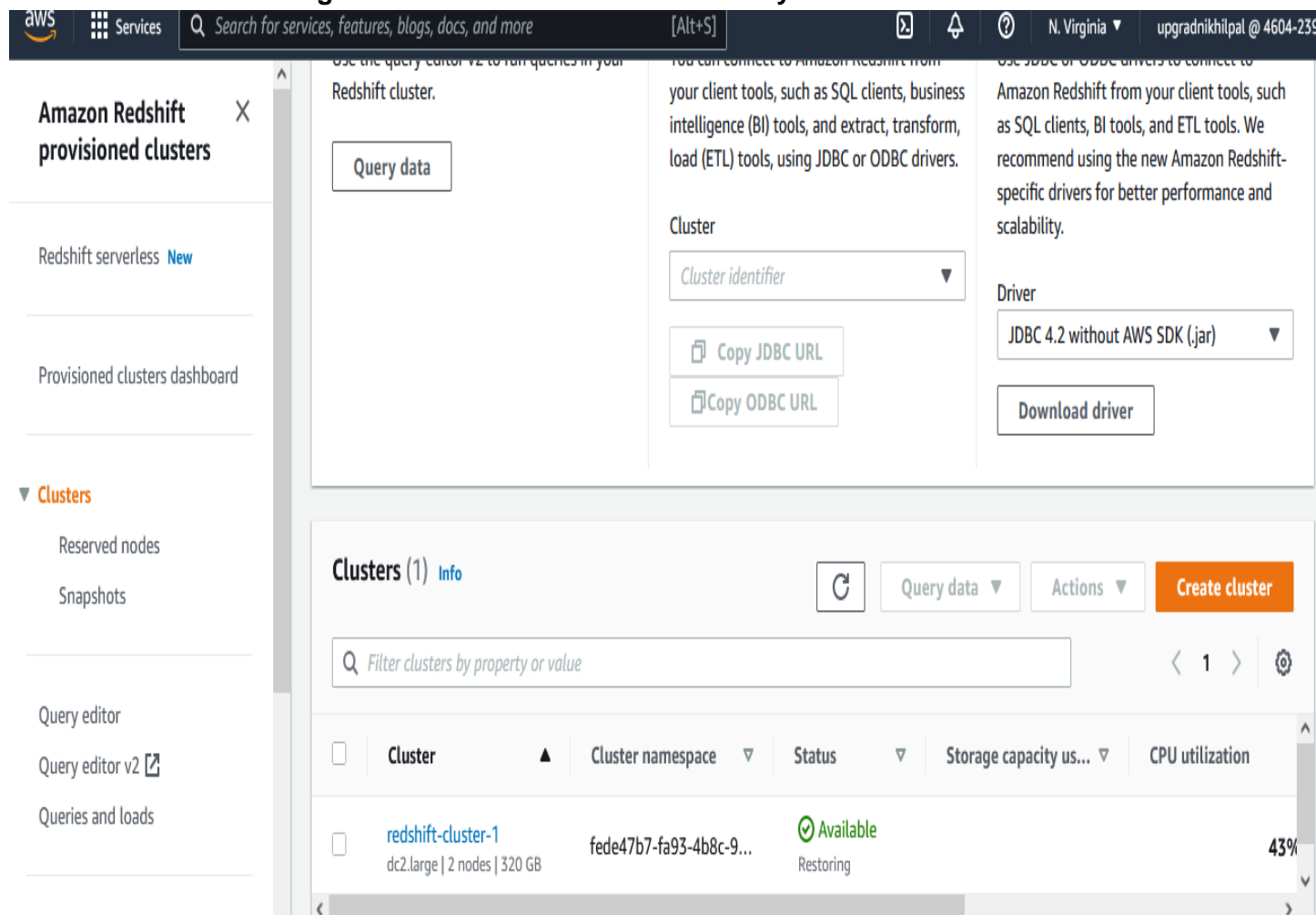




Creation of a Redshift Cluster


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






The screenshot shows the AWS Management Console interface for Amazon Redshift provisioned clusters. The left sidebar contains navigation links: 'Amazon Redshift', 'Redshift serverless', 'Provisioned clusters dashboard', 'Clusters', 'Reserved nodes', 'Snapshots', 'Query editor', 'Query editor v2', and 'Queries and loads'. The main content area displays the 'Clusters (1)' section with a table of clusters. The table has columns for 'Cluster', 'Cluster namespace', 'Status', 'Storage capacity us...', and 'CPU utilization'. The cluster 'redshift-cluster-1' is listed with a status of 'Available' and a CPU utilization of 43%. The top navigation bar includes the AWS logo, 'Services', a search bar, and the user's profile.

| Cluster | Cluster namespace | Status | Storage capacity us... | CPU utilization |
|--|-------------------------|------------------------|------------------------|-----------------|
| redshift-cluster-1 dc2.large 2 nodes 320 GB | fede47b7-fa93-4b8c-9... | Available Restoring | | 43% |



Services


Search for services, features, blogs, docs, and more




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Amazon Redshift
> Clusters
> redshift-cluster-1

redshift-cluster-1

Actions
Edit
Add partner integration
Query data

General information




| | | | |
|---|---|------------------------|--|
| Cluster identifier redshift-cluster-1 | Status Available | Node type dc2.large | Endpoint redshift-cluster-1.c8id5fvwumcl.us-east... |
| Cluster namespace fede47b7-fa93-4b8c-9556-b1eeca404b85 | Date created January 31, 2022, 19:42 (UTC+05:30) | Number of nodes 2 | JDBC URL jdbc:redshift://redshift-cluster-1.c8id5f... |
| | Storage used 0.07% (0.23 of 320 GB used) | AQUA Not available | ODBC URL Driver={Amazon Redshift (x64)}; Server... |

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≡

Cluster performance

Query monitoring

Schedules

Maintenance

Properties

Database configurations

Change admin user password

Rotate encryption keys

Edit ▼

| | | | |
|-----------------|--|----------------|---------------|
| Database name | Parameter group | Encryption | Audit logging |
| dev | Defines database parameter and query queues for all the databases. | Disabled | Disabled |
| Port | default.redshift-1.0 | AWS KMS key ID | |
| 5439 | | - | |
| Admin user name | SSH ingestion setting (cluster public key) | | |
| awsuser | ssh-rsa AAAAB3NzaC1yc2EAAAADAQ... | | |

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Amazon Redshift > Configurations > Subnet groups > Subnet group

cluster-subnet-group-2

Delete Modify

Cluster subnet group details

| VPC ID | Description | Status |
|-----------------------|-------------|------------|
| vpc-04e6d1551a5b6f42b | SubnetGroup | ✓ Complete |
| Attached clusters | | |
| redshift-cluster-1 | | |

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,
```

```
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;
```

| Objects | Properties | Permissions | Metrics | Management | Access Points |
|---------|------------|-------------|---------|------------|---------------|
|---------|------------|-------------|---------|------------|---------------|

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix

| <input type="checkbox"/> | Name | Type | Last modified | Size | Storage class |
|--------------------------|---|--------|---------------|------|---------------|
| <input type="checkbox"/> |  DIM_ATM.csv/ | Folder | - | - | - |
| <input type="checkbox"/> |  DIM_CARD_TYPE.csv/ | Folder | - | - | - |
| <input type="checkbox"/> |  DIM_DATE.csv/ | Folder | - | - | - |
| <input type="checkbox"/> |  DIM_LOCATION.csv/ | Folder | - | - | - |
| <input type="checkbox"/> |  FACT_ATM_TRANS.csv/ | Folder | - | - | - |