1.

select customers.name, customers.city
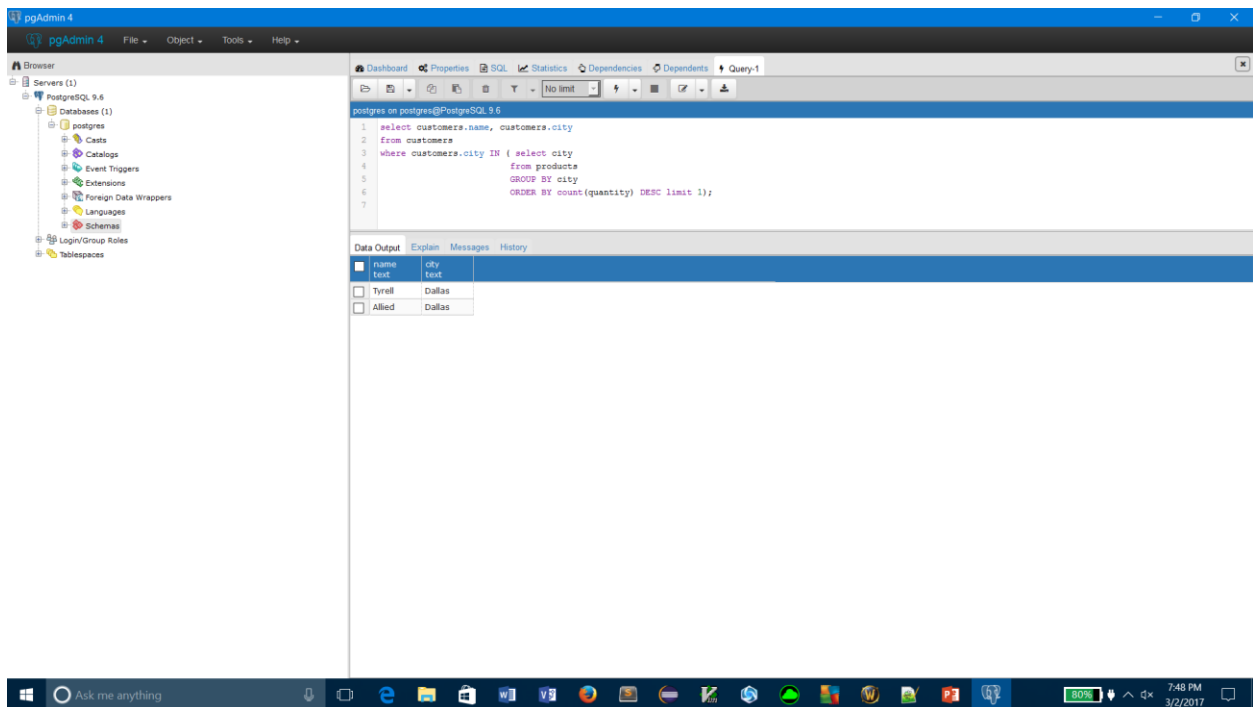
from customers

where customers.city IN (select city

          from products

          GROUP BY city

          ORDER BY count(quantity) DESC limit 1);
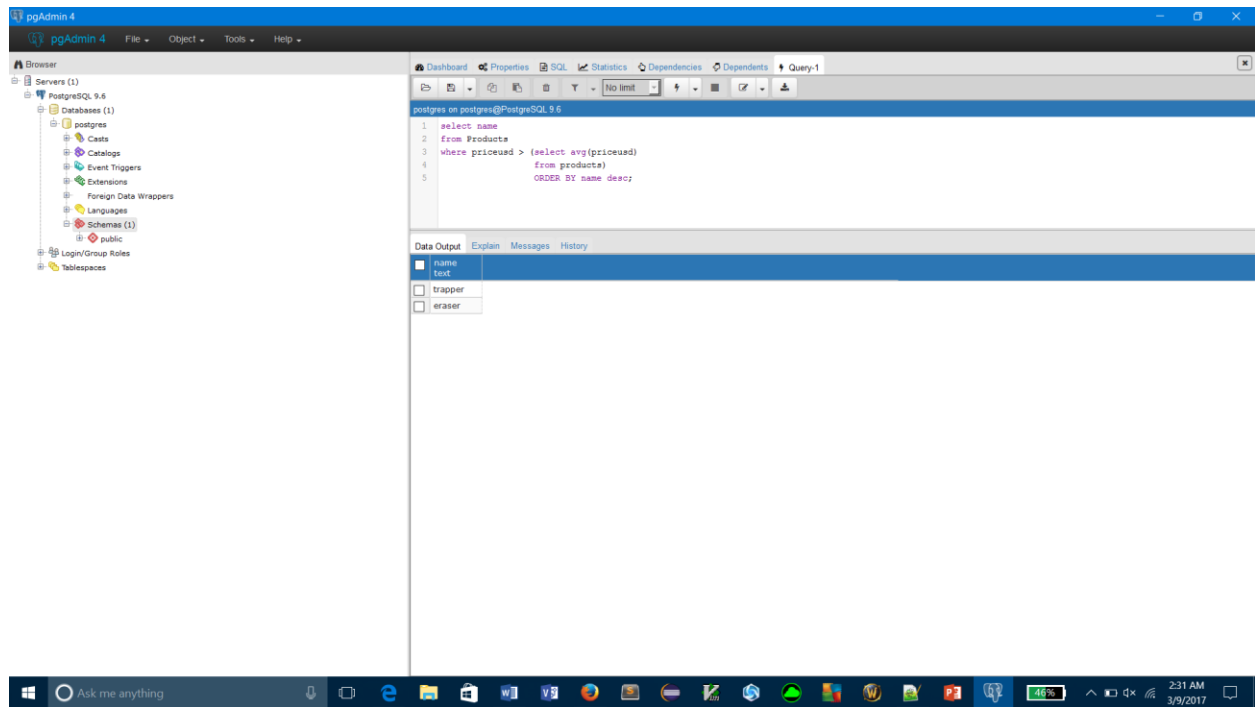

2.

select name

from Products

where priceusd > (select avg(priceusd)

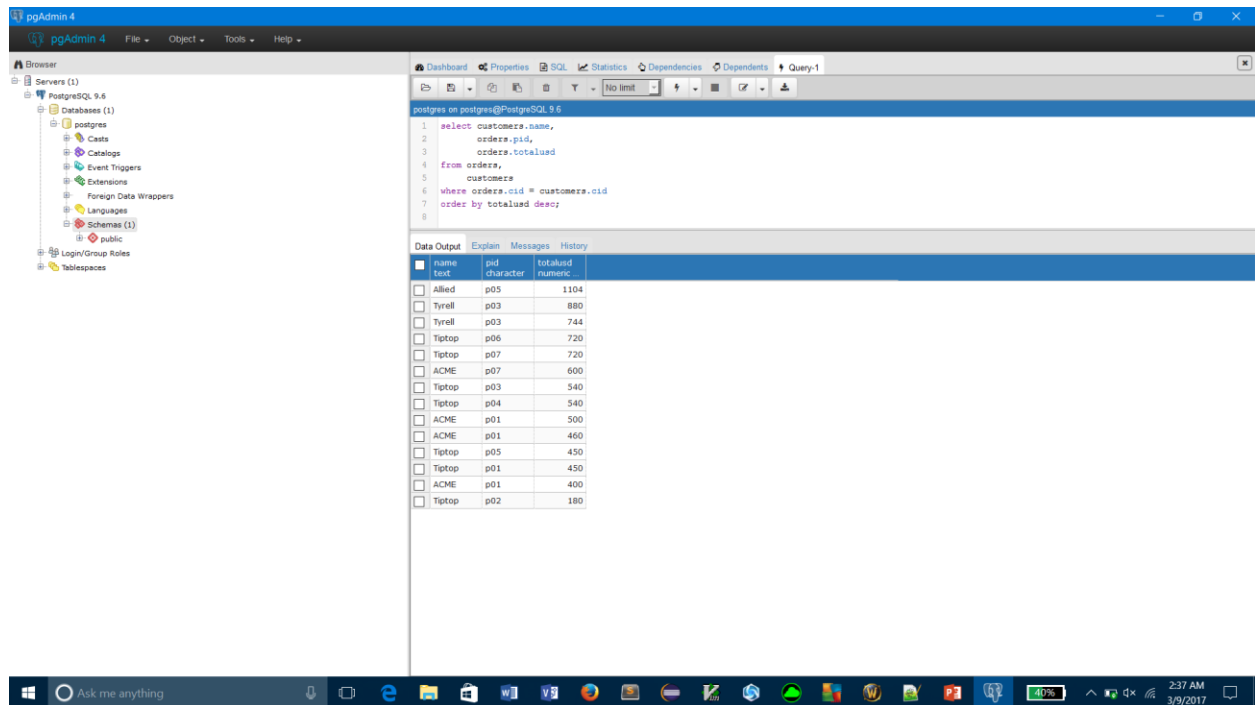   from products)

          ORDER BY name desc;

3.

```
select customers.name,
        orders.pid,
    orders.totalusd
from orders,
        customers
where orders.cid = customers.cid
order by totalusd desc;
```

```
pgAdmin 4

pgAdmin 4    File ▾    Object ▾    Tools ▾    Help ▾

Browser                          Dashboard  Properties  SQL  Statistics  Dependencies  Dependents  Query-1
Servers (1)
  PostgreSQL 9.6
    Databases (1)                postgres on postgres@PostgreSQL 9.6
      postgres                   1  select customers.name,
        Casts                    2         orders.pid,
        Catalogs                 3         orders.totalusd
        Event Triggers           4  from orders,
        Extensions               5       customers
        Foreign Data Wrappers    6  where orders.cid = customers.cid
        Languages                7  order by totalusd desc;
        Schemas (1)              8
          public
      Login/Group Roles          Data Output  Explain  Messages  History
      Tablespaces
                                      name     pid        totalusd
                                      text     character  numeric
                                      Allied   p05        1104
                                      Tyrell   p03        880
                                      Tyrell   p03        744
                                      Tiptop   p06        720
                                      Tiptop   p07        720
                                      ACME     p07        600
                                      Tiptop   p03        540
                                      Tiptop   p04        540
                                      ACME     p01        500
                                      ACME     p01        460
                                      Tiptop   p05        450
                                      Tiptop   p01        450
                                      ACME     p01        400
                                      Tiptop   p02        180
```
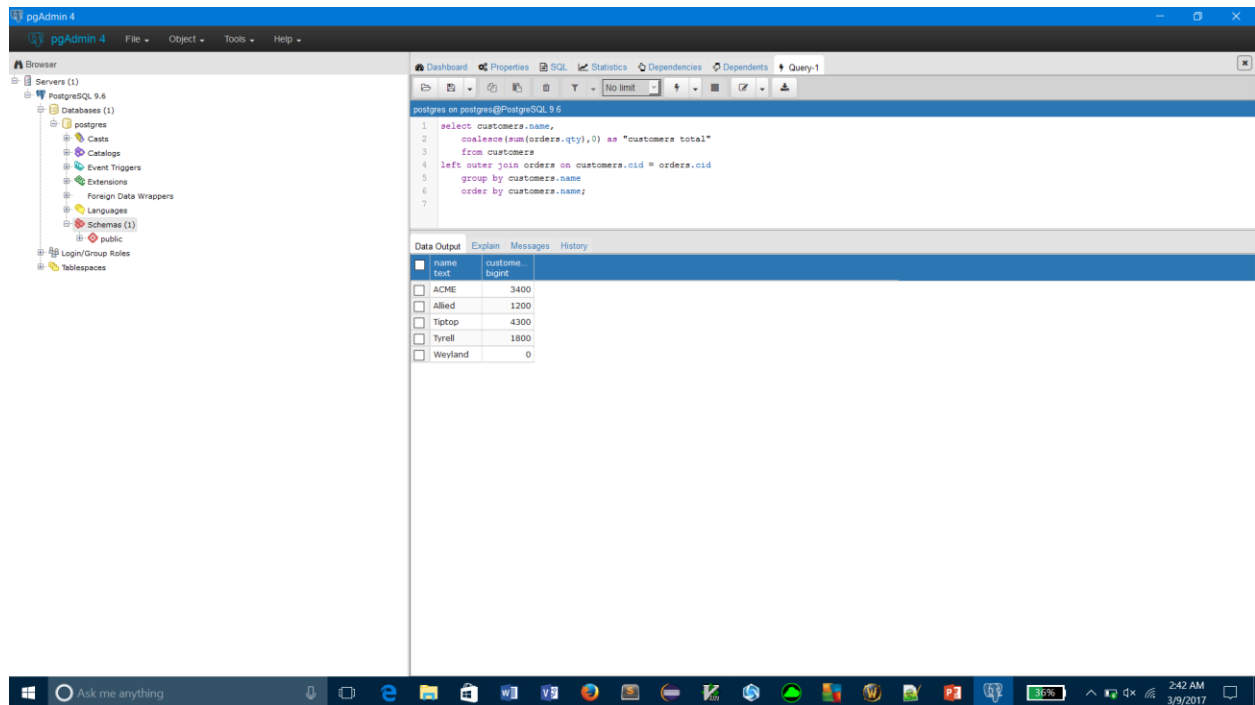
4.

