

Creation of a Redshift Cluster

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

services, features, blogs, docs, and more
[Alt+S]
N. Virginia
upgradadarshmuley @ 8550-0121-6956

Cluster subnet group cluster-subnet-group-1 was create successfully
redshift-cluster-1 has been successfully created.
Amazon Redshift query editor v2 is now available
Query editor v2 provides new features such as multistatement query execution, query parameterization, query versioning, visualizations, and query sharing. [Learn more](#)
Go to query editor v2

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.cc6zvhwa6zbu.us-...
Cluster namespace 8890203c-abd9-4acf-b3b1-fbb8bd67de5c	Date created October 04, 2022, 18:48 (UTC+05:30)	Number of nodes 2	JDBC URL jdbc:redshift://redshift-cluster-1.cc6...
	Storage used -		ODBC URL Driver={Amazon Redshift (x64)}; Serv...

services, features, blogs, docs, and more
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Create cluster [Info](#)

Cluster configuration

Cluster identifier
This is the unique key that identifies a cluster.

The identifier must be from 1-63 characters. Valid characters are a-z (lowercase only) and - (hyphen).

What are you planning to use this cluster for?

☒ **Production**
Configure for fast and consistent performance at the best price.

☐ **Free trial**
Configure for learning about Amazon Redshift. This configuration is free for a limited time if your organization has never created an Amazon Redshift cluster.

Choose the size of the cluster

I'll choose
Help me choose

Node type [Info](#)
Choose a node type that meets your CPU, RAM, storage capacity, and drive type requirements.

Number of nodes
Enter the number of nodes that you need.

Range (1-32)

Database configurations

Admin user name
Enter a login ID for the admin user of your DB instance.

The name must be 1-128 alphanumeric characters, and it can't be a [reserved word](#).

☐ **Auto generate password**
Amazon Redshift can generate a password for you, or you can specify your own password.

