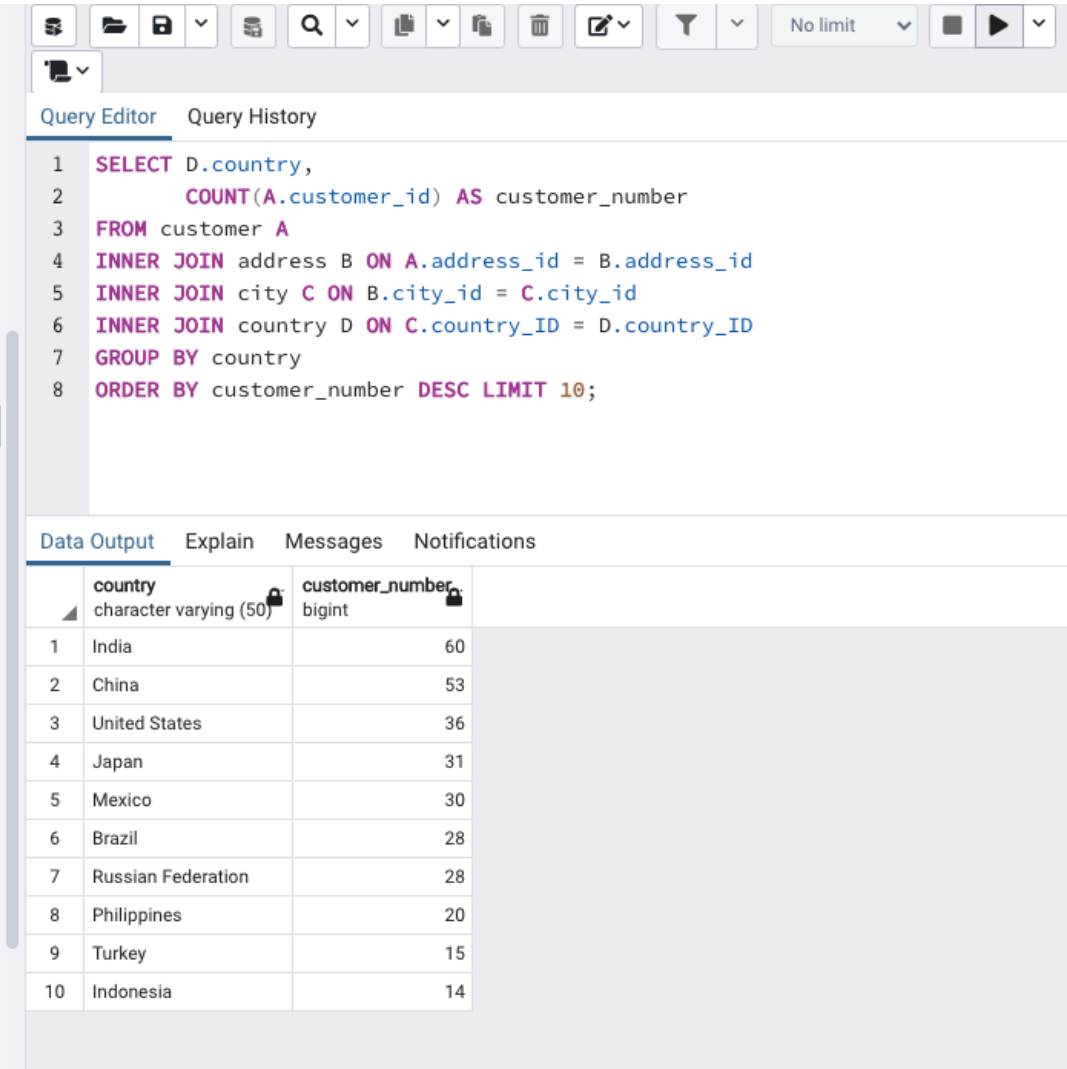
1. Write a query to find the top 10 countries for Rockbuster in terms of customer numbers. (Tip: you'll have to use GROUP BY and ORDER BY, both of which follow the join.)