select customers.name,

        coalesce(sum(orders.qty),0) as "customers total"

   from customers

left outer join orders on customers.cid = orders.cid

   group by customers.name

   order by customers.name;

5. select customers.name,

    products.name,

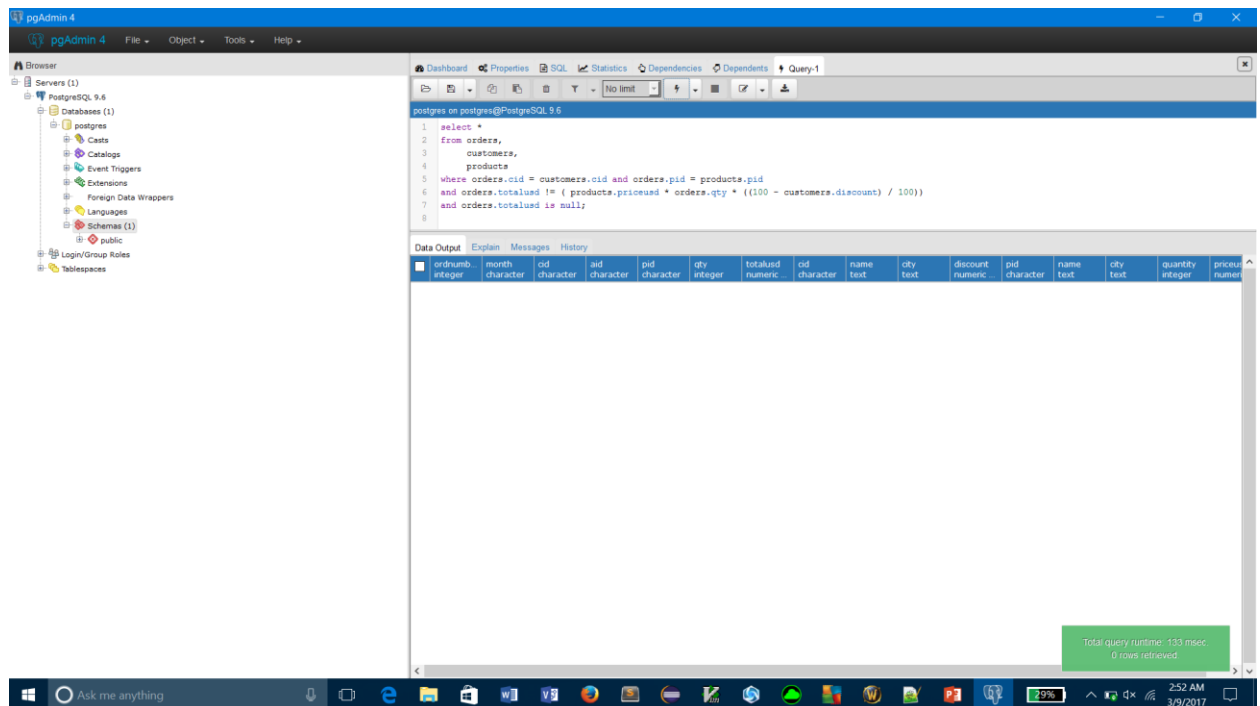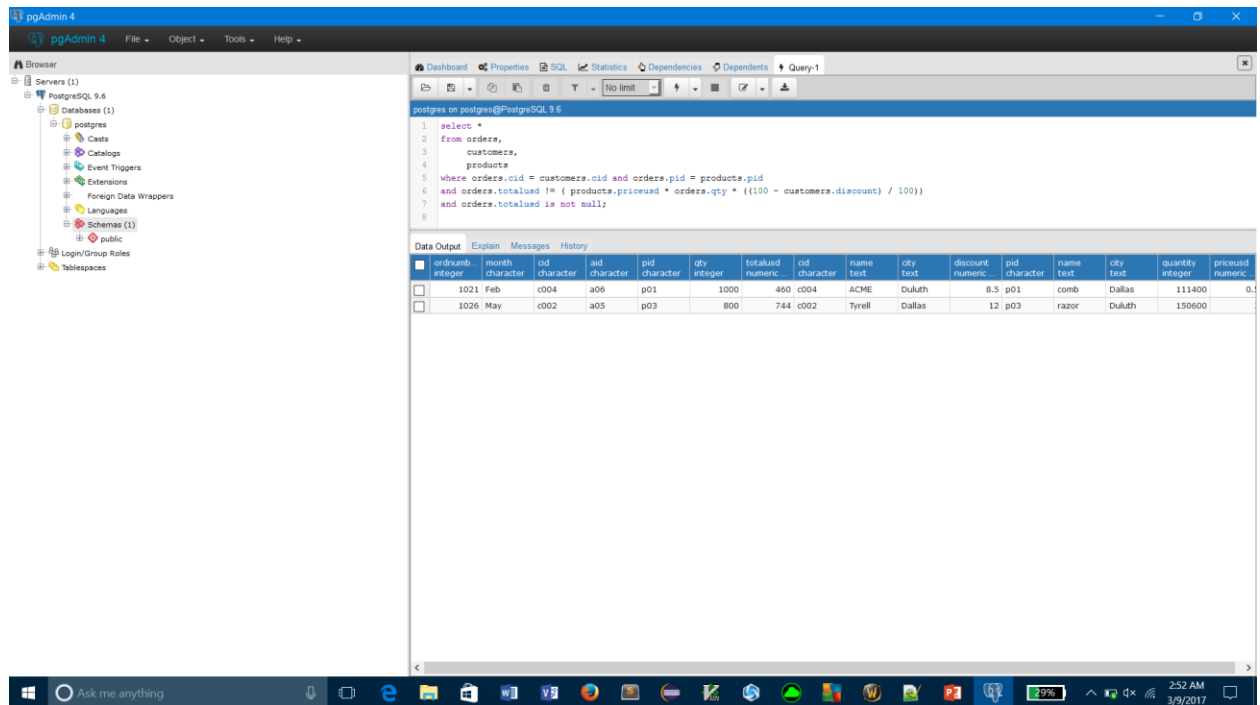   agents.name

from

6.