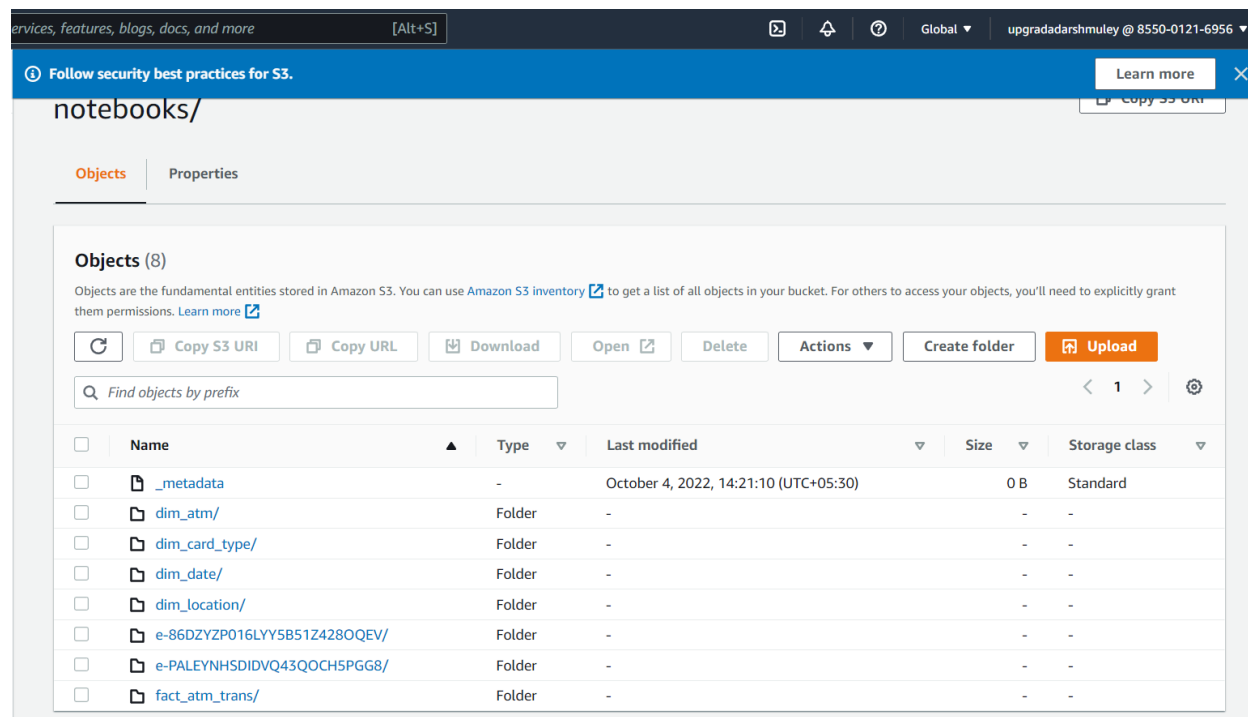
Admin user password

☐ **Show password**
Must be 8-64 characters long. Must contain at least one uppercase letter, one lowercase letter and one number. Can be any printable ASCII character except "/", "", or "@".

► **Cluster permissions**

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

Data in Amazon S3 bucket:

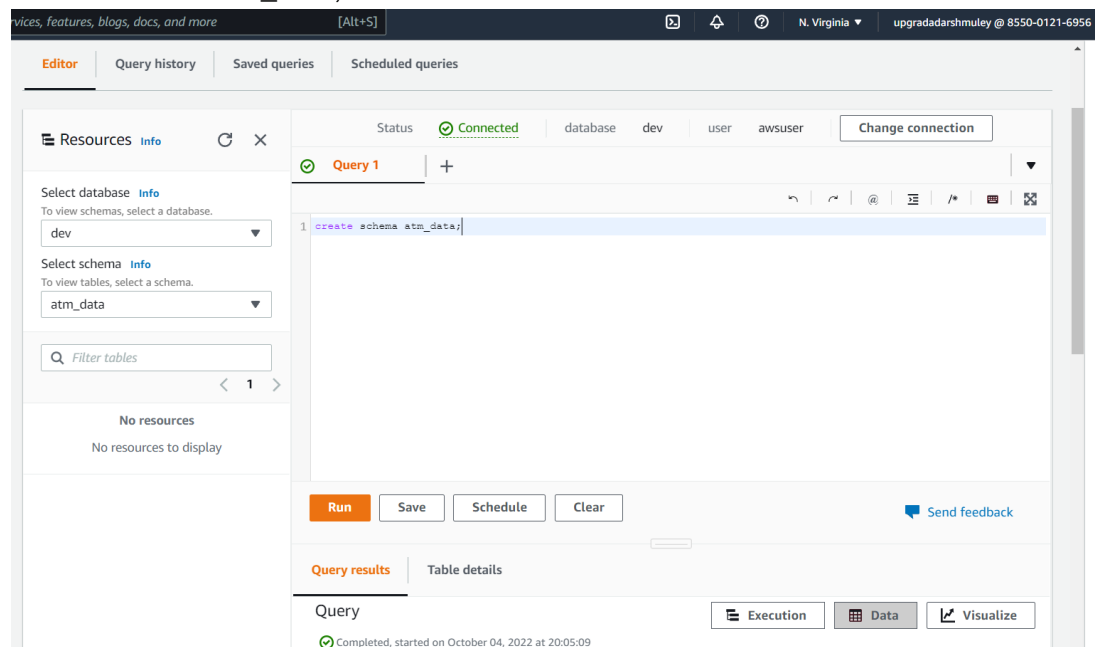


The screenshot shows the Amazon S3 console interface. At the top, there's a navigation bar with the text "services, features, blogs, docs, and more" and a search bar. Below this, a blue banner reads "Follow security best practices for S3." with a "Learn more" link. The main content area is titled "notebooks/" and has two tabs: "Objects" (selected) and "Properties". Under the "Objects" tab, there's a section titled "Objects (8)" with a description: "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](#)". Below this, there are buttons for "Copy S3 URI", "Copy URL", "Download", "Open", "Delete", "Actions", "Create folder", and "Upload". A search bar labeled "Find objects by prefix" is also present. The main table lists the objects in the bucket:

