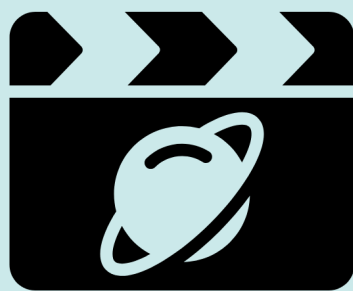
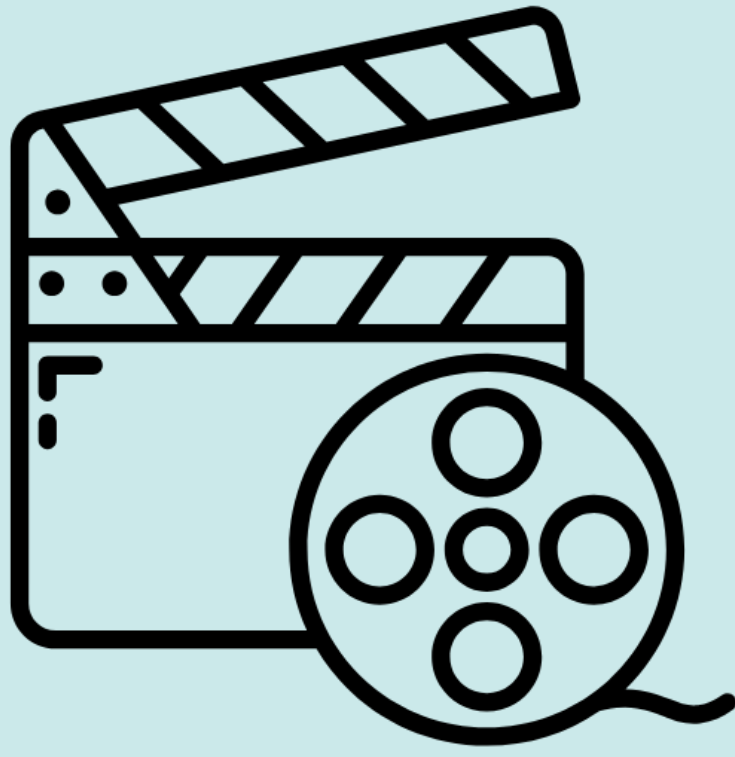
