





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

```
1  SELECT AVG (total_amount_paid)
2  FROM
3  (SELECT
4      A.customer_id,
5      A.first_name,
6      A.last_name,
7      C.city,
8      D.country,
9      SUM (E.amount) AS total_amount_paid
10 FROM customer A
11 INNER JOIN payment E ON A.customer_id = E.customer_id
12 INNER JOIN address B ON A.address_id = B.address_id
13 INNER JOIN city C ON B.city_id = C.city_id
14 INNER JOIN country D ON C.country_id = D.country_id
15 WHERE C.city IN ('Aurora', 'Acua', 'Citrus Heights', 'Iwaki', 'Amb
16 GROUP BY A.customer_id,
17          A.first_name,
18          A.last_name,
19          C.city,
20          D.country
21 ORDER BY total_amount_paid DESC
22 LIMIT 5) AS average
```

Data Output Messages Notifications

								
	avg							
	numeric							
1	105.5540000000000000							

**Step 2:** Find out how many of the top 5 customers you identified in step 1 are based within each country.

```

Query  Query History
1  SELECT D.country,
2  COUNT(DISTINCT A.customer_id) AS all_customers_count,
3  COUNT(top_5_customers) AS top_customer_count
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
9  (SELECT
10     A.customer_id,
11     A.first_name,
12     A.last_name,
13     C.city,
14     D.country,
15     SUM (E.amount) AS total_amount_paid
16  FROM customer A
17  INNER JOIN payment E ON A.customer_id = E.customer_id
18  INNER JOIN address B ON A.address_id = B.address_id
19  INNER JOIN city C ON B.city_id = C.city_id
20  INNER JOIN country D ON C.country_id = D.country_id
21  WHERE C.city IN ('Aurora', 'Acua', 'Citrus Heights', 'Iwakii', 'Ambattur', 'Shanwei', 'So Leopoldo', 'Teboksary',
22  GROUP BY A.customer_id,
23           A.first_name,
24           A.last_name,
25           C.city,
26           D.country
27  ORDER BY total_amount_paid DESC
28  LIMIT 5) top_5_customers ON A.customer_id = top_5_customers.customer_id
29  GROUP BY D.country
30  ORDER BY all_customers_count DESC
31  LIMIT 5;

```

	country character varying (50) 🔒	all_customers_count bigint 🔒	top_customer_count bigint 🔒
1	India	60	1
2	China	53	1
3	United States	36	1
4	Japan	31	1
5	Mexico	30	1

**Step 3:** In my opinion writing an outer query in step 2 was sort of arduous; whenever is possible try to eliminate nested queries by using JOIN operations by joining tables together, so it is possible to retrieve data from multiple tables in a single query, avoiding the need for subqueries.