

علی نوروزی 40231052

1

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure, with the 'customers' table selected under the 'public' schema. The central pane shows a SQL query: `SELECT count(customers.customer_id) FROM customers`. The right pane displays the query result in a table with two columns: 'count' and 'bigint'. The result shows a single row with the value 91.

count	bigint
1	91

Total rows: 1 of 1 Query complete 00:00:00.127 Ln 1, Col 35

2

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure, with the 'customers' table selected under the 'public' schema. The central pane shows a SQL query: `SELECT country ,count (customers.customer_id) FROM customers group by customers.country`. The right pane displays the query result in a table with two columns: 'country' and 'count'. The result shows 21 rows of data, grouped by country.

country	count
Argentina	3
Spain	5
Switzerland	2
Italy	3
Venezuela	4
Belgium	2
Norway	1
Sweden	2
USA	13
France	11
Mexico	5
Brazil	9
Austria	2
Poland	1
UK	7
Ireland	1
Germany	11
Denmark	2
Canada	3

Total rows: 21 of 21 Query complete 00:00:00.149 Ln 1, Col 17

3

The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays a tree view of database objects, with 'Tables (5)' expanded. The main pane shows a SQL query window with the following query:

```

1 SELECT country, COUNT(*) AS CC
2 FROM customers
3 GROUP BY country
4 HAVING COUNT(*) = (
5     SELECT MAX(CountryCount)
6     FROM (
7         SELECT COUNT(*) AS CountryCount
8         FROM customers
9         GROUP BY country
10     )
11 )
12

```

The 'Data Output' tab shows the results of the query:

country	cc
USA	13

The status bar at the bottom indicates 'Total rows: 1 of 1', 'Query complete 00:00:00.151', and 'Ln 11, Col 2'.

4

The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays a tree view of database objects, with 'Columns (7)' expanded. The main pane shows a SQL query window with the following query:

```

1 insert into customers values (12222222, 'ali noroozi', null, null, 'tehran', 40231052, 'iran')

```

The 'Messages' tab shows the execution results:

```

INSERT 0 1
Query returned successfully in 185 msec.

```

The status bar at the bottom indicates 'Total rows: 0 of 0', 'Query complete 00:00:00.105', and 'Ln 1, Col 101'.

5

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with the 'customers' table selected under the 'orders' database. The main query editor shows the following SQL query:

```

1 select customer_id, customer_name, postal_code from
2 ((select customer_id as cid from customers) except (select customer_id as cid from orders))
3 join customers
4 on customers.customer_id = cid )

```

The 'Data Output' tab shows the results of the query:

	customer_id [PK] integer	customer_name character varying (255)	postal_code character varying (255)
1	22	FISSA Fabrica Inter. Saichichas S.A.	28034
2	57	Paris specialites	75012
3	12222222	ali noroozi	40231052

Total rows: 3 of 3 Query complete 00:00:00.141 Ln 4, Col 22

6

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with the 'customers' table selected under the 'orders' database. The main query editor shows the following SQL query:

```

1 WITH RECURSIVE
2 FACT (N, F) AS (
3   SELECT
4     1,
5     1
6   UNION
7   SELECT
8     N + 1, (N + 1) * F
9   FROM FACT
10  WHERE N < 10) select n, f
11 from fact;
12

```

The 'Data Output' tab shows the results of the query:

	n integer	f integer
1	1	1
2	2	2
3	3	6
4	4	24
5	5	120
6	6	720
7	7	5040
8	8	40320
9	9	362880
10	10	3628800

Total rows: 10 of 10 Query complete 00:00:00.156 Ln 7, Col 2