

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.
 - 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.

The screenshot shows a PostgreSQL query editor interface. The query is as follows:

```
1 SELECT D.country,  
2        COUNT(A.customer_id)AS 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 country  
8 ORDER BY count (A.customer_id)DESC  
9 Limit 10
```

The Data Output tab shows the following results:

	country character varying (50)	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

Total rows: 10 of 10 Query complete 00:00:00.866 Ln 9, Col 9

- Keeping the steps in mind that I followed in Step 1, I added the city table to the SELECT part of the query as we want to know the top 10 cities within the top 10 countries. In the query, when using the WHERE clause, I restricted the country to the top 10 countries from Step 1 by using the IN operator and listed the countries in step 1.
1. 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.

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

The screenshot shows a PostgreSQL query editor interface. The top menu bar includes Dashboard, Properties, SQL, Statistics, Dependencies, and Dependents. The current connection is 'Rockbuster/postgres@PostgreSQL 15*'. The query editor shows a SQL query that selects customer information and calculates the total amount paid, grouped by country and city, and ordered by total amount paid in descending order, limited to 5 results.

```
1 SELECT A.customer_id,  
2       A.first_name,  
3       A.last_name,  
4       E.country,  
5       D.city,  
6       SUM(B.amount)AS total_amount_paid  
7 FROM Customer A  
8 INNER JOIN address C ON A.address_id = C.address_id  
9 INNER JOIN city D ON C.city_id = D.city_id  
10 INNER JOIN country E ON D.country_ID = E.country_id  
11 INNER JOIN payment B ON A.customer_id = B.customer_id  
12 GROUP BY E.country, D.city, A.customer_id, A.first_name, A.last_name  
13 ORDER BY total_amount_paid DESC  
14 Limit 5
```

The 'Data Output' tab shows the results of the query in a table format. The table has 7 columns: customer_id, first_name, last_name, country, city, and total_amount_paid. The results are as follows:

	customer_id integer	first_name character varying (45)	last_name character varying (45)	country character varying (50)	city character varying (50)	total_amount_paid numeric
1	148	Eleanor	Hunt	Runion	Saint-Denis	211.55
2	526	Karl	Seal	United States	Cape Coral	208.58
3	178	Marion	Snyder	Brazil	Santa Brbara dOeste	194.61
4	137	Rhonda	Kennedy	Netherlands	Apeldoorn	191.62

Total rows: 5 of 5 Query complete 00:00:00.838 Ln 12, Col 22