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EXERCISE 3.7 JOINING TABLES OF DATA



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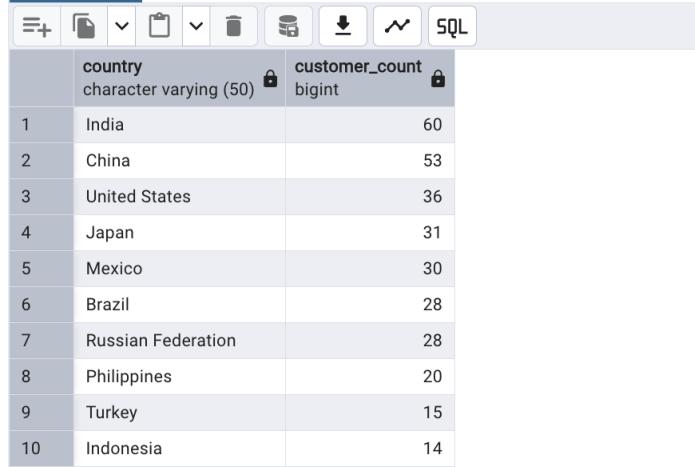
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Step 1- Find the Top 10 Countries

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

```
1  SELECT country,
2  COUNT(customer_id) AS customer_count
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 country
8  ORDER BY customer_count DESC
9  LIMIT 10
```

Data Output Messages Notifications



	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

```
SELECT country,
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
GROUP BY country
ORDER BY customer_count DESC
LIMIT 10
```

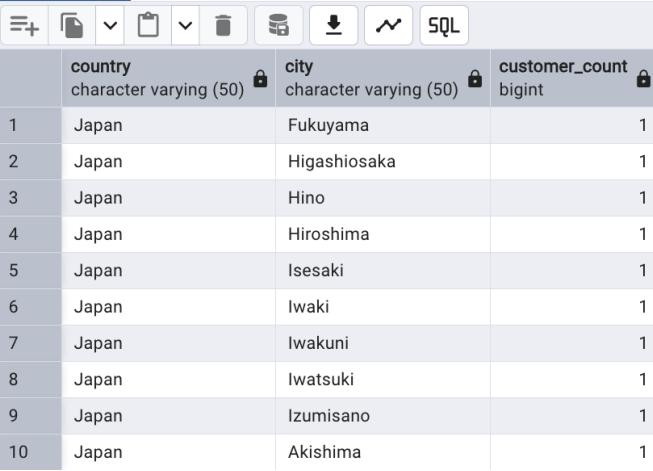
- We are being asked to find the top 10 countries in term of customers. I selected an inner join since there was a connection via a key. I selected the COUNT aggregation to get the number of customers, I GROUP BY the country and ORDER BY descending order. Lastly by adding the LIMIT clause I was able to see the top 10

Step 2- Find the Top 10 Cities

Next, write a query to identify the top 10 cities that fall within the top 10 countries you identified in step 1.

```
11  SELECT country,city,  
12  COUNT(customer_id) AS customer_count  
13  FROM customer A  
14  INNER JOIN address B ON A.address_id=B.address_id  
15  INNER JOIN city C ON B.city_id=C.city_id  
16  INNER JOIN country D ON C.country_id=D.country_id  
17  WHERE country IN ('Japan')  
18  GROUP BY city,country  
19  ORDER BY customer_count DESC  
20  LIMIT 10;  
21
```

Data Output Messages Notifications



	country character varying (50)	city character varying (50)	customer_count bigint
1	Japan	Fukuyama	1
2	Japan	Higashiosaka	1
3	Japan	Hino	1
4	Japan	Hiroshima	1
5	Japan	Isesaki	1
6	Japan	Iwaki	1
7	Japan	Iwakuni	1
8	Japan	Iwatsuki	1
9	Japan	Izumisano	1
10	Japan	Akishima	1

```
SELECT country, 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 country IN ('Japan')  
GROUP BY city, country  
ORDER BY customer_count DESC  
LIMIT 10;
```

- I kept the command similar but had to add WHERE to identify the country I was interested in (JAPAN). The WHERE clause is key in this for the information to be pulled specifically from Japan I then added city to my SELECT, GROUP BY. This will show me the top 10 cities in Japan.

Step 3- Find the Top 5 Customers

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!

```
22  SELECT A.customer_id, A.first_name, A.last_name, D.country, C.city,
23    SUM(E.amount) AS total_payment
24  FROM customer A
25  INNER JOIN payment E ON A.customer_id=E.customer_id
26  INNER JOIN address B ON A.address_id=B.address_id
27  INNER JOIN city C ON B.city_id=C.city_id
28  INNER JOIN country D ON C.country_id=D.country_id
29  WHERE C.city IN ('Fukuyama','Higashiosaka','Hino','Hiroshima','Isesaki','Iwaki','Iwakuni','Iwatsuki','Izumisano','Akishima')
30  AND D.country IN ('Japan')
31  GROUP BY A.customer_id, A.first_name, A.last_name, D.country, C.city
32  ORDER BY total_payment DESC
```

Data Output Messages Notifications

Showing rows: 1 to 5 | [Edit](#) | Page No: 1



	customer_id	first_name	last_name	country	city	total_payment
1	141	Debbie	Reyes	Japan	Fukuyama	127.69
2	54	Teresa	Rogers	Japan	Iwakuni	114.74
3	574	Julian	Vest	Japan	Akishima	108.73
4	240	Marlene	Welch	Japan	Iwaki	106.77
5	396	Earl	Shanks	Japan	Iwatsuki	105.74

- For this exercise we had to integrate a new table into the SQL. Our aggregation had to change, were now using SUM to get the total payments from customers. I then added an additional connection to link the payment table to the syntax. By using the WHERE clause I was able to identify the top 10 cities from Japan. Lastly limiting my findings to 5 will show me the top 5 customers in those cities.