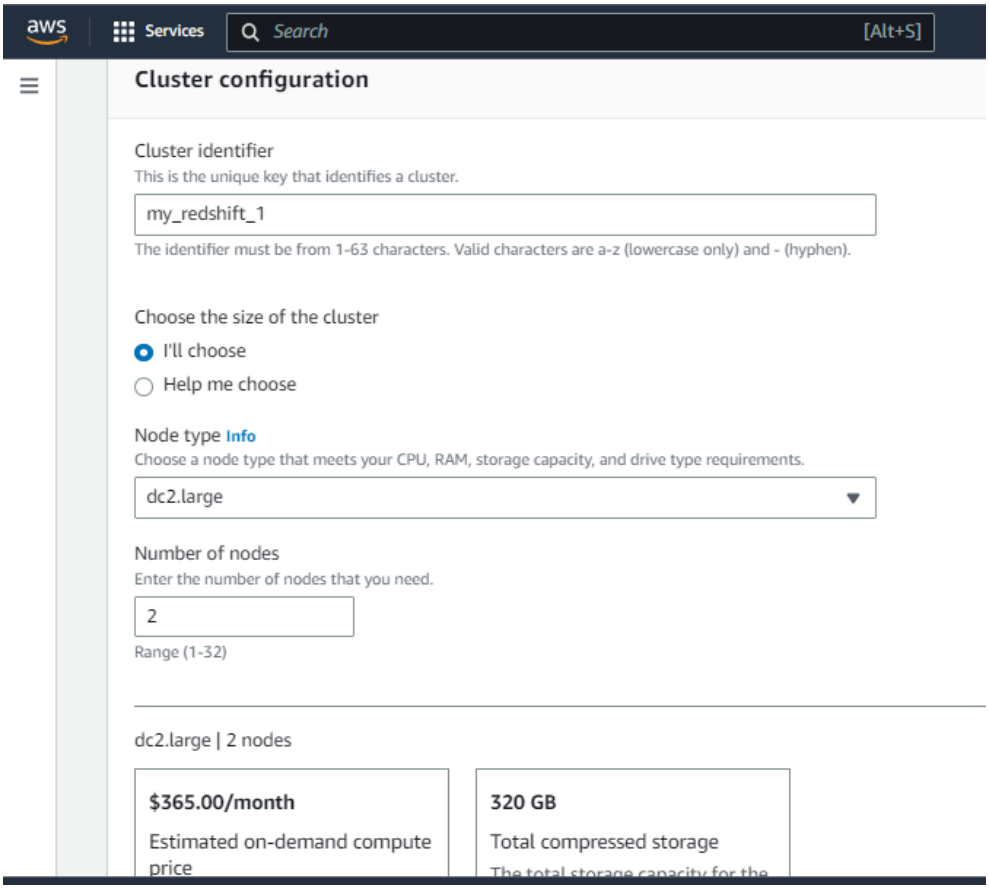
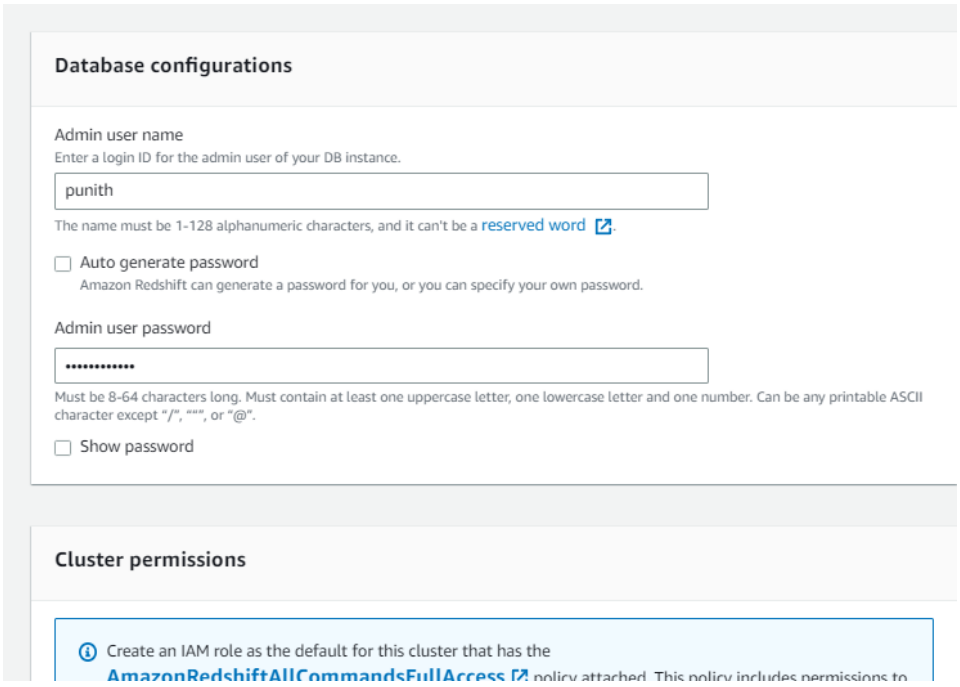
1)Creation of a Redshift Cluster





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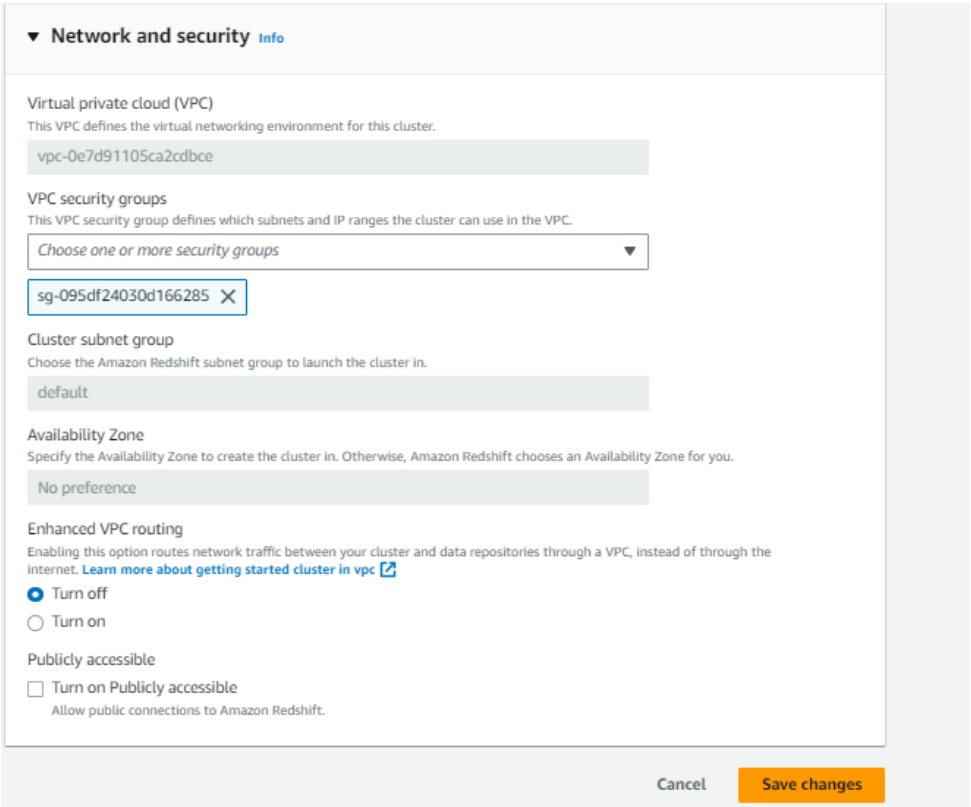

