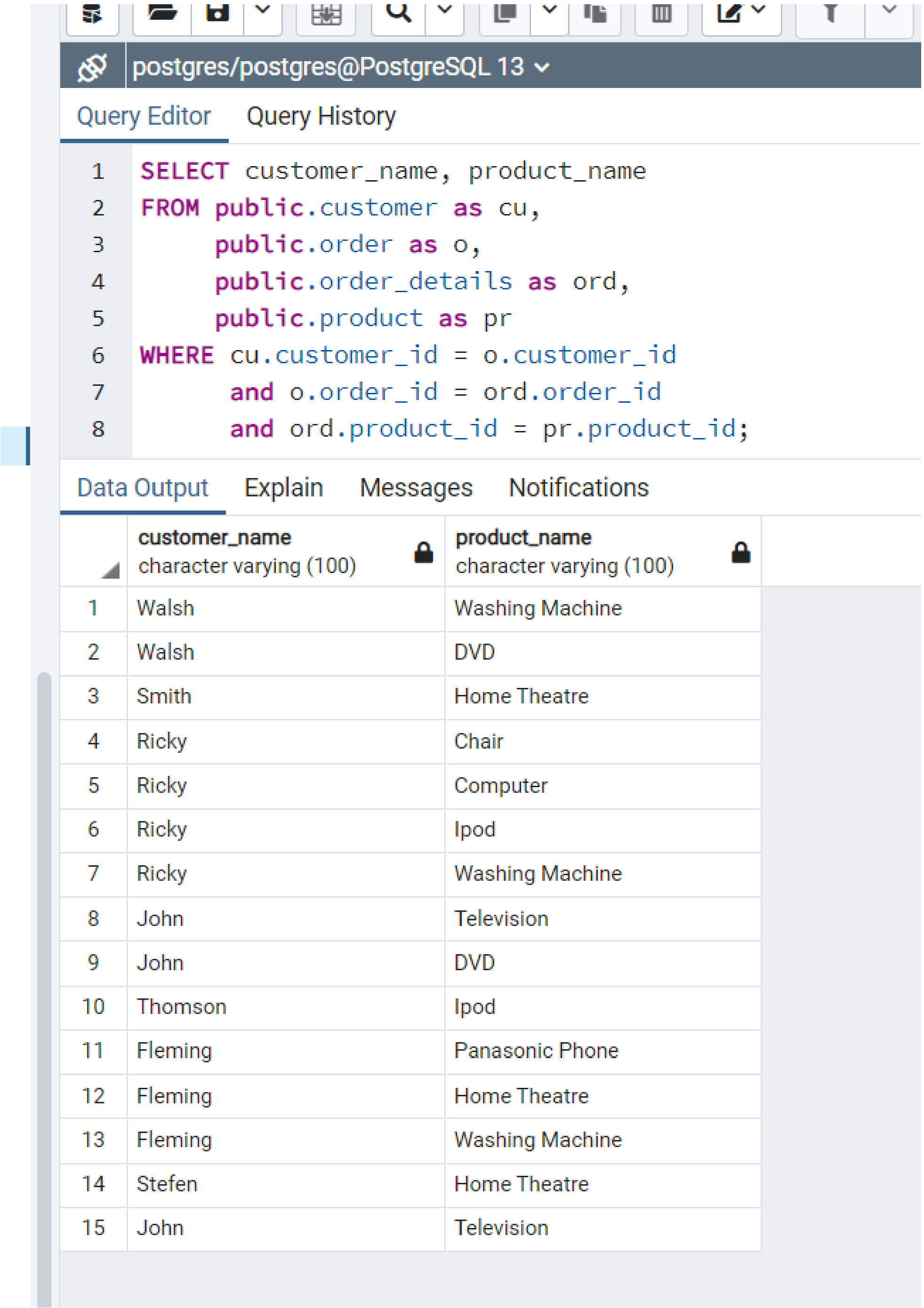
1) Fetch **all the** Customer Details along with the product names that the customer has ordered.

```
SELECT customer_name, product_name
FROM public.customer as cu,
          public.order as o,
          public.order_details as ord,
          public.product as pr
WHERE cu.customer_id = o.customer_id
           and o.order_id = ord.order_id
           and ord.product_id = pr.product_id;
```

