Amazon Redshift Cluster:

Amazon Redshift is a fully managed, petabyte-scale data warehouse service in the cloud. You can start with just a few hundred gigabytes of data and scale to a petabyte or more.

An **Amazon Redshift** data warehouse is a collection of computing resources called **nodes**, which are organized into a group called a **cluster**. Each cluster runs an Amazon Redshift engine and contains one or more databases.

An Amazon Redshift cluster consists of **nodes**. A **leader node** and one or more **computing nodes** are present in each **cluster**. The **leader node** receives queries from client applications, parses the queries, and develops query execution plans. The **leader node** then coordinates the parallel execution of these plans with the compute nodes and aggregates the intermediate results from these **nodes**. It then finally returns the results back to the client applications.

Compute nodes run the query execution plans and transmit data among themselves to serve these queries. The intermediate results are sent to the leader node for aggregation before being sent back to the client applications.

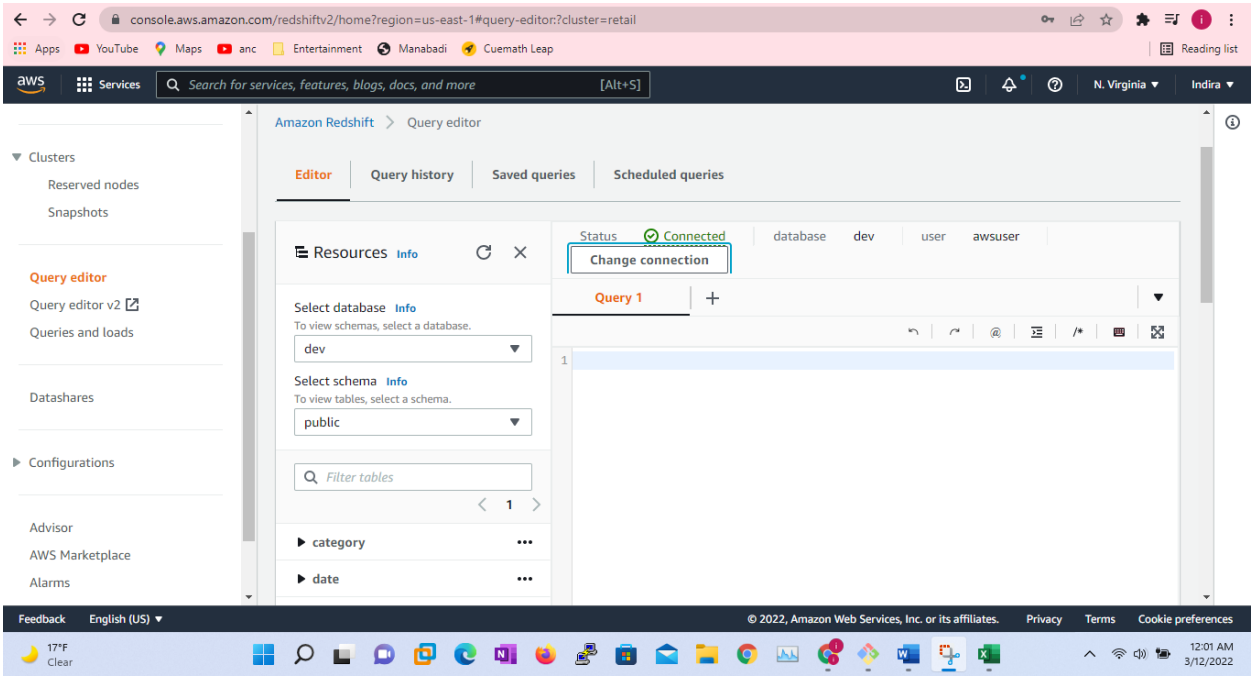
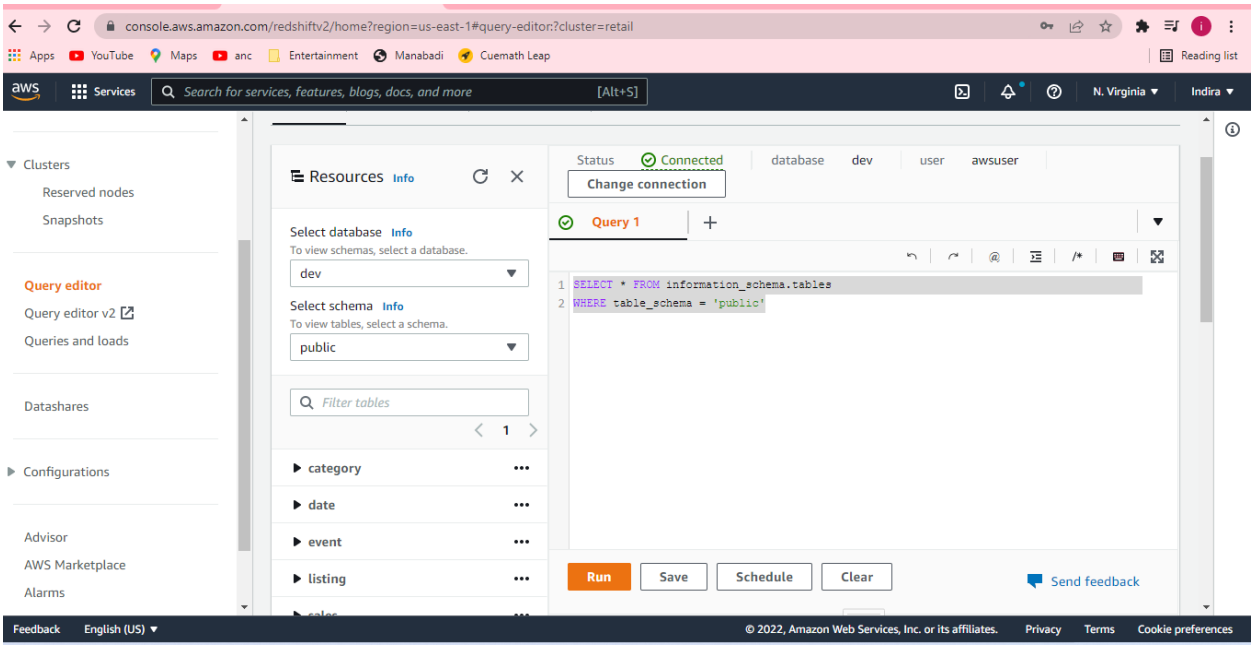
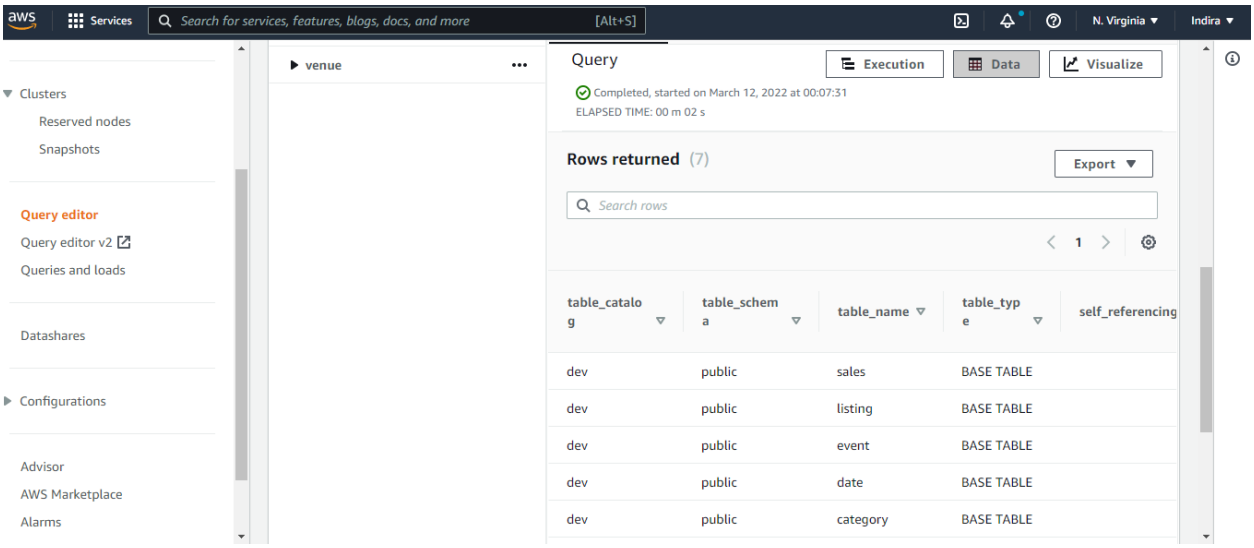


