

Task 3.7

1.

Query	Query History
1	SELECT D.country,
2	COUNT (customer_id) AS 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	GROUP BY country
8	ORDER BY customer_count desc
9	limit 10

	country character varying (50)	customer_count bigint
1	India	60
2	China	53
3	United States	36
4	Japan	31
5	Mexico	30
6	Brazil	28
7	Russian Federation	28
8	Philippines	20
9	Turkey	15
10	Indonesia	14

The way that I approached to this query is that started to type the column that I needed to get the customer count by country and then I look on the tables that had the information that I needed, then I started to join all the tables that I needed for the analysis and because in order to get the right information I had to make a chain of connections and this finally lead me to order the information from highest to lowest and limit it to 10 to get the top 10 countries by customers

2.

Query	Query History
1	SELECT C.city,
2	COUNT (customer_id) AS 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	WHERE country IN ('India', 'China', 'United States', 'Japan', 'Mexico',
8	'Brazil', 'Russian Federation', 'Philippines', 'Turkey', 'Indonesia')
9	GROUP BY city
10	ORDER BY customer_count desc
11	limit 10

	city character varying (50) 🔒	customer_count bigint 🔒
1	Aurora	2
2	Tokat	1
3	Tarsus	1
4	Atlixco	1
5	Emeishan	1
6	Pontianak	1
7	Shimoga	1
8	Aparecida de Goinia	1
9	Zalantun	1
10	Taguig	1

After getting the top 10 countries by customers in the past step I used this information to filter the data and use a where statement to get just the top 10 cities from these countries I changed the column that I needed from the select section limit it by 10 and that's how I got this query.

3.

Query

Query History

```
1 SELECT a.customer_id,
2       a.first_name,
3       a.last_name,
4       d.country,
5       c.city,
6       sum (e.amount) as total_amount
7 FROM customer A
8 INNER JOIN address B ON A.address_id = B.address_id
9 INNER JOIN city C ON B.city_id = C.city_id
10 INNER JOIN country D ON C.country_ID = D.country_ID
11 INNER JOIN payment E ON A.customer_id = E.customer_id
12 WHERE c.city IN ('Aurora','Tokat','Tarsus','Atlixco','Emeishan','Pontianak','Shimoga','Ape
13 GROUP BY a.customer_id,
14          first_name,
15          last_name,
16          country,
17          city
18 ORDER BY total_amount desc
19 limit 5
```

	customer_id integer	first_name character varying (45)	last_name character varying (45)	country character varying (50)	city character varying (50)	total_amount numeric
1	566	Casey	Mena	Turkey	Tokat	130.68
2	84	Sara	Perry	Mexico	Atlixco	128.70
3	506	Leslie	Seward	Indonesia	Pontianak	123.72
4	389	Alan	Kahn	China	Emeishan	119.75
5	537	Clinton	Buford	United States	Aurora	98.76

After getting the top 10 cities I got asked to get the ID, the name, country, city and the total amount paid of the top 5 customers so I added this columns to the select statement then I join the payment table to get the paid amount information, the filter the search with a where statement to get just the data form the top 10 cities and then I order the results by total amount from highest to lowest, limiting this to 5 to get the top 5 customer in this cities.