Homework_Lesson_37

Задание:

1. Создать конфигурацию для GCP Storage. Добавить модуль, который будет отвечать за доп. параметры бакета (имя, размер, файлы для закачки)
2. Используйте созданный модуль в основной конфигурации для развертывания инфраструктуры.
3. Настройте удаленное хранение tfstate в Terraform, используя GCP Storage в связке с CloudSQL
4. Перенесите свою существующую инфраструктуру на удаленное хранение стейта.
5. Создать в ручном режиме любой ресурс (лучше всего бакет либо ВМ) и импортируйте его в свою конфигурацию.

Создадим бакет для хранения состояния Terraform (tfstate) и добавим создание Cloud SQL экземпляра

```
gcpa4607@tms:~/HW37$  terraform  apply
Terraform used the selected providers to generate the following execution plan. Resource actions are
indicated with the following symbols:
  + create
Terraform will perform the following actions:
  # google_sql_database.appdb will be created
  + resource "google_sql_database" "appdb" {
      + charset         = (known after apply)
      + collation       = (known after apply)
      + deletion_policy = "DELETE"
      + id              = (known after apply)
      + instance        = "tf-cloudsql-db"
      + name            = "appdb"
      + project         = (known after apply)
      + self_link       = (known after apply)
    }

  # google_sql_database_instance.db will be created
  + resource "google_sql_database_instance" "db" {
      + available_maintenance_versions = (known after apply)
      + connection_name                = (known after apply)
      + database_version               = "POSTGRES_15"
      + deletion_protection            = true
      + dns_name                       = (known after apply)
      + encryption_key_name            = (known after apply)
      + first_ip_address               = (known after apply)
      + id                             = (known after apply)
      + instance_type                  = (known after apply)
      + ip_address                     = (known after apply)
      + maintenance_version            = (known after apply)
      + master_instance_name           = (known after apply)
      + name                           = "tf-cloudsql-db"
      + private_ip_address             = (known after apply)
      + project                        = (known after apply)
      + psc_service_attachment_link    = (known after apply)
      + public_ip_address              = (known after apply)
      + region                         = "europe-north1"
      + self_link                      = (known after apply)
      + server_ca_cert                 = (known after apply)
      + service_account_email_address  = (known after apply)

      + replica_configuration (known after apply)
```

```
    + settings {
        + activation_policy     = "ALWAYS"
        + availability_type     = "ZONAL"
        + connector_enforcement = (known after apply)
        + disk_autoresize       = true
        + disk_autoresize_limit = 0
        + disk_size             = (known after apply)
        + disk_type             = "PD_SSD"
        + pricing_plan          = "PER_USE"
        + tier                  = "db-f1-micro"
        + user_labels           = (known after apply)
        + version               = (known after apply)

        + backup_configuration (known after apply)

        + ip_configuration (known after apply)

        + location_preference (known after apply)
      }
  }

# google_sql_user.usersvc will be created
+ resource "google_sql_user" "usersvc" {
    + host                = (known after apply)
    + id                  = (known after apply)
    + instance            = "tf-cloudsql-db"
    + name                = "appuser"
    + password            = (sensitive value)
    + project             = (known after apply)
    + sql_server_user_details = (known after apply)
  }

# module.app_bucket.google_storage_bucket.bucket will be created
+ resource "google_storage_bucket" "bucket" {
    + force_destroy           = true
    + id                      = (known after apply)
    + labels                  = (known after apply)
    + location                = "EUROPE-NORTH1"
    + name                    = "my-unique-app-bucket-1234"
    + project                 = (known after apply)
    + public_access_prevention    = (known after apply)
    + self_link               = (known after apply)
    + storage_class           = "STANDARD"
    + uniform_bucket_level_access = (known after apply)
    + url                     = (known after apply)

    + soft_delete_policy (known after apply)

    + versioning (known after apply)

    + website (known after apply)
  }
```

```
# module.app_bucket.google_storage_bucket_object.initial["welcome.txt"] will be created
+ resource "google_storage_bucket_object" "initial" {
  + bucket       = "my-unique-app-bucket-1234"
  + content      = (sensitive value)
  + content_type = (known after apply)
  + crc32c       = (known after apply)
  + detect_md5hash = "different hash"
  + id           = (known after apply)
  + kms_key_name = (known after apply)
  + md5hash      = (known after apply)
  + media_link   = (known after apply)
  + name         = "welcome.txt"
  + output_name  = (known after apply)
  + self_link    = (known after apply)
  + source       = "welcome.txt"
  + storage_class = (known after apply)
 }
```