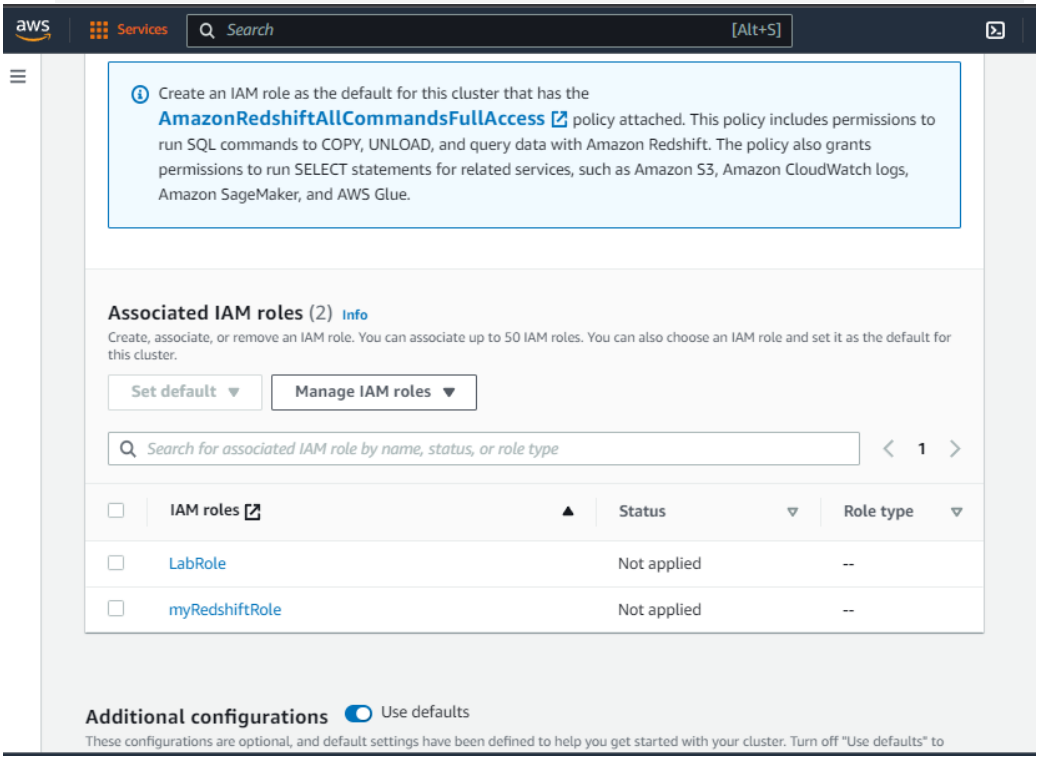

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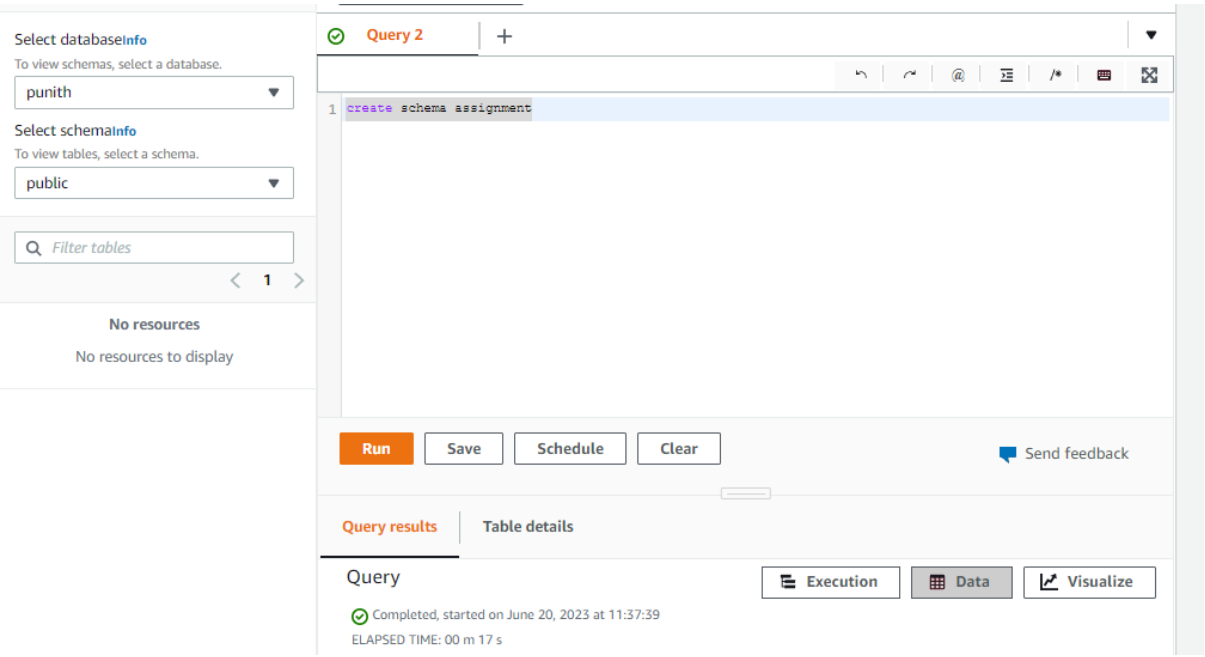
2)Loading data into a Redshift cluster from Amazon S3 bucket

Queries to copy the data from S3 buckets to the Redshift cluster in the appropriate tables



3) Location dimension table creation and load

```
create table assignment.location_dim
( location VARCHAR(50),
streetname VARCHAR(255),
street_number INT,
zipcode INT,
lat DECIMAL(10,3),
lon DECIMAL(10,3),
location_id bigint,
PRIMARY KEY (location_id)
);
```

