DBMS ASSIGNMENT- 3

Online Shopping Management System

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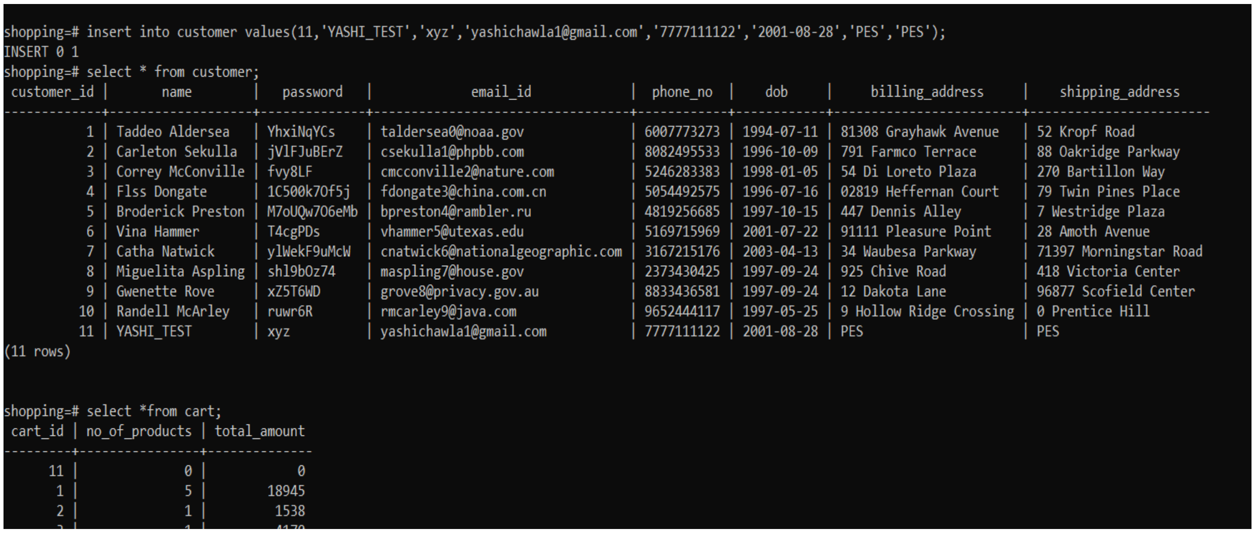
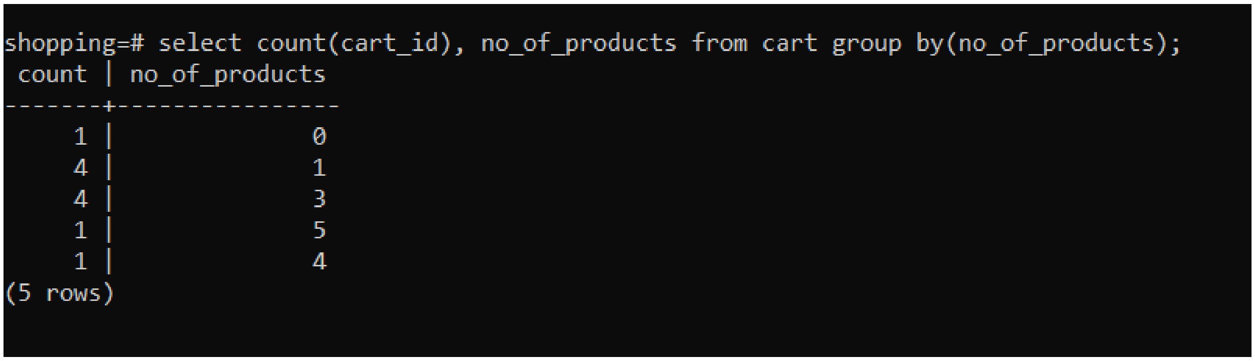
Queries

1. Add a new user
   Insert into customer table, also initializes an empty card for the customer.



