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

Query   Query History

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

Data Output   Messages   Notifications

	country character varying (50)	count_of_customer 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

 When writing this query, I first thought about what information was needed such as the number of customers per country. I knew that customer data was stored in the customer table, but country names were in the country table. To connect these, I had to join several tables: customer → address → city → country. Once the tables were linked, I used GROUP BY to group the data by country and COUNT() to calculate how many customers each country had. Then, I applied ORDER BY to sort the results from highest to lowest and used LIMIT 10 to show only the top ten countries.

Q2- Write a query to identify the top 10 cities that fall within the top 10 countries you identified in step 1.

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

Data Output   Messages   Notifications

	city character varying (50)	country character varying (50)	count_of_customer bigint
1	Aurora	United States	2
2	Atlixco	Mexico	1
3	Xintai	China	1
4	Adoni	India	1
5	Dhule (Dhulia)	India	1
6	Kurashiki	Japan	1
7	Pingxiang	China	1
8	Sivas	Turkey	1
9	Celaya	Mexico	1
10	So Leopoldo	Brazil	1

Previous query results listed top 10 countries by customer count. In this query I need to find top cities within those countries. I used the WHERE clause to filter countries listed in Step 1. I used GROUP BY to count the number of customers per city and ORDER BY to sort them. I limited the results to the top 10 cities.

Q3 - Write a query to find the top 5 customers from the top 10 cities who've paid the highest total amounts to Rockbuster.

```
1   SELECT customer.customer_id, customer.first_name, customer.last_name, country.country, city.city,
2   SUM (payment.amount) AS total_amount_paid
3   FROM customer
4   INNER JOIN payment ON customer.customer_id = payment.customer_id
5   INNER JOIN address ON customer.address_id = address.address_id
6   INNER JOIN city ON address.city_id = city.city_id
7   INNER JOIN country ON city.country_id = country.country_id
8   WHERE city.city IN ('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule (Dhulia)', 'Kurashili', 'Pingxiang', 'Sivas',
9   'Celaya', 'So Leopoldo')
10  AND country.country IN ('India', 'China', 'United States', 'Japan', 'Mexico', 'Brazil', 'Russian Federation',
11  'Philippines', 'Turkey','Indonesia')
12  GROUP BY customer.customer_id, customer.first_name, customer.last_name, city.city, country.country
13  ORDER BY total_amount_paid DESC
14  LIMIT 5
15
```

Data Output   Messages   Notifications

Showing rows: 1 to 5

	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	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