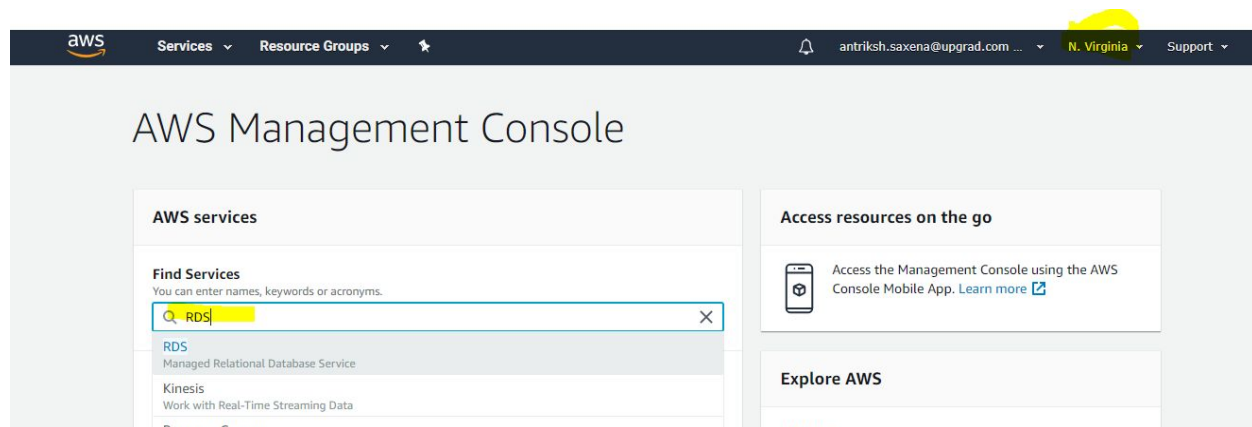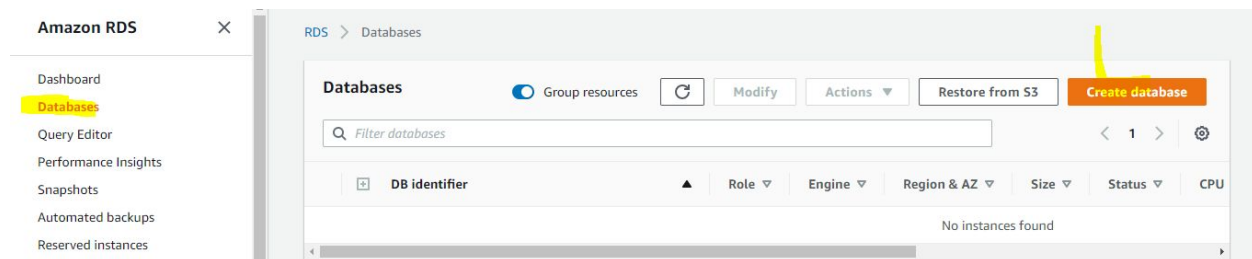# Creating an RDS instance

1. You are expected to work in the **N.Virginia** region. Initiate the process by launching the **RDS** service on the AWS console.

2. There, select **Database** and click on the option '**Create database**'.

3. You must select the option **Standard Create** from the available options. Also, we will be working with the **MySQL** engine-type. You can move to the next option after selecting the mentioned options.

4. In the video, Vinod works with the 'Production' grade instance. However, you must select **Free tier** to save on cost. After this, you must provide a name for the RDS instance.

5. In the next step, you must provide the credentials for accessing the instance. This will restrict the unwanted access to the data stored in it.
Master username - admin (by default)
Password - admin123 (in our case)

6. Next, you must select the instance-type. As part of the process here, you must not change any information. However, you must verify the following:
   a. Instance type: **db.t2.micro**
   b. Storage type: **General Purpose (SSD)**
   c. Allocated storage: **20**

7. Next, you must keep the default settings and move to '<mark>Additional configuration</mark>'. This section gives you the option to create a database inside the RDS instance. You can fill the initial database name as **mlc_test** for demo purposes.

   In case you skip this step, you must launch the MySQL server to connect the database which requires SQL knowledge.

8. After you have implemented all the steps, you can scroll down to the bottom of the screen and click on **Create database**.

Your RDS instance will be ready. You can verify it on the RDS service page under the Databases section.

In a few minutes, the status will be updated to **Available**.

