Task 3.7 – Joining Tables of Data

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

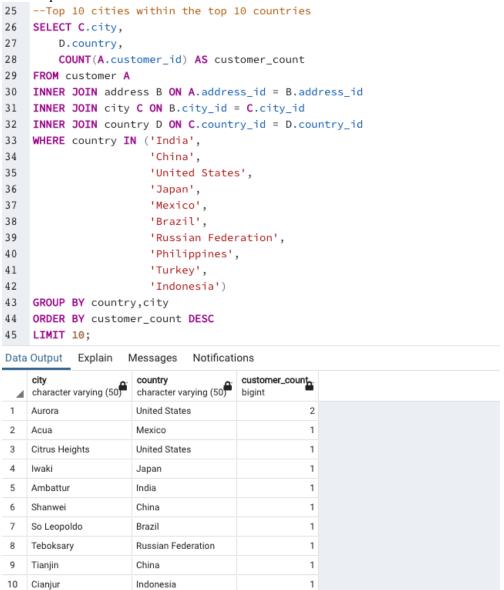
```
--Where top 10 customers are located
16
    SELECT D.country,
   COUNT(A.customer_id) AS customer_count
17
18
   FROM customer A
    INNER JOIN address B ON A.address_id = B.address_id
19
20
    INNER JOIN city C ON B.city_id = C.city_id
    INNER JOIN country D ON C.country_id = D.country_id
21
2.2
   GROUP BY country
23
   ORDER BY customer_count DESC
24
   Limit 10;
Data Output Explain Messages Notifications
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	Catput Explain	J
4	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

Write a few sentences on how you approached this query and why.

- -I approached the query as an inner join because we need information from both tables to match or else, we might get null responses for countries.
- -Since we need the top 10 I started with the aggregate formula of COUNT for customer_id
- -Next step was to join each of the tables through their foreign or primary keys starting with address_id in the customer table all the way to country_id in the country table in order to get country (name).
- -Next we needed to group country so we could get the customer count for each country.
- -Then we needed to order customer id by desc so we could limit it by the top 10 results.

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



Similar approach to question 1 but added in the WHERE clause to only show the top 10 results from the top 10 cities found above.

3. Write a query to find the top 5 customers in the top 10 cities who have paid the highest total amounts to Rockbuster.

```
46 --top 5 customers in the top 10 cities who have paid the highest amounts
47 SELECT A.customer_id,
48
        A.first_name,
49
        A.last_name,
       D.country,
50
       C.city,
51
52
       SUM(E.amount) AS total_amount_paid
53 FROM customer A
54 INNER JOIN address B ON A.address_id = B.address_id
55 INNER JOIN city C ON B.city_id = C.city_id
56 INNER JOIN country D ON C.country_id = D.country_id
57 INNER JOIN payment E ON A.customer_id = E.customer_id
58 WHERE city IN ('Aurora', 'Acua', 'Citrus Heights', 'Iwaki', 'Ambattur', 'Shanwei', 'So Leopoldo', 'Teboksary', 'Tianjin', 'Cianjur')
59 GROUP BY A.customer_id,
60
        D.country,
61
        C.city
62 ORDER BY total_amount_paid DESC
63 LIMIT 5;
Data Output Explain Messages Notifications
```

Data output Explain Messages Notifications						
4	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	225	Arlene	Harvey	India	Ambattur	111.76
2	424	Kyle	Spurlock	China	Shanwei	109.71
3	240	Marlene	Welch	Japan	lwaki	106.77
4	486	Glen	Talbert	Mexico	Acua	100.77
5	537	Clinton	Buford	United States	Aurora	98.76