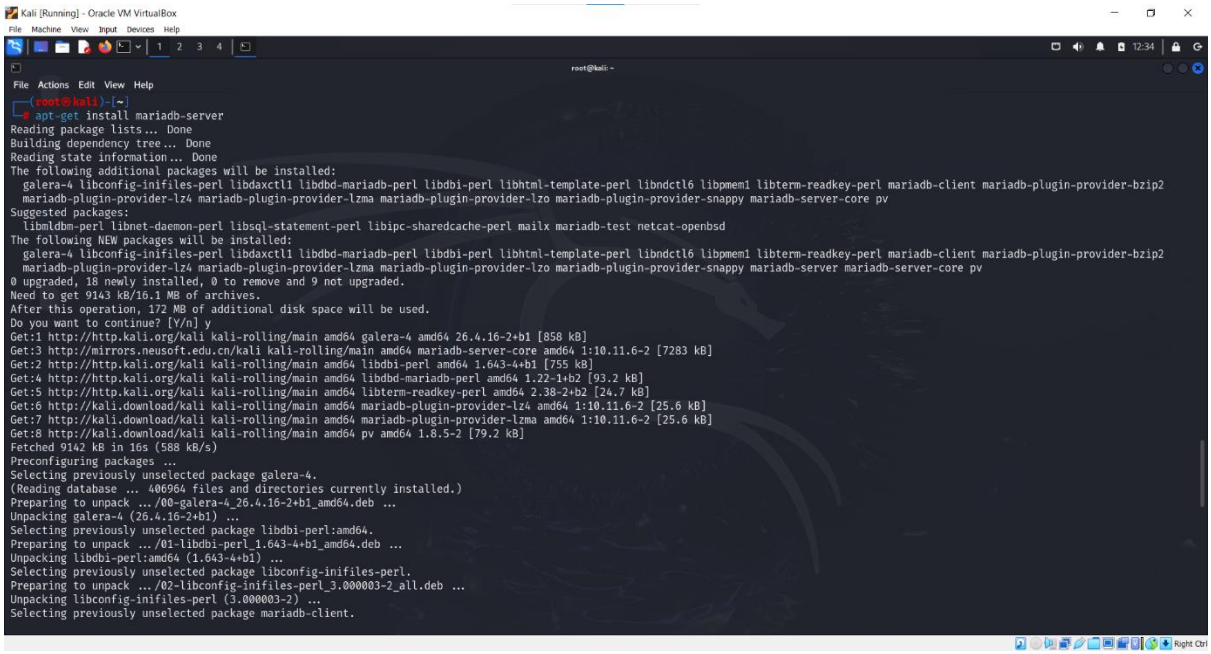
# Onpremise to Cloud Migration

**Step 1 : Create a database in your local system.**

In your local system, download MariaDB package using the following command.

***apt-get install mariadb-server***




We want to create a database which we will migrate to the cloud. To create a database, login to the MariaDB server as root user using following command.

***mysql -h localhost -u root***

After logging into mariadb server, create a database by firing the query given below.

