

Data Immersion 3.7

1.

```
SELECT CO.country, COUNT(DISTINCT R.customer_id) AS  
number_of_customers,  
COUNT(R.customer_id) AS rental_frenquency FROM rental AS R  
INNER JOIN customer AS C ON C.customer_id = R.customer_id  
INNER JOIN address AS A ON A.address_id = C.address_id  
INNER JOIN city AS CI ON CI.city_id = A.city_id  
INNER JOIN country CO ON CO.country_id = CI.country_id  
GROUP BY CO.country  
ORDER BY number_of_customers DESC  
LIMIT 10
```

Query

Query History

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```
SELECT CO.country, COUNT(DISTINCT R.customer_id) AS number_of_customers,
COUNT(R.customer_id) AS rental_frenquency FROM rental AS R
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INNER JOIN address AS A ON A.address_id = C.address_id
INNER JOIN city AS CI ON CI.city_id = A.city_id
INNER JOIN country CO ON CO.country_id = CI.country_id
GROUP BY CO.country
ORDER BY number_of_customers DESC
LIMIT 10
```

Data Output

Messages

Notifications

	country character varying (50)	number_of_customers bigint	rental_frenquency bigint
1	India	60	1572
2	China	53	1426
3	United States	36	968
4	Japan	31	825
5	Mexico	30	796
6	Brazil	28	748
7	Russian Federation	28	713
8	Philippines	20	568
9	Turkey	15	388
10	Indonesia	14	367

Thought Process

I started by joining the rental and customer tables to track customer rentals, then linked this data with addresses, cities, and countries. After counting the customers in each country, I grouped the results by country. Finally, I ordered the countries by descending customer counts and limited the list to the top 10. This approach pinpointed Rockbuster's largest customer bases for strategic insights.

2.

```
SELECT CO.country, CI.city, Count(C.customer_id) AS  
number_of_customers  
  
FROM customer AS C  
  
INNER JOIN address AS A ON A.address_id = C.address_id  
  
INNER JOIN city AS CI ON CI.city_id = A.city_id  
  
INNER JOIN country CO ON CO.country_id = CI.country_id  
  
GROUP BY CO.country, CI.city  
  
ORDER BY COUNT(C.customer_id) DESC  
  
LIMIT 10;
```

Query

Query History

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SELECT CO.country, CI.city, Count(C.customer_id) AS number_of_customers

FROM customer AS C

INNER JOIN address AS A ON A.address_id = C.address_id

INNER JOIN city AS CI ON CI.city_id = A.city_id

INNER JOIN country CO ON CO.country_id = CI.country_id

GROUP BY CO.country, CI.city

ORDER BY COUNT(C.customer_id) DESC

LIMIT 10;

Data Output

Messages

Notifications

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	country character varying (50)	city character varying (50)	number_of_customers bigint
1	United Kingdom	London	2
2	United States	Aurora	2
3	Spain	Santiago de Compostela	1
4	Japan	Iwaki	1
5	China	Shanwei	1
6	Morocco	Nador	1
7	China	Tianjin	1
8	Angola	Benguela	1
9	South Africa	Rustenburg	1
10	South Africa	Newcastle	1

Thought Process

To pinpoint the top 10 cities within Rockbuster's most successful countries, I continued the SQL query process by grouping the customer data by city and country to calculate the number of customers in each city. I then ordered the results to highlight the cities with the highest customer numbers and limited the display to the top 10. This provided a focused view of Rockbuster's urban customer distribution for strategic planning within their strongest national markets.

3.

```
SELECT C.customer_id, C.first_name, C.last_name, CO.country, CI.city,  
SUM(P.amount) AS
```

```
total_amount_payment FROM payment AS P
```

```
INNER JOIN customer AS C ON C.customer_id = P.customer_id
```

```
INNER JOIN address AS A ON A.address_id = C.address_id
```

```
INNER JOIN city AS CI ON CI.city_id = A.city_id
```

```
INNER JOIN country CO ON CO.country_id = CI.country_id
```

```
WHERE CI.city IN (
```

```
SELECT CI.city FROM customer AS C
```

```
INNER JOIN address AS A ON A.address_id = C.address_id
```

```
INNER JOIN city AS CI ON CI.city_id = A.city_id
```

```
INNER JOIN country CO ON CO.country_id = CI.country_id
```

```
WHERE CO.country IN (
```

```
SELECT CO.country FROM customer AS C
```

```
INNER JOIN address AS A ON A.address_id = C.address_id
```

```
INNER JOIN city AS CI ON CI.city_id = A.city_id
```

```
INNER JOIN country CO ON CO.country_id = CI.country_id
```

```
GROUP BY CO.country
```

```
ORDER BY COUNT(C.customer_id) DESC
```

```
LIMIT 10)
```

```
GROUP BY CO.country, CI.city
```

```
ORDER BY Count(C.customer_id) DESC
```

```
LIMIT 10)
```

```
GROUP BY C.customer_id, CO.country, CI.city
```

```
ORDER BY total_amount_payment DESC
```

```
LIMIT 5;
```

Query

Query History

```
1 SELECT C.customer_id, C.first_name, C.last_name, CO.country, CI.city, SUM(P.amount) AS
2 total_amount_payment FROM payment AS P
3 INNER JOIN customer AS C ON C.customer_id =P.customer_id
4 INNER JOIN address AS A ON A.address_id = C.address_id
5 INNER JOIN city AS CI ON CI.city_id = A.city_id
6 INNER JOIN country CO ON CO.country_id = CI.country_id
7 WHERE CI.city IN (
8 SELECT CI.city FROM customer AS C
9 INNER JOIN address AS A ON A.address_id = C.address_id
10 INNER JOIN city AS CI ON CI.city_id = A.city_id
11 INNER JOIN country CO ON CO.country_id = CI.country_id
12 WHERE CO.country IN (
13 SELECT CO.country FROM customer AS C
14 INNER JOIN address AS A ON A.address_id = C.address_id
15 INNER JOIN city AS CI ON CI.city_id = A.city_id
16 INNER JOIN country CO ON CO.country_id = CI.country_id
17 GROUP BY CO.country
18 ORDER BY COUNT(C.customer_id) DESC
19 LIMIT 10)
20 GROUP BY CO.country,CI.city
21 ORDER BY Count(C.customer_id) DESC
22 LIMIT 10)
23 GROUP BY C.customer_id,CO.country, CI.city
24 ORDER BY total_amount_payment DESC
25 LIMIT 5;
```

Data Output

Messages

Notifications

	customer_id integer	first_name character varying (45)	last_name character varying (45)	country character varying (50)	city character varying (50)	total_amount_payment 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

Thought Process

I constructed a query that joined the customer, rental, and payment tables to ascertain the total amount spent by each customer. I grouped the results by customer ID, along with their county and city, and summed up the payments. I then filtered this list to include only those customers from the top 10 cities determined in an earlier step. By ordering the results by the total payment amount in descending order and limiting the output to five, I isolated the top-spending customers in these prime locations. The resulting data set provided valuable insights, listing the most lucrative customers for Rockbuster by name, city, and the total amount spent.