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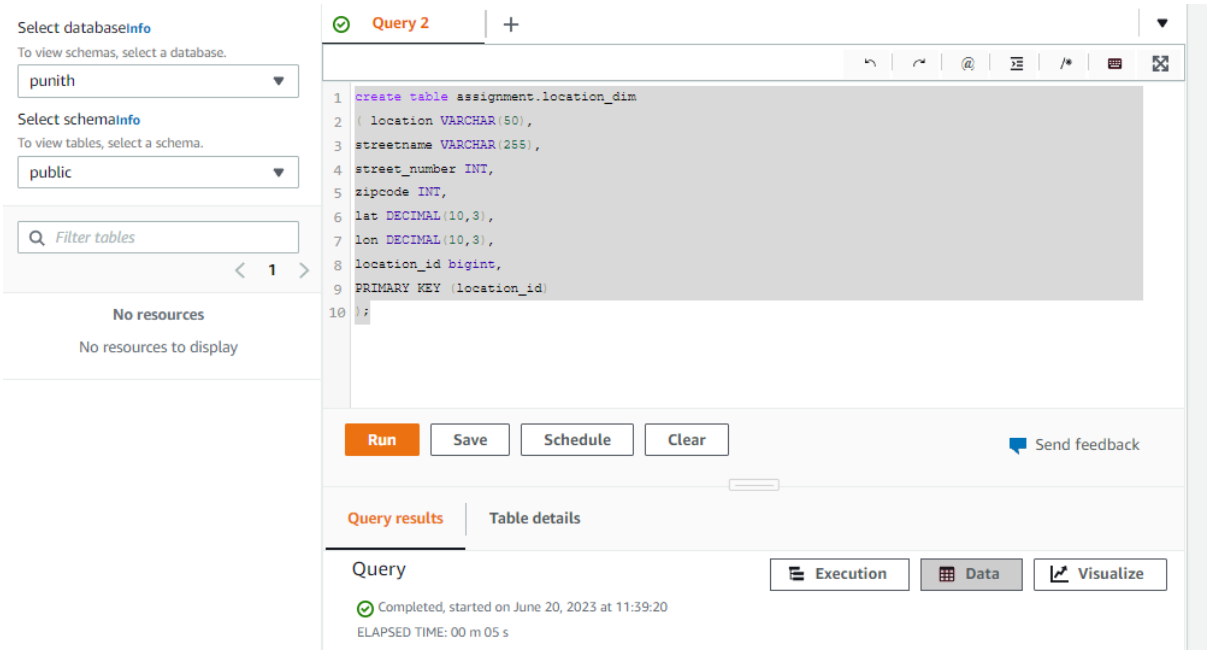
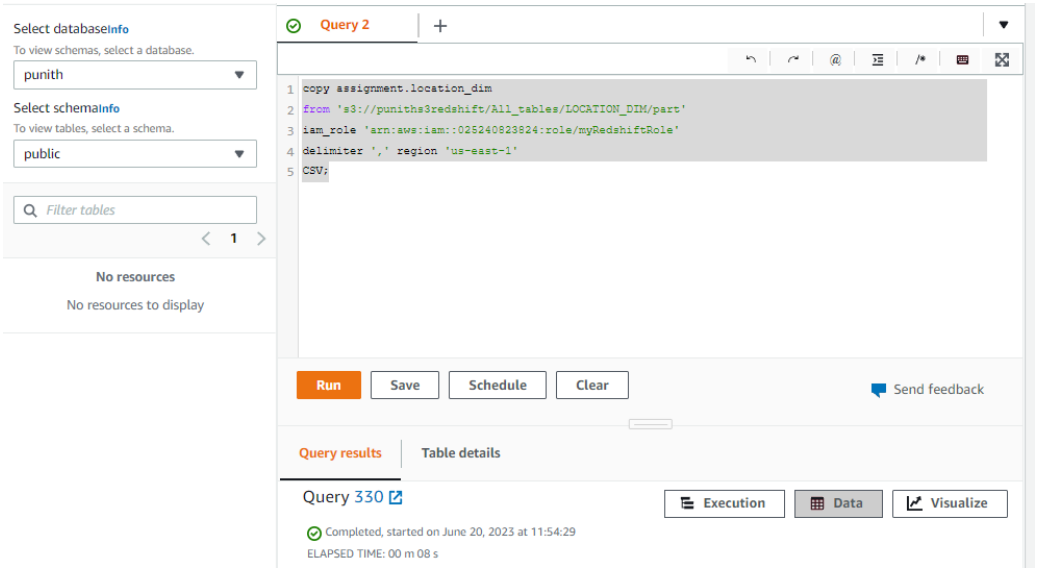


4)copy assignment.location_dim
from 's3://puniths3redshift/All_tables/LOCATION_DIM/part'
iam_role 'arn:aws:iam::025240823824:role/myRedshiftRole'
delimiter ',' region 'us-east-1'
CSV;



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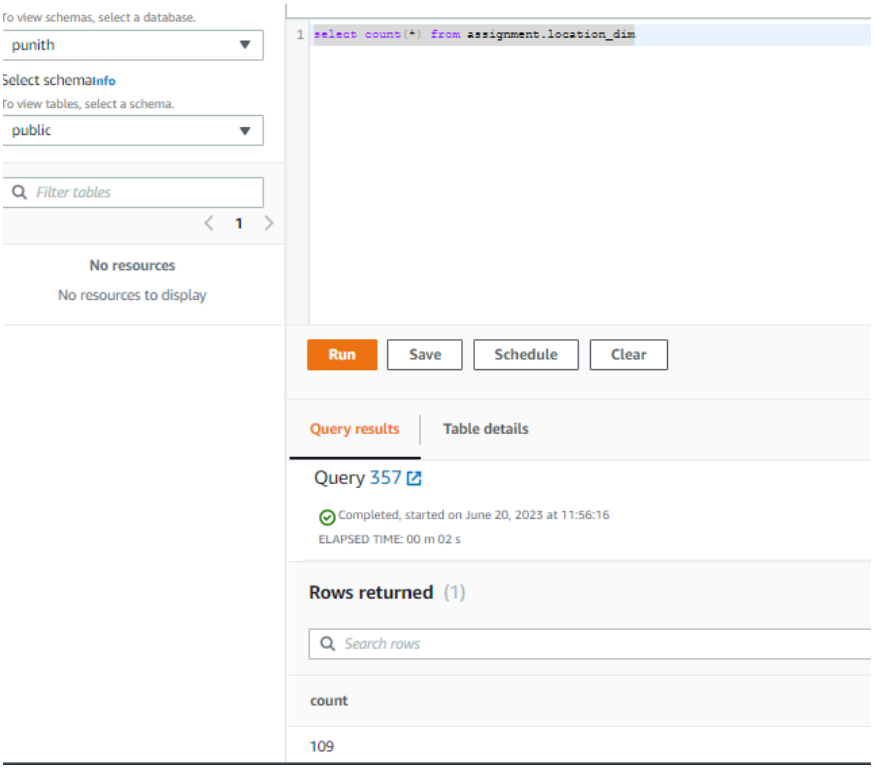
5)select count(*) from assignment.location_dim



6) ATM Dimension table creation and load

```
create table assignment.atm_dim
(
atm_number VARCHAR(20),
atm_manufacturer VARCHAR(50),
atm_location_id bigint,
atm_id bigint,
PRIMARY KEY( atm_id),
FOREIGN KEY (atm_location_id) REFERENCES assignment.location_dim
(location_id)
);
```

