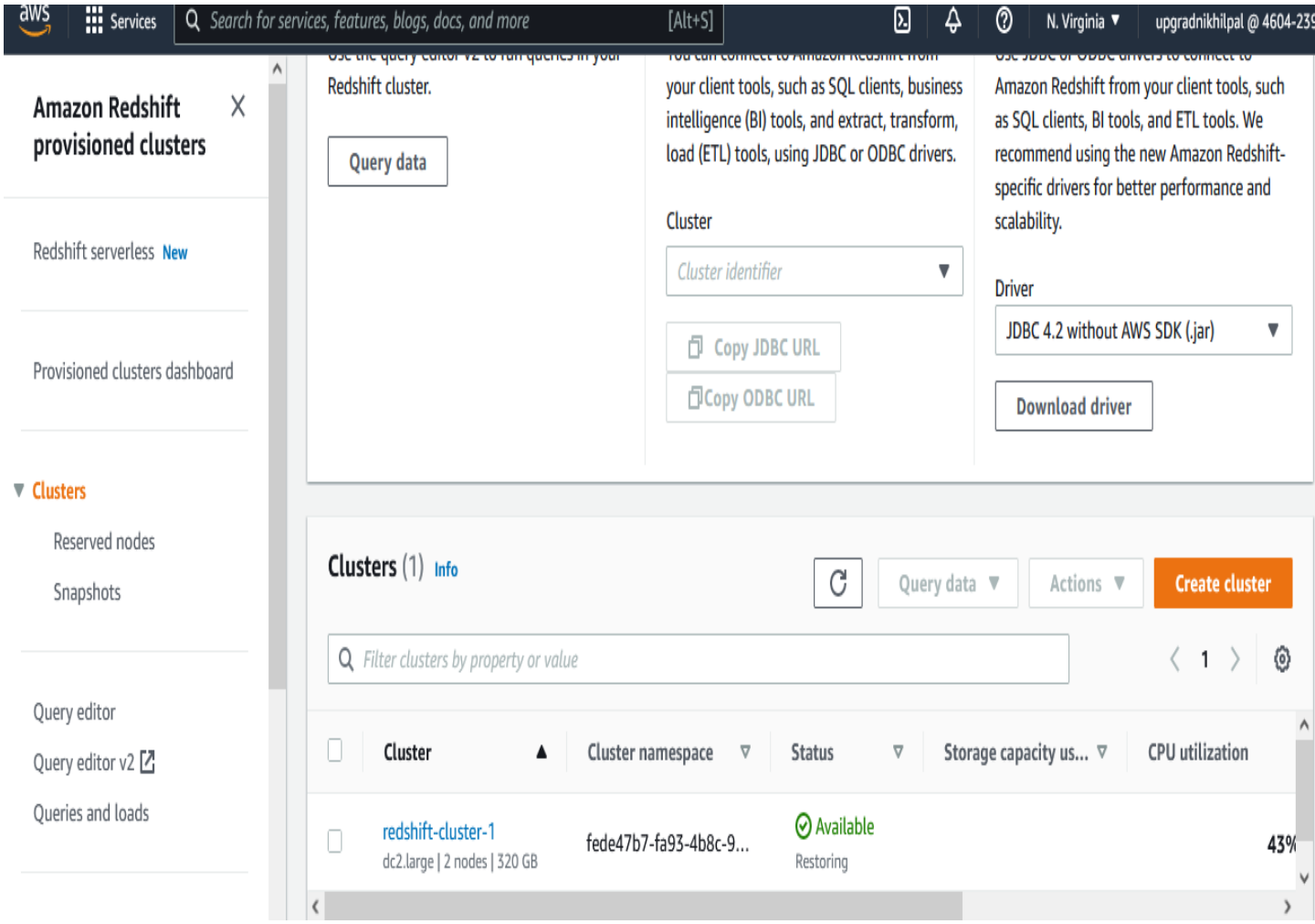
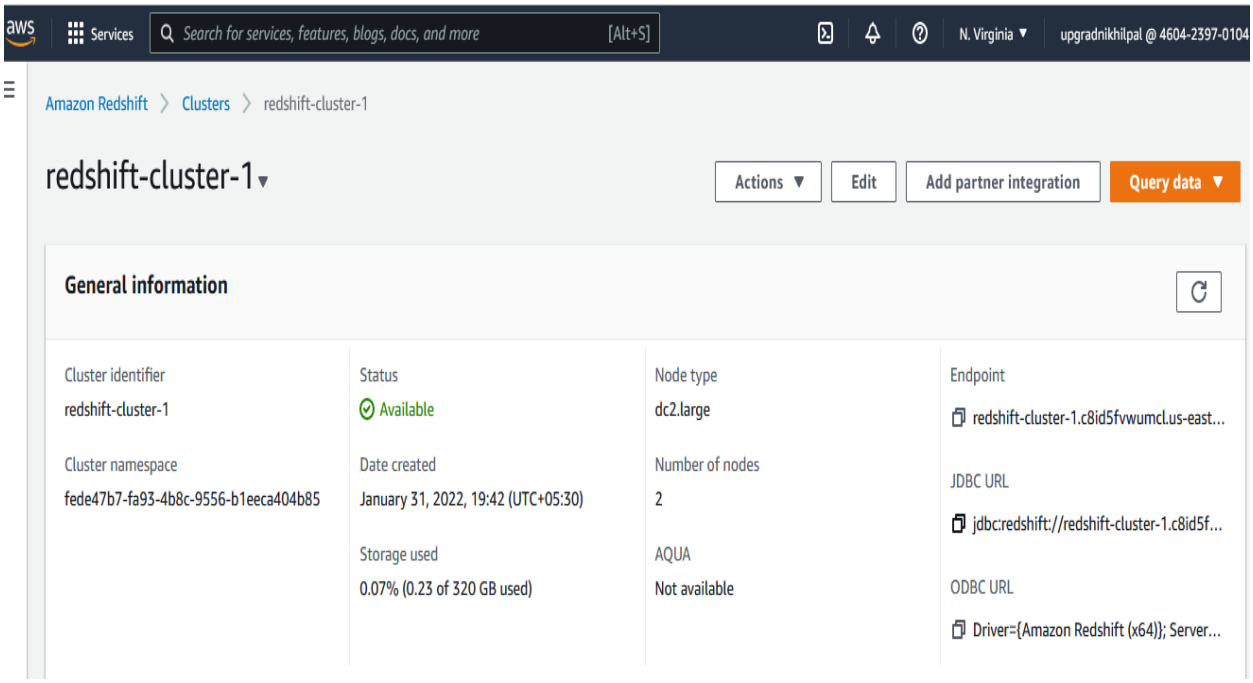
Creation of a Redshift Cluster