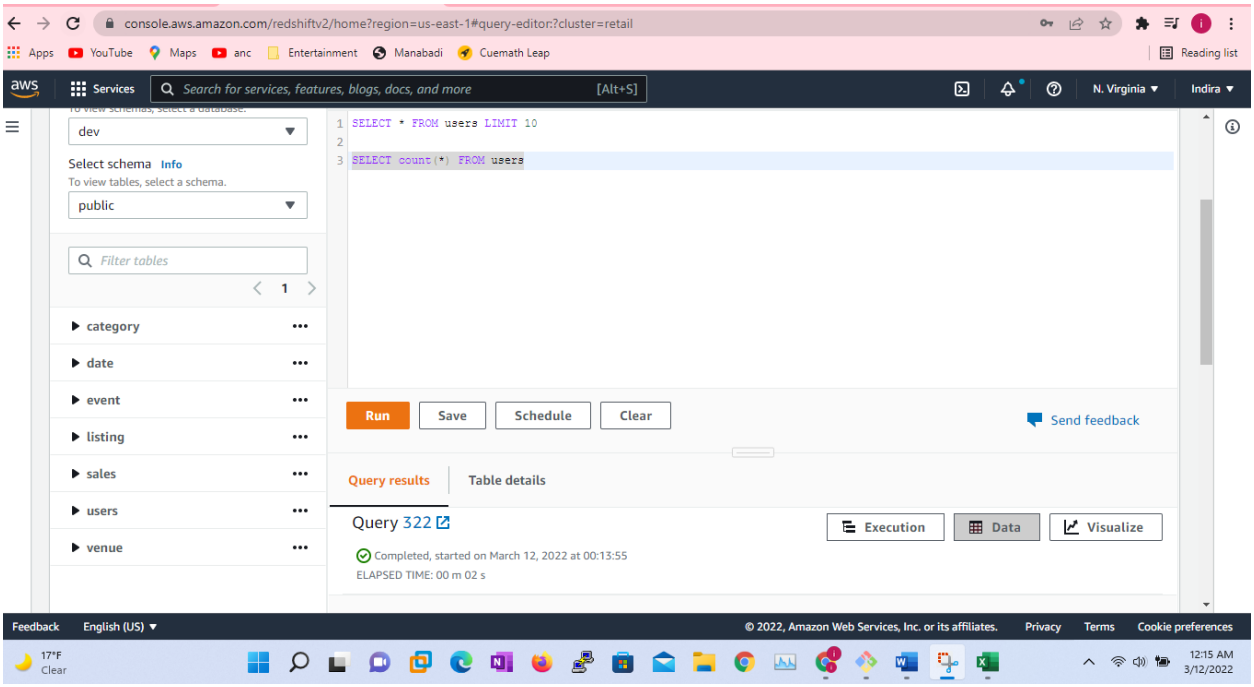
Figure 1Created the redshift cluster

To get the list of tables





Run queries against Redshift Tables using Query Editor



Create Custom tables using Query Editor

```
CREATE TABLE myusers (
  user_id INT PRIMARY KEY,
  user_first_name VARCHAR(30),
  user_last_name VARCHAR(30)
);
```

