

3.7 Joining Tables of Data

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.)
 - Copy-paste your query and its output into your answers document.

Query









Query History

```
1 SELECT D.country, COUNT (customer_id) AS customer_numbers
2 FROM customer A
3 INNER JOIN address B ON A.address_id = B.address_id
4 INNER JOIN city C ON B.city_id = C.city_id
5 INNER JOIN country D ON C.country_id = D.country_id
6 GROUP BY country
7 ORDER BY customer_numbers DESC
8 LIMIT 10;
```

Data output

Messages

Notifications



	country character varying (50)	customer_numbers 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. It's important that you can explain your thought process when writing queries, especially for future interviews.
 1. In order to complete this query, I recognized that in order to find the country of the customers I would have to execute several JOIN commands in order to connect the customer table to the address, city, and country table. It was also important to include a count command so that the countries with the most customer ids are able to be specified.

2. Write a query to find the top 10 cities within the top 10 countries identified in step 1.
 - Copy-paste your query and its output into your answers document.

Query

Query History

```

1 SELECT C.city, D.country, COUNT (customer_id) AS customer_numbers
2 FROM customer A
3 INNER JOIN address B ON A.address_id = B.address_id
4 INNER JOIN city C ON B.city_id = C.city_id
5 INNER JOIN country D ON C.country_id = D.country_id
6 WHERE D.country IN ('India', 'China', 'United States', 'Japan', 'Mexico', 'Brazil',
7                     'Russian Federation', 'Philippines', 'Turkey', 'Indonesia')
8 GROUP BY C.city, D.country
9 ORDER BY customer_numbers DESC
10 LIMIT 10

```

Data output

Messages

Notifications

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	city character varying (50)	country character varying (50)	customer_numbers bigint
1	Aurora	United States	2
2	Atlixco	Mexico	1
3	Xintai	China	1
4	Adoni	India	1
5	Dhule (Dhulia)	India	1
6	Kurashiki	Japan	1
7	Pingxiang	China	1
8	Sivas	Turkey	1
9	Celaya	Mexico	1
10	So Leopoldo	Brazil	1

- Write a short explanation of how you approached this query and why.
 1. I was able to piggyback off the previous query to create the majority of this query. In order to find the top 10 cities within the top 10 countries I added the WHERE IN command which allowed me to pull the top cities within the specified countries.
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!
 - Tip: After the join syntax, you'll need to use the WHERE clause with an operator, followed by GROUP BY and ORDER BY. Your output should include the following columns: Customer ID, Customer First Name and Last Name, Country, City, Total Amount Paid.

- Copy-paste your query and its output into your answers document.

Query

Query History

```

1 SELECT B.customer_id, B.first_name, B.last_name, D.city, E.country, SUM (A.amount) AS total_amount_paid
2 FROM customer B
3 INNER JOIN payment A ON A.customer_id = B.customer_id
4 INNER JOIN address C ON B.address_id = C.address_id
5 INNER JOIN city D ON C.city_id = D.city_id
6 INNER JOIN country E ON D.country_id = E.country_id
7 WHERE D.city IN ('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule (Dhulia)', 'Kurashiki', 'Pingxiang', 'Sivas', 'Celaya', 'So Leopoldo')
8 GROUP BY B.customer_id, B.first_name, B.last_name, D.city, E.country
9 ORDER BY total_amount_paid DESC
10 LIMIT 5

```

Data output

Messages

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	customer_id integer	first_name character varying (45)	last_name character varying (45)	city character varying (50)	country character varying (50)	total_amount_paid numeric
1	84	Sara	Perry	Atlixco	Mexico	128.70
2	518	Gabriel	Harder	Sivas	Turkey	108.75
3	587	Sergio	Stanfield	Celaya	Mexico	102.76
4	537	Clinton	Buford	Aurora	United States	98.76
5	367	Adam	Gooch	Adoni	India	97.80

4. Save your “Answers 3.7” document as a PDF and upload it here for your tutor to review.