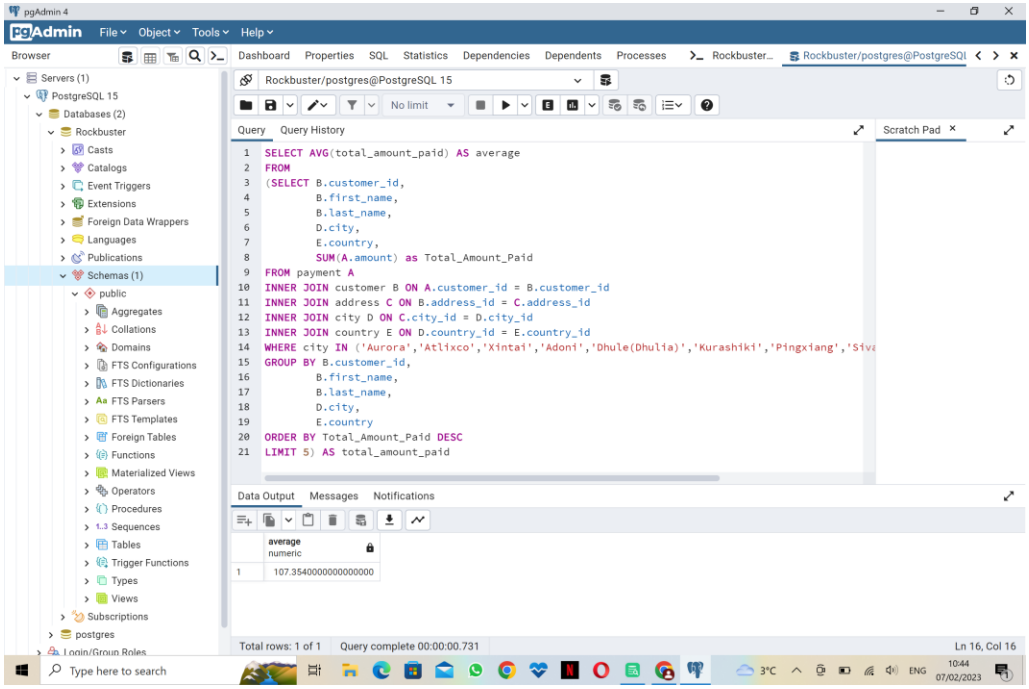
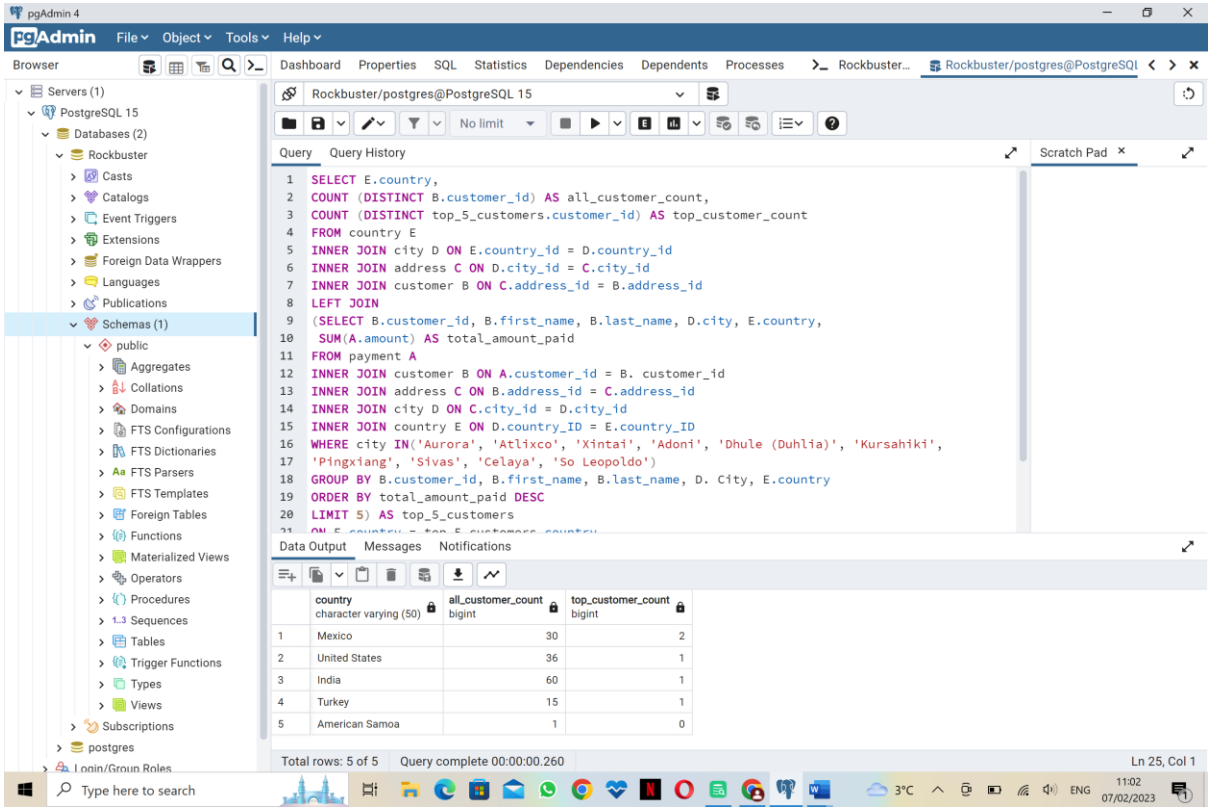
ANSWERS 3.8

Step 1: Find the average amount paid by the top 5 customers.



Step 2: Find out how many of the top 5 customers are based within each country.



ANSWERS 3.8

```
SELECT E.country,
COUNT (DISTINCT B.customer_id) AS all_customer_count,
COUNT (DISTINCT top_5_customers.customer_id) AS top_customer_count
FROM country E
INNER JOIN city D ON E.country_id = D.country_id
INNER JOIN address C ON D.city_id = C.city_id
INNER JOIN customer B ON C.address_id = B.address_id
LEFT JOIN
(SELECT B.customer_id, B.first_name, B.last_name, D.city, E.country,
 SUM(A.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 city IN('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule (Duhlia)', 'Kursahiki',
'Pingxiang', 'Sivas', 'Celaya', 'So Leopoldo')
GROUP BY B.customer_id, B.first_name, B.last_name, D. City, E.country
ORDER BY total_amount_paid DESC
LIMIT 5) AS top_5_customers
ON E.country = top_5_customers.country
GROUP BY E.country
ORDER BY top_customer_count DESC
LIMIT 5
```

Step 3:

1. Do you think steps 1 and 2 could be done without using subqueries?

    - It can be done without subqueries, but then we would have to write a lot of different queries to get the same result. This would be extremely time consuming and not cost effective.

2. When do you think subqueries are useful?

    - Subqueries are quite useful when we are working on getting output from lot of columns from different tables. We can join multiple tables and get the desired output from writing subqueries and save time and cost.