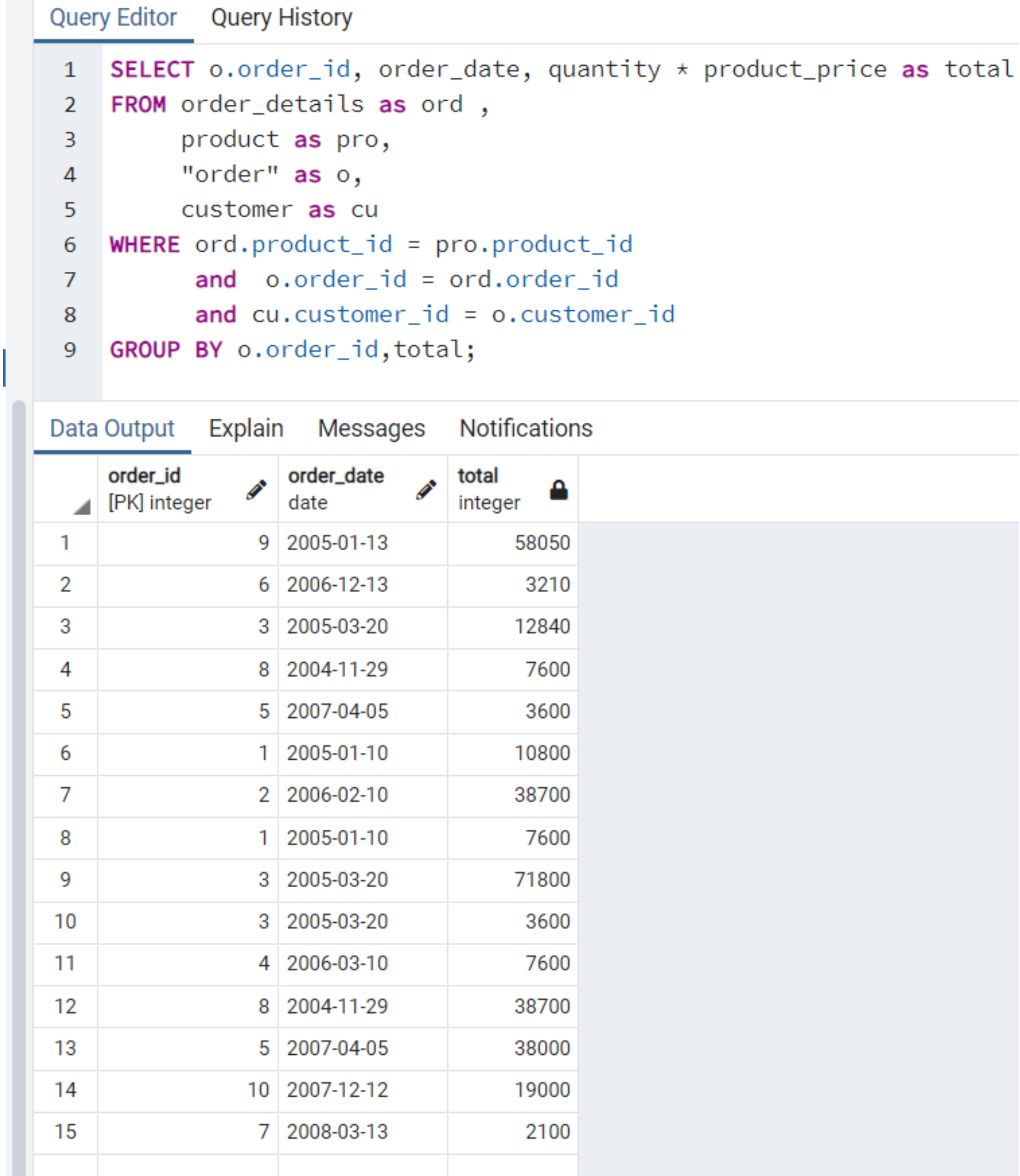


```
SELECT customer_name, product_name
FROM public.customer as cu,
     public.order as o,
     public.order_details as ord,
     public.product as pr
WHERE cu.customer_id = o.customer_id
      and o.order_id = ord.order_id
      and ord.product_id = pr.product_id;
```

	customer_name character varying (100)	product_name character varying (100)
1	Walsh	Washing Machine
2	Walsh	DVD
3	Smith	Home Theatre
4	Ricky	Chair
5	Ricky	Computer
6	Ricky	Ipod
7	Ricky	Washing Machine
8	John	Television
9	John	DVD
10	Thomson	Ipod
11	Fleming	Panasonic Phone
12	Fleming	Home Theatre
13	Fleming	Washing Machine
14	Stefen	Home Theatre
15	John	Television

