JOINING TABLES & SUBQUERIES IN SQL

Query   Query History

```sql
1   -- Joining tables to find top 5 customers within top 10 cities
2
3   SELECT A.customer_id, A.first_name, A.last_name, C.city, D.country,
4   SUM(E.amount) AS "Total Amount Paid"
5   FROM customer A
6   INNER JOIN address B ON A.address_id = B.address_id
7   INNER JOIN city C ON B.city_id = C.city_id
8   INNER JOIN country D ON C.country_id = D.country_id
9   INNER JOIN payment E ON A.customer_id = E.customer_id
10  WHERE city IN ('Aurora','Atlixco','Xintai','Dhule (Dhulia)','Kurashiki','Pingxiang','Sivas','Celaya','So Leopoldo')
11  GROUP BY A.customer_id, first_name, last_name, city, country
12  ORDER BY "Total Amount Paid" DESC
13  LIMIT 5;
```

Data Output   Messages   Notifications

	customer_id integer	first_name character varying (45)	last_name character varying (45)	city character varying (50)	country character varying (50)	Total Amount Paid numeric
1	84	Sara	Perry	Atlixco	Mexico	128.70
2	518	Gabriel	Harder	Sivas	Turkey	108.75
3	587	Sergio	Stanfield	Celaya	Mexico	102.76
4	537	Clinton	Buford	Aurora	United States	98.76
5	443	Francisco	Skidmore	So Leopoldo	Brazil	93.79

Query   Query History

```sql
1   -- Finding countries that have top 5 customers from top 10 cities
2
3   SELECT D.country, COUNT(A.customer_id) AS all_customer_count,
4   COUNT (top_5_customers) AS top_customer_count
5   FROM customer A
6       INNER JOIN address B ON A.address_id = B.address_id
7       INNER JOIN city C on B.city_id = C.city_id
8       INNER JOIN country D ON C.country_id = D.country_id
9   LEFT JOIN (SELECT A.customer_id, A.first_name, A.last_name, C.city, D.country,
10  SUM(E.amount) AS total_amount_paid
11  FROM customer A
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      INNER JOIN payment E ON A.customer_id = E.customer_id
16  WHERE city IN ('Aurora','Atlixco','Xintai','Adoni','Dhule (Dhulia)','Kurashiki','Pingxiang','Sivas','Celaya','So Leopoldo')
17  GROUP BY A.customer_id, first_name, last_name, city, country
18  ORDER BY total_amount_paid DESC
19  LIMIT 5) AS top_5_customers ON A.customer_id = top_5_customers.customer_id
20  GROUP BY D.country
21  HAVING COUNT (top_5_customers) > 0
22  ORDER BY (all_customer_count) DESC;
```

Data Output   Messages   Notifications

	country character varying (50)	all_customer_count bigint	top_customer_count bigint
1	India	60	1
2	United States	36	1
3	Mexico	30	2
4	Turkey	15	1