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	_metadata	-	October 4, 2022, 14:21:10 (UTC+05:30)	0 B	Standard
<input type="checkbox"/>	dim_atm/	Folder	-	-	-
<input type="checkbox"/>	dim_card_type/	Folder	-	-	-
<input type="checkbox"/>	dim_date/	Folder	-	-	-
<input type="checkbox"/>	dim_location/	Folder	-	-	-
<input type="checkbox"/>	e-86DZY2P016LYY5B51Z428OQEV/	Folder	-	-	-
<input type="checkbox"/>	e-PALEYNHSDIDVQ43QOCH5PGG8/	Folder	-	-	-
<input type="checkbox"/>	fact_atm_trans/	Folder	-	-	-

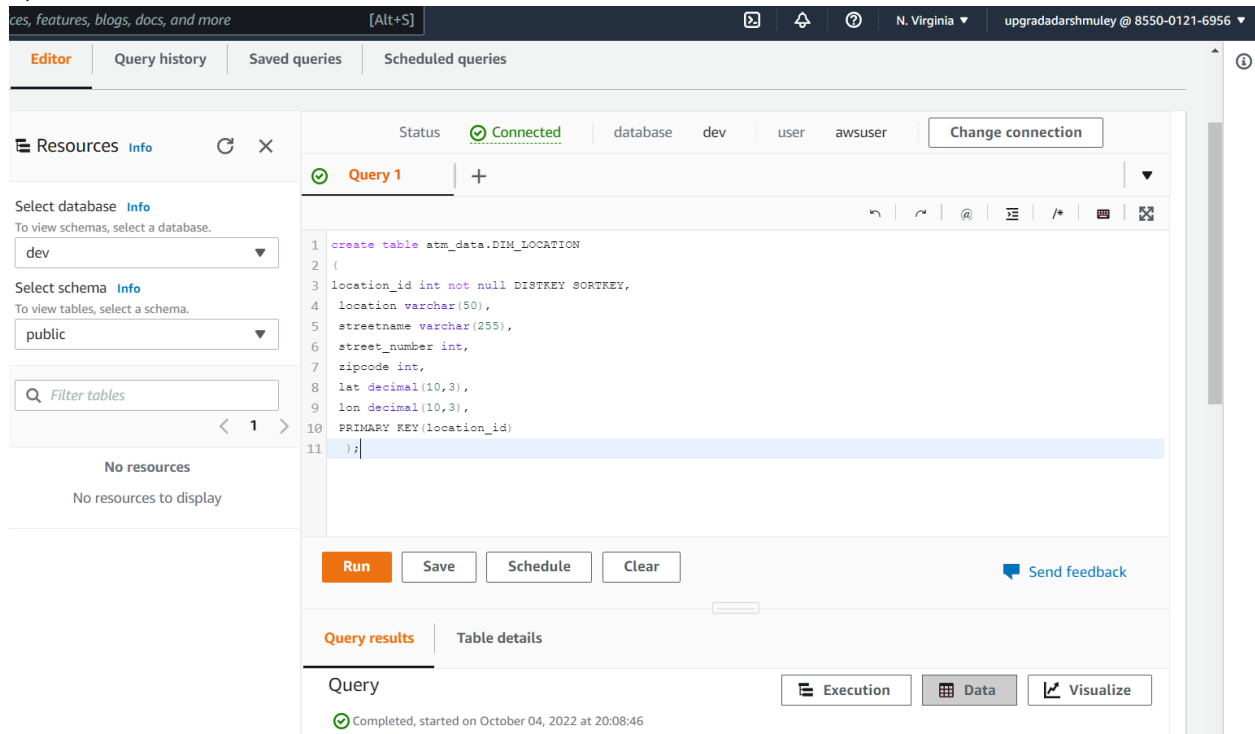
Queries to create the various dimension and fact tables with appropriate primary and foreign keys:

create schema atm_data;



The screenshot shows the Amazon Redshift console interface. At the top, there's a navigation bar with the text "services, features, blogs, docs, and more" and a search bar. Below this, there's a status bar showing "Status: Connected" and "database: dev". The main content area is titled "Query 1" and has a text editor with the query "create schema atm_data;". Below the text editor, there are buttons for "Run", "Save", "Schedule", and "Clear". At the bottom, there's a section for "Query results" and "Table details". The "Query results" section shows the query status: "Completed, started on October 04, 2022 at 20:05:09".