**CREATE DATABASE test;**

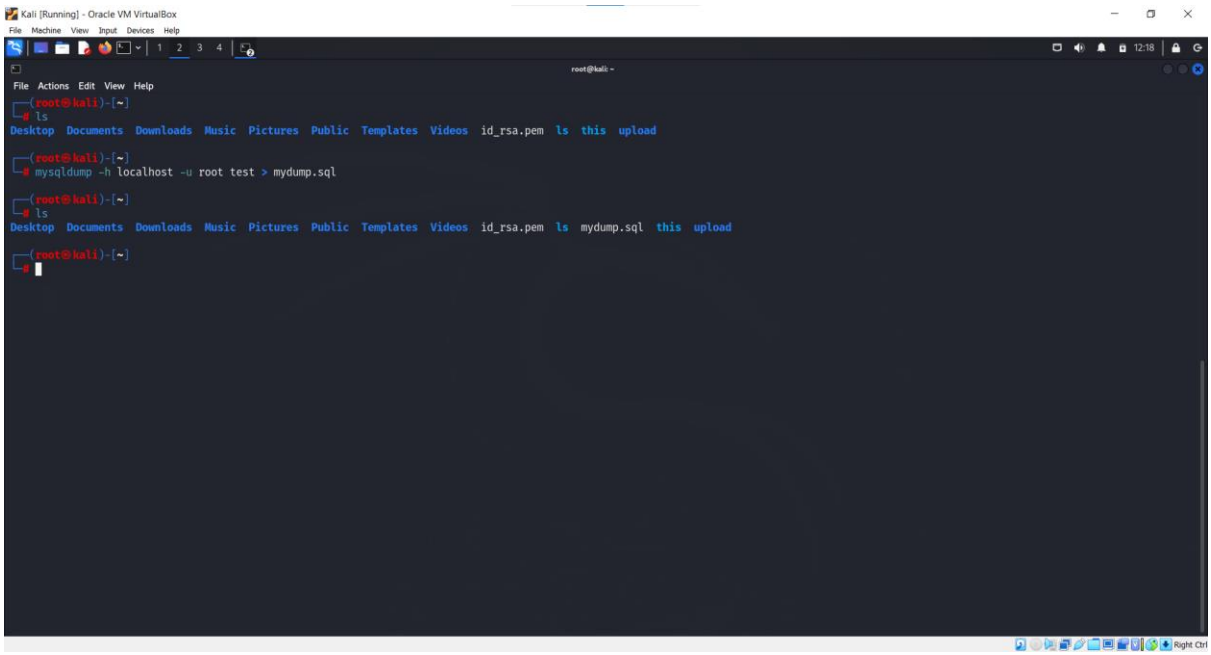

Now populate your database by adding a table and data into it, I have used following queries to create a table and add data into that table.

**CREATE TABLE cars(car_name VARCHAR(20),company VARCHAR(20));**

## Step 2 : Create backup file for database

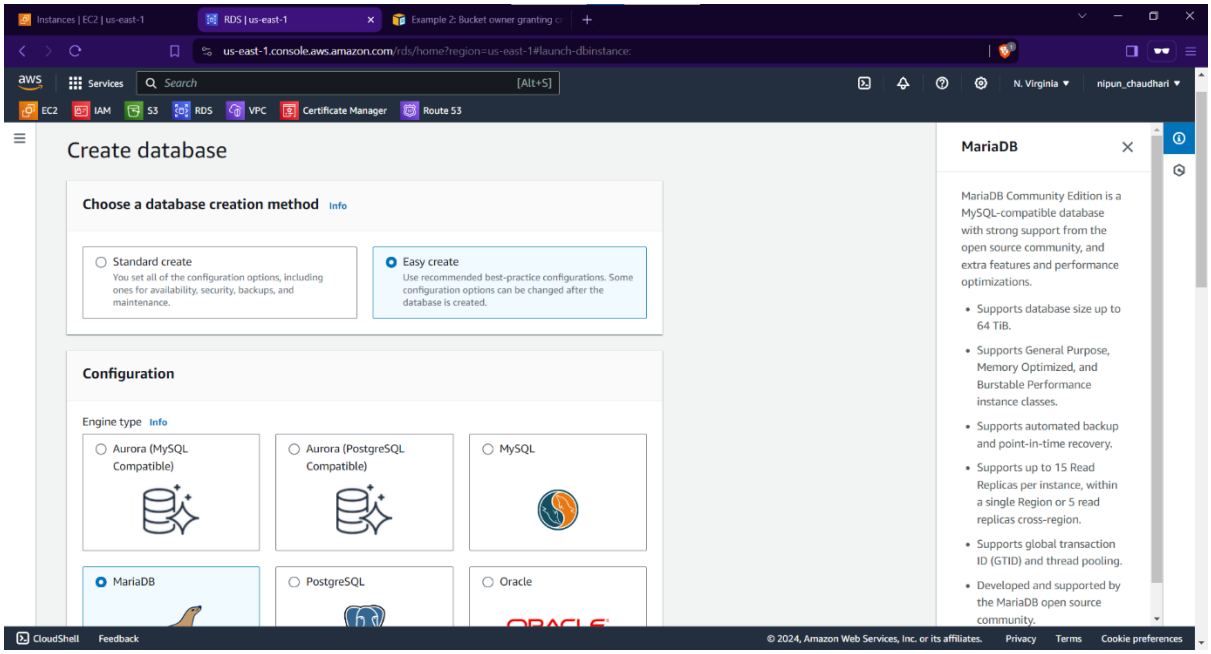
Inorder to migrate our database to the cloud environment we need to first create its backup file. This can be done using ‘mysqldump’ command as shown below.