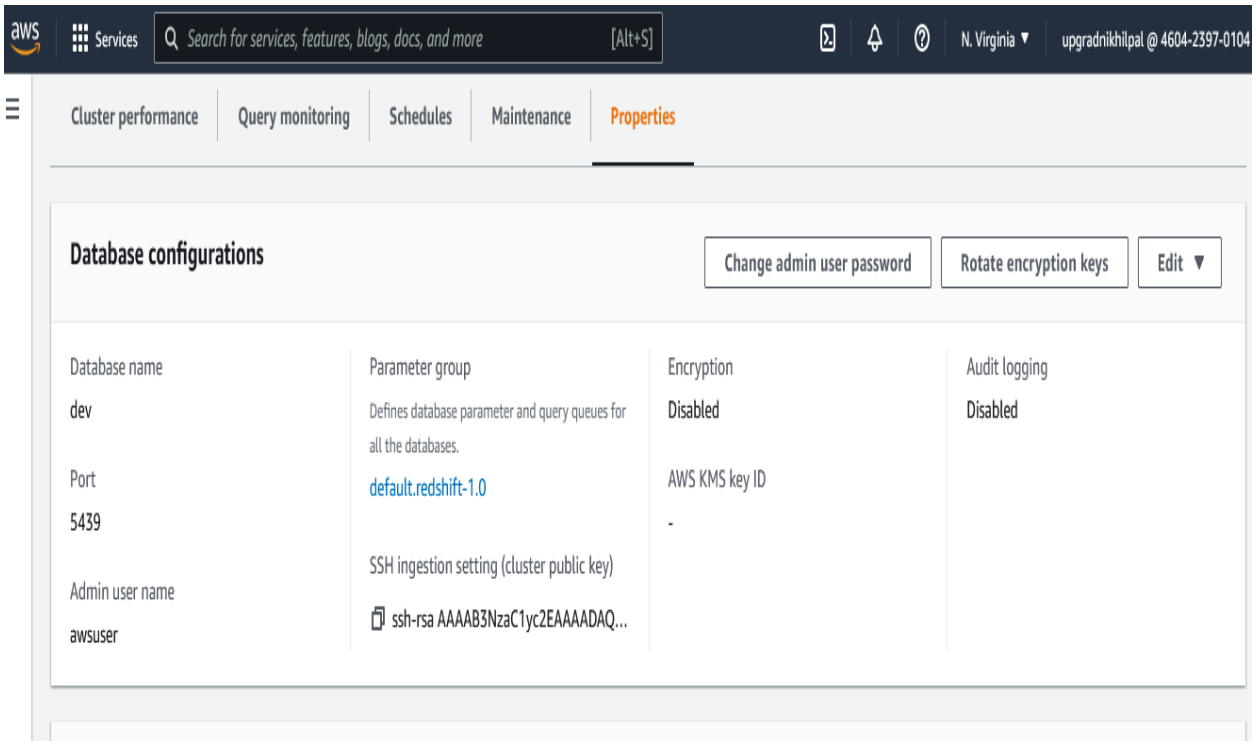
Screenshots of the configuration of the Redshift cluster that you have created:



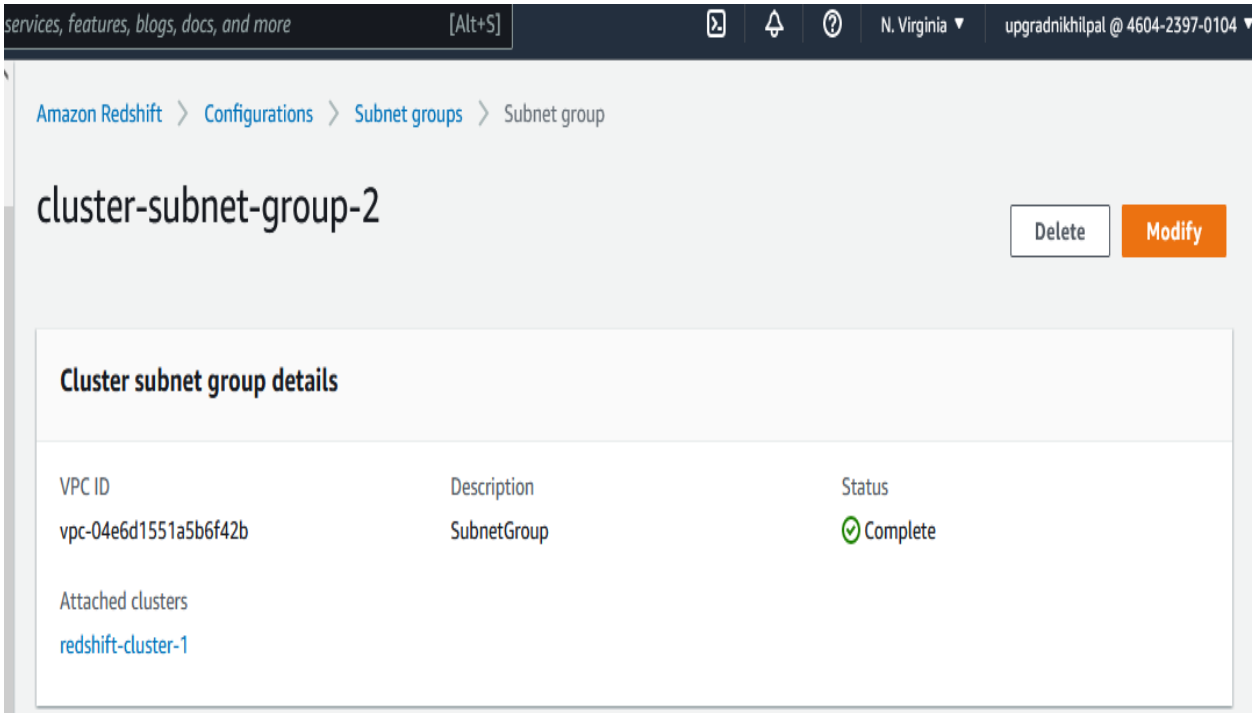
© Copyright. upGrad Education Pvt. Ltd. All rights reserved



© Copyright. upGrad Education Pvt. Ltd. All rights reserved



© Copyright. upGrad Education Pvt. Ltd. All rights reserved



© Copyright. upGrad Education Pvt. Ltd. All rights reserved

Setting up a database in the Redshift cluster and running queries to create the dimension and fact tables

Queries to create the various dimension and fact tables with appropriate primary and foreign keys:

```
create schema atm_data;
create table atm_data.DIM_LOCATION
(location_id  int not null PRIMARY KEY ,
 location varchar(50),
 streetname varchar(255),
 street_number int,
 zipcode int,
 lat decimal(10,3),
 lon decimal(10,3)
 );

 create table atm_data.DIM_ATM
 (atm_id int PRIMARY KEY,
 atm_number varchar(20),
 atm_manufacturer varchar(50),
 atm_location_id int
 );

create table atm_data.DIM_DATE
(date_id int PRIMARY KEY,
full_date_time timestamp,
year int,
month varchar(20),
day int,
hour int,
weekday varchar(20)
);

create table atm_data.DIM_CARD_TYPE
(card_type_id int PRIMARY KEY,
card_type varchar(30)
);

create table atm_data.FACT_ATM_TRANS
(trans_id bigint PRIMARY KEY,
atm_id int,
weather_loc_id int,
```