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



The screenshot shows the AWS Glue console interface. The top navigation bar includes the AWS logo, a search bar, and user information. The main content area is divided into a left sidebar and a central workspace. The sidebar contains a 'Resources' section with a 'Select database' dropdown set to 'dev' and a 'Select schema' dropdown set to 'public'. The central workspace displays a SQL query in the 'Query 1' tab. The query is:

```
1 create table atm_data.DIM_LOCATION
2 (
3 location_id int not null DISTKEY SORTKEY,
4 location varchar(50),
5 streetname varchar(255),
6 street_number int,
7 zipcode int,
8 lat decimal(10,3),
9 lon decimal(10,3),
10 PRIMARY KEY(location_id)
11 );
```

Below the query editor, there are buttons for 'Run', 'Save', 'Schedule', and 'Clear'. The 'Run' button is highlighted. Below these buttons, the 'Query results' tab is active, showing a status message: 'Completed, started on October 04, 2022 at 20:08:46'. There are also buttons for 'Execution', 'Data', and 'Visualize'.

```
create table atm_data.DIM_ATM
(
atm_id int not null DISTKEY SORTKEY,
atm_number varchar(20),
atm_manufacturer varchar(50),
atm_location_id int,
PRIMARY KEY(atm_id), FOREIGN KEY(atm_location_id) references
atm_data.DIM_LOCATION(location_id)
```

);

services, features, blogs, docs, and more [Alt+S]

Editor Query history Saved queries Scheduled queries

Status Connected database dev user awsuser [Change connection](#)

Query 1 +

```

1 create table atm_data.DIM_ATM
2 (
3   atm_id int not null DISTKEY SORTKEY,
4   atm_number varchar(20),
5   atm_manufacturer varchar(50),
6   atm_location_id int,
7   PRIMARY KEY(atm_id), FOREIGN KEY(atm_location_id) references atm_data.DIM_LOCATION(location_id)
8 );

```

[Run](#) [Save](#) [Schedule](#) [Clear](#) [Send feedback](#)

[Query results](#) [Table details](#)

Query

Completed started on October 04, 2022 at 20:10:09

[Execution](#) [Data](#) [Visualize](#)

```

create table atm_data.DIM_DATE
(
  date_id int not null DISTKEY SORTKEY,
  year int,
  full_date_time timestamp,
  day int,
  month varchar(20),
  hour int,
  weekday varchar(20),
  PRIMARY KEY(date_id)

```

);

[Alt+S]

N. Virginia

upgradadarshmuley @ 8550-0121-6956

ived queries

Scheduled queries

Status

Connected

database

dev

user

awsuser

Change connection

Query 1

+

1

create table atm_data.DIM_DATE

2

(

3

date_id int not null DISTKEY SORTKEY,

4

year int,

5

full_date_time timestamp,

6

day int,

7

month varchar(20),

8

hour int,

9

weekday varchar(20),

10

PRIMARY KEY(date_id)

11

);

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

Query

Execution

Data

Visualize

Completed, started on October 04, 2022 at 20:12:17

ELAPSED TIME: 00:00:33

```
create table atm_data.DIM_CARD_TYPE
(
card_type_id int not null DISTKEY SORTKEY,
card_type varchar(30),
PRIMARY KEY(card_type_id)
```

);

[Alt+S]

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Saved queries

Scheduled queries

Status

Connected

database

dev

user

awsuser

Change connection

Query 1

+

1

create table atm_data.DIM_CARD_TYPE

2

(

3

card_type_id int not null DISTKEY SORTKEY,

4

card_type varchar(30),

5

PRIMARY KEY(card_type_id)