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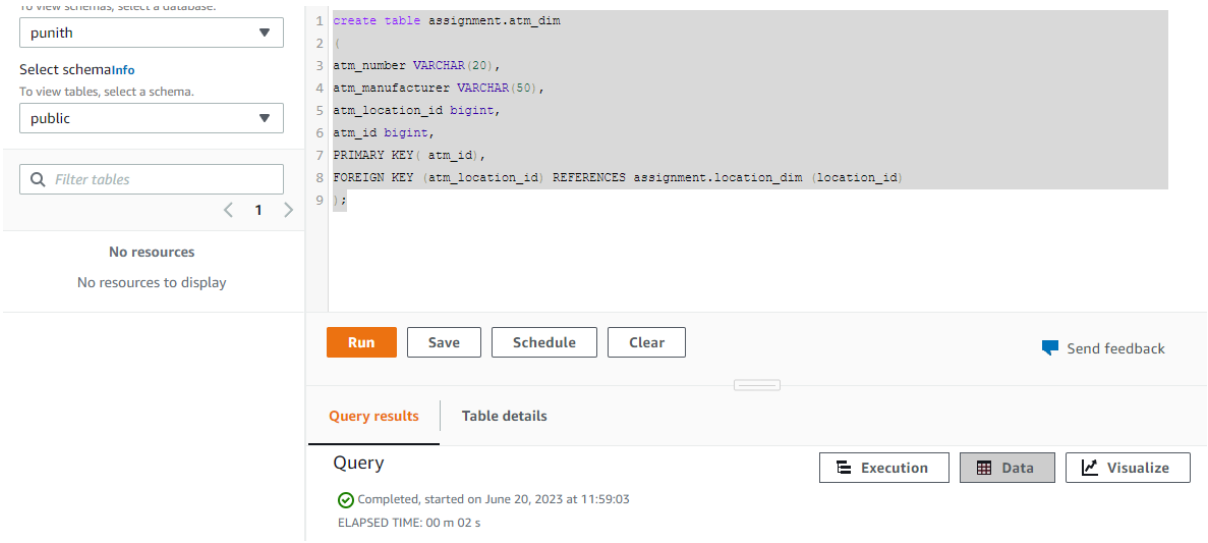
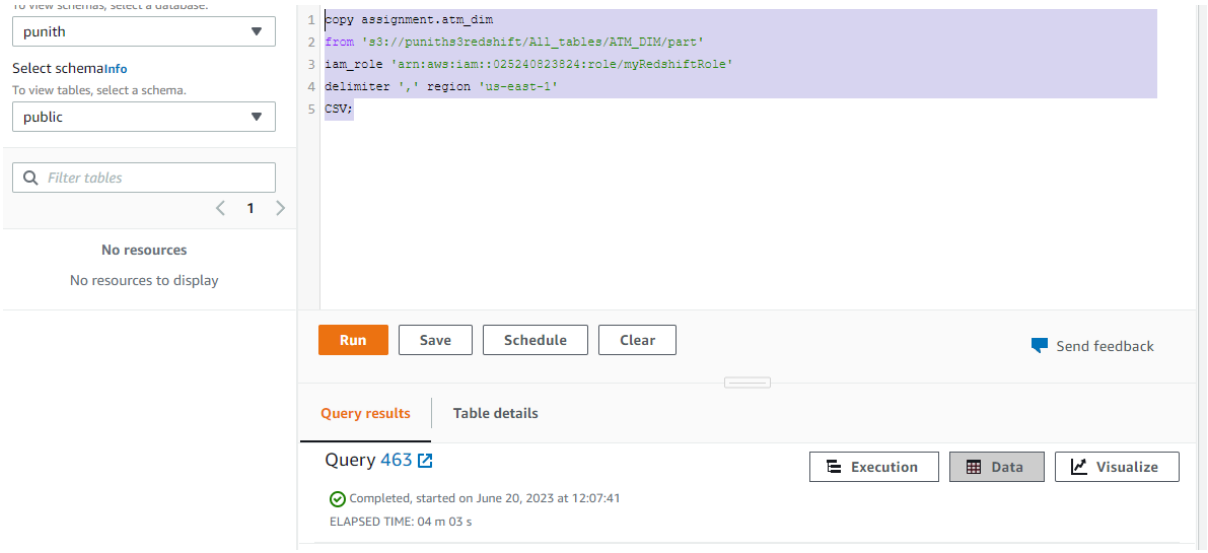


7)copy assignment.atm_dim
from 's3://puniths3redshift/All_tables/ATM_DIM/part'
iam_role 'arn:aws:iam::025240823824:role/myRedshiftRole'
delimiter ',' region 'us-east-1'
CSV;



8)select count(*) from assignment.atm_dim

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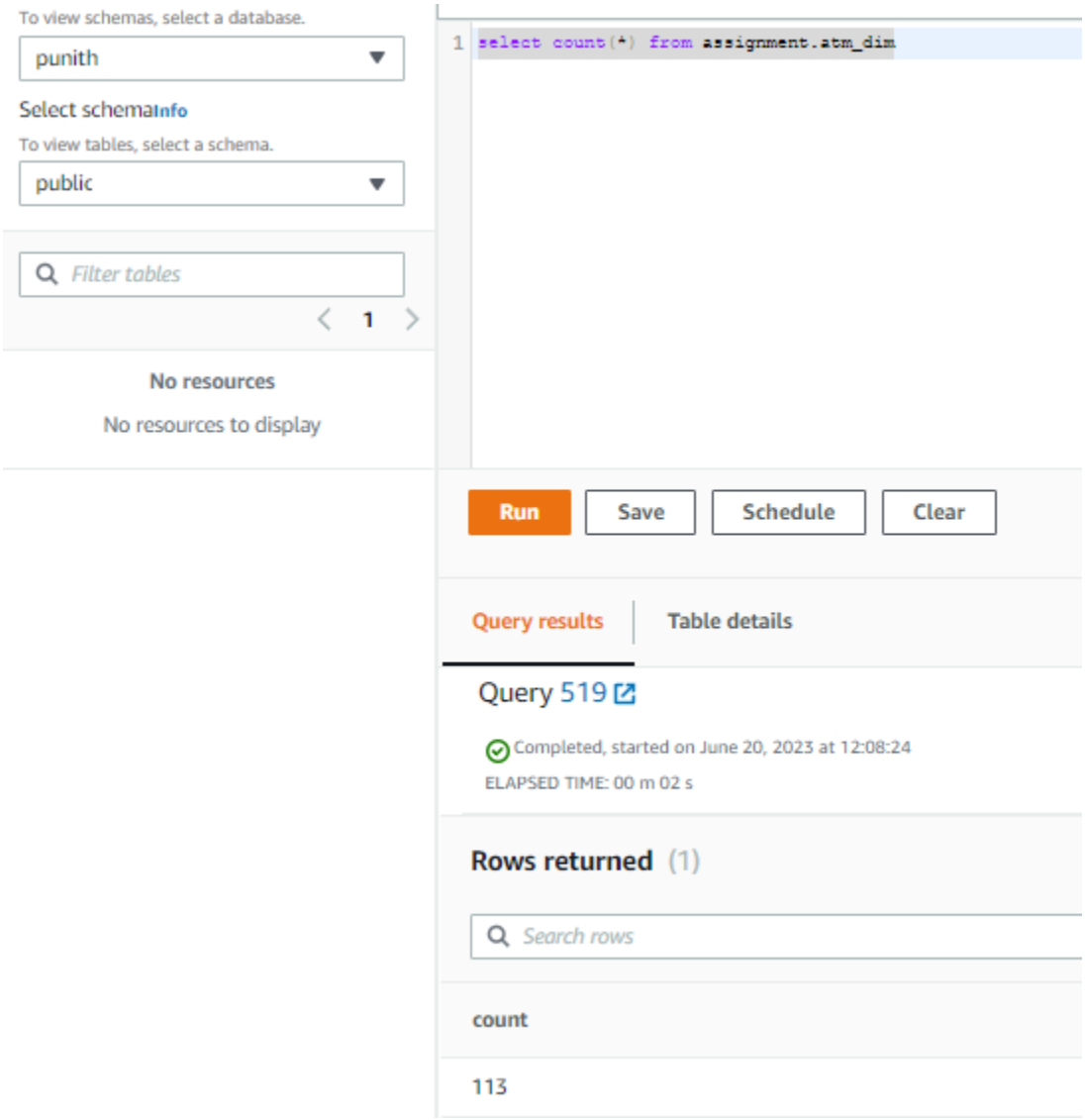