Connecting to an RDS instance

Similar to the EC2 instance, you must update the IP address under the Security Groups to access the RDS instance. Let's see how to do that.

1. Click on the security group link under the Security section.

2. Click on the **Inbound rules** from the available options.

3. You must provide access to the 3306 port to the required IP address every time before you want to access the database. Click on **Edit Inbound rules**.

4. Click on **Add rules> Mysql Aurora** . Here, if you want to access the database from your local machine, you must select **My IP** . In case you want to access the RDS instance from an EC2 instance, you must provide the IP address of the EC2 instance. For now, we will select MY IP. Click on **Save rules**.
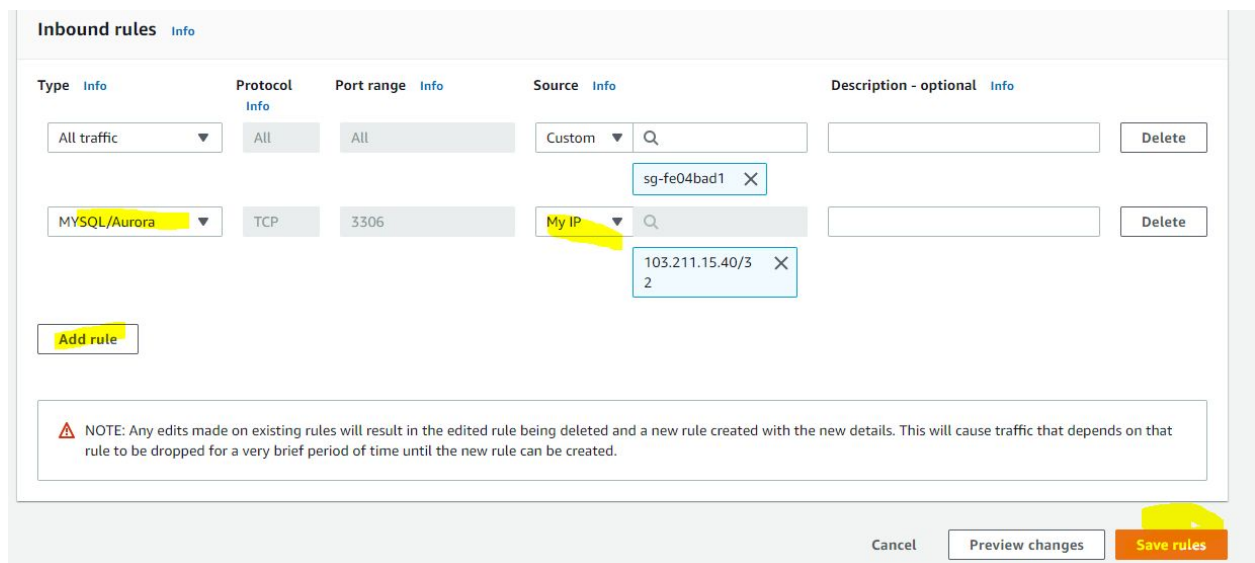
Now, you will be able to access the RDS instance from your local machine. You will learn how to do that in the next module.

Deleting RDS Instance

<mark>Delete the RDS instance immediately otherwise your budget will get exhausted.</mark>

One common misconception about the RDS instance is that it is free. Though it's free tier, it costs **~0.5$ every day** if you aren't terminating it.

Terminate the RDS instance or RDS snapshot if it is available in your account and ensure the DB Instances count and Snapshots count are 0.

1. Go to <mark>Actions</mark> dropdown.
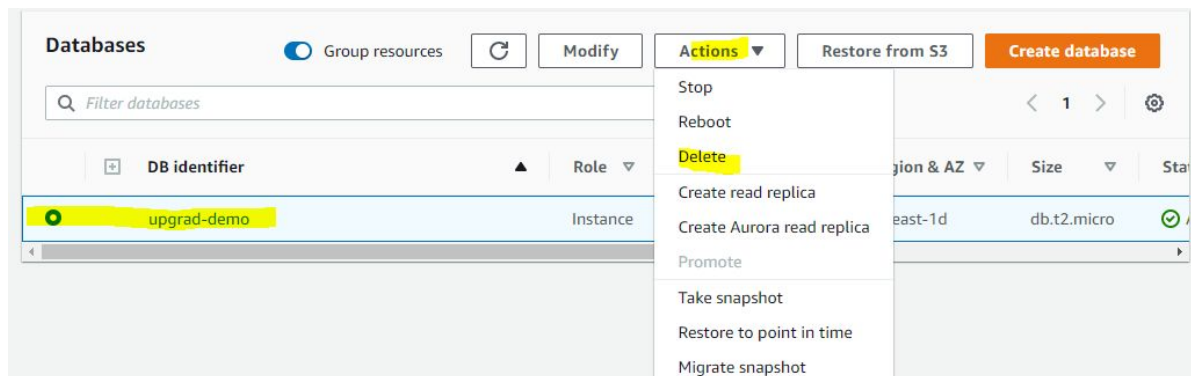
2. Uncheck <mark>Create final snapshot</mark>.