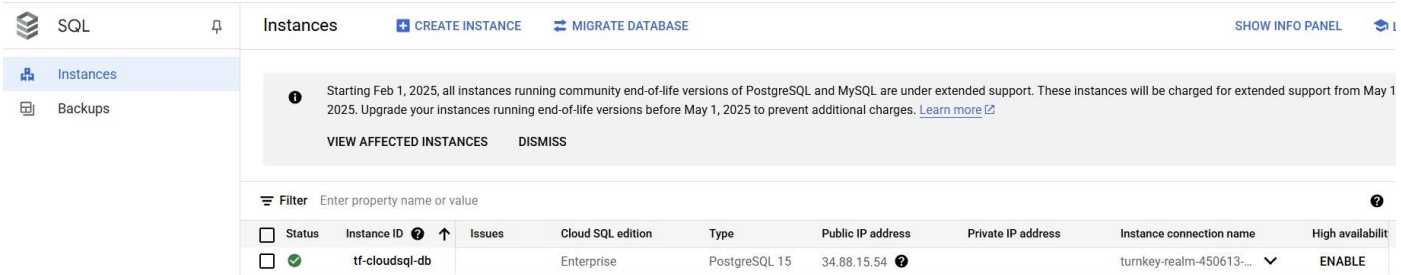
Plan: 5 to add, 0 to change, 0 to destroy.

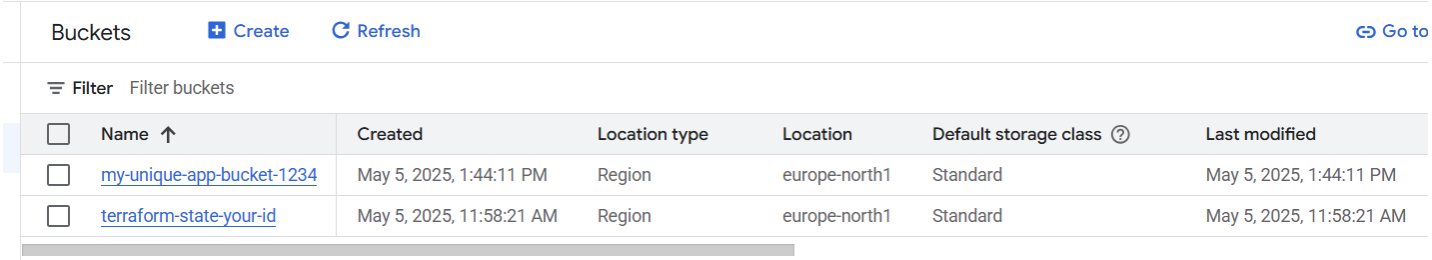
```
module.app_bucket.google_storage_bucket.bucket: Creating...
google_sql_database_instance.db: Creating...
module.app_bucket.google_storage_bucket.bucket: Creation complete after 2s [id=my-unique-app-bucket-1234]
module.app_bucket.google_storage_bucket_object.initial["welcome.txt"]: Creating...
module.app_bucket.google_storage_bucket_object.initial["welcome.txt"]: Creation complete after 0s [id=my-
unique-app-bucket-1234-welcome.txt]
google_sql_database_instance.db: Still creating... [10s elapsed]
```

```
Apply complete! Resources: 5 added, 0 changed, 0 destroyed.

Outputs:

bucket_name = "my-unique-app-bucket-1234"
bucket_url = "gs://my-unique-app-bucket-1234"
db_connection_name = "turnkey-realm-450613-c7:europe-north1:tf-cloudsql-db"
gcpa4607@tms:~/HW37$
```





В процессе Terraform создал бакет и загрузил в него начальный welcome.txt