2. Create the table structure with appropriate data types before loading with SQL Loader?

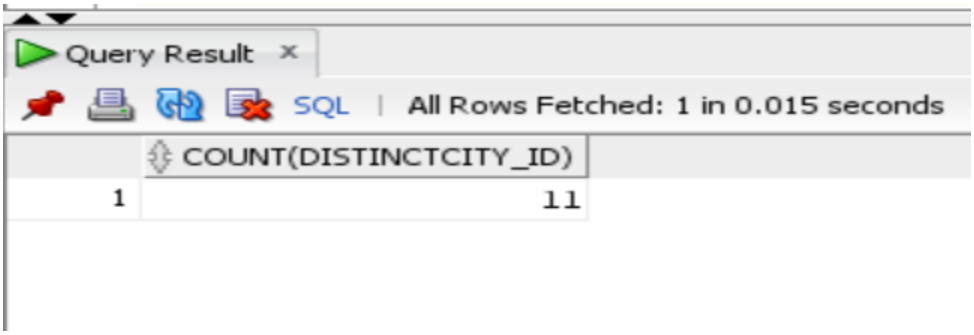
```
create table dim_city (city_id number,city_name varchar2(50),country varchar2(20));

create table fact_trip (trip_uuid varchar2(50),datestr date,product_type_name
varchar2(50),city_id number,driver_uuid varchar2(50),is_completed varchar2(25),eta
number,ata number,ufp_fare float,fare_final float);

ALTER TABLE dim_city ADD CONSTRAINT pk_dim_city PRIMARY KEY(CITY_ID);

ALTER TABLE fact_trip ADD CONSTRAINT pk_fact_trip PRIMARY KEY(TRIP_UUID);
```

3. Answer the following questions

a. How many city_ids does uberPOOL operate in?

```
select count(DISTINCT city_id)
from fact_trip
where product_type_name='uberPOOL';
```

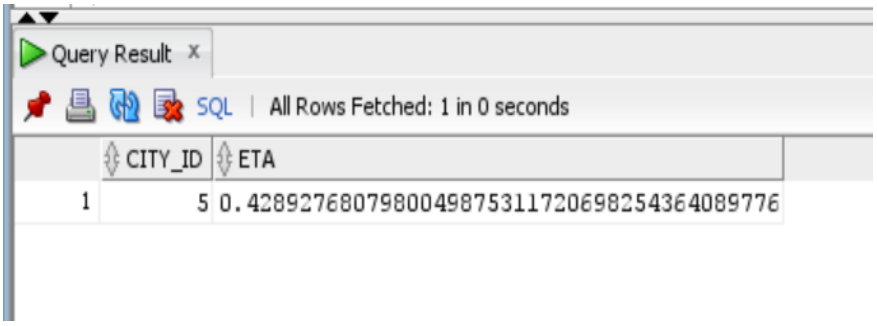
OUTPUT:



b. Which city_id has the highest error in ETA (where error in ETA = {(eta - ata)/ata}) for the given time period?

```
select * from(select city_id,(eta-ata)/ata as ETA
from fact_trip  order by ETA desc)where rownum=1;
```

OUTPUT:-

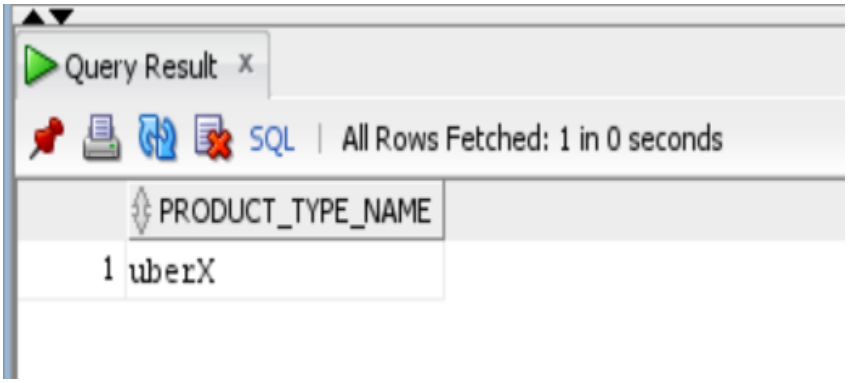


c. Which is the product type with highest total revenue in SanFrancisco?

```
select product_type_name from fact_trip where fare_final = (select
max(fare_final) from
```

```
(select fare_final from fact_trip where city_id=(select city_id from dim_city where
    city_name = 'SanFrancisco')))
```