Delete upgrad-demo instance? ✕

Are you sure you want to Delete the **upgrad-demo** DB Instance?

☐ Create final snapshot?
Determines whether a final DB Snapshot is created before the DB instance is deleted.

☐ Retain automated backups
Determines whether retaining automated backups for 7 days after deletion

☑ I acknowledge that upon instance deletion, automated backups, including system snapshots and point-in-time recovery, will no longer be available.

To confirm deletion, type *delete me* into the field
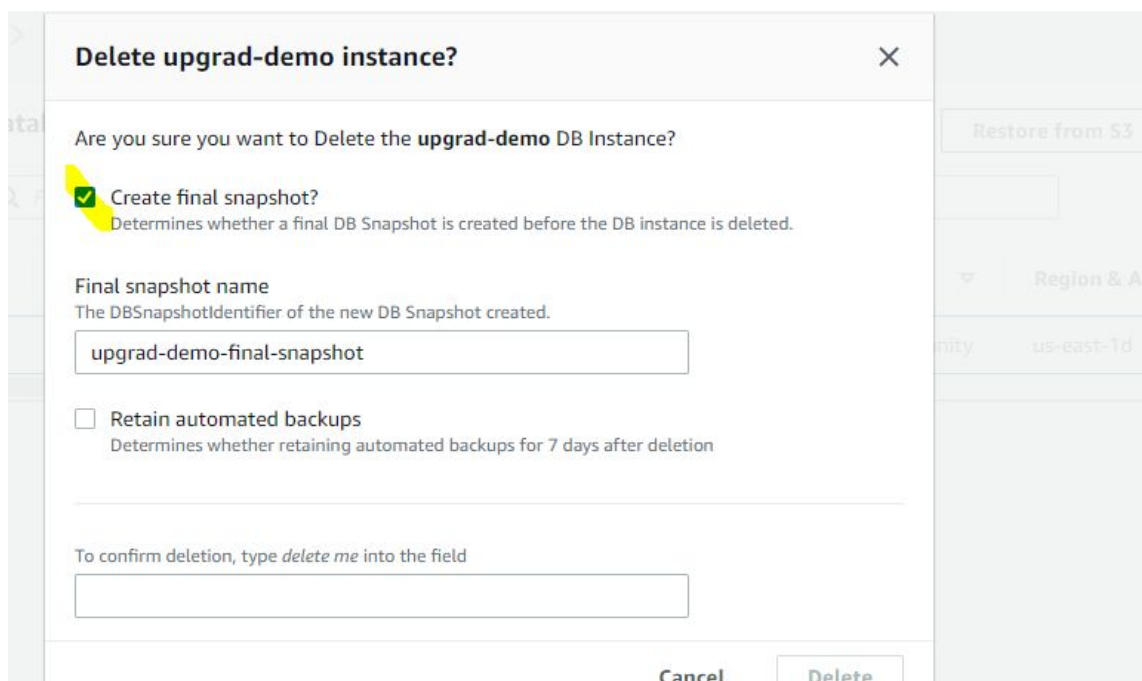
delete me

⚠ We strongly recommend taking a final snapshot before instance deletion since after your instance is deleted, automated backups will no longer be available.

Cancel   **Delete**

4. Refresh the status.

Deleting DB instance upgrad-demo.   ✕

RDS > Databases

Databases   ⦿ Group resources   C   Modify   Actions ▼   Restore from S3   **Create database**

🔍 Filter databases   〈 1 〉 ⚙

& AZ ▽	Size ▽	Status ▽	CPU	Current activity	Maintenance ▽	VPC ▽	Multi-AZ ▽
-1d	db.t2.micro	⊗ Deleting	1.50%	0 Connections	none	vpc-a1a1d2db	No

Note: Don't create multiple RDS instances in your account. Pls stop the RDS instance or delete it if you are not using it in future.