9) Date dimension table creation and load

```
create table assignment.date_dim
(
year INT,
month VARCHAR(20),
day INT,
hour INT,
weekday VARCHAR(20),
full_date_time TIMESTAMP,
date_id bigint,
primary key(date_id)
);
```

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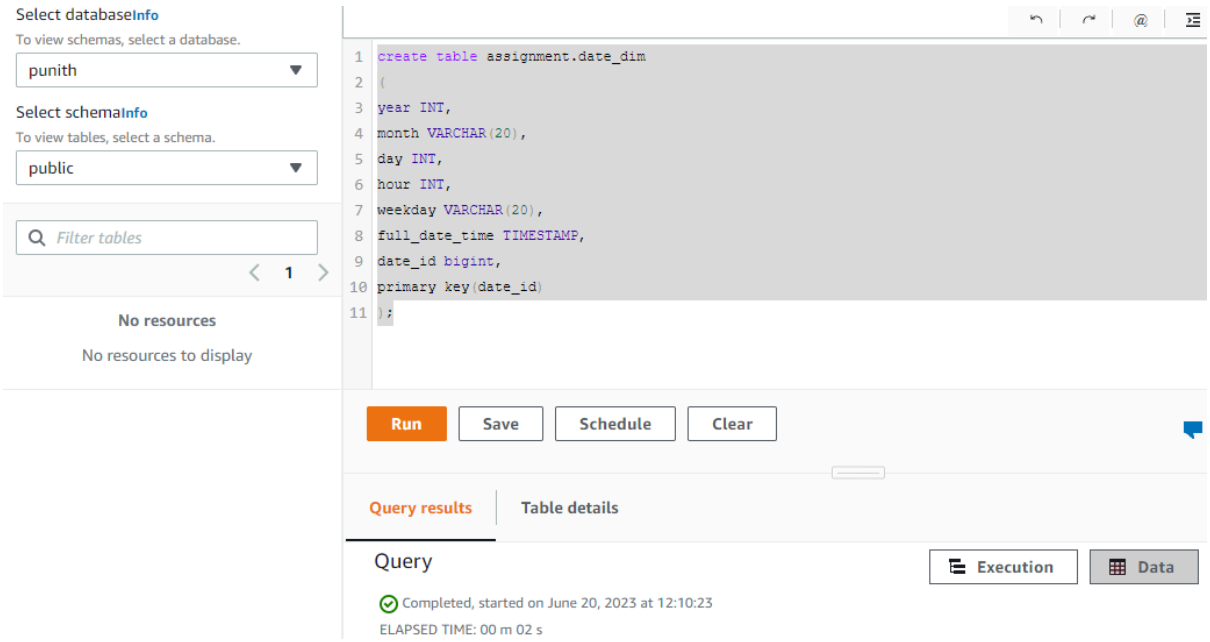
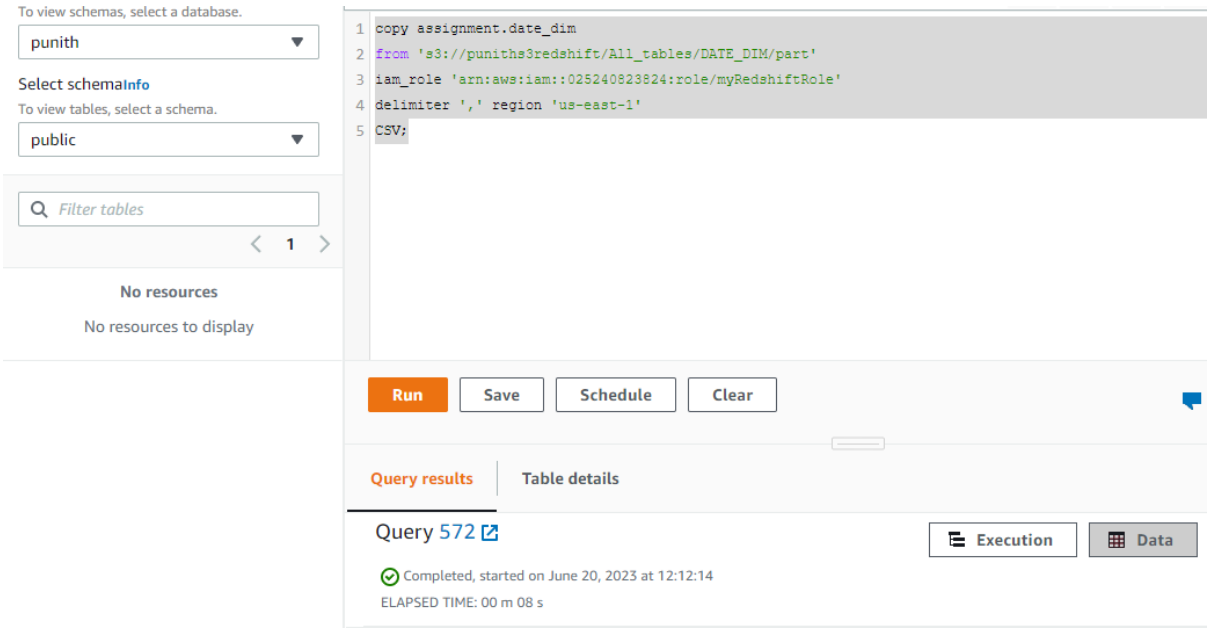


10)copy assignment.date_dim
from 's3://puniths3redshift/All_tables/DATE_DIM/part'
iam_role 'arn:aws:iam::025240823824:role/myRedshiftRole'
delimiter ',' region 'us-east-1'
CSV;