2) Fetch Order_Id, Ordered_Date, Total Price of the order (product price*qty).

```
SELECT o.order_id, order_date, quantity * product_price as total
FROM order_details as ord ,
            product as pro,
            "order" as o,
            customer as cu
WHERE ord.product_id = pro.product_id
     and  o.order_id = ord.order_id
             and cu.customer_id = o.customer_id
GROUP BY o.order_id,total;
```

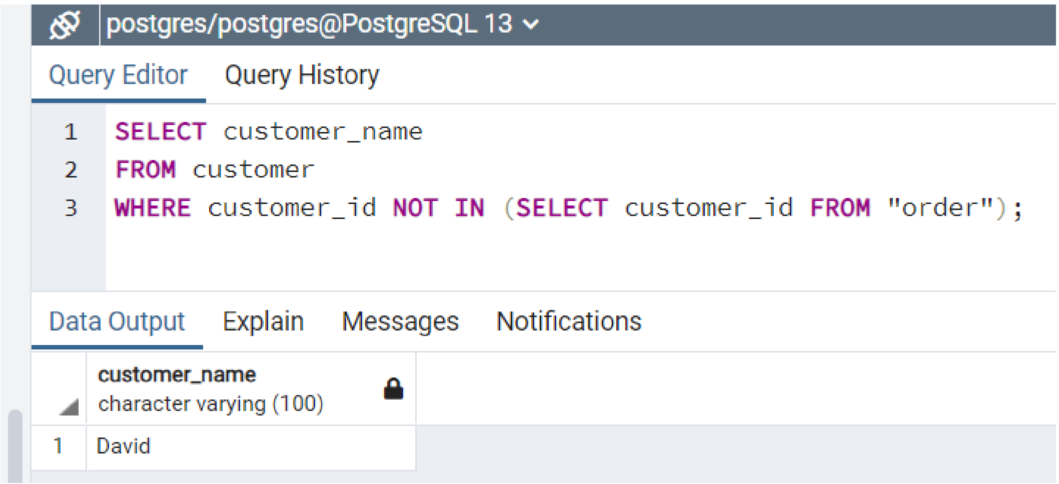


```
SELECT o.order_id, order_date, quantity * product_price as total
FROM order_details as ord ,
     product as pro,
     "order" as o,
     customer as cu
WHERE ord.product_id = pro.product_id
      and  o.order_id = ord.order_id
      and cu.customer_id = o.customer_id
GROUP BY o.order_id,total;
```

	order_id [PK] integer	order_date date	total integer
1	9	2005-01-13	58050
2	6	2006-12-13	3210
3	3	2005-03-20	12840
4	8	2004-11-29	7600
5	5	2007-04-05	3600
6	1	2005-01-10	10800
7	2	2006-02-10	38700
8	1	2005-01-10	7600
9	3	2005-03-20	71800
10	3	2005-03-20	3600
11	4	2006-03-10	7600
12	8	2004-11-29	38700
13	5	2007-04-05	38000
14	10	2007-12-12	19000
15	7	2008-03-13	2100

3) Fetch the Customer Name, who has not placed any order.

SELECT customer_name
FROM customer
WHERE customer_id NOT IN (SELECT customer_id FROM "order");

