Creation of a Redshift Cluster

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

<Screenshot of the type of machine used along with number of nodes>

Cluster permissions

ⓘ Create an IAM role as the default for this cluster that has the **AmazonRedshiftAllCommandsFullAccess** ↗ policy attached. This policy includes permissions to run SQL commands to COPY, UNLOAD, and query data with Amazon Redshift. The policy also grants permissions to run SELECT statements for related services, such as Amazon S3, Amazon CloudWatch logs, Amazon SageMaker, and AWS Glue.

Associated IAM roles (1) Info

Create, associate, or remove an IAM role. You can associate up to 50 IAM roles. You can also choose an IAM role and set it as the default for this cluster.

Set default ▽   Manage IAM roles ▽

🔍 Search for associated IAM role by name, status, or role type   ‹ 1 ›

☐	IAM roles ↗ ▽	Status ▽	Role type ▽
☐	UpGrad_RedShift_S3	⊘ in-sync	--

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 table etl_project.CardType

(

 card_type varchar(100)

,CardType_ID integer

);

create table etl_project.Location

(

 atm_location varchar(100)

,atm_streetname varchar(300)

,atm_street_number integer

,atm_zipcode integer

,atm_lat decimal(10,3)

,atm_lon decimal(10,3)

,Location_ID integer not null distkey sortkey

);

create table etl_project.Date

(

Year integer

,Month varchar(100)

,Day integer

,Hour integer
```

```sql
	,Weekday varchar(100)

	,full_date_time varchar(100)

	,Date_ID integer

	);

	create table etl_project.Atm

	(

	ATM_Dim_Id integer

	,Atm_manufacturer varchar(100)

	,atm_number varchar(100)

	,atm_location_id integer

	);

	create table etl_project.Fact_Atm_Trans

	(

	Location_Id integer

	,ATM_Dim_Id integer

	,Date_Id integer

	,CardType_Id integer

	,atm_status varchar(50)

	,currency varchar(50)

	,service varchar(50)

	,transaction_amount integer
```

,message_code varchar(500)

,message_text varchar(500)
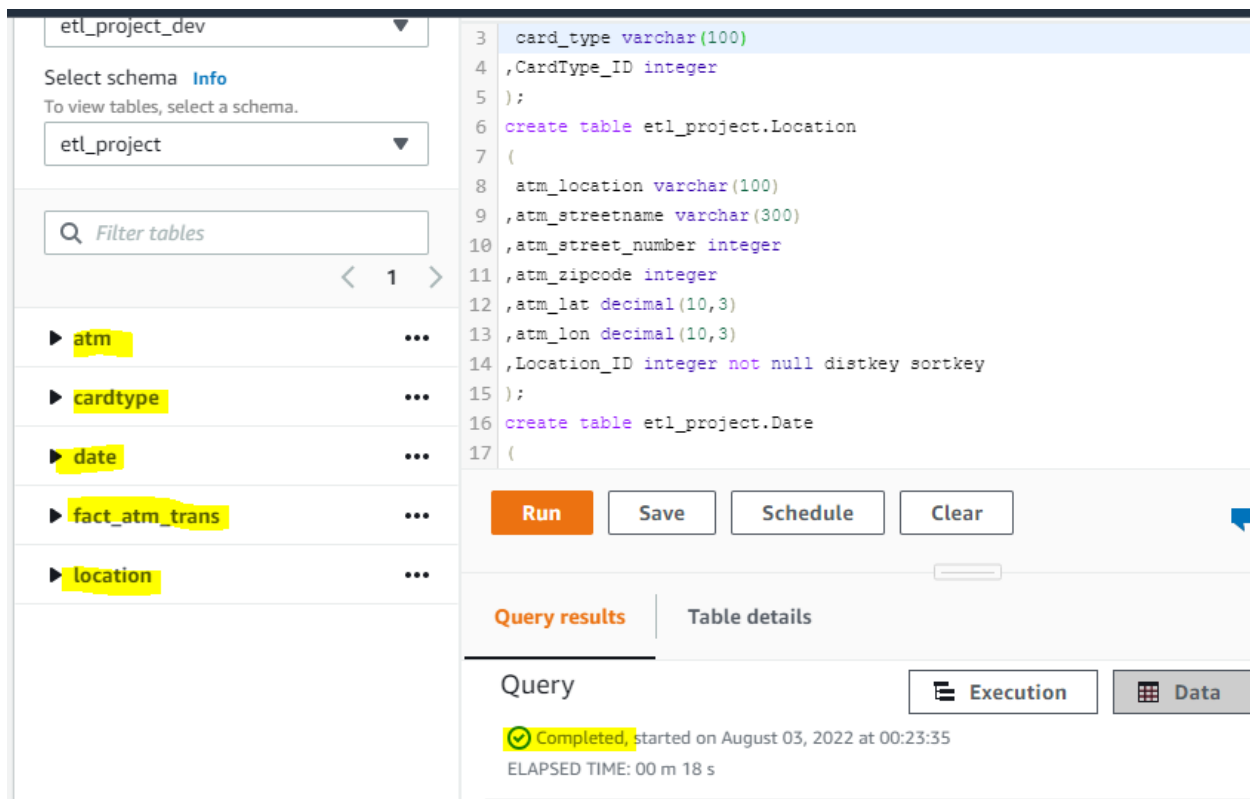
,rain_3h varchar(50)

,clouds_all varchar(50)

,weather_id varchar(50)

,weather_main varchar(50)

,weather_description varchar(500)

,trans_id integer

);

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 etl_project.CardType from
's3://mallietlprojects3bucket/Dimensions/CardType/part-00000-00e534dd-dc6a-4f5e-856b-
1a8b37e92ee8-c000.csv'
iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
delimiter ',' region 'us-east-1';

copy etl_project.Location from
's3://mallietlprojects3bucket/Dimensions/Location/part-00000-152a8dae-7a0f-401e-970b-
9fb0d602597f-c000.csv'
iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
delimiter ',' region 'us-east-1';

copy etl_project.Date from
's3://mallietlprojects3bucket/Dimensions/Date/part-00000-6a59cf56-156a-4700-9e9b-
db3999a1ee25-c000.csv'
iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
delimiter ',' region 'us-east-1';

copy etl_project.Atm from
's3://mallietlprojects3bucket/Dimensions/Atm/part-00000-9118bd77-dab3-4c74-9ba6-
36e5fcbaeac1-c000.csv'
iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
delimiter ',' region 'us-east-1';

copy etl_project.Fact_Atm_Trans from
's3://mallietlprojects3bucket/Facts/part-00000-8954d551-71c3-4222-9267-7b54cb62b887-
c000.csv'
iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
delimiter ',' region 'us-east-1';
```

```
13  iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
14  delimiter ',' region 'us-east-1';
15
16  copy etl_project.Atm from
17  's3://mallietlprojects3bucket/Dimensions/Atm/part-00000-9118bd77-dab3-4c74-9ba6-36e5fcbaeac1-c000.c
18  iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
19  delimiter ',' region 'us-east-1';
20
21  copy etl_project.Fact_Atm_Trans from
22  's3://mallietlprojects3bucket/Facts/part-00000-8954d551-71c3-4222-9267-7b54cb62b887-c000.csv'
23  iam_role 'arn:aws:iam::719946286510:role/UpGrad_RedShift_S3'
24  delimiter ',' region 'us-east-1';
```

Run Save Schedule Clear

Query results   Table details

Query 722 🔗

Execution ▦

✓ Completed, started on August 03, 2022 at 00:30:24
ELAPSED TIME: 02 m 48 s