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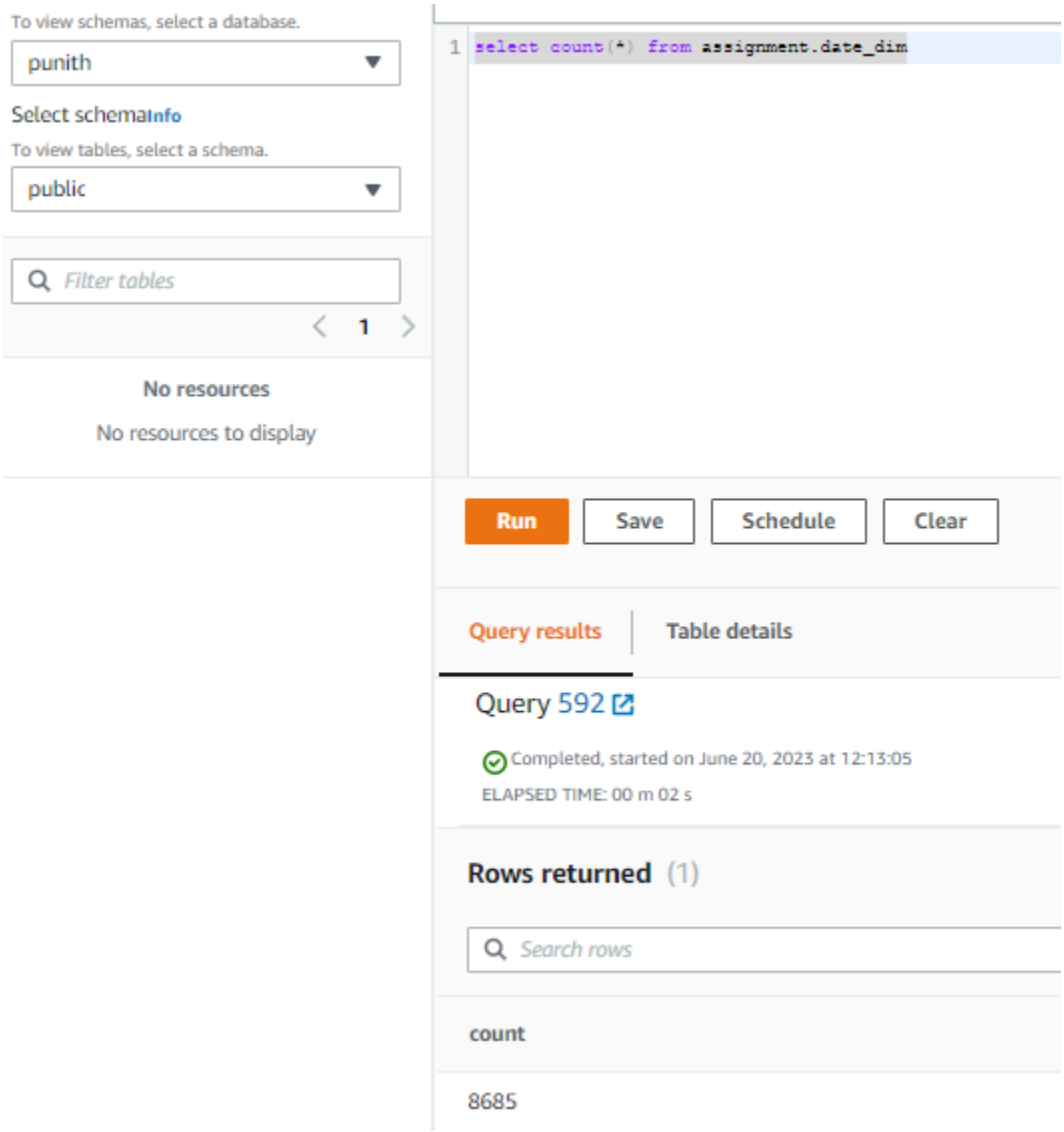
11)select count(*) from assignment.date_dim



12) CARD_TYPE Dimension table creation and load
create table assignment.card_type_dim
(
card_type VARCHAR(30),
card_type_id bigint,
PRIMARY KEY (card_type_id)
);

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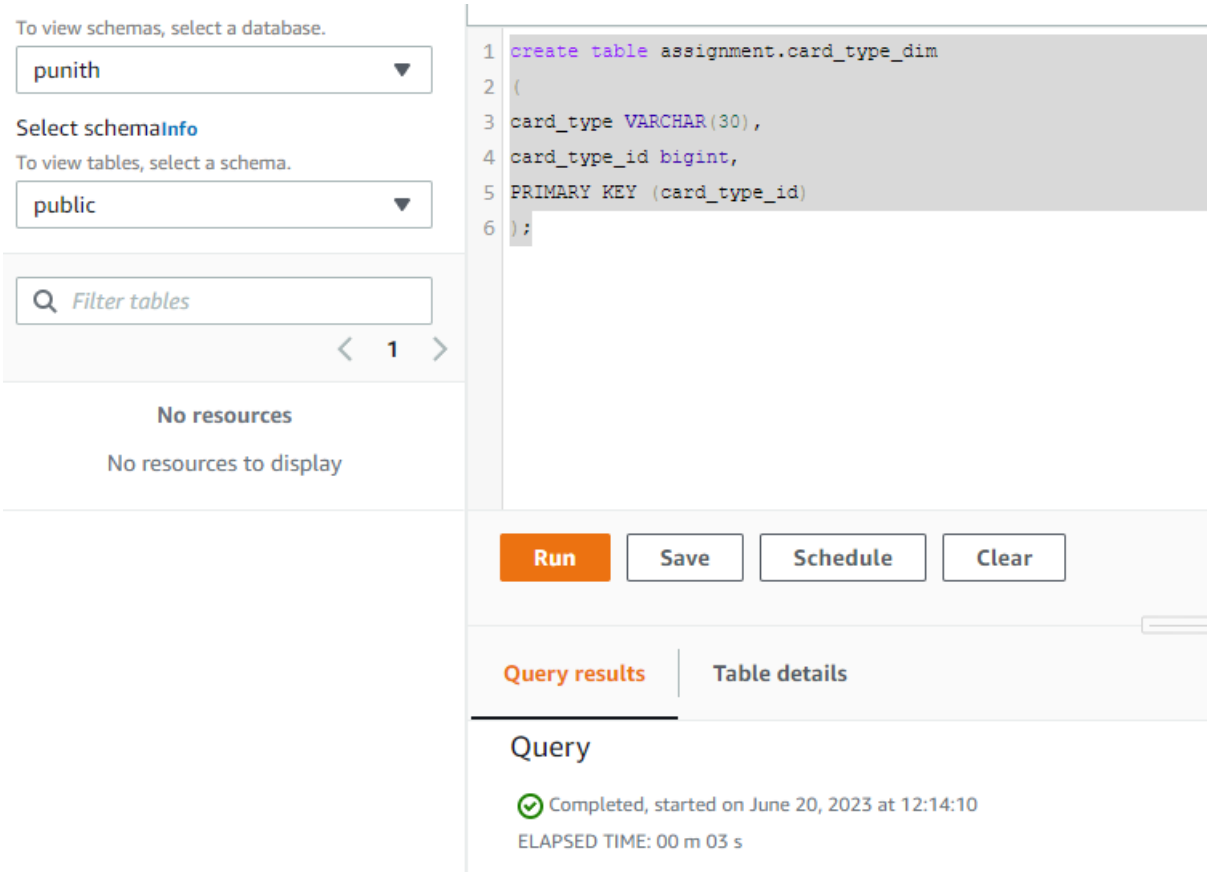

