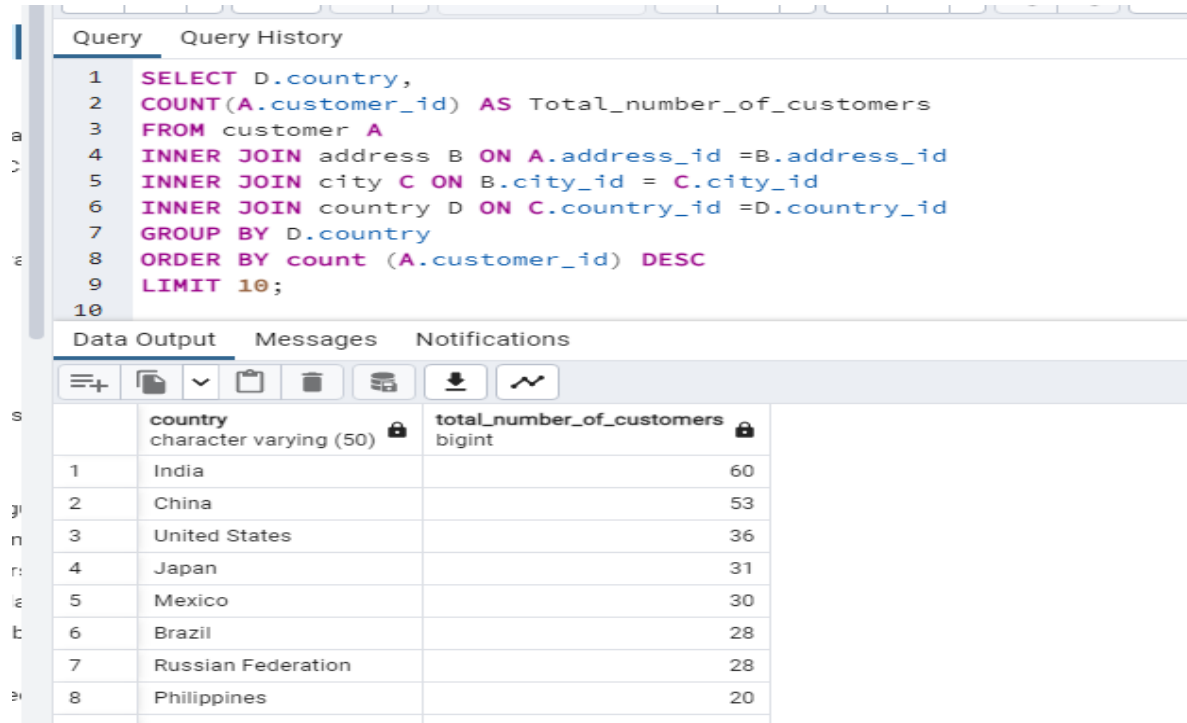


3.7 - Joining Tables of Data

Q1. Write a query to find the top 10 countries for Rockbuster in terms of customer numbers.

Answers:

Query:



The screenshot shows a SQL query editor with a query window and a results window. The query window contains the following SQL code:

```
1 SELECT D.country,  
2 COUNT(A.customer_id) AS Total_number_of_customers  
3 FROM customer A  
4 INNER JOIN address B ON A.address_id =B.address_id  
5 INNER JOIN city C ON B.city_id = C.city_id  
6 INNER JOIN country D ON C.country_id =D.country_id  
7 GROUP BY D.country  
8 ORDER BY count (A.customer_id) DESC  
9 LIMIT 10;  
10
```

The results window shows the output of the query, which is a table with two columns: 'country' and 'total_number_of_customers'. The table contains 10 rows of data, representing the top 10 countries by customer count.

	country character varying (50)	total_number_of_customers bigint
1	India	60
2	China	53
3	United States	36
4	Japan	31
5	Mexico	30
6	Brazil	28
7	Russian Federation	28
8	Philippines	20
9	Turkey	18
10	France	17