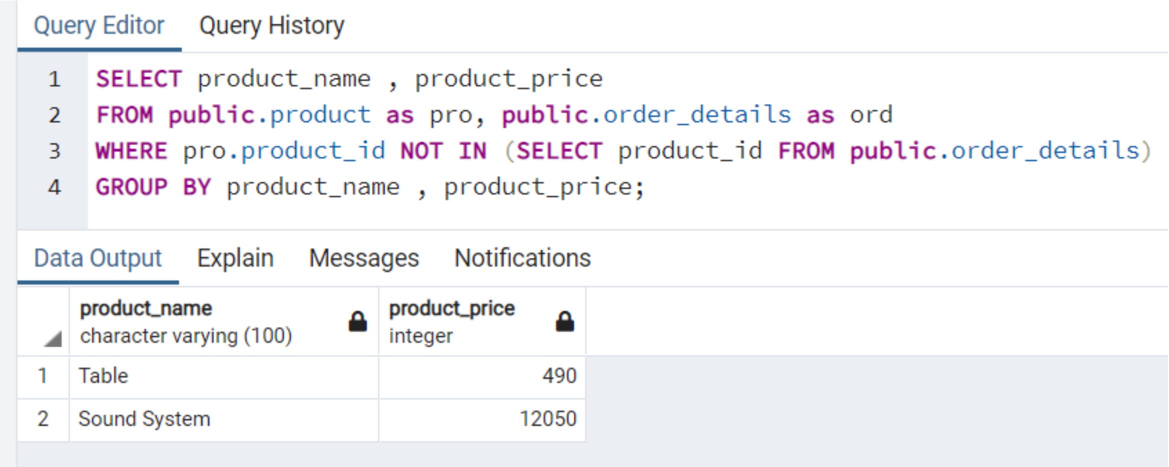


```
SELECT customer_name
FROM customer
WHERE customer_id NOT IN (SELECT customer_id FROM "order");
```

	customer_name character varying (100)
1	David

4) Fetch the Product Details without any order(purchase).

SELECT product_name , product_price
FROM public.product as pro, public.order_details as ord
WHERE pro.product_id NOT IN (SELECT product_id FROM public.order_details)
GROUP BY product_name , product_price;

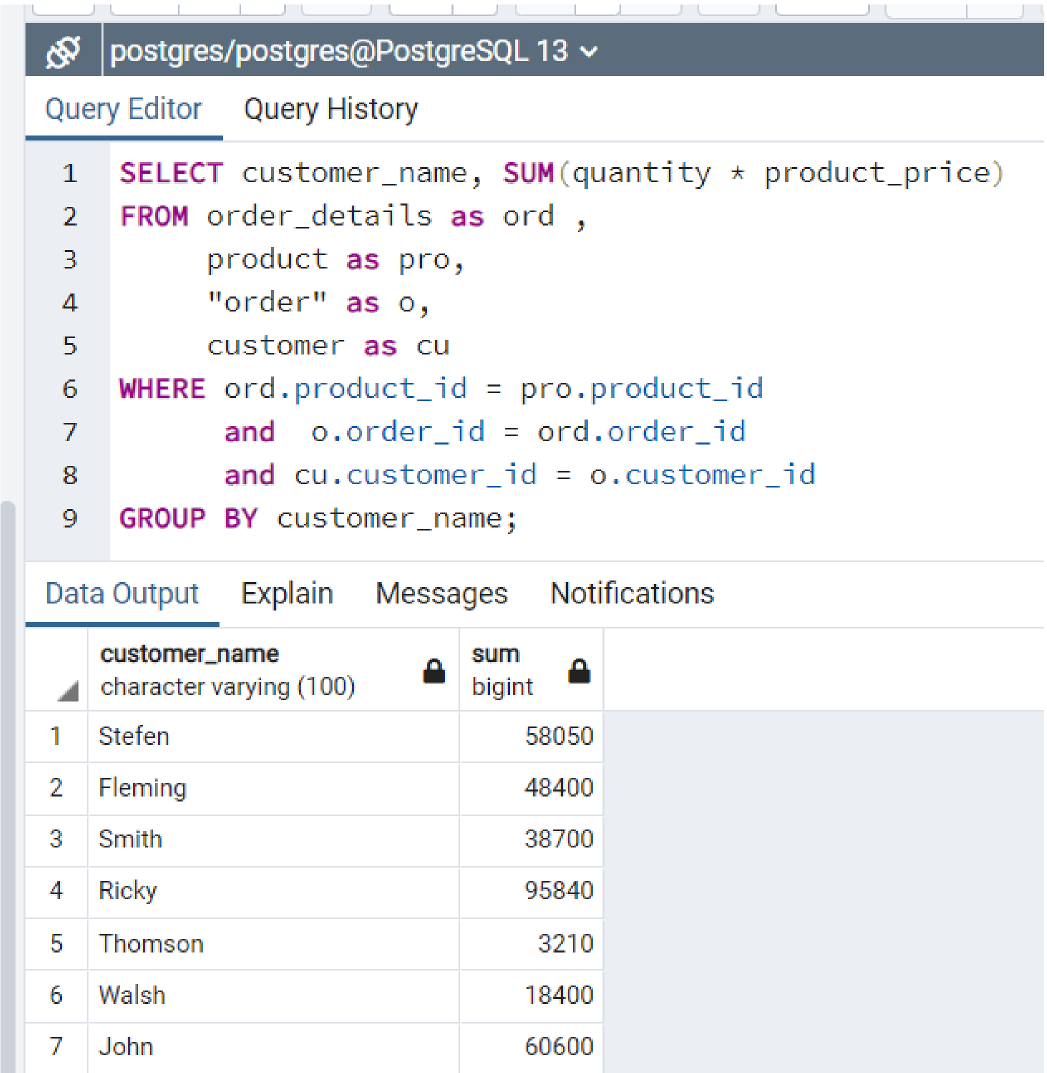


```
SELECT product_name , product_price
FROM public.product as pro, public.order_details as ord
WHERE pro.product_id NOT IN (SELECT product_id FROM public.order_details)
GROUP BY product_name , product_price;
```