13)copy assignment.card_type_dim
from 's3://puniths3redshift/All_tables/CARD_TYPE_DIM/part'
iam_role 'arn:aws:iam::025240823824:role/myRedshiftRole'
delimiter ',' region 'us-east-1'
CSV;

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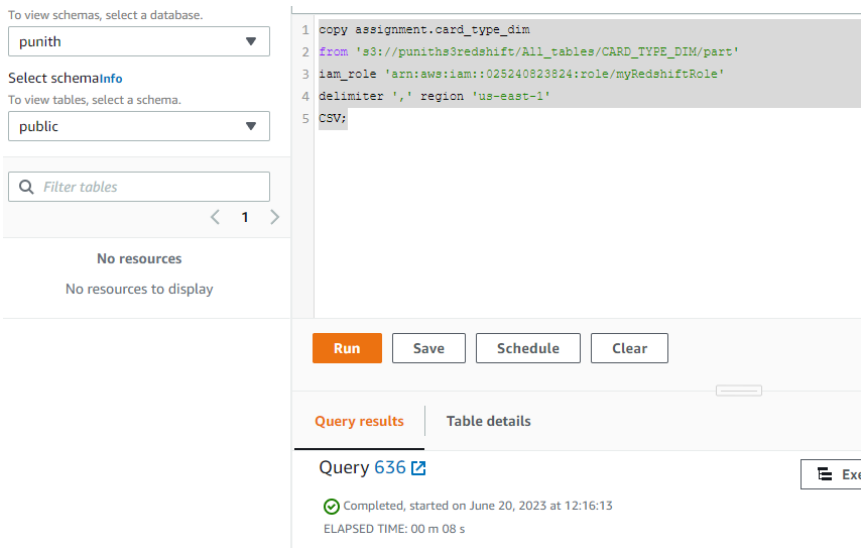
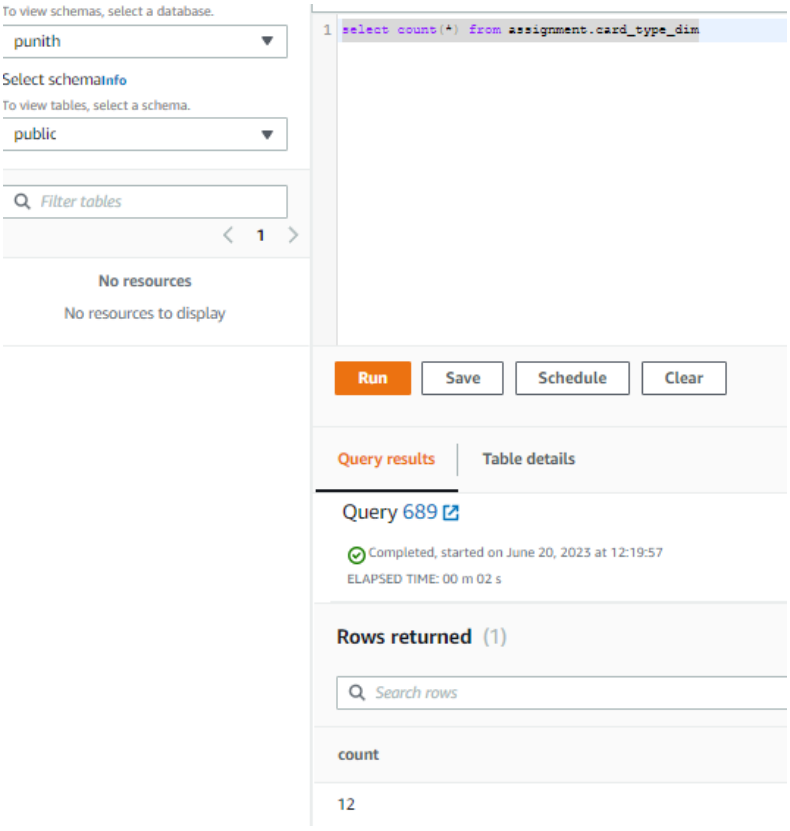


14)select count(*) from assignment.card_type_dim



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15) FACT Table creation and data load

```
create table assignment.FACT_ATM_TRANS
( trans_id BIGINT,
atm_id BIGINT,
weather_loc_id BIGINT,
date_id BIGINT,
card_type_id BIGINT,
atm_status VARCHAR(20),
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 BIGINT,
weather_main VARCHAR(50),
weather_description VARCHAR(255),
PRIMARY KEY (trans_id),
FOREIGN KEY (weather_loc_id) REFERENCES assignment.location_dim
(location_id),
FOREIGN KEY (atm_id) REFERENCES assignment.atm_dim (atm_id),
FOREIGN KEY (date_id) REFERENCES assignment.date_dim (date_id)
);
```

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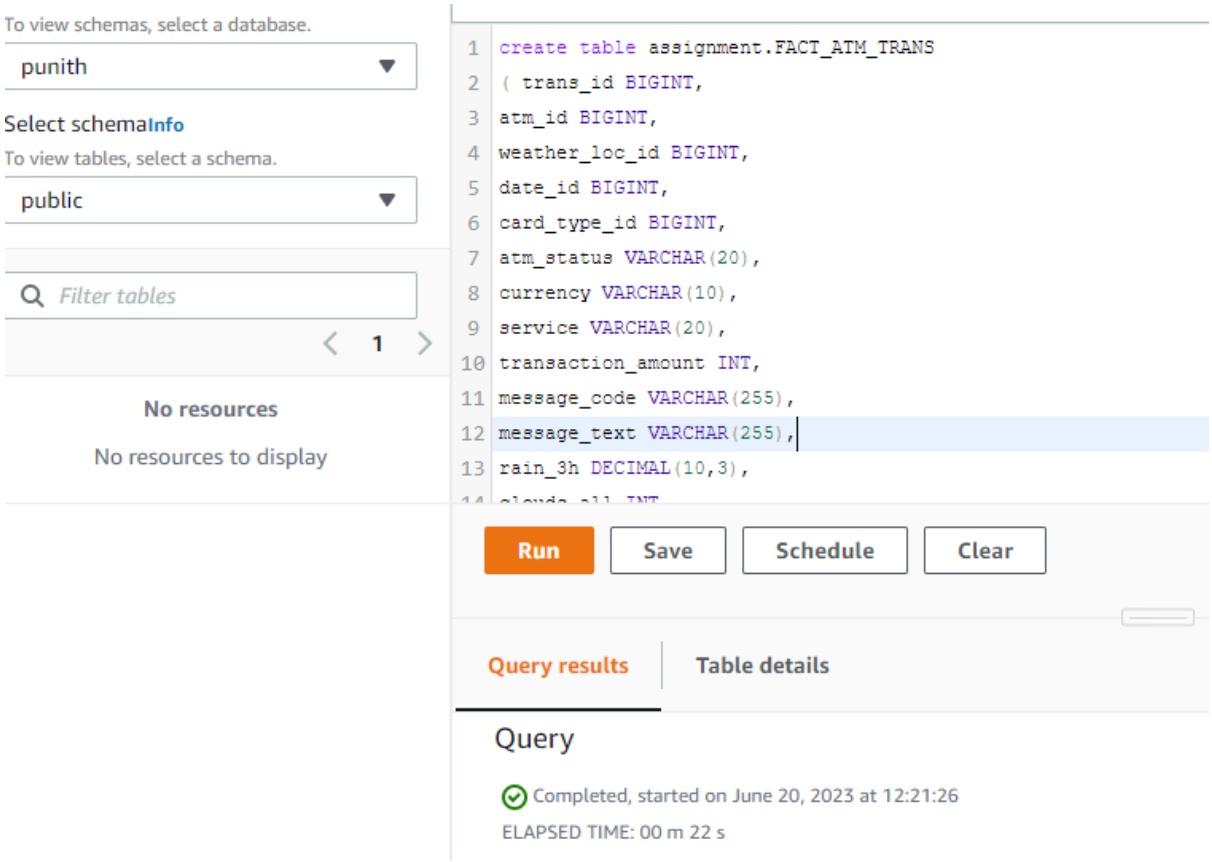