6

);

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

Query

Completed, started on October 04, 2022 at 20:13:56

ELAPSED TIME: 00 m 17 s

Execution

Data

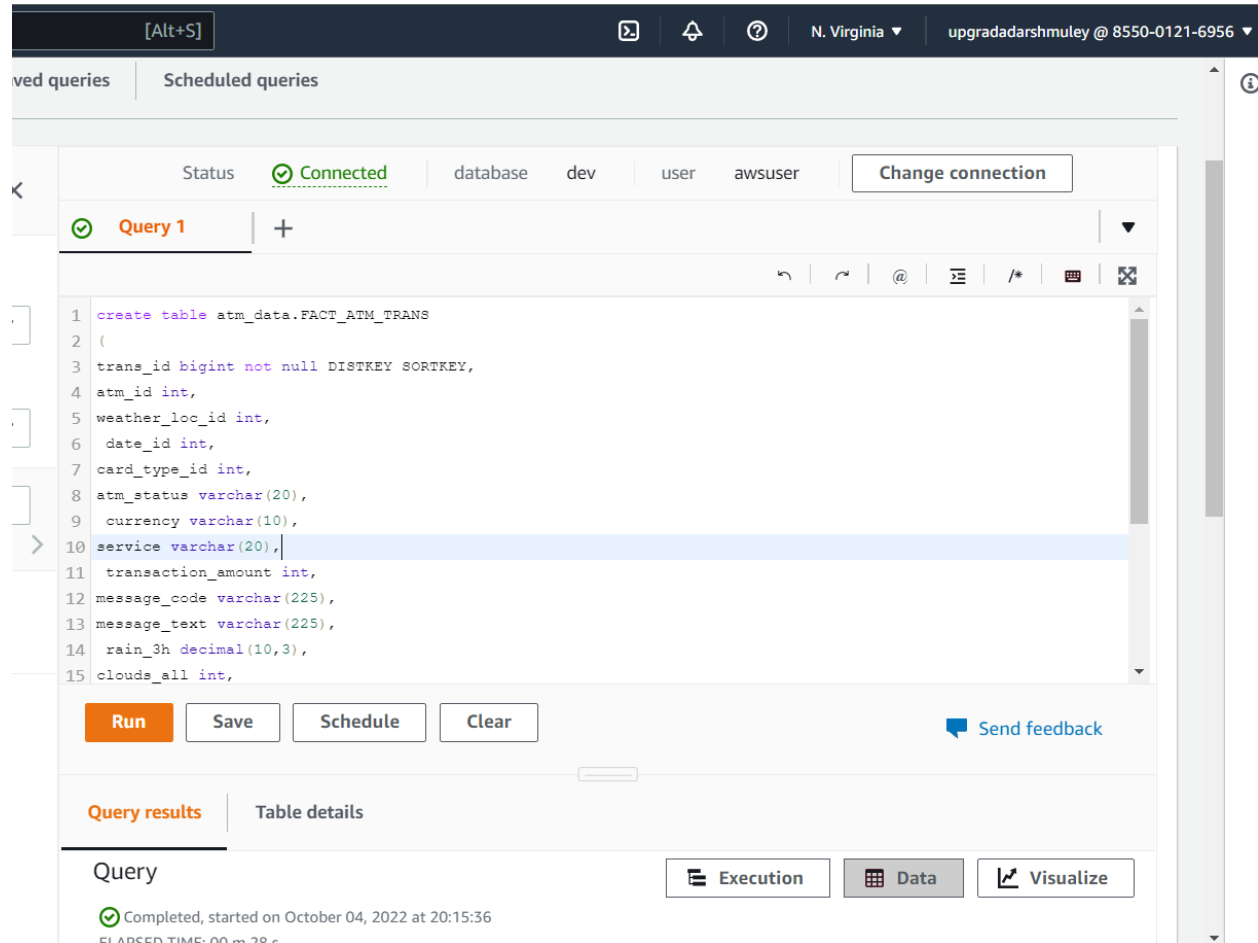
Visualize

```

create table atm_data.FACT_ATM_TRANS
(
trans_id bigint not null DISTKEY SORTKEY,
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(225),
message_text varchar(225),
rain_3h decimal(10,3),
clouds_all int,
weather_id int,
weather_main varchar(50),
weather_description varchar(255),

