

Creation of a RedShift Cluster

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

Amazon Redshift > Clusters > redshift-cluster-1

redshift-cluster-1

General information

<p>Cluster identifier redshift-cluster-1</p> <p>Cluster namespace 956ac09-7f03-441a-aa00-33629c2895d</p>	<p>Status Available</p> <p>Date created March 01, 2021, 10:54 (UTC+05:30)</p> <p>Storage used 0.14% (0.51 of 320 GB used)</p>	<p>Node type dc2.large</p> <p>Number of nodes 2</p>
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Cluster performance | Query monitoring | Schedules | Maintenance and monitoring | Backup | **Properties**

Cluster permissions (1) Manage IAM roles

Your cluster needs permissions to access other AWS services on your behalf. For the required permissions, add IAM roles with the principal "redshift.amazonaws.com". You can associate up to 10 IAM roles with this cluster. [Learn more](#)

Associated IAM roles	Status	Amazon Resource Name (ARN)
atmtransrole	In sync	arn:aws:iam::185289530500:role/atmtransrole

Cluster details Resize

Cluster identifier redshift-cluster-1	Node type dc2.large	Number of nodes 2	Total available storage 320 GB
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Additional details

Database configurations Edit

Database name dev	Port 5439	Master user name awsuser
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Parameter group
default:redshift-1.0
Defines database parameter and query options for all the databases.

Encryption
Disabled

Role ARN arn:aws:iam::185289530500:role/atmtransrole

Role description Allows Redshift clusters to call AWS services on your behalf. [Edit](#)

Instance Profile ARNs

Path /

Creation time 2021-03-01 03:27 UTC+0530

Last activity 2021-03-01 16:09 UTC+0530 (Today)

Maximum session duration 1 hour [Edit](#)

Permissions | Trust relationships | Tags | Access Advisor | Revoke sessions

Permissions policies (1 policy applied)

[Attach policies](#)

Policy name
atmtranspolicy

Permissions boundary (not set)

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_trans;
```

```
create table atm_trans.card_type(  
    cardtype_text varchar(30),  
    cardtype_id integer not null distkey);
```

```
create table atm_trans.location(  
    loc_id integer not null distkey,  
    location_text varchar(50),  
    street_name varchar(255),  
    street_number integer,  
    zipcode integer,  
    latitude decimal(10,3),  
    longitude decimal(10,3));
```

```
create table atm_trans.atm(  
    atm_number varchar(20),  
    atm_manufacturer varchar(50),  
    atm_location_id integer,  
    atm_id integer not null distkey);
```

```
create table atm_trans.date(  
    date_id integer not null distkey,  
    full_date_time timestamp,  
    year integer,  
    month varchar(20),  
    day integer,  
    hour integer,  
    weekday varchar(20));
```

```
create table atm_trans.fact(  
    trans_id bigint not null distkey,  
    atm_id integer,  
    weather_loc_id integer,  
    date_id integer,  
    card_type_id integer,  
    atm_status varchar(20),
```

```
currency varchar(10),
service varchar(20),
transaction_amount integer,
msg_code varchar(255),
msg_text varchar(255),
rain_3h decimal(10,3),
clouds_all decimal(10,3),
weather_id integer,
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_trans.fact from

```
's3://atmtransbucket/fact_text/part-00160-4537dfe4-3a2e-425e-a4cb-8334a4073301-c000.csv'
```

```
iam_role 'arn:aws:iam::185289530500:role/atmtransrole'
```

```
delimiter '|' region 'us-east-1';
```

similarly 13 other fact .csv files were loaded.

copy atm_trans.date from

```
's3://atmtransbucket/time/part-00000-5bfac5d1-6322-4676-be9d-b7463f3b31be-c000.csv'
```

```
iam_role 'arn:aws:iam::185289530500:role/atmtransrole'
```

```
delimiter ',' region 'us-east-1' timeformat 'YYYY-MM-DD HH:MI:SS';
```

copy atm_trans.atm from

```
's3://atmtransbucket/atm/part-00000-217091df-516c-4eb8-ab46-9a9c0e60a4f4-c000.csv'
```

```
iam_role 'arn:aws:iam::185289530500:role/atmtransrole'
```

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

copy atm_trans.location from

```
's3://atmtransbucket/loc/part-00000-f76d78e5-af0a-4bcf-a427-4ec84c8efe44-c000.csv'
```

```
iam_role 'arn:aws:iam::185289530500:role/atmtransrole'
```

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

copy atm_trans.card_type from

```
's3://atmtransbucket/cardtype/part-00000-d358f45a-94a6-49e1-bb70-5db05b2ef106-c000.csv'
```

```
iam_role 'arn:aws:iam::185289530500:role/atmtransrole'
```

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