16)copy assignment.FACT_ATM_TRANS
from 's3://puniths3redshift/All_tables/FACT_ATM_TRANS/part'
iam_role 'arn:aws:iam::025240823824:role/myRedshiftRole'
delimiter ',' region 'us-east-1'
CSV;

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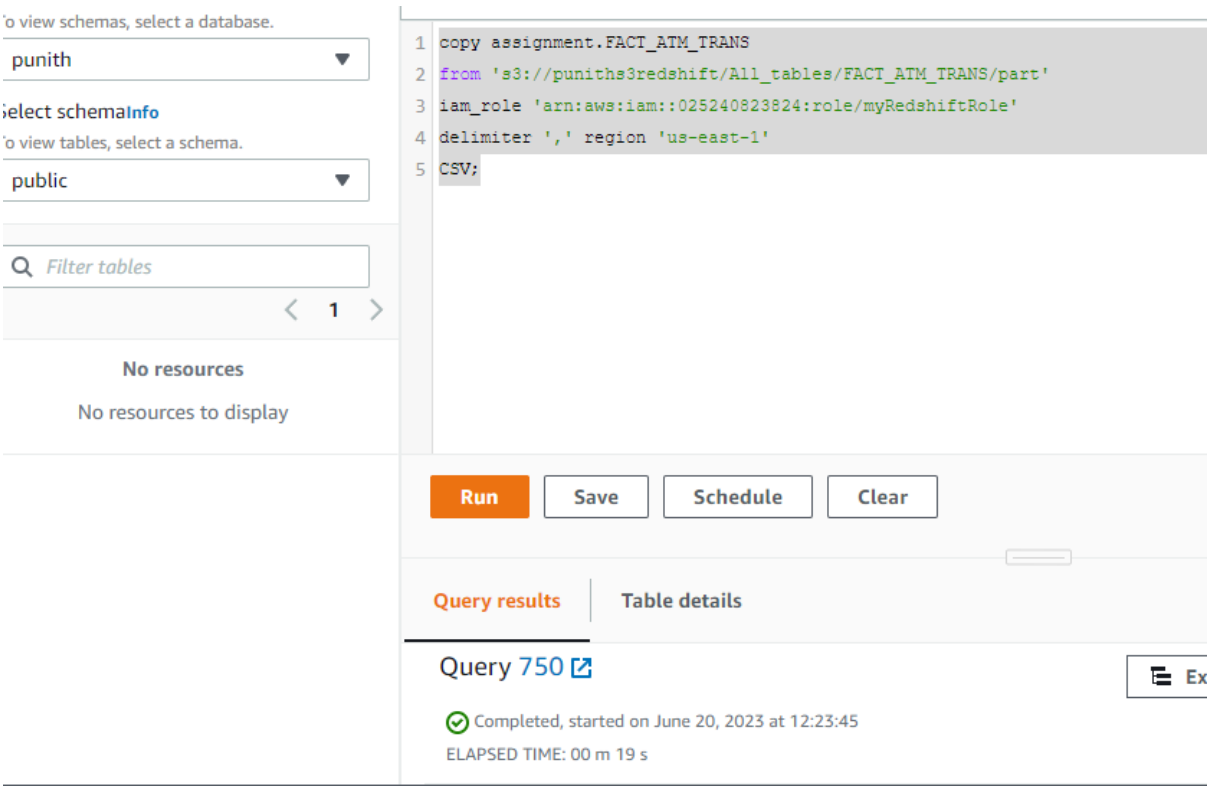
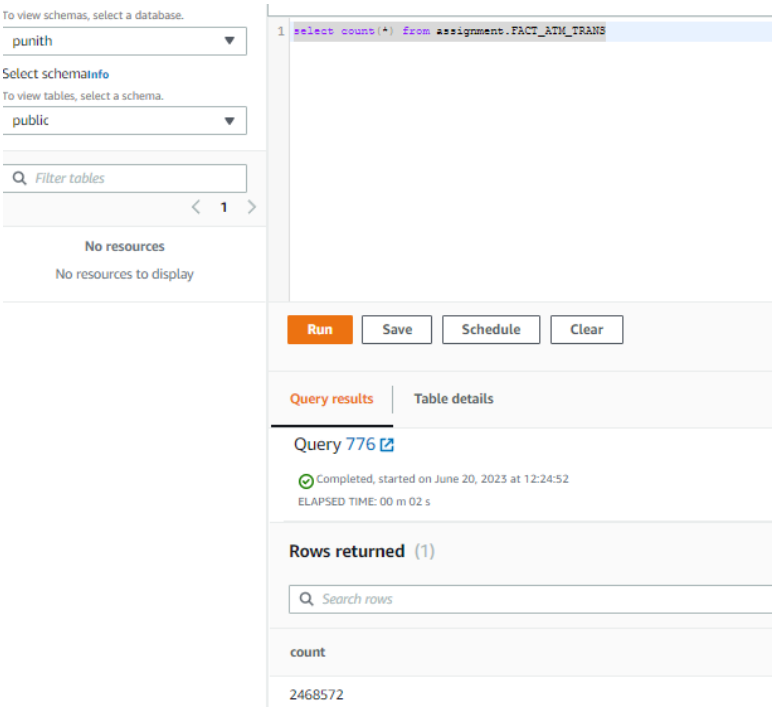


17)select count(*) from assignment.FACT_ATM_TRANS



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