1.

Rockbuster/postgres@PostgreSQL 14

Query Editor | Query History

```
1  SELECT AVG(total_amount_paid.total_amount_paid) AS average
2  FROM
3  (SELECT A.customer_id,
4          B.first_name,
5          B.last_name,
6          E.country,
7          D.city,
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  WHERE country IN ('India', 'China', 'United States', 'Japan', 'Mexico', 'Brazil',
15                    'Russian Federation', 'Philippines', 'Turkey', 'Indonesia')
16  AND city IN ('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule (Dhulla)', 'Kurashiki',
17               'Pingxiang', 'Sivas', 'Celaya', 'So Leopoldo')
18  GROUP BY A.customer_id,
19         B.first_name,
20         B.last_name,
```

Data Output | Messages | Explain | Notifications

	average numeric
1	107.3540000000000000

Query Editor | Query History

```sql
SELECT DISTINCT(A.country),
       COUNT(DISTINCT D.customer_id)AS all_customer_count,
       COUNT(DISTINCT A.country)AS top_customer_count
FROM country A
INNER JOIN city B
    ON A.country_id=B.country_id
INNER JOIN address C
    ON b.city_id=C.city_id
INNER JOIN customer D
    ON C.address_id=D.address_id
LEFT JOIN (SELECT A.customer_id, A.first_name, A.last_name, E.country, B.city, SUM(C.amount)AS Total_Paid
           FROM customer A
           INNER JOIN address D
                ON A.address_id=D.address_id
           INNER JOIN city B
                ON D.city_id=B.city_id
           INNER JOIN country E
                ON B.country_id=E.country_id
           INNER JOIN payment C
                ON A.customer_id=C.customer_id
           WHERE E.country IN
                ('India', 'China', 'United States', 'Japan', 'Mexico', 'Brazil', 'Russian Federation', 'Philippines', 'Turkey', 'Indonesia')
            AND B.city IN ('Aurora', 'Atlixco', 'Xintai', 'Adoni', 'Dhule', 'Kurashiki', 'Pingxian', 'Sivas', 'Celaya', 'So Leopoldo')
           GROUP BY A.customer_id, E.country, B.city
           ORDER BY Total_Paid DESC
           LIMIT 5) AS top_5_customers
           ON A.country=top_5_customers.COUNTRY
GROUP BY A.country, top_5_customers
ORDER BY all_customer_count desc
LIMIT 5;
```

Data Output | Messages | Explain | Notifications

	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

2.

3. For Step 1 it can be performed without subquery by using the aggregate function but for Step 2 you would need a subquery because you need results from a whole different table. Subqueries are very useful when you need to summarize results that are from two different tables that are always changing like for Rockbuster. Subqueries are also useful for combining two steps together.