- Copy-paste your query and its output into your answers document



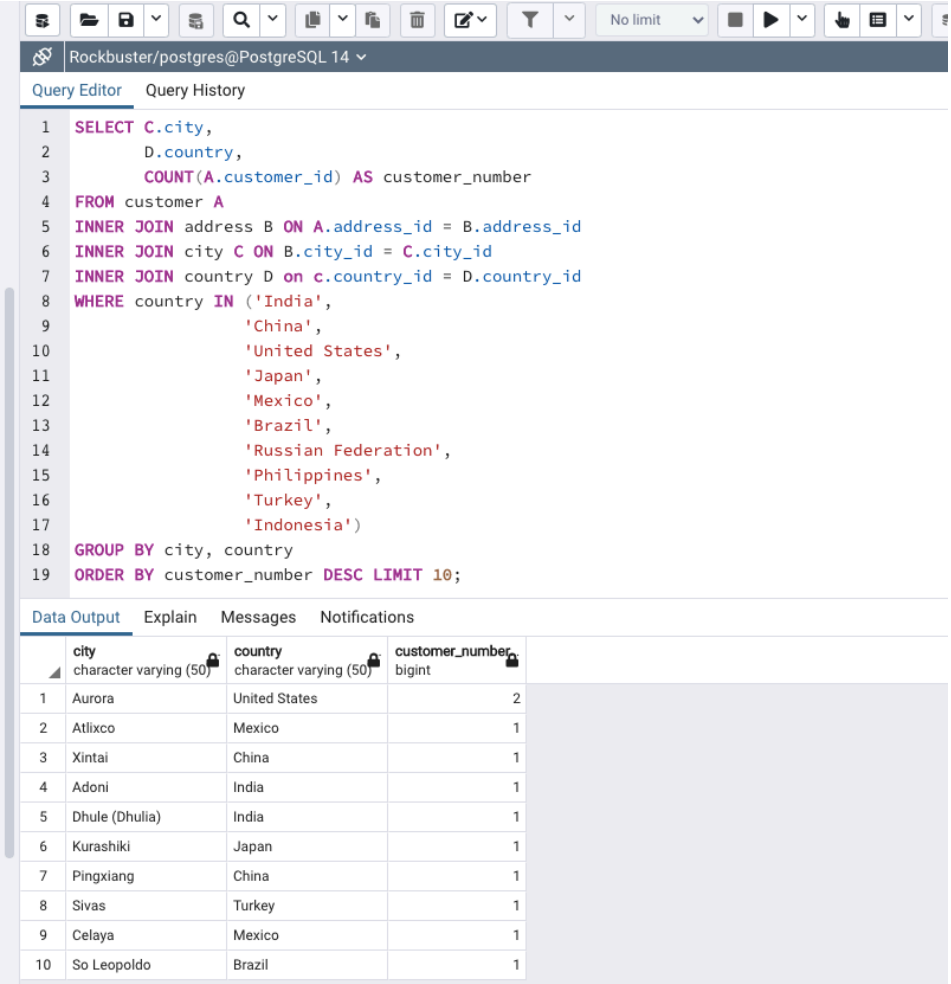
	country character varying (50)	customer_number bigint
1	India	60
2	China	53
3	United States	36
4	Japan	31
5	Mexico	30
6	Brazil	28
7	Russian Federation	28
8	Philippines	20
9	Turkey	15
10	Indonesia	14

- Write a few sentences on how you approached this query and why. It's important that you can explain your thought process when writing queries, especially for future interviews.

I checked the ERD charts in other to understand the contents of each table and how to link the country and customer table together. I need the country column from the country table as well as the customer_id from the customer table. An aggregate function “count” was applied to the customer_id to know the number of each customer from each country. Afterwards, I joined (INNER JOIN) the tables together with the help to the ERD charts. I later group by countries, ordered it by the customer number top to bottom are returned the first 10 countries.

