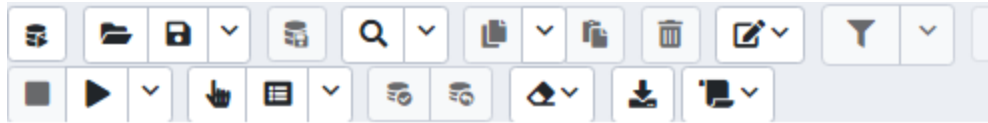Query Editor   Query History

```
1    SELECT D.country,
2            COUNT(A.customer_id) AS customer_number
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_number DESC
9    LIMIT 10
```

Data Output   Messages   Explain   Notifications

	country character varying (50)	customer_number 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

1.
   a. I understand the customer, address, city and country data. For this i combined
      the customer data with the customer information like the address, city and
      country with the inner join query. I then used the GROUP BY query and counted
      the customers based on country. I then used ORDER BY based on the customer

numbers from highest to lowest and I used the LIMIT 10 to limit the data to ten entries.

```sql
1   SELECT C.city,
2          COUNT (A.customer_id) AS customer_number
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 ('Indian',
8                     'China',
9                     'United States',
10                    'Japan',
11                    'Mexico',
12                    'Brazil',
13                    'Russian Federation',
14                    'Philippines',
15                    'Turkey',
16                    'Indonesia')
17  GROUP BY city
18  ORDER BY customer_number DESC
19  LIMIT 10
```

Data Output   Messages   Explain   Notifications

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

2.

a. For this I took another look at the existing query. I changed the selection from country to city so i can find the top ten cities within the top ten countries. You then have to find the top ten cities and countries then list them then use the WHERE query. You then change from country to city by the GROUP BY function.

Query Editor   Query History

```
 5          D.country,
 6          SUM(E.amount) AS total_payment
 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 city IN ('Aurora',
13              'Tokat',
14              'Aparecida de Goinia',
15              'Emeishan',
16              'Pontianak',
17              'Tarsus',
18              'Atlixco',
19              'Zalantum',
20              'Rio Claro',
21              'Taguig')
22   GROUP BY a.customer_id, C.city, D.country
23   ORDER BY total_payment DESC
24   LIMIT 5
```

Data Output   Messages   Explain   Notifications

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

3.