	product_name character varying (100)	product_price integer
1	Table	490
2	Sound System	12050

5) Fetch the Customer name along with the total Purchase Amount.

```
SELECT customer_name, SUM(quantity * product_price)
FROM order_details as ord ,
           product as pro,
           "order" as o,
           customer as cu
WHERE ord.product_id = pro.product_id
    and  o.order_id = ord.order_id
           and cu.customer_id = o.customer_id
GROUP BY customer_name;
```

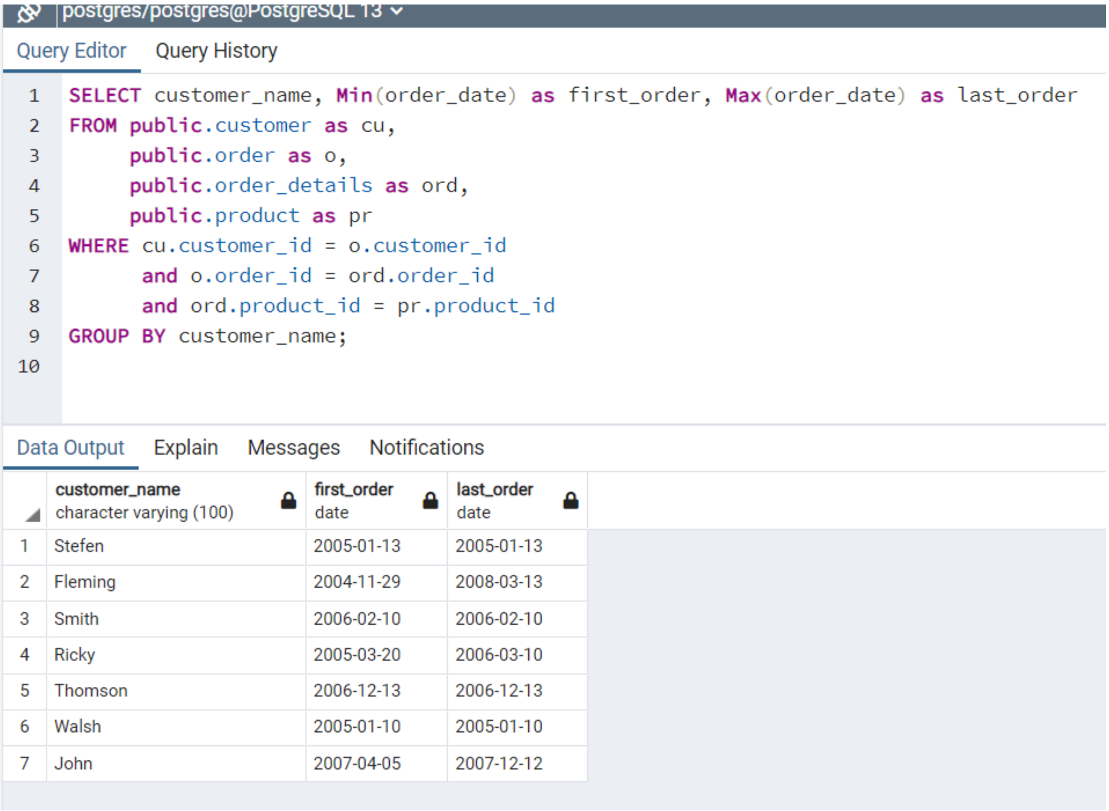


```
SELECT customer_name, SUM(quantity * product_price)
FROM order_details as ord ,
     product as pro,
     "order" as o,
     customer as cu
WHERE ord.product_id = pro.product_id
      and  o.order_id = ord.order_id
      and cu.customer_id = o.customer_id
GROUP BY customer_name;
```

	customer_name character varying (100)	sum bigint
1	Stefen	58050
2	Fleming	48400
3	Smith	38700
4	Ricky	95840
5	Thomson	3210
6	Walsh	18400
7	John	60600

