

# Performing Subqueries

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## 1. Average amount paid by the top 5 customers:

Properties SQL Rockbuster/postgres@PostgreSQL 15\*

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No limit

Query Query History

```
1 SELECT AVG(total_amount_paid) AS Average
2 FROM
3 (SELECT A.customer_id,
4 B.first_name,
5 B.last_name,
6 D.city,
7 E.country,
8 SUM (A.amount) AS total_amount_paid
9 FROM payment A
10 INNER JOIN customer B ON A.customer_id = B.customer_id
11 INNER JOIN address C ON B.address_id = C.address_id
12 INNER JOIN city D ON C.city_id = D.city_id
13 INNER JOIN country E ON D.country_id = E.country_id
14 GROUP BY A.customer_id,
15 B.First_name,
16 B.last_name,
17 D.city,
18 E.country
19 HAVING city IN ('Aurora',
20 'Acua',
21 'Citrus Heights',
22 'Iwaki',
23 'Ambattur',
24 'Shanwei',
25 'So Leopoldo',
26 'Teboksary',
27 'Tianjin',
28 'Cianjur')
29 ORDER BY SUM (amount) DESC
30 LIMIT 5) AS total_amount_paid
31
```

Data Output Messages Notifications

	average numeric
1	105.5540000000000000

```
SELECT AVG(total_amount_paid) AS Average
FROM
(SELECT A.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
GROUP BY A.customer_id,
B.First_name,
B.last_name,
D.city,
E.country
HAVING city IN ('Aurora',
'Acua',
'Citrus Heights',
'Iwaki',
'Ambattur',
'Shanwei',
'So Leopoldo',
'Teboksary',
'Tianjin',
'Cianjur')
ORDER BY SUM (amount) DESC
LIMIT 5) AS total_amount_paid
```

2. Finding out how many of the top 5 customers I identified in step 1 are based within each country:

```
SELECT D.country, COUNT(A.customer_id) AS all_customer_count,
COUNT (top_5_customers) AS top_customer_count
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
LEFT JOIN
(SELECT A.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
GROUP BY A.customer_id,
B.First_name,
B.last_name,
D.city,
E.country
HAVING city IN ('Aurora',
'Acua',
'Citrus Heights',
'Iwaki',
'Ambattur',
'Shanwei',
'So Leopoldo',
'Teboksary',
'Tianjin',
'Cianjur')
ORDER BY SUM (amount) DESC
LIMIT 5)
AS top_5_customers
ON A.customer_id = top_5_customers.customer_id
GROUP BY D.country
HAVING COUNT (top_5_customers) > 0
ORDER BY (all_customer_count) DESC
```

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No limit

Query Query History

Data Output Messages Notifications

```
1 SELECT D.country, COUNT(A.customer_id) AS all_customer_count,
2 COUNT (top_5_customers) AS top_customer_count
3 FROM customer A
4 INNER JOIN address B ON A.address_id = B.address_id
5 INNER JOIN city C ON B.city_id = C.city_id
6 INNER JOIN country D ON C.country_id = D.country_id
7 LEFT JOIN
8 (SELECT A.customer_id,
9 B.first_name,
10 B.last_name,
11 D.city,
12 E.country,
13 SUM (A.amount) AS total_amount_paid
14 FROM payment A
15 INNER JOIN customer B ON A.customer_id = B.customer_id
16 INNER JOIN address C ON B.address_id = C.address_id
17 INNER JOIN city D ON C.city_id = D.city_id
18 INNER JOIN country E ON D.country_id = E.country_id
19 GROUP BY A.customer_id,
20 B.first_name,
21 B.last_name,
22 D.city,
23 E.country
24 HAVING city IN ('Aurora',
25 'Acua',
26 'Citrus Heights',
27 'Iwaki',
28 'Ambattur',
29 'Shanwei',
30 'So Leopoldo',
31 'Teboksary',
32 'Tianjin',
33 'Cianjur')
34 ORDER BY SUM (amount) DESC
35 LIMIT 5)
36 AS top_5_customers
37 ON A.customer_id = top_5_customers.customer_id
38 GROUP BY D.country
39 HAVING COUNT (top_5_customers) > 0
40 ORDER BY (all_customer_count) DESC
41
```

	country character varying (50)	all_customer_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