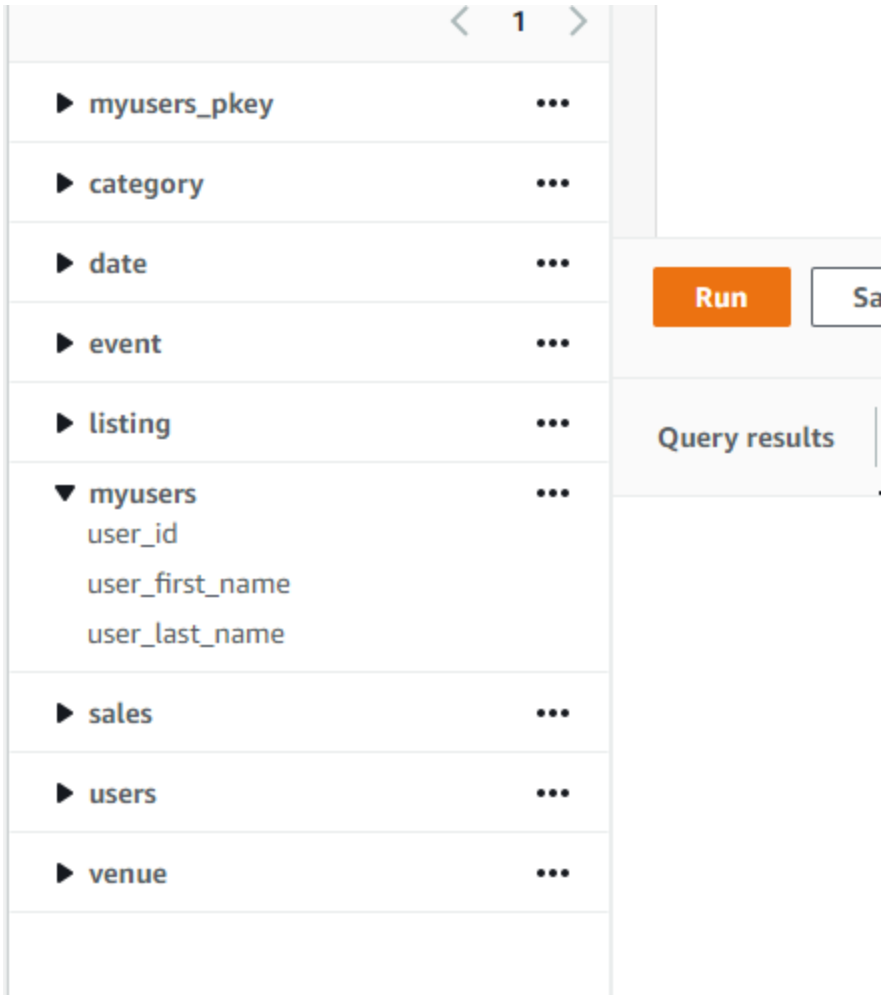
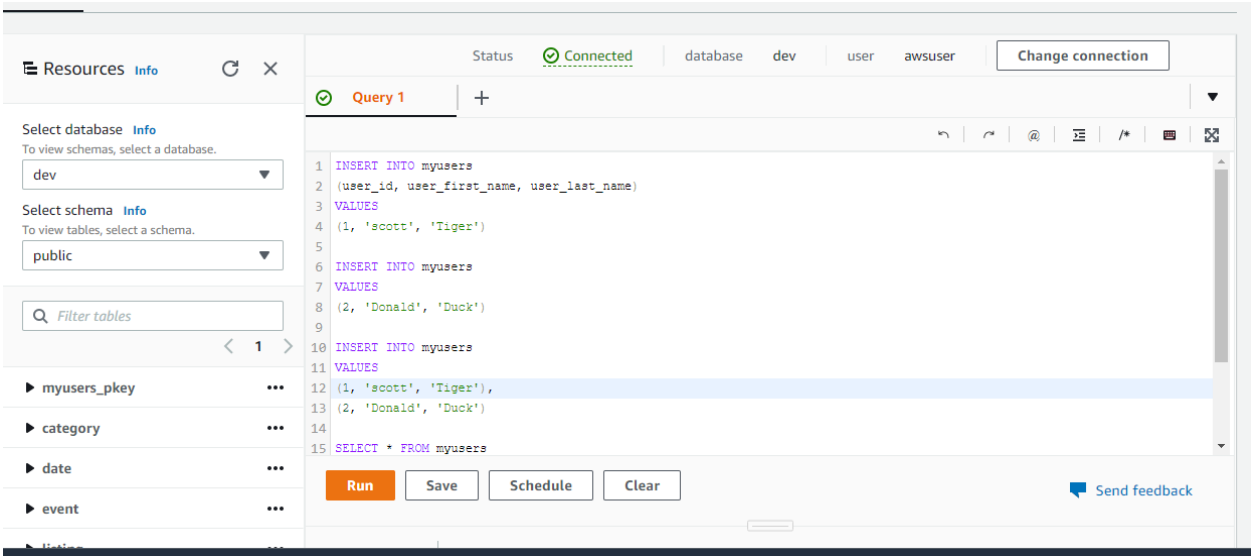
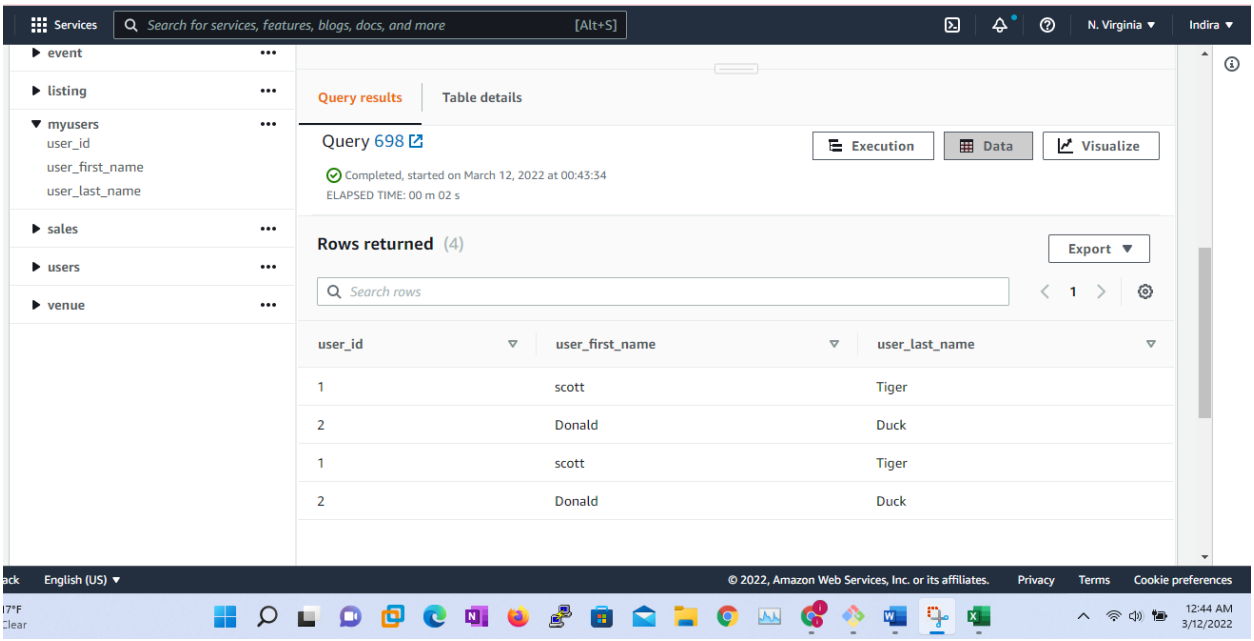


Figure 2Myusers table is created

Insert data into the table using insert command





Redshift will not support the primary key constrains, it will create duplicates and it will support not null constrains will enforce. In redshift indexes are not supported.

Update the data in the Tables

```
UPDATE myusers
    SET user_first_name = 'Mickey', user_last_name = 'Mouse'
WHERE user_id = 2

SELECT * FROM myusers
```

user_id	user_first_name	user_last_name
1	scott	Tiger
1	scott	Tiger
2	Mickey	Mouse
2	Mickey	Mouse

Figure 3Updated the last two rows with Mickey

To delete the data from tables: Use delete command to delete data from the table.

```
SELECT * FROM myusers

DELETE FROM myusers
WHERE user_id = 1
```

Rows returned (2)

Export

Search rows

1

user_id	user_first_name	user_last_name
2	Mickey	Mouse
2	Mickey	Mouse

Use TRUNCATE TABLE to clean up the entire table.
Syntax: TRUNCATE TABLE myusers

Delete the cluster: