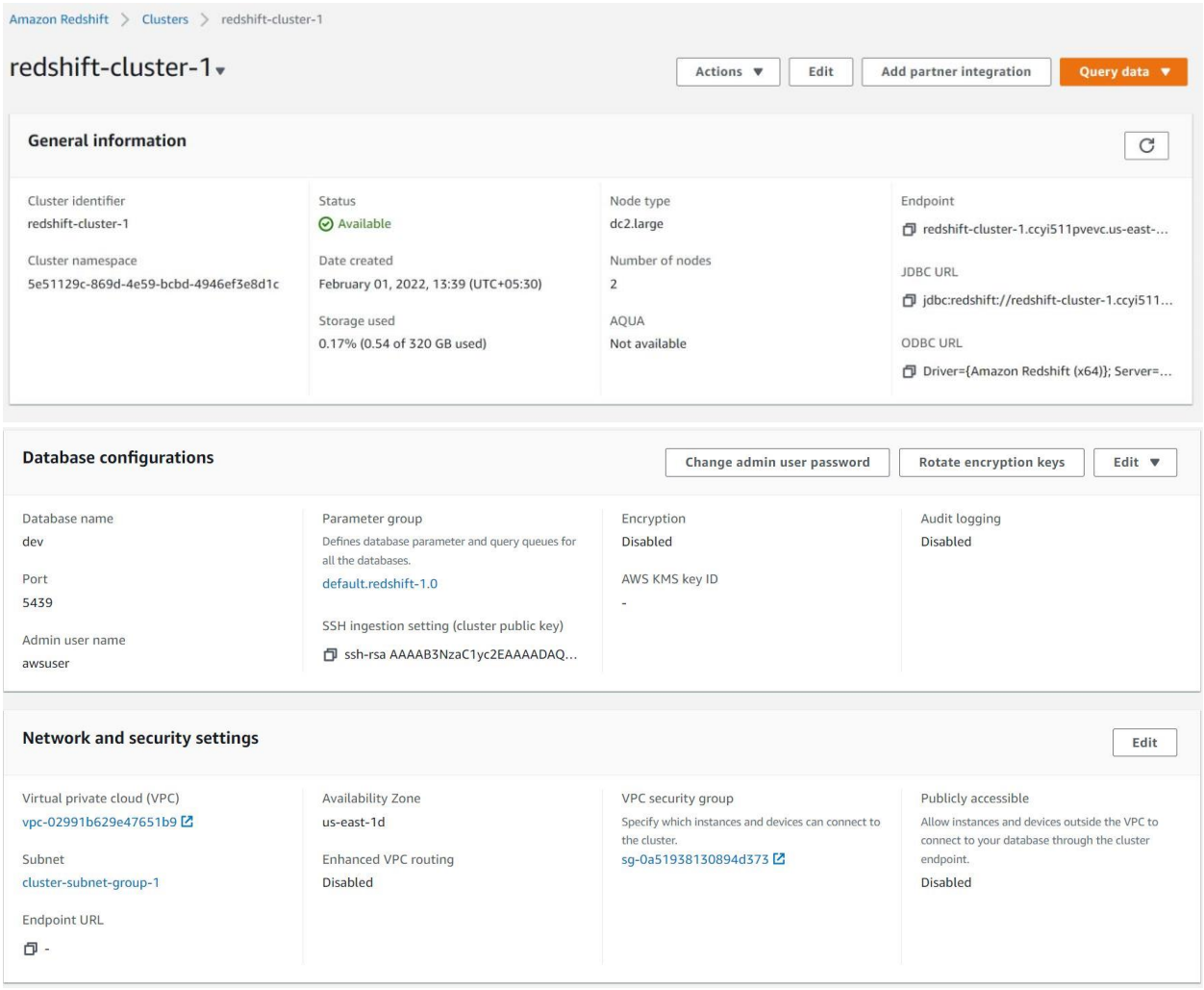
Creation of a Redshift Cluster

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



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_etl;

create table atm_etl.DIM_LOCATION(
location_id int not null sortkey,
location varchar(50),
streetname varchar(255),
street_number int,
zipcode int,
lat decimal(10,3),
lon decimal(10,3)) diststyle all;

create table atm_etl.DIM_ATM(
atm_id int not null sortkey,
atm_number varchar(20) not null,
atm_manufacturer varchar(50) not null,
atm_location_id int ) diststyle all;

create table atm_etl.DIM_DATE(
date_id int not null distkey sortkey,
full_date_time timestamp,
year int,
month varchar(20),
day int,
hour int,
weekday varchar(20));

create table atm_etl.DIM_CARD_TYPE(
card_type_id int sortkey,
card_type varchar(30)) diststyle all;
```

```
create table atm_etl.FACT_ATM_TRANS(
trans_id bigint not null,
atm_id int,
weather_loc_id int distkey,
date_id int,
card_type_id int,
atm_status varchar(20) sortkey,
currency varchar(10),
service varchar(20),
transaction_amount int,
message_code varchar(255),
message_text varchar(255),
rain_3h decimal(10,3),
clouds_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_etl.DIM_LOCATION from
's3://upgrad-etl/atm_data/dim_location1.csv'
iam_role 'arn:aws:iam::205639085974:role/upgrad-redshift-1'
delimiter ',' region 'us-east-1';

copy atm_etl.DIM_ATM from
's3://upgrad-etl/atm_data/dim_atm.csv'
iam_role 'arn:aws:iam::205639085974:role/upgrad-redshift-1'
delimiter ',' region 'us-east-1';

copy atm_etl.DIM_DATE from
's3://upgrad-etl/atm_data/dim_date1.csv'
iam_role 'arn:aws:iam::205639085974:role/upgrad-redshift-1'
delimiter ',' region 'us-east-1'
dateformat 'auto'
timeformat 'auto'
CSV;
```

```
copy atm_etl.DIM_CARD_TYPE from
's3://upgrad-etl/atm_data/dim_card_type1.csv'
iam_role 'arn:aws:iam::205639085974:role/upgrad-redshift-1'
delimiter ',' region 'us-east-1';

copy atm_etl.FACT_ATM_TRANS from
's3://upgrad-etl/atm_data/fact_atm_trans1.csv'
iam_role 'arn:aws:iam::205639085974:role/upgrad-redshift-1'
delimiter ',' region 'us-east-1'
null 'NA'
removequotes;
```