Lab 15: Modifying the Terraform script to update the CockroachDB deployment

This lab shows you how to modify the Terraform script to update the CockroachDB deployment using the CockroachDB Cloud Terraform provider.

Before you begin

Before you start this lab, make sure you have created the cluster in Lab 14.

Update the Terraform configuration files

Terraform uses a infrastructure-as-code approach to managing resources. Terraform configuration files allow you to define resources declaratively and let Terraform manage their lifecycle.

In this lab, you will update a CockroachDB Serverless cluster.

2. In a text editor, update the `terraform.tfvars` file created ion lab3 with the following settings:

   ```
   cluster_name = "{cluster name}"
   sql_user_name = "{SQL user name}"
   sql_user_password = "{SQL user password}"
   ```

   Where:

   - `{cluster name}` is the name of the cluster you want to create.
   - `{SQL user name}` is the name of the SQL user you want to create.
   - `{SQL user password}` is the password for the SQL user you want to create.

     For example, the following `terraform.tfvars` file creates a CockroachDB Serverless with a `maxroach2` SQL user.

     ```
     cluster_name = "blue-dog"
     sql_user_name = "maxroach2"
     sql_user_password = "Fenago@12345"
     ```

3. Create an environment variable named `COCKROACH_API_KEY`. Copy the `API key` created in Lab 14.

   ```
   export COCKROACH_API_KEY={API key}
   ```

   Where `{API key}` is the API key you copied from the CockroachDB Cloud Console.

Update the cluster

2. Create the Terraform plan. This shows the actions the provider will take, but won't perform them:

   ```
   terraform plan
   ```

3. Update the cluster:

```
terraform apply
```

Enter `yes` when prompted to apply the plan and uodate the cluster.

Get information about your cluster

The `terraform show` command shows detailed information of your cluster resources.

```
terraform show
```

This will show the following output:

```
# cockroach_cluster.example:
resource "cockroach_cluster" "example" {
    cloud_provider    = "GCP"
    cockroach_version = "v23.1"
    creator_id        = "a907013c-a5e2-40fc-b120-775bf0a9289e"
    id                = "60f9e362-ee83-4cbd-ab14-10535797e06d"
    name              = "blue-dog"
    operation_status  = "UNSPECIFIED"
    plan              = "SERVERLESS"
    regions           = [
        {
            internal_dns = ""
            name         = "us-central1"
            node_count   = 0
            primary      = true
            sql_dns      = "blue-dog-13786.5xj.gcp-us-central1.cockroachlabs.cloud"
            ui_dns       = ""
        },
    ]
    serverless        = {
        routing_id  = "blue-dog-13786"
        spend_limit = 0
    }
    state             = "CREATED"
    upgrade_status    = "FINALIZED"
}

# cockroach_database.example:
resource "cockroach_database" "example" {
    cluster_id  = "60f9e362-ee83-4cbd-ab14-10535797e06d"
    id          = "60f9e362-ee83-4cbd-ab14-10535797e06d:example-database"
    name        = "example-database"
    table_count = 0
}

# cockroach_sql_user.example:
resource "cockroach_sql_user" "example" {
    cluster_id = "60f9e362-ee83-4cbd-ab14-10535797e06d"
    id         = "60f9e362-ee83-4cbd-ab14-10535797e06d:maxroach2"
    name       = "maxroach2"
```

```
    password   = (sensitive value)
}
```

Note: You can delete the cluster by running `terraform destroy` command but you will be using cluster in upcoming labs so **don't** delete it yet.

Task: Update the Cluster Name

Update **cluster_name** in `terraform.tfvars` and run the above terraform commands. You will get an error.

```
root@763b492af032:~/Desktop# terraform apply
cockroach_cluster.example: Refreshing state... [id=60f9e362-ee83-4cbd-ab14-
10535797e06d]
\u2577
\u2502 Error: Cannot update cluster name
\u2502
\u2502   with cockroach_cluster.example,
\u2502   on main.tf line 51, in resource "cockroach_cluster" "example":
\u2502   51: resource "cockroach_cluster" "example" {
\u2502
\u2502 To prevent accidental deletion of data, renaming clusters isn't allowed.
\u2502 Please explicitly destroy this cluster before changing its name.
\u2575
```