment-ter.yaml.
Exemplo: terraform apply -var="cred-file-path=C:\\decio\\prjdbjsolucx-gsa.json" -var="yaml-file-path=C:\\decio\\deployment-ter.yaml"

Check the message on the end of the script to get the EXTERNAL-IP address to test the Hello World application.