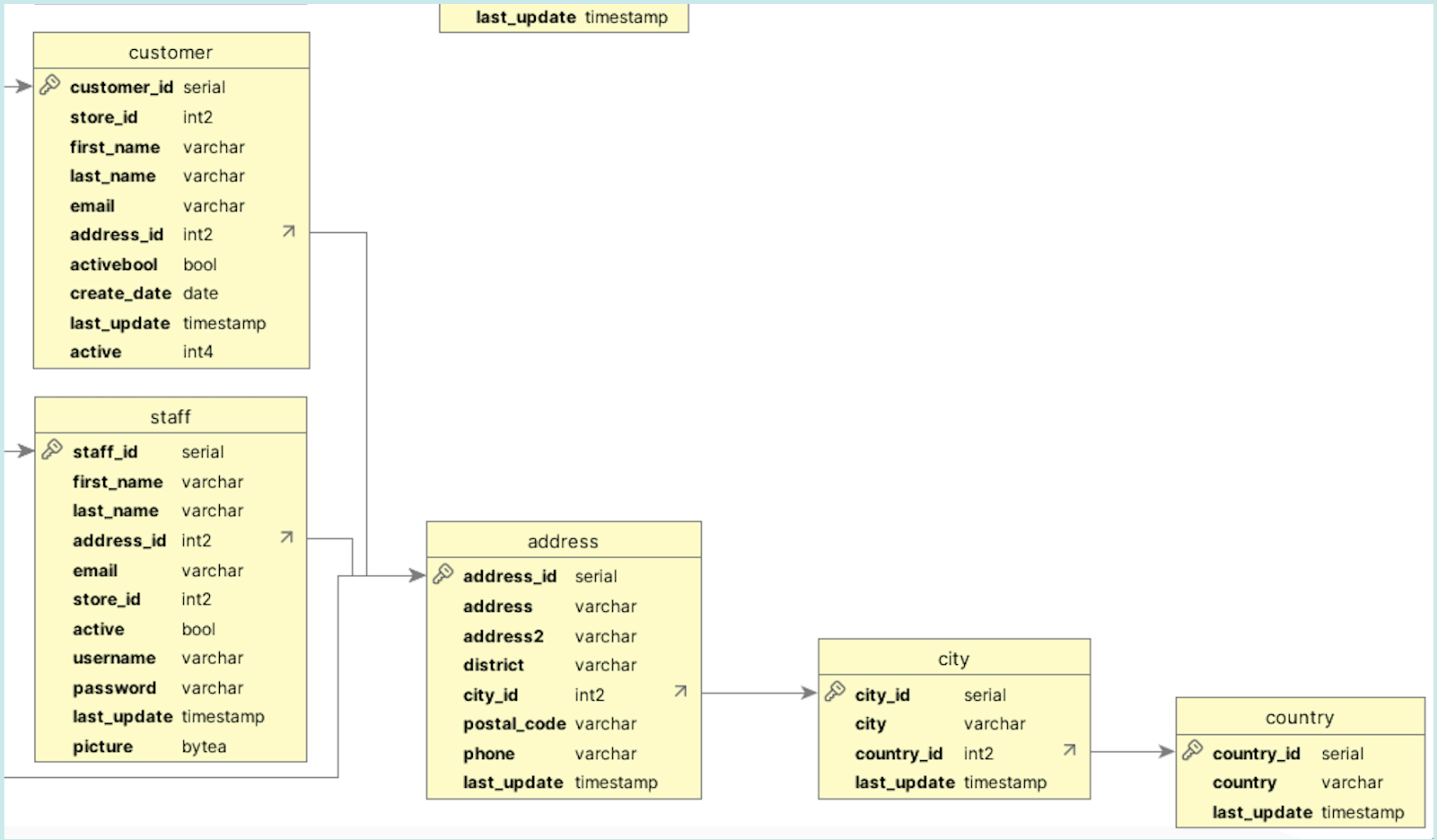