6) Fetch the Customer details, who has placed the first and last order.

```
SELECT customer_name, Min(order_date) as first_order, Max(order_date) as last_order
FROM public.customer as cu,
            public.order as o,
            public.order_details as ord,
            public.product as pr
WHERE cu.customer_id = o.customer_id
             and o.order_id = ord.order_id
             and ord.product_id = pr.product_id
GROUP BY customer_name;
```

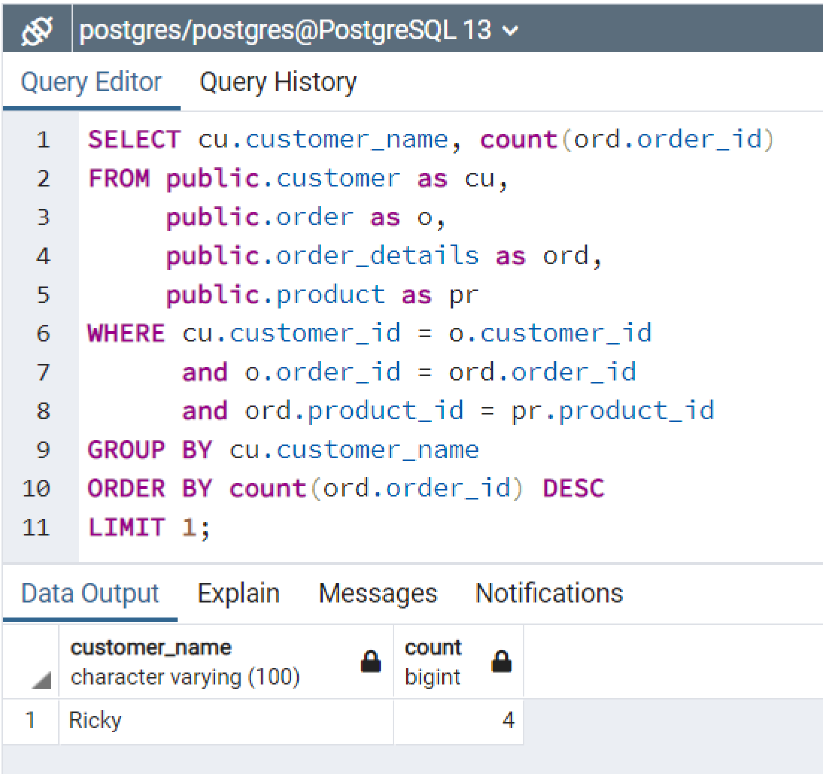


```
SELECT customer_name, Min(order_date) as first_order, Max(order_date) as last_order
FROM public.customer as cu,
     public.order as o,
     public.order_details as ord,
     public.product as pr
WHERE cu.customer_id = o.customer_id
      and o.order_id = ord.order_id
      and ord.product_id = pr.product_id
GROUP BY customer_name;
```

	customer_name character varying (100)	first_order date	last_order date
1	Stefen	2005-01-13	2005-01-13
2	Fleming	2004-11-29	2008-03-13
3	Smith	2006-02-10	2006-02-10
4	Ricky	2005-03-20	2006-03-10
5	Thomson	2006-12-13	2006-12-13
6	Walsh	2005-01-10	2005-01-10
7	John	2007-04-05	2007-12-12

7) Fetch the customer details, who has placed more number of orders.

```
SELECT cu.customer_name, count(ord.order_id)
FROM public.customer as cu,
        public.order as o,
        public.order_details as ord,
        public.product as pr
WHERE cu.customer_id = o.customer_id
         and o.order_id = ord.order_id
         and ord.product_id = pr.product_id
GROUP BY cu.customer_name
ORDER BY count(ord.order_id) DESC
LIMIT 1;
```



```
SELECT cu.customer_name, count(ord.order_id)
FROM public.customer as cu,
     public.order as o,
     public.order_details as ord,
     public.product as pr
WHERE cu.customer_id = o.customer_id
      and o.order_id = ord.order_id
      and ord.product_id = pr.product_id
GROUP BY cu.customer_name
ORDER BY count(ord.order_id) DESC
LIMIT 1;
```

