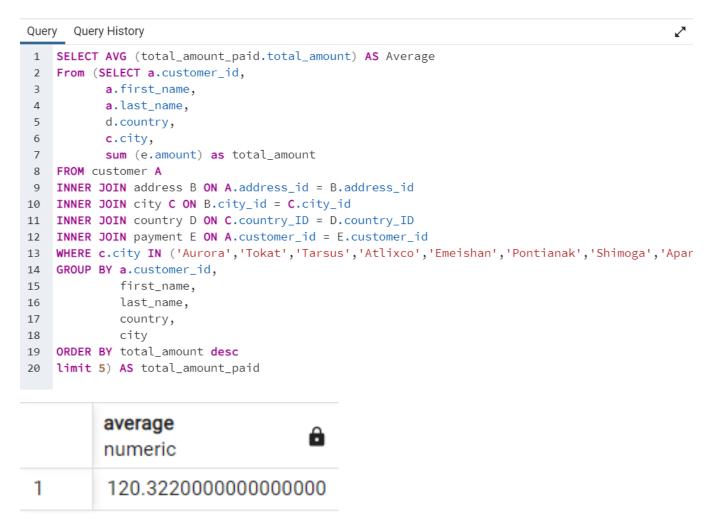
1.



```
Query Query History
1 SELECT d.country,
           COUNT(DISTINCT top_5_customers.customer_id) AS top_5_customer_count,
2
           COUNT(DISTINCT a.customer_id) AS all_customer_count
3
4 FROM customer A
5 INNER JOIN address B ON a.address_id = b.address_id
6 INNER JOIN city C ON b.city_id = c.city_id
7 INNER JOIN country D ON c.country_id = d.country_id
8 LEFT JOIN (SELECT a.customer_id,
9
          a.first_name,
10
          a.last_name,
11
          d.country,
12
           c.city,
           sum (e.amount) as total_amount
13
14 FROM customer A
15 INNER JOIN address B ON A.address_id = B.address_id
16 INNER JOIN city C ON B.city_id = C.city_id
17 INNER JOIN country D ON C.country_ID = D.country_ID
18  INNER JOIN payment E ON A.customer_id = E.customer_id
19 WHERE c.city IN ('Aurora','Tokat','Tarsus','Atlixco','Emeishan','Pontianak','Shimoga','Apa
20 GROUP BY a.customer_id,
21
            first_name,
22
             last_name,
             country,
23
24
             city
25 ORDER BY total_amount desc
26  limit 5 ) AS top_5_customers ON d.country = top_5_customers.country
27  GROUP BY d.country
28 ORDER BY top_5_customer_count desc
```

	country character varying (50)	top_5_customer_count bigint	all_customer_count bigint
1	Turkey	1	15
2	China	1	53
3	Mexico	1	30
4	United States	1	36
5	Indonesia	1	14
6	Armenia	0	1
7	Argentina	0	13
8	American Samoa	0	1
9	Bahrain	0	1
10	Anguilla	0	1

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

A/ Step one could be done without using subqueries by using the aggregate function and ordering the result descending, step 2 in the other hand wouldn't be possible to do without subqueries unless we create a new table which consume more time than using subqueries.

• When do you think subqueries are useful?

A/ They are useful when we have to make use of information that is constantly changing, creating a subquery would save us more time than running 2 queries and modifying the main one every time we need to use the data