# JOINING TABLES OF DATA





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.)



To find the top 10 countries by customer numbers, I used SQL joins to connect the customer, address, city, and country tables. Then, I used COUNT() to aggregate the number of customers per country and GROUP BY to group them accordingly. I sorted the result in descending order with ORDER BY and limited it to the top 10 using LIMIT 10. This approach allows me to quickly identify the countries with the most customers.

QueryQuery History

1

SELECT D.country,

COUNT(A.customer\_id) AS customer\_count

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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 customer\_count DESC

9

LIMIT 10;

10

Data OutputMessagesNotifications

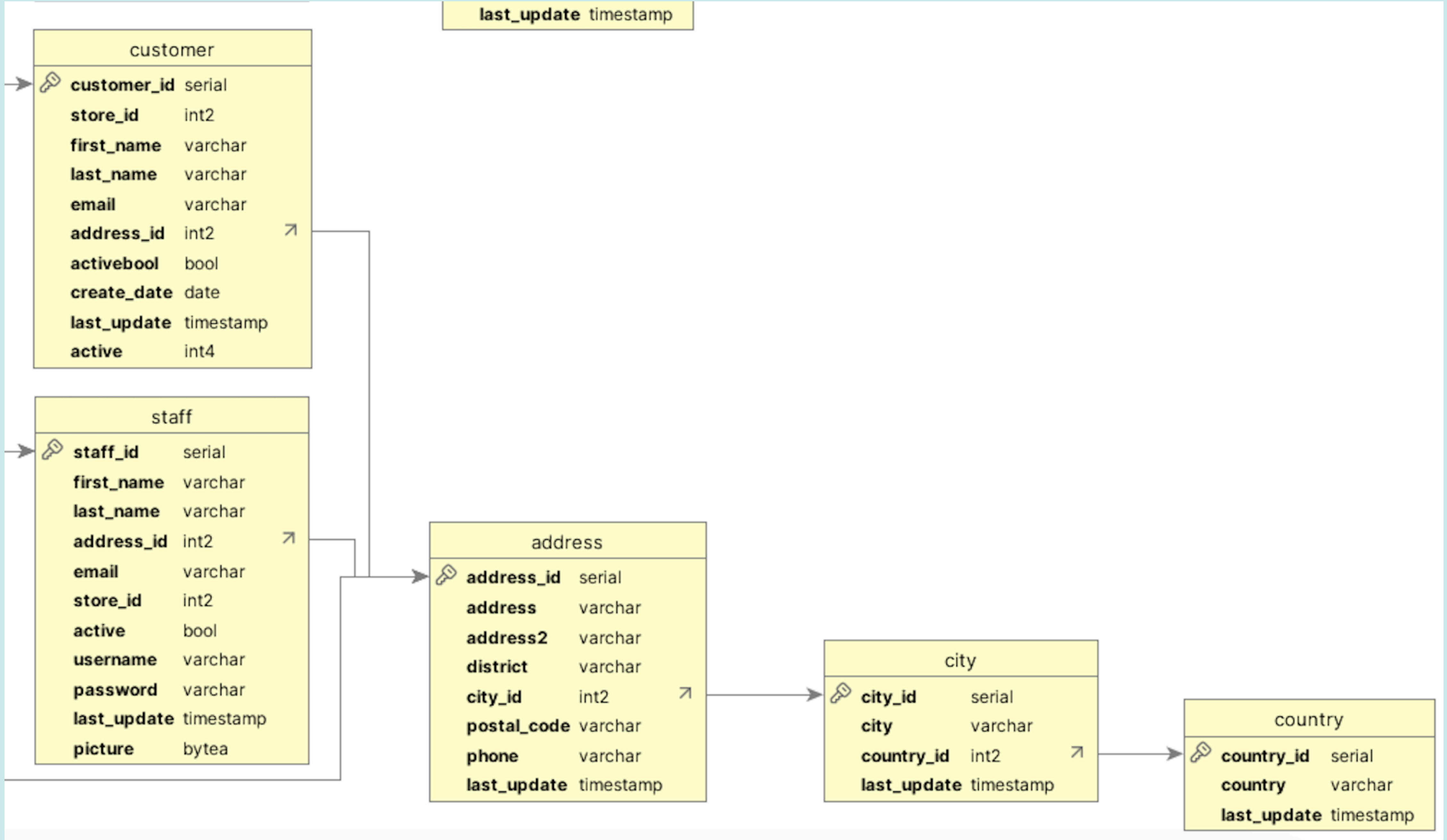
SQL

Showing rows: 1 to 10Page No: 1 of 1

	country character varying (50)	customer_count 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



2. Next, write a query to identify the top 10 cities that fall within the top 10 countries you identified in step 1. (Hint: the top 10 cities can be in any of the countries identified—you don't need to create a separate list for each country.)



Query

Query History

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SELECT C.city, D.country,

COUNT (customer\_id) AS count\_of\_customers

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D on C.country\_id = D.country\_id

WHERE D.country IN

(SELECT D.country

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D on C.country\_id = D.country\_id

GROUP BY country

ORDER BY COUNT (customer\_id) DESC

LIMIT 10)