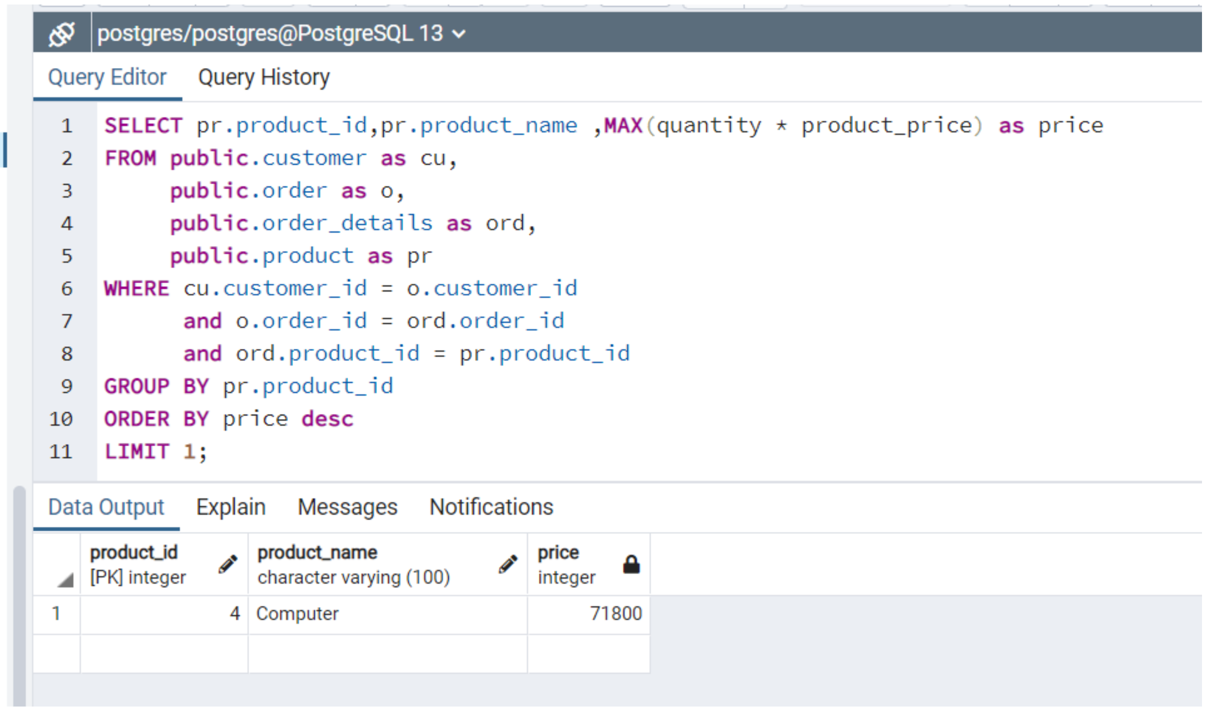
```
   customer_name                   count
   character varying (100)         bigint
1  Ricky                                4
```

8) Fetch the customer details, who has placed multiple orders in the same year.

9) Fetch the name of the month, in which more number of orders has been placed.

10) Fetch the maximum priced **Ordered Product.**

```
SELECT pr.product_id,pr.product_name ,MAX(quantity * product_price) as price
FROM public.customer as cu,
          public.order as o,
          public.order_details as ord,
          public.product as pr
WHERE cu.customer_id = o.customer_id
           and o.order_id = ord.order_id
           and ord.product_id = pr.product_id
GROUP BY pr.product_id
ORDER BY price desc
LIMIT 1;
```



```
SELECT pr.product_id,pr.product_name ,MAX(quantity * product_price) as price
FROM public.customer as cu,
     public.order as o,
     public.order_details as ord,
     public.product as pr
WHERE cu.customer_id = o.customer_id
      and o.order_id = ord.order_id
      and ord.product_id = pr.product_id
GROUP BY pr.product_id
ORDER BY price desc
LIMIT 1;
```

	product_id [PK] integer	product_name character varying (100)	price integer
1	4	Computer	71800