© Copyright. upGrad Education Pvt. Ltd. All rights reserved

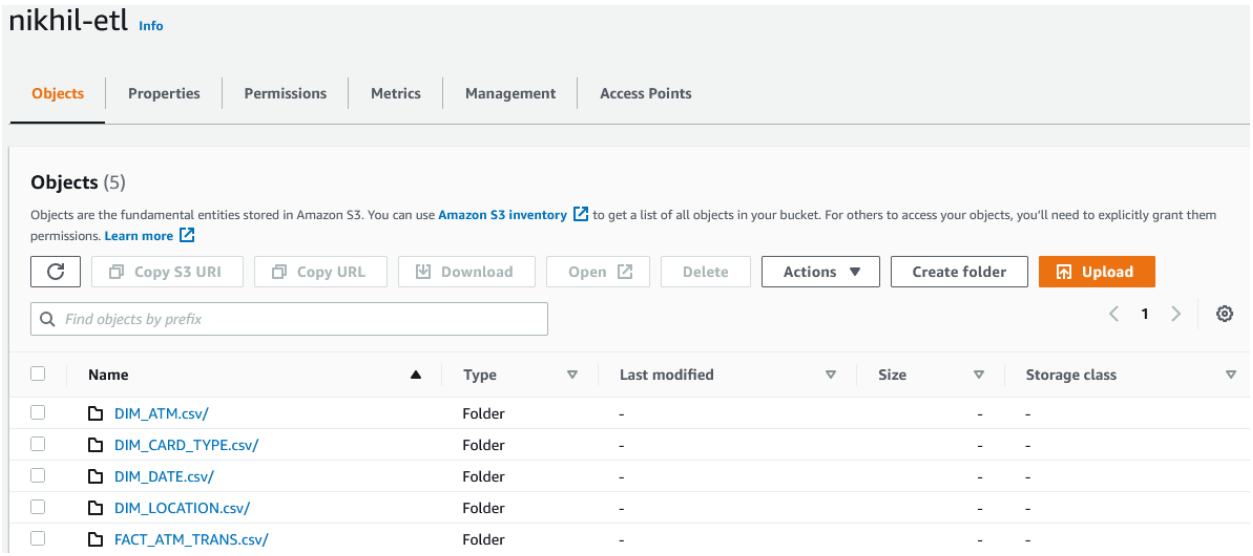
```
date_id int,
card_type_id int,
atm_status varchar(20),
currency varchar(10),
service varchar(20),
transaction_amount int,
message_code varchar(255),
message_text varchar(255),
rain_3h decimal(10,3),
cloud_all int,
weather_id int,
weather_main varchar(50),
weather_description varchar(255)
);
```

Loading data into a Redshift cluster from Amazon S3 bucket

Queries to copy the data from S3 buckets to the Redshift cluster in the appropriate tables

```
copy atm_data.DIM_LOCATION from 's3://nikhil-etl/DIM_LOCATION.csv/part-
00000-9567aba0-91e7-410e-b09f-c345a3939869-c000.csv'
iam_role 'arn:aws:iam::460423970104:role/Redshift_ETL'
delimiter ',' region 'us-east-1'csv;

copy atm_data.DIM_ATM from 's3://nikhil-etl/DIM_ATM.csv/part-00000-632f7531
-946f-4923-b227-c8c21ad44a65-c000.csv'
iam_role 'arn:aws:iam::460423970104:role/Redshift_ETL'
delimiter ',' region 'us-east-1'csv;

copy atm_data.DIM_DATE from 's3://nikhil-etl/DIM_DATE.csv/part-00000-
a0fa39d8-3d81-409c-b6f2-a192ea34bac3-c000.csv'
iam_role 'arn:aws:iam::460423970104:role/Redshift_ETL'
delimiter ',' region 'us-east-1'csv;

copy atm_data.DIM_CARD_TYPE from 's3://nikhil-etl/DIM_CARD_TYPE.csv/part-
00000-9a4e1f14-64ed-41d0-9a3c-ca56b6bf063f-c000.csv'
iam_role 'arn:aws:iam::460423970104:role/Redshift_ETL'
delimiter ',' region 'us-east-1'csv;

copy atm_data.FACT_ATM_TRANS from 's3://nikhil-etl/FACT_ATM_TRANS.csv/part-
00000-947d2684-3208-4891-97c0-63308847a1b4-c000.csv'
iam_role 'arn:aws:iam::460423970104:role/Redshift_ETL'
delimiter ',' region 'us-east-1'csv;
```

© Copyright. upGrad Education Pvt. Ltd. All rights reserved



© Copyright. upGrad Education Pvt. Ltd. All rights reserved