GROUP BY D.country, C.city

ORDER BY COUNT (customer\_id) DESC

LIMIT 10

Data Output

Messages

Notifications

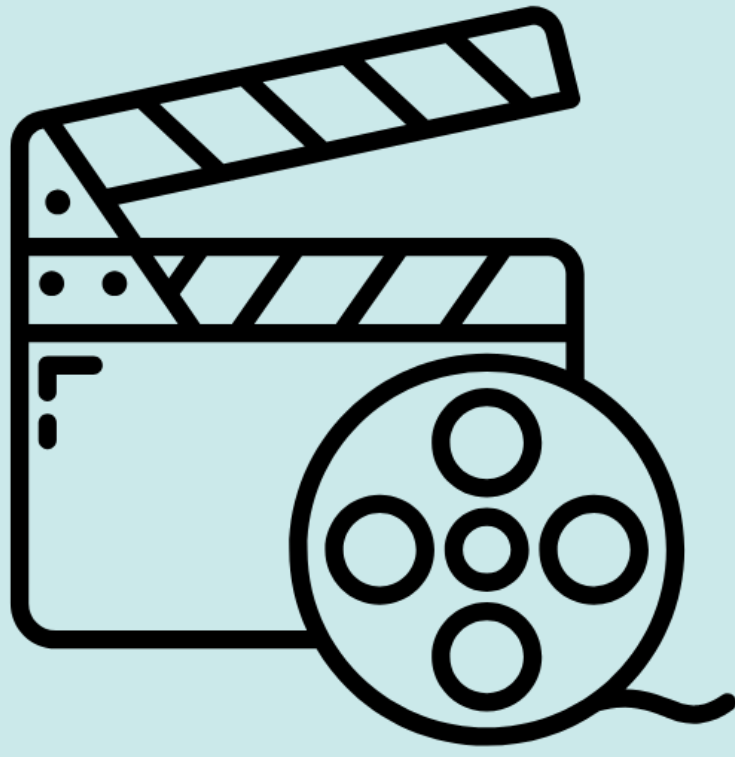
SQL

Showing rows: 1 to 10

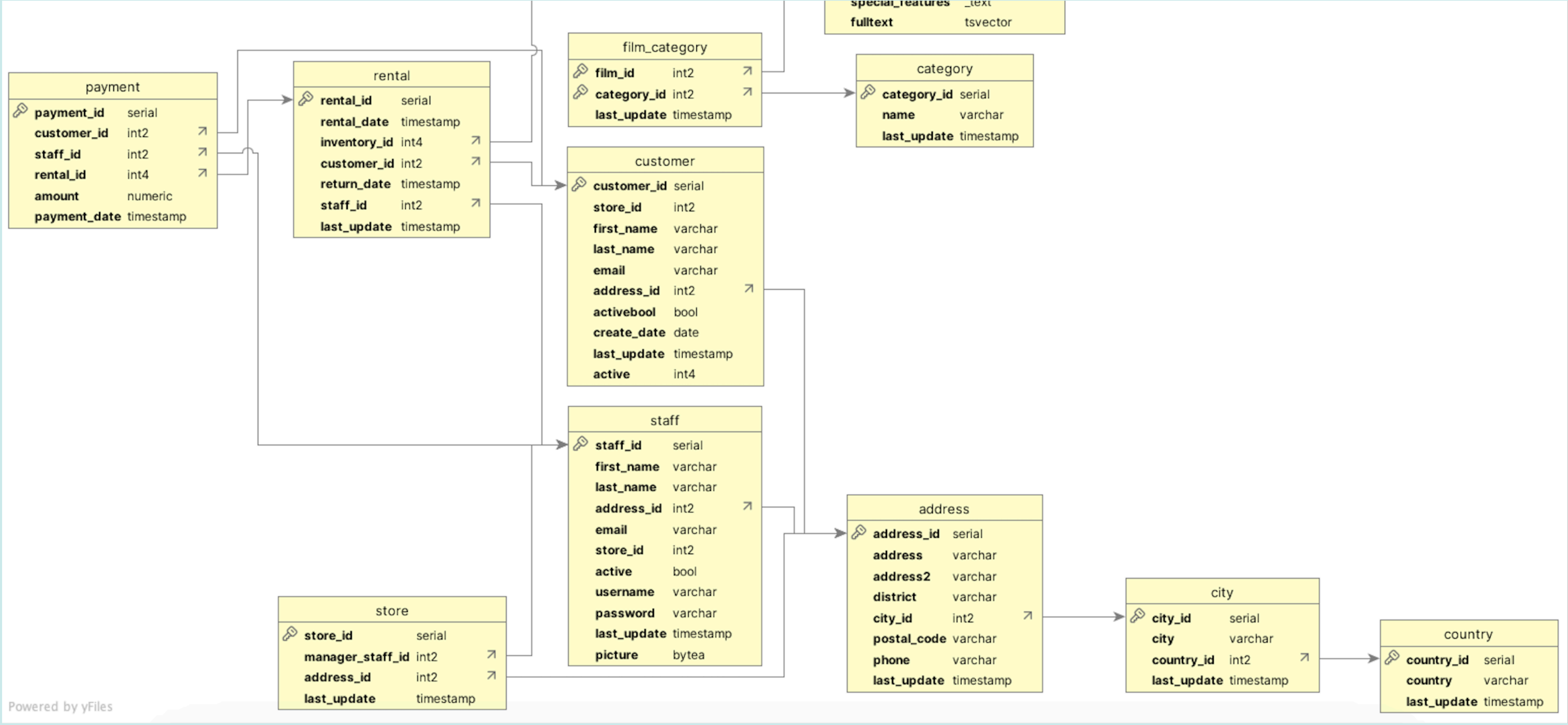
	city character varying (50)	country character varying (50)	count_of_customers bigint
1	Aurora	United States	2
2	Acua	Mexico	1
3	Citrus Heights	United States	1
4	Iwaki	Japan	1
5	Ambattur	India	1
6	Shanwei	China	1
7	So Leopoldo	Brazil	1
8	Teboksary	Russian Federation	1
9	Tianjin	China	1
10	Cianjur	Indonesia	1

Join customer → address → city → country  
Filter for only customers in the 10 specified countries  
Group by country and city  
Count how many customers are in each city  
Show the top 10 cities with the most customers from those countries





3. Now write a query to find the top 5 customers from the top 10 cities who've paid the highest total amounts to Rockbuster. The customer team would like to reward them for their loyalty!



Query

Query History

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```
SELECT
  A.customer_id,
  A.first_name,
  A.last_name,
  D.country,
  C.city,
  SUM(P.amount) AS total_paid
FROM customer A
INNER JOIN address B ON A.address_id = B.address_id
INNER JOIN city C ON B.city_id = C.city_id
INNER JOIN country D ON C.country_id = D.country_id
INNER JOIN payment P ON A.customer_id = P.customer_id
WHERE C.city IN (
  SELECT
    C.city
  FROM customer A
  INNER JOIN address B ON A.address_id = B.address_id
  INNER JOIN city C ON B.city_id = C.city_id
  INNER JOIN country D ON C.country_id = D.country_id
  WHERE D.country IN (
    SELECT
      D.country
    FROM customer A
    INNER JOIN address B ON A.address_id = B.address_id
    INNER JOIN city C ON B.city_id = C.city_id
    INNER JOIN country D ON C.country_id = D.country_id
    GROUP BY D.country
    ORDER BY COUNT(A.customer_id) DESC
    LIMIT 10
  )
  )
GROUP BY D.country, C.city
ORDER BY COUNT(A.customer_id) DESC
LIMIT 10
)
GROUP BY A.customer_id, A.first_name, A.last_name, D.country, C.city
ORDER BY total_paid DESC
LIMIT 5;
```

Data Output

Messages

Notifications

Showing rows: 1 to 5

Page No: 1 of 1

	customer_id integer	first_name character varying (45)	last_name character varying (45)	country character varying (50)	city character varying (50)	total_paid numeric
1	225	Arlene	Harvey	India	Ambattur	111.76
2	424	Kyle	Spurlock	China	Shanwei	109.71
3	240	Marlene	Welch	Japan	Iwaki	106.77
4	486	Glen	Talbert	Mexico	Acua	100.77
5	537	Clinton	Buford	United States	Aurora	98.76

The innermost subquery gets the top 10 countries, the middle subquery gets the top 10 cities from those countries, and the main query finds the top 5 customers by summing payments and ordering by total amount paid.