***mysqldump -h localhost -u root test > mydump.sql***

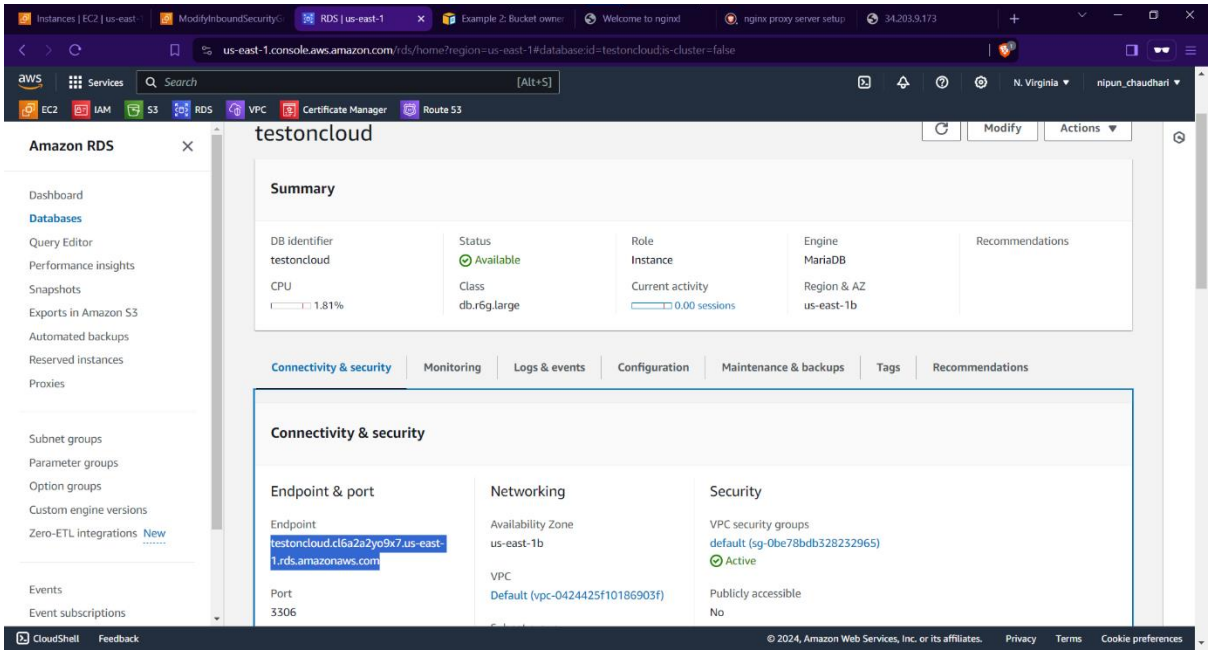



## Step 3 : Create a database on cloud.

Login to your amazon AWS account, go to RDS service control panel and create a database instance with MariaDB.




Upon the creation of your database instance, click on your database and copy database endpoint.



## Step 4 : Get your backup file on EC2 instance.

We cannot access our RDS instance from our local machine. In order to access it we need an EC2 instance. Go to EC2 service and launch an instance with MYSQL/Aurora inbound traffic allowed on it.

Next, open the terminal on your local machine and copy the backup file of your database into your EC2 instance using following command.

***scp -i <key> <filename> ec2-user@<ip_address>:<destination>***

SSH into your EC2 instance using following command.

***ssh -i <key> ec2-user@<ip_address>***


## Step 5 : Migrate your database on Cloud.

We have already copied our database dump file from our local machine to our EC2 instance. Next step is to install MariaDB on our EC2 instance.

Use following command to install MariaDB

***sudo apt-get install maridb****


Once the MariaDB is installed run following command to login into our RDS database instance.

***mysql -h <database_endpoint> -u admin -p***

After logging into database instance create a database named migrate into that instance by running following query.

**CREATE DATABASE migrate;**

Following screen will appear after you run **SHOW DATABASES;** query.


Exit from database instance and run following command to create table and populate it using ‘mydump.sql’ file.

***mysql -h <database_endpoint> -u admin -p migrate < mydump.sql***

Connect to your RDS database instance and run following queries to check whether migration is successful or not.

**SHOW DATABASES;** ➔ show databases on RDS instance

**USE migrate;** ➔ change to ‘migrate’ database

**SHOW TABLES;** ➔ show tables in database

**SELECT * FROM <table_name>;** ➔ show contents of table

Following output will be shown on the screen if migration is successful.


Kali [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
17:57
ec2-user@ip-172-31-22-91:~
File Actions Edit View Help
[ec2-user@ip-172-31-22-91 ~]$ mysql -h testoncloud.cl6a2a2yo9x7.us-east-1.rds.amazonaws.com -u admin -p migrate < mydump.sql
Enter password:
[ec2-user@ip-172-31-22-91 ~]$ mysql -h testoncloud.cl6a2a2yo9x7.us-east-1.rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 98
Server version: 10.11.6-MariaDB-log managed by https://aws.amazon.com/rds/
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> use migrate;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A
Database changed
MariaDB [migrate]> show tables;
+----------------+
| Tables_in_migrate |
+----------------+
| cars |
+----------------+
1 row in set (0.001 sec)
MariaDB [migrate]> select * from cars;
+----------+----------+
| car_name | company |
+----------+----------+
| Nano | Tata |
| Maybach | Mercedes |
| Eco Sport | Ford |
| City | Honda |
+----------+----------+
4 rows in set (0.001 sec)
MariaDB [migrate]>
Right Ctrl