```

```
PRIMARY KEY(trans_id),
FOREIGN KEY(weather_loc_id) references atm_data.DIM_LOCATION(location_id),
FOREIGN KEY(atm_id) references atm_data.DIM_ATM (atm_id),
FOREIGN KEY(date_id) references atm_data.DIM_DATE(date_id),
FOREIGN KEY(card_type_id) references atm_data.DIM_CARD_TYPE(card_type_id)
);
```



The screenshot shows the Amazon Redshift console interface. At the top, there's a navigation bar with the [Alt+S] shortcut, icons for document, alert, and help, and a dropdown menu showing 'N. Virginia' and the user 'upgradadarshmuley @ 8550-0121-6956'. Below this, there are tabs for 'ved queries' and 'Scheduled queries'. The main area shows a 'Query 1' editor with a 'Status' of 'Connected'. The editor contains a SQL query to create a table named 'atm_data.FACT_ATM_TRANS' with various columns and data types. Below the editor, there are buttons for 'Run', 'Save', 'Schedule', and 'Clear', along with a 'Send feedback' link. At the bottom, there are tabs for 'Query results' and 'Table details', and buttons for 'Execution', 'Data', and 'Visualize'. A status message at the bottom indicates the query was 'Completed, started on October 04, 2022 at 20:15:36'.