select *

from orders,

    customers,

    products

where orders.cid = customers.cid and orders.pid = products.pid

and orders.totalusd != (products.priceusd * orders.qty * ((100 - customers.discount) / 100))

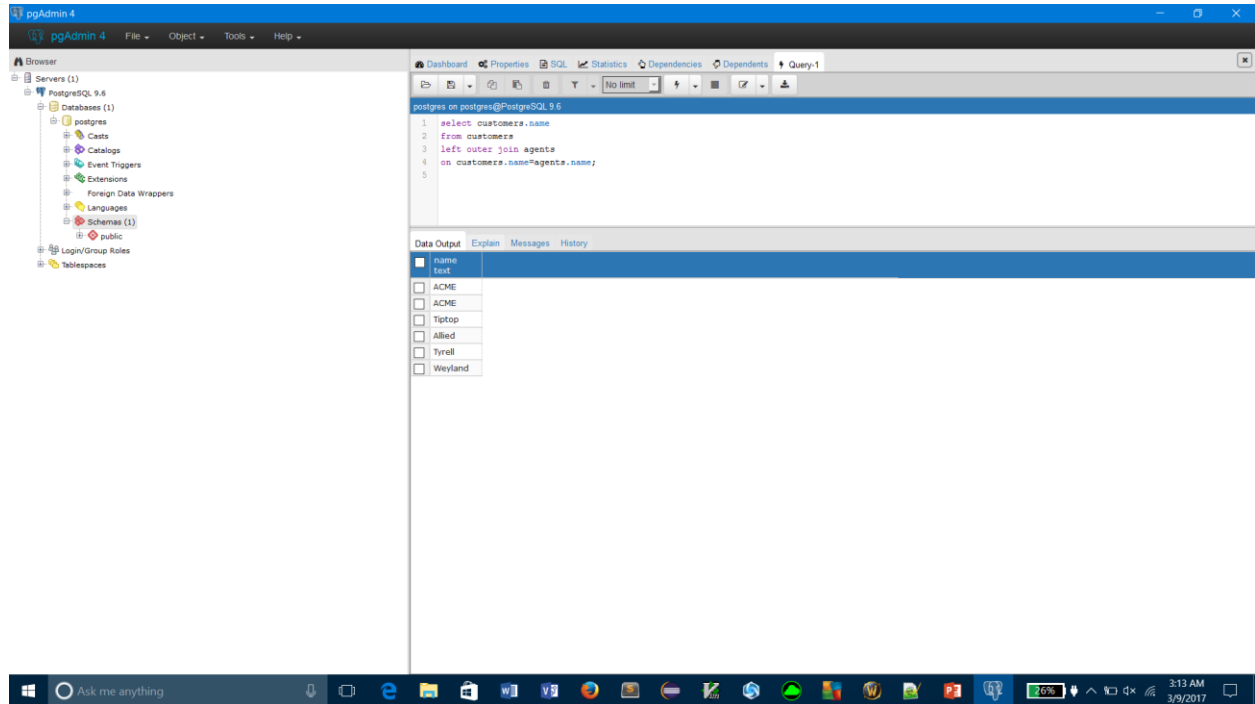and orders.totalusd is not null;

7.

The left outer join returns all the rows from the table on the left table, or table1, with the matching rows that are on the right table, or table2. However, the result on the right side is null if it does not match.

select customers.name

from customers

left outer join agents

on customers.name=agents.name;

The right outer join does pretty much the opposite of what the left outer join does in the sense that is returns all the rows from the right table with the matching rows from the left table. The result in the left table is null if there is not a match.

select products.name, products.pid

from products

right outer join orders

on products.pid=orders.pid;