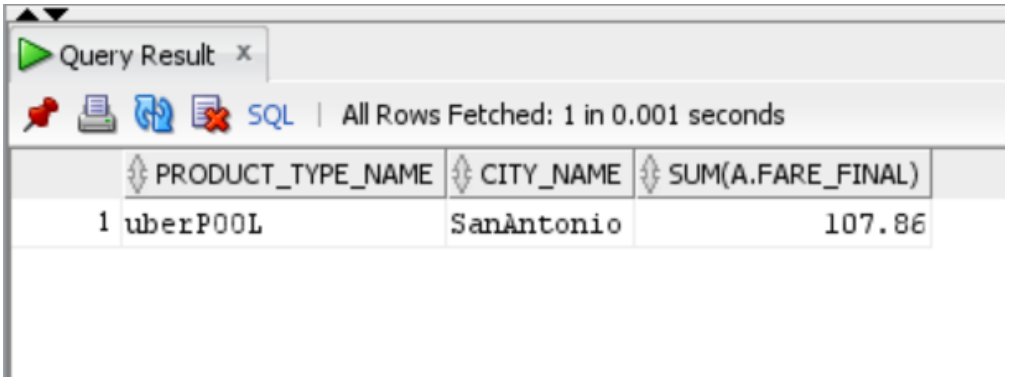
OUTPUT:-



d. Which are the products in each city where total revenue(fare_final) > $1000?

```
select a.product_type_name, b.city_name, sum(a.fare_final) from dim_city b join
    fact_trip a on a.city_id=b.city_id
group by a.product_type_name, b.city_name having sum(a.fare_final)>100;
```

OUTPUT:-



e. Get to 2nd highest country by Uber Revenue (fare_final) for 2nd week of June 2018 across product

```
select * from(select d.country, f.fare_final,
rownum as rank from dim_city d join fact_trip f on d.city_id=f.city_id
where to_char(datestr, 'W')=2 order by 2) where mod(rank, 2)=0;
```

f. Get WOW growth % for US region for June Month. WOW- Week over week .

```
select (((select sum(fare_final) from fact_trip where to_char(datestr, 'W')=1)  -
(select sum(fare_final) from fact_trip where to_char(datestr, 'W')=2))
  / (select sum(fare_final) from fact_trip where to_char(datestr, 'W')=1)) * 100 as
"Growth%"
from fact_trip group by datestr;
```

g. Growth % = ((Current week fare final - previous week fare final) / previous week fare final) * 100

```
select(((select sum(fare_final) from fact_trip where to_char(datestr, 'W')='1')
 - (select sum(fare_final) from fact_trip where to_char(datestr, 'W')='2'))
 / (select sum(fare_final) from fact_trip where to_char(datestr, 'W')='1')) * 100 as
     "Growth%"
from dual;
```

4. Submission

a. A brief description of your understanding of data

In computing, data is information that has been translated into a form that is efficient for movement or processing. Relative to today's computers and transmission media, data is information converted into binary digital form. It is acceptable for data to be used as a singular subject or a plural subject. Raw data is a term used to describe data in its most basic digital format.

b. Any anomalies you identified in the provided dataset and a brief description of how you identified them and why do you think they are anomalies

I find no anomalies while working with the given dataset. Although the Primary key and Foreignkeys should have mentioned there!.

c. Queries you have written including the DDLs

```
create table dim_city (city_id number,city_name varchar2(50),country varchar2(20));

create table fact_trip (trip_uuid varchar2(50),datestr date,product_type_name
varchar2(50),city_id number,
driver_uuid varchar2(50),is_completed varchar2(25),eta number,ata number,ufp_fare
float,fare_final float);

select * from dim_city;

ALTER TABLE dim_city ADD CONSTRAINT pk_dim_city PRIMARY KEY(CITY_ID);

select * from fact_trip;
ALTER TABLE fact_trip ADD CONSTRAINT pk_fact_trip PRIMARY KEY(TRIP_UUID);

--3Answer the following questions
--a.How many city_ids does uberPOOL operate in?
select count(DISTINCT city_id)
from fact_trip
where product_type_name='uberPOOL';

--b.Which city_id has the highest error in ETA (where error in ETA = {(eta - ata)/ata}) for the
given time period?
select * from(select city_id,(eta-ata)/ata as ETA
from fact_trip  order by ETA desc)where rownum=1;
```

```
--c.Which is the product type with highest total revenue in SanFrancisco?
select product_type_name from fact_trip where fare_final = (select max(fare_final) from
(select fare_final from fact_trip where city_id=(select city_id from dim_city where city_name =
'SanFrancisco')));

--d.Which are the products in each city where total revenue(fare_final) > $100?
select a.product_type_name, b.city_name, sum(a.fare_final) from dim_city b join fact_trip a on
a.city_id=b.city_id
group by a.product_type_name, b.city_name having sum(a.fare_final)>100;

--e.Get to 2nd highest country by Uber Revenue (fare_final) for 2nd week of June 2018 across
product
select * from(select d.country, f.fare_final,
rownum as rank from dim_city d join fact_trip f on d.city_id=f.city_id
where to_char(datestr, 'W')=2 order by 2) where mod(rank, 2)=0;

--f.Get WOW growth % for US region for June Month. WOW- Week over week .

select (((select sum(fare_final) from fact_trip where to_char(datestr, 'W')=1)  - (select
sum(fare_final) from fact_trip where to_char(datestr, 'W')=2))
  / (select sum(fare_final) from fact_trip where to_char(datestr, 'W')=1)) * 100 as "Growth%"
from fact_trip group by datestr;

--g.Growth % = ((Current week fare final - previous week fare final) / previous week fare final) *
100

select(((select sum(fare_final) from fact_trip where to_char(datestr, 'W')='1')
 - (select sum(fare_final) from fact_trip where to_char(datestr, 'W')='2'))
 / (select sum(fare_final) from fact_trip where to_char(datestr, 'W')='1')) * 100 as "Growth%"
from dual;
```