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://aws-emr-resources-855001216956-us-east-1/notebooks/dim_location/part-00000-5a269165-1076-4728-93ca-7b70c540df40-c000.csv'
iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess' delimiter',' region 'us-east-1'
```


CSV;

docs, and more

[Alt+S]

N. Virginia

upgradadarshmuley @ 8550-0121-6956

query history

Saved queries

Scheduled queries

Info

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Info

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Status

Connected

database

dev

user

awsuser

Change connection

Query 1

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1

copy atm_data.dim_location from 's3://aws-emr-resources-855001216956-us-east-1/notebooks/dim_location/part-00000-5a269165-1076-4728-93ca-7b70c540df40-c000.csv' iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess' delimiter',' region 'us-east-1'

2

CSV;

Run

Save

Schedule

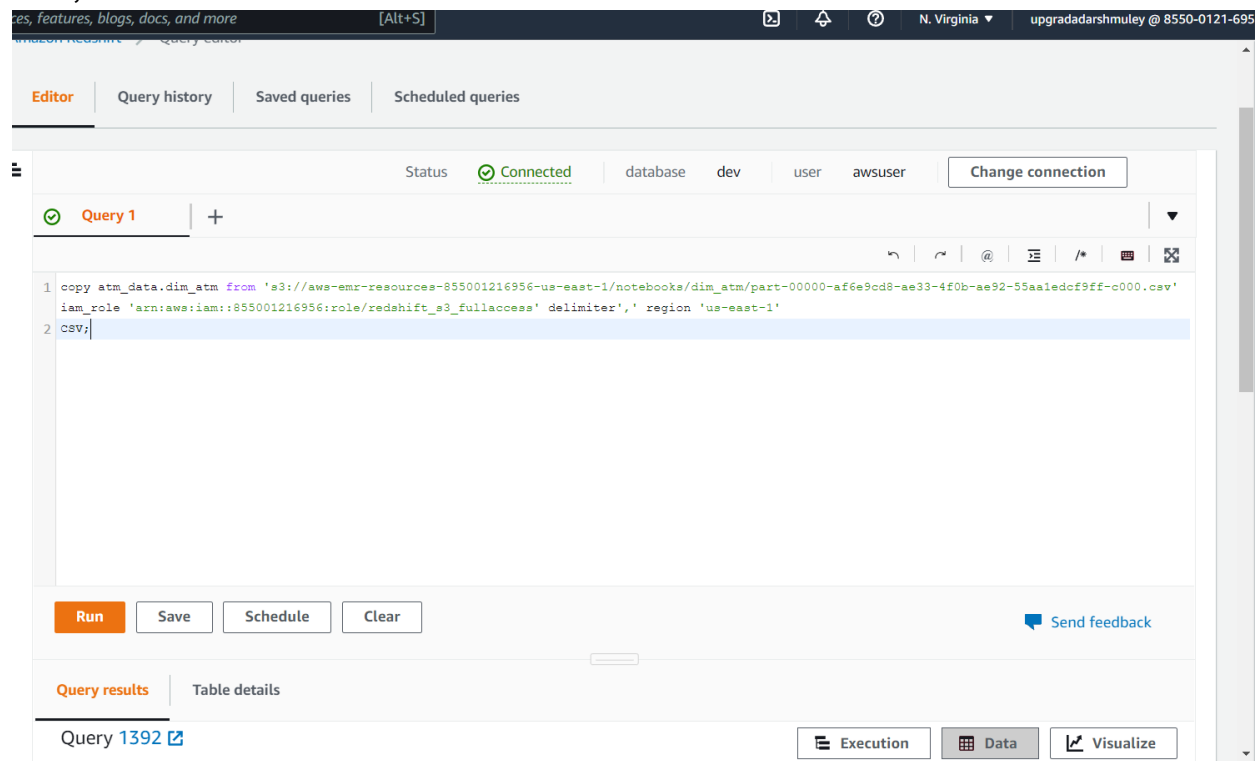
Clear

Send feedback

Query results

Table details

copy atm_data.dim_atm from 's3://aws-emr-resources-855001216956-us-east-1/notebooks/dim_atm/part-00000-af6e9cd8-ae33-4f0b-ae92-55aa1edcf9ff-c000.csv'
iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess' delimiter',' region 'us-east-1'
CSV;



copy atm_data.dim_date from 's3://aws-emr-resources-855001216956-us-east-1/notebooks/dim_date/part-00000-e360e563-568b-4413-8927-fb1dd7457ab4-c000.csv'
iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess'
delimiter',' region 'us-east-1'

CSV;

[Alt+S]

N. Virginia

upgradadarshmuley @ 8550-0121-6956

eries

Scheduled queries

Status

Connected

database

dev

user

awsuser

Change connection

Query 1

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1

copy atm_data.dim_date from 's3://aws-emr-resources-855001216956-us-east-1/notebooks/dim_date/part-00000-e360e563-568b-4413-8927-fb1dd7457ab4-c000.csv'

2

iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess'

3

delimiter',' region 'us-east-1'

4

csv;

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

```
copy atm_data.dim_card_type from 's3://aws-emr-resources-855001216956-us-east-1/notebooks/dim_card_type/part-00000-c69c831b-2e4a-4a69-bee2-0ebbd2b6a1e2-c000.csv'
iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess'
delimiter',' region 'us-east-1'
```

CSV;

ved queries

Scheduled queries

Status

Connected

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Change connection

Query 1

+

1

copy atm_data.dim_card_type from 's3://aws-emi-resources-855001216956-us-east-1/notebooks/dim_card_type/part-00000-c69c831b-2e4a-4a69-bee2-0ebbd2b6a1e2-c000.csv'

2

iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess'

3

delimiter',' region 'us-east-1'

4

CSV;

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

Query 1665

Execution

Data

Visualize

Completed, started on October 04, 2022 at 21:02:57

```
copy atm_data.fact_atm_trans from 's3://aws-emr-resources-855001216956-us-east-1/notebooks/fact_atm_trans/part-00000-cd7eecd8-2ee0-4d15-adc4-07fcee0823-c000.csv'
iam_role 'arn:aws:iam::855001216956:role/redshift_s3_fullaccess'
delimiter',' region 'us-east-1'
CSV;
```

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