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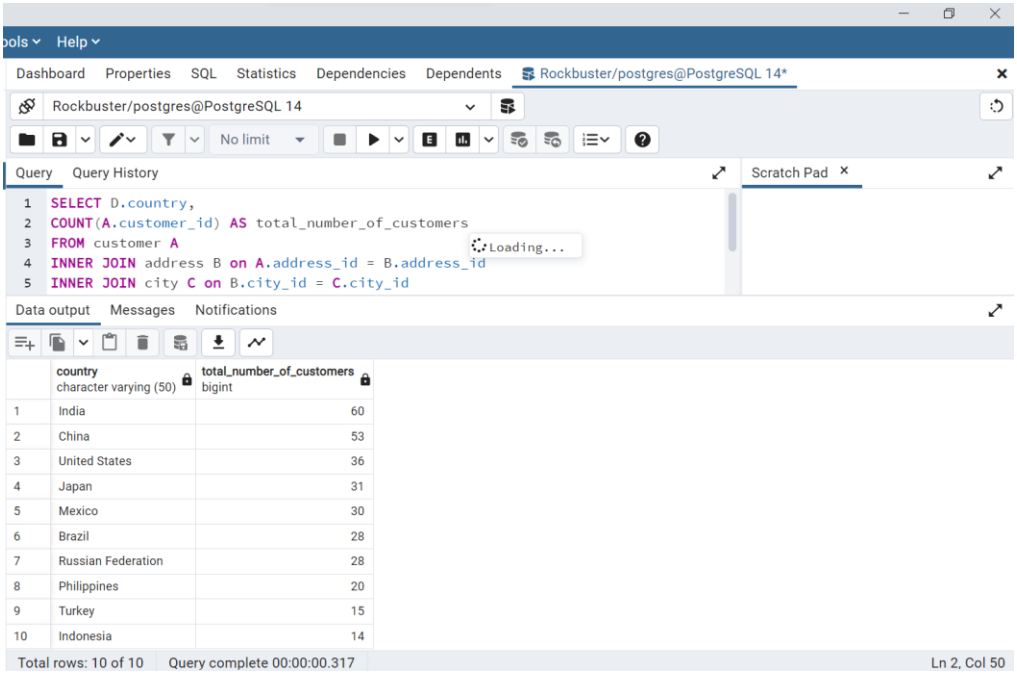
Task 3.7: Joining Tables of Data

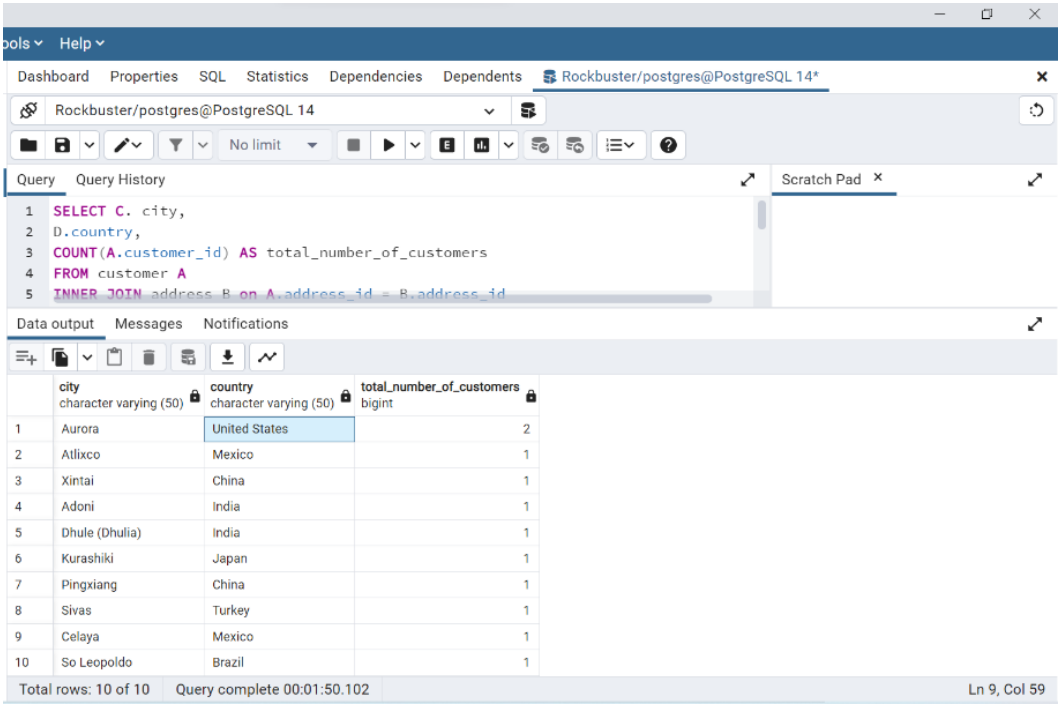
1. **Write a query to find the top 10 countries for Rockbuster in terms of customer numbers.**