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

- Copy-paste your query and its output into your answers document

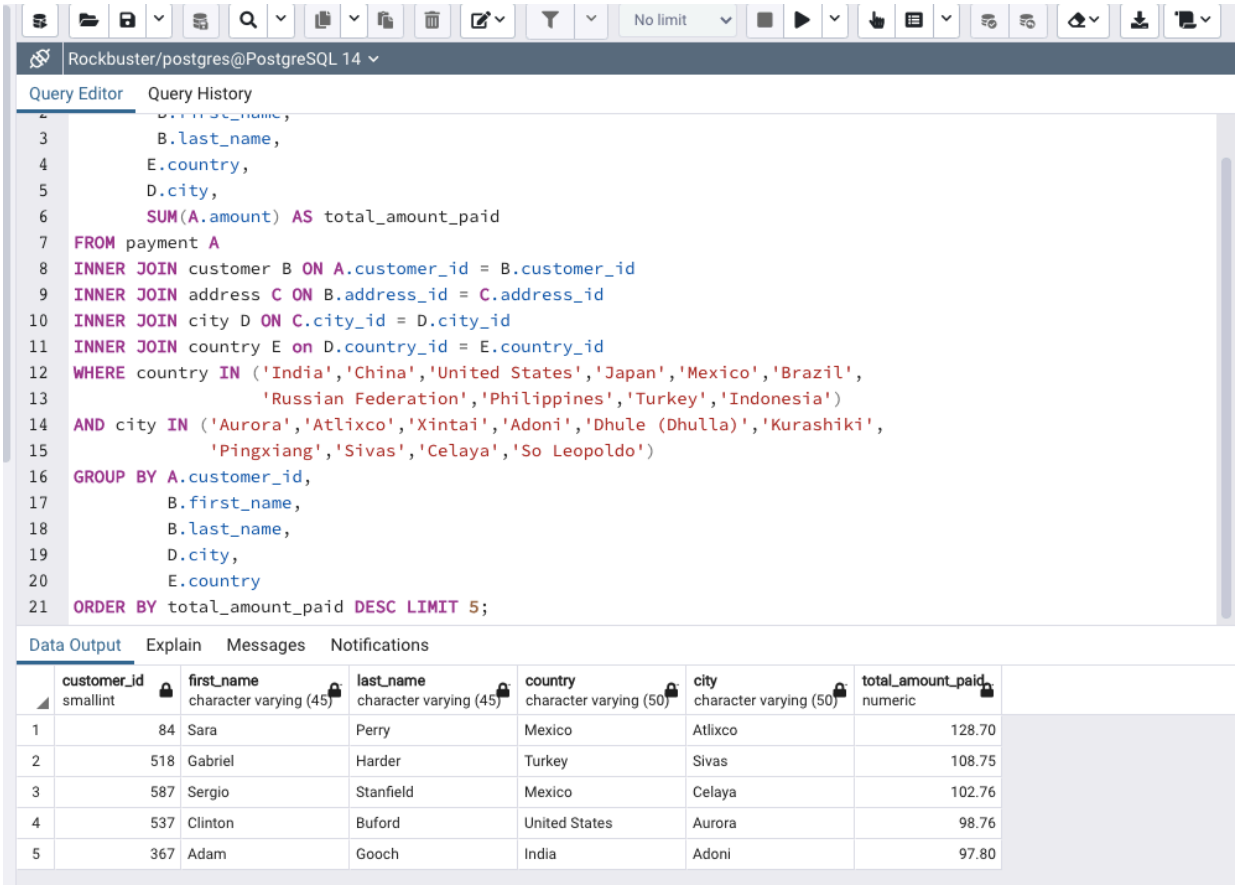


- Write a short explanation of how you approached this query and why.

The query is a build upon the previous result. I checked the city table to known the column with the city name. I added that to my SELECT. I filtered the result with WHERE to return only top cities in the top 10 identified countries. I grouped the result by the city and countries, ordered by number of customer and returned the top 10 cities.

3. Write a query to find the top 5 customers in the top 10 cities who have paid the highest total amounts to Rockbuster. The customer team would like to reward them for their loyalty!

- Tip: After the join syntax, you'll need to use the WHERE clause with an operator, followed by GROUP BY and ORDER BY. Your output should include the following columns: Customer ID, Customer First Name and Last Name, Country, City, Total Amount Paid.



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Query Editor | Query History

```
        B.last_name,
       E.country,
       D.city,
       SUM(A.amount) AS total_amount_paid
FROM payment A
INNER JOIN customer B ON A.customer_id = B.customer_id
INNER JOIN address C ON B.address_id = C.address_id
INNER JOIN city D ON C.city_id = D.city_id
INNER JOIN country E on D.country_id = E.country_id
WHERE country IN ('India','China','United States','Japan','Mexico','Brazil',
                  'Russian Federation','Philippines','Turkey','Indonesia')
AND city IN ('Aurora','Atlixco','Xintai','Adoni','Dhule (Dhulla)','Kurashiki',
             'Pingxiang','Sivas','Celaya','So Leopoldo')
GROUP BY A.customer_id,
         B.first_name,
         B.last_name,
         D.city,
         E.country
ORDER BY total_amount_paid DESC LIMIT 5;
```

Data Output | Explain | Messages | Notifications

	customer_id smallint	first_name character varying (45)	last_name character varying (45)	country character varying (50)	city character varying (50)	total_amount_paid numeric
1	84	Sara	Perry	Mexico	Atlixco	128.70
2	518	Gabriel	Harder	Turkey	Sivas	108.75
3	587	Sergio	Stanfield	Mexico	Celaya	102.76
4	537	Clinton	Buford	United States	Aurora	98.76
5	367	Adam	Gooch	India	Adoni	97.80