

1.

Rockbuster/postgres@PostgreSQL 13 ▾			
Query Editor Query History			
<pre> 1 SELECT C.country, 2 COUNT(address_id) AS number_of_customers 3 FROM address A 4 INNER JOIN city B ON A.city_id = B.city_id 5 INNER JOIN country C ON B.country_id = C.country_id 6 GROUP BY country 7 ORDER BY number_of_customers DESC 8 LIMIT 10 9 </pre>			
Data Output Explain Messages Notifications			
	country character varying (50)	number_of_customers 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	

First, I identified the data needed for this query and which tables it was located in. I selected the country column from the country table. Then I calculated the number of customers using the address address_id column in the address table, which is a unique id for each customer address. INNER JOIN was the most efficient method to join this data using common keys across address, city, and country tables. I used GROUP BY, ORDER BY and LIMIT to return the rows and columns.

2.

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Query Editor Query History			
<pre> 1 SELECT B.city, 2 COUNT(address_id) AS number_of_customers 3 FROM address A 4 INNER JOIN city B ON A.city_id = B.city_id 5 INNER JOIN country C ON B.country_id = C.country_id 6 WHERE country IN ('India','China','United States','Japan','Mexico','Brazil','Russian Federation','Philippines','Turkey','Indonesia') 7 GROUP BY city 8 ORDER BY number_of_customers DESC 9 LIMIT 10 10 </pre>			
Data Output Explain Messages Notifications			
	city character varying (50)	number_of_customers bigint	
1	Aurora	2	
2	Tokat	1	
3	Tarsus	1	
4	Atlixco	1	
5	Emeishan	1	
6	Pontianak	1	
7	Shimoga	1	
8	Aparecida de Goiania	1	
9	Zalantun	1	
10	Taguig	1	

I started with the previous query, then modified it for the different output needed. This needed the city column, so I updated SELECT to remove country and add city. Then I filtered countries to only include the top ten using WHERE, and changed GROUP BY to city.

3.

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Query EditorQuery History

1234567891011121314151617

```
SELECT B.customer_id AS "Customer ID",
      B.first_name AS "Customer First Name",
      B.last_name AS "Customer Last Name",
      E.country AS "Country",
      D.city AS "City",
      SUM(amount) AS "Total Amount Paid"
FROM payment A
INNER JOIN customer B ON A.customer_id = B.customer_id
INNER JOIN address C ON B.address_id = C.address_id
INNER JOIN city D ON C.city_id = D.city_id
INNER JOIN country E ON D.country_id = E.country_id
WHERE country IN ('India', 'China', 'United States', 'Japan', 'Mexico', 'Brazil', 'Russian Federation', 'Philippines', 'Turkey', 'Indonesia')
GROUP BY city, country, "Customer ID"
ORDER BY SUM(amount) DESC
LIMIT 5
```

Data OutputExplainMessagesNotifications

	Customer ID integer	Customer First Name character varying (45)	Customer Last Name character varying (45)	Country character varying (50)	City character varying (50)	Total Amount Paid numeric	
1	526	Karl	Seal	United States	Cape Coral	208.58	
2	178	Marion	Snyder	Brazil	Santa Brbara dOeste	194.61	
3	181	Ana	Bradley	United States	Memphis	167.67	
4	236	Marcia	Dean	Philippines	Tanza	166.61	
5	403	Mike	Way	India	Valparai	162.67	