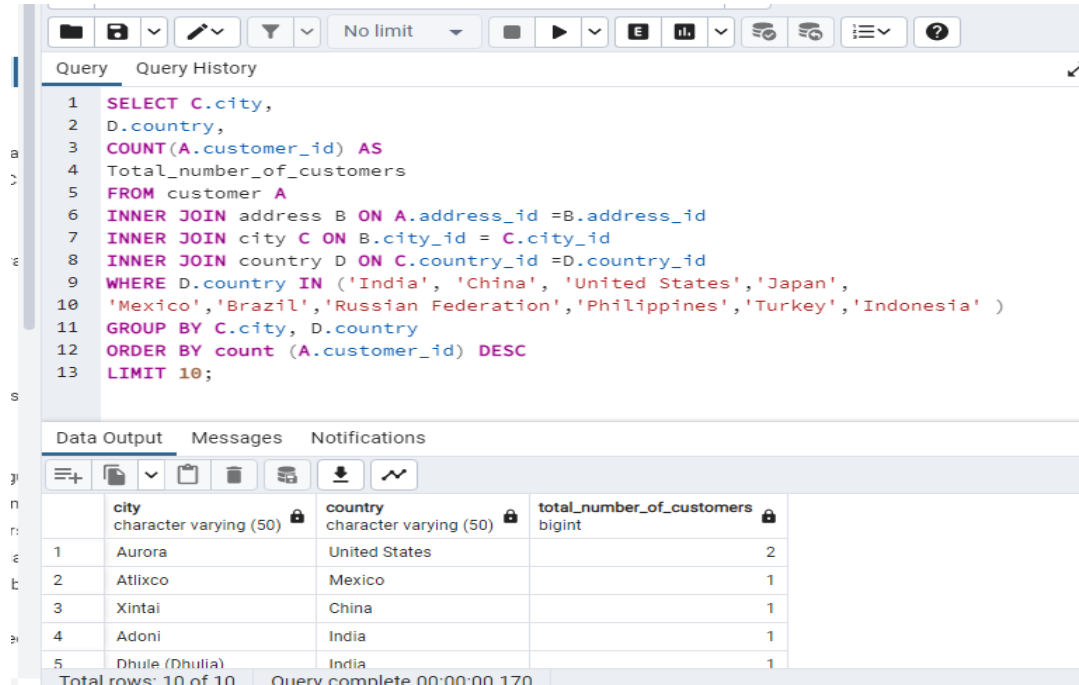
Explanation:

1. After reading the question, I reviewed the ERD and try to identify the relationship between tables and how can I connect them and which common keys are there.
2. Here, Tables are Customer, Address, City, Country. I allotted the Tables with Alphabet A to D
3. With the help of INNER Join function, I joined these tables and followed By GROUP BY and ORDER BY function.

Q2: Write a query to find the top 10 cities within the top 10 countries identified in step 1.

Answers:

Query



```
1 SELECT C.city,
2 D.country,
3 COUNT(A.customer_id) AS
4 Total_number_of_customers
5 FROM customer A
6 INNER JOIN address B ON A.address_id =B.address_id
7 INNER JOIN city C ON B.city_id = C.city_id
8 INNER JOIN country D ON C.country_id =D.country_id
9 WHERE D.country IN ('India', 'China', 'United States','Japan',
10 'Mexico','Brazil','Russian Federation','Philippines','Turkey','Indonesia' )
11 GROUP BY C.city, D.country
12 ORDER BY count (A.customer_id) DESC
13 LIMIT 10;
```

Data Output

	city character varying (50)	country character varying (50)	total_number_of_customers bigint
1	Aurora	United States	2
2	Atlixco	Mexico	1
3	Xintai	China	1
4	Adoni	India	1
5	Dhule (Dhulia)	India	1

Total rows: 10 of 10 Query complete 00:00:00 170

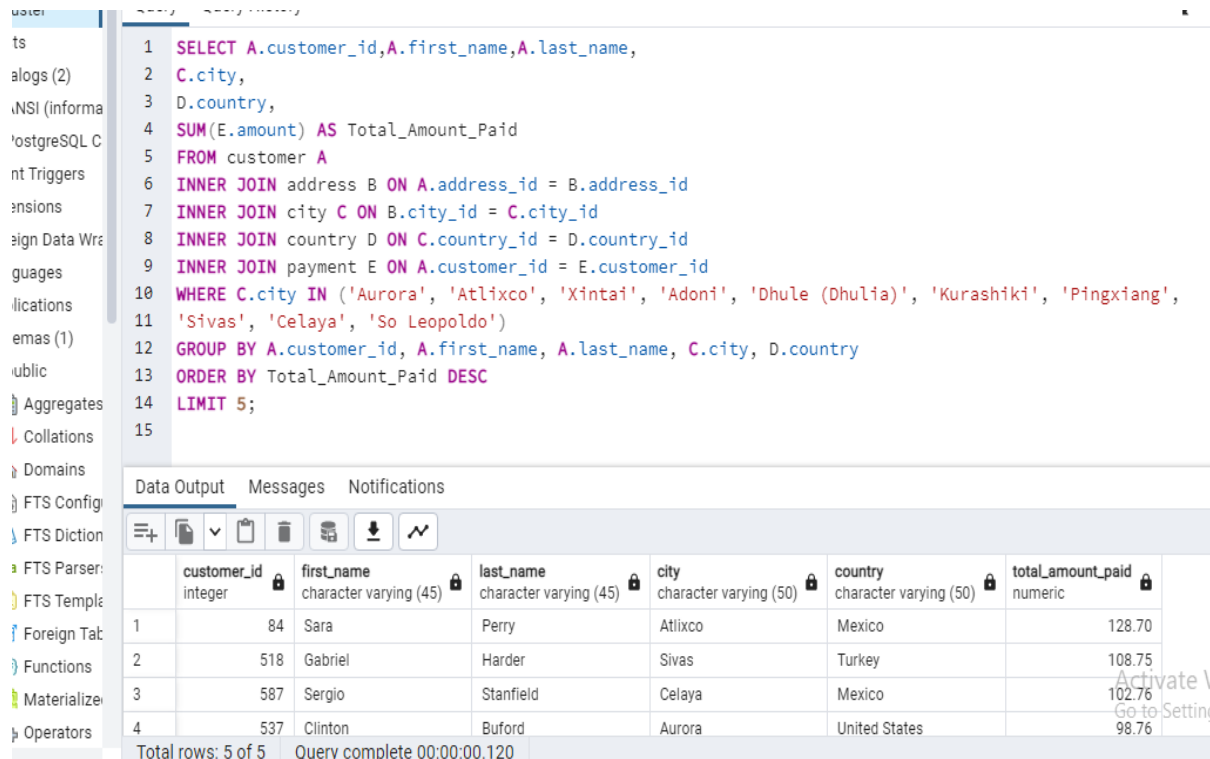
Explanation:

1. After reading the question, I reviewed the ERD and try to identify the relationship between tables and how can I connect them and which common keys are there.
2. Here, Tables are Customer, Address, City, Country. I allotted the Tables with Alphabet A to D
3. With the help of INNER Join function, I joined these tables and followed by GROUP BY and ORDER BY function.
4. For this Query ,I also inserted WHERE Function with Operator IN to specify to see data in Which top 10 Countries .

Q3. Write a query to find the top 5 customers in the top 10 cities who have paid the highest total amounts to Rockbuster.

Answers:

Query



The screenshot shows a database query editor with a SQL query and its results. The query is as follows:

```
1 SELECT A.customer_id,A.first_name,A.last_name,
2 C.city,
3 D.country,
4 SUM(E.amount) AS Total_Amount_Paid
5 FROM customer A
6 INNER JOIN address B ON A.address_id = B.address_id
7 INNER JOIN city C ON B.city_id = C.city_id
8 INNER JOIN country D ON C.country_id = D.country_id
9 INNER JOIN payment E ON A.customer_id = E.customer_id
10 WHERE C.city IN ('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule (Dhulia)', 'Kurashiki', 'Pingxiang',
11 'Sivas', 'Celaya', 'So Leopoldo')
12 GROUP BY A.customer_id, A.first_name, A.last_name, C.city, D.country
13 ORDER BY Total_Amount_Paid DESC
14 LIMIT 5;
```

The results are displayed in a table with the following columns: customer_id, first_name, last_name, city, country, and totalAmountPaid. The results are as follows:

customer_id	first_name	last_name	city	country	totalAmountPaid
84	Sara	Perry	Atlixco	Mexico	128.70
518	Gabriel	Harder	Sivas	Turkey	108.75
587	Sergio	Stanfield	Celaya	Mexico	102.76
537	Clinton	Buford	Aurora	United States	98.76

Total rows: 5 of 5 Query complete 00:00:00.120

Explanation:

1. After reading the question, I reviewed the ERD and try to identify the relationship between tables and how can I connect them and which common keys are there.
2. Here, Tables are Customer, Address, City, Country,Payment. I allotted the Tables with Alphabet A to E
3. With the help of INNER Join function, I joined these tables and followed by GROUP BY and ORDER BY function.
4. For this Query ,I also inserted WHERE Function with Operator IN to specify to see data in Which top 10 City the customer are paying Highest .