Query:	Explanation:
SELECT D.country, COUNT(A.customer_id) AS total_number_of_customers 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 D.country ORDER BY count(A.customer_id) DESC limit 10;	I looked at the ERD that I created from the data dictionary. Since the task was to find the top 10 countries for Rockbuster in terms of customer numbers, I looked at the country and customer table. First, I chose SELECT country and COUNT customer id as total number of custers FROM customer table. Then, I used INNER JOIN to city and address to link the customer and country table. INNER JOIN was my choice for the JOIN since I only needed limited information from the two tables. Lastly, I applied GROUP BY, ORDER BY count, and LIMIT.

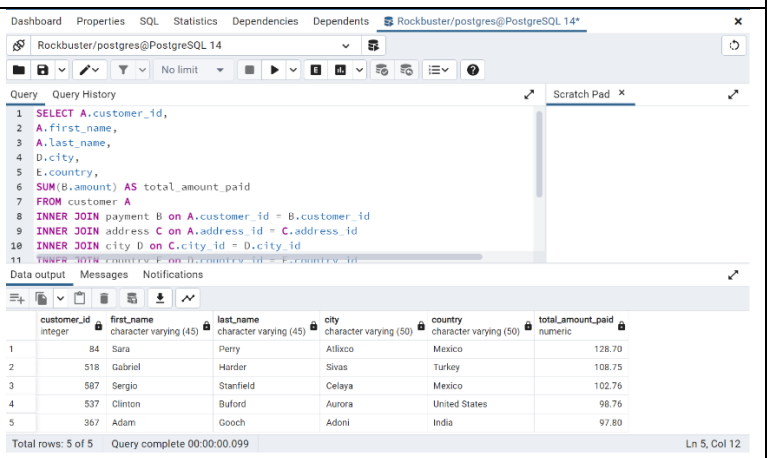


2. Write a query to find the top 10 cities within the top 10 countries identified in step 1.

Query:	Explanation:
SELECT C. city, **D.country,** **COUNT(A.customer_id) AS total_number_of_customers** **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 C.city, D.country** **ORDER BY count(A.customer_id) DESC limit 10;**	In addition to the query written in #1, I chose SELECT city, added the WHERE clause for country and the IN operator to add the top ten countries, and GROUP BY city and country.



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!**

Query:	Output:
SELECT A.customer_id, **A.first_name,** **A.last_name,** **D.city,** **E.country,** **SUM(B.amount) AS total_amount_paid** **FROM customer A** **INNER JOIN payment B on A.customer_id = B.customer_id** **INNER JOIN address C on A.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 D.city IN ('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule (Dhulia)', 'Kurashiki', 'Pingxiang', 'Sivas', 'Celaya', 'So Leopoldo')** **GROUP BY A.customer_id, A.first_name, A.last_name, D.city, E.country** **ORDER BY total_amount_paid** **DESC limit 5;**	 Dashboard Properties SQL Statistics Dependencies Dependents Rockbuster/postgres@PostgreSQL 14* Rockbuster/postgres@PostgreSQL 14 No limit Query Query History Scratch Pad 1 SELECT A.customer_id, 2 A.first_name, 3 A.last_name, 4 D.city, 5 E.country, 6 SUM(B.amount) AS total_amount_paid 7 FROM customer A 8 INNER JOIN payment B on A.customer_id = B.customer_id 9 INNER JOIN address C on A.address_id = C.address_id 10 INNER JOIN city D on C.city_id = D.city_id Data output Messages Notifications 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 Total rows: 5 of 5 Query complete 00:00:00.099 Ln 5, Col 12