

Exercise 3.7

May 31, 2022

STEP 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.)

I chose to only show columns that mattered for the question at hand, in this case Country and Count of Customers. I used a very similar query to the one used in the example so as to save time. I replaced "Staff_id" and "staff" with "customer_id" and "customer", and I added "ORDER BY count DESC" and "LIMIT 10" to rank the countries by count descending and limiting it to only the top 10 results.

```
SELECT D.country,  
       COUNT(customer_id)  
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 DESC  
LIMIT 10
```

Rank	Country	Top 10 Customers
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

STEP 2

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

In this Query, I added a column to keep "City" as well as "Country". In order to limit the query to only the top 10 countries, as found in STEP 1, I added WHERE and IN along with the 10 countries. I also had to add GROUP BY both "Country" & "City".

```
SELECT D.country, C.city,
```

```

COUNT(customer_id) AS "customer count"
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 ('India','China','United States','Japan','Mexico','Brazil','Russian
Federation','Philippines','Turkey','Indonesia')
GROUP BY country, city
ORDER BY "customer count" DESC
LIMIT 10

```

Rank	Country	City	Customer Count
1	"United States"	"Aurora"	2
2	"Mexico"	"Acua"	1
3	"United States"	"Citrus Heights"	1
4	"Japan"	"Iwaki"	1
5	"India"	"Ambattur"	1
6	"China"	"Shanwei"	1
7	"Brazil"	"So Leopoldo"	1
8	"Russian Federation"	"Teboksary"	1
9	"China"	"Tianjin"	1
10	"Indonesia"	"Cianjur"	1

STEP 3

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!

```

SELECT A.customer_id,
A.first_name,
A.last_name,
D.country,
C.city,
SUM(E.amount) AS "total_amount_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 E ON A.customer_id = E.customer_id
WHERE C.city IN ('Aurora','Acua','Citrus Heights','Iwaki','Ambattur','Shanwei','So
Leopoldo','Teboksary','Tianjin','Cianjur')
GROUP BY A.customer_id, D.country, C.city
ORDER BY "total_amount_paid" DESC
LIMIT 5

```

Rank	Customer_ID	First Name	Last Name	Country	City	Total Amount Paid
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