


Creation of a Redshift Cluster




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

Amazon Redshift > Clusters > redshift-cluster-upgrad

redshift-cluster-upgrad ▾

Actions ▾ Edit Add partner integration Query data ▾

General information 

Cluster identifier redshift-cluster-upgrad	Status ✔ Available	Node type dc2.large	Endpoint  redshift-cluster-upgrad.cc4pnpbbjqmg.us-east...
Cluster namespace 7947ac4d-617d-42d8-b289-b8a682f99ae4	Date created September 08, 2022, 17:12 (UTC+05:30)	Number of nodes 1	JDBC URL  jdbc:redshift://redshift-cluster-upgrad.cc4pnp...
	Storage used 0.10% (0.17 of 160 GB used)	AQUA Not available	ODBC URL  Driver={Amazon Redshift (x64)}; Server=redshi...

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 IF NOT EXISTS public.dim_atm
(
    atm_number INTEGER NOT NULL
    ,atm_manufacturer VARCHAR(255) NOT NULL
    ,location_id VARCHAR(255) NOT NULL
    ,PRIMARY KEY (atm_number)
)
```

```
CREATE TABLE IF NOT EXISTS public.dim_card_type
(
    card_type VARCHAR(255) NOT NULL
    ,PRIMARY KEY (card_type)
)
```

```
CREATE TABLE IF NOT EXISTS public.dim_date
(
    year INTEGER
    ,month VARCHAR(255)
    ,day INTEGER
    ,hour INTEGER
    ,weekday VARCHAR(255) NOT NULL
    ,date_id BIGINT NOT NULL
    ,PRIMARY KEY (date_id)
)
```

```
CREATE TABLE IF NOT EXISTS public.dim_location
(
    location VARCHAR(255) NOT NULL
    ,lat INTEGER NOT NULL
    ,lon INTEGER NOT NULL
    ,streetname VARCHAR(255) NOT NULL
    ,street_number INTEGER NOT NULL
    ,zipcode INTEGER NOT NULL
    ,PRIMARY KEY (location)
)
```

```
CREATE TABLE fact_atm_trans (  
    year int,  
    month varchar(255),  
    day int,  
    weekday varchar(255),  
    hour int,  
    atm_status varchar(255),  
    atm_number int,  
    atm_manufacturer varchar (255),  
    location varchar(255),  
    streetname varchar(255),  
    street_number int,  
    zipcode int,  
    lat int,  
    lon int,  
    currency varchar(255),  
    card_type varchar(255),  
    transaction_amount int,  
    service varchar(255),  
    message_code varchar(255),  
    message_text varchar(255),  
    weather_lat float,  
    weather_lon float,  
    weather_city_id int,  
    weather_city_name varchar(255),  
    temp float,  
    pressure int,  
    humidity int,  
    wind_speed int,  
    wind_deg int,  
    rain_3h float,  
    clouds_all int,  
    weather_id int,  
    weather_main varchar(255),  
    weather_description varchar(255),  
    id bigint NOT NULL PRIMARY KEY  
);
```

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 fact_atm_trans from 's3://myfactanddimensiontables/fact_table/part-00000-114b1950-24fb-4913-a261-382929abad53-c000.csv'
```

```
access_key_id 'AKIAVEEUOLOSHHEPNDUG' secret_access_key  
'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' delimiter '|' null as ''''  
TIMEFORMAT 'auto';
```

```
copy dim_date from 's3://myfactanddimensiontables/dim_date/part-00000-f8de88cd-2b78-45c0-  
8205-5cbfb81e427c-c000.csv'  
access_key_id 'AKIAVEEUOLOSHHEPNDUG' secret_access_key  
'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' delimiter ',' TIMEFORMAT 'auto';
```

```
copy dim_location from 's3://myfactanddimensiontables/dim_location/part-00000-056c6f89-  
b82c-4a25-9d01-914579cb76c2-c000.csv'  
access_key_id 'AKIAVEEUOLOSHHEPNDUG' secret_access_key  
'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' delimiter ',' TIMEFORMAT 'auto';
```

```
copy dim_atm from 's3://myfactanddimensiontables/dim_atm/part-00000-dc455089-945f-46b9-  
9b72-e6a014286858-c000.csv'  
access_key_id 'AKIAVEEUOLOSHHEPNDUG' secret_access_key  
'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' delimiter ',' TIMEFORMAT 'auto';
```

```
copy dim_card_type from 's3://myfactanddimensiontables/dim_card_type/part-00000-bcd13f88-  
33b0-4067-bbca-e41060c7d912-c000.csv'  
access_key_id 'AKIAVEEUOLOSHHEPNDUG' secret_access_key  
'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' delimiter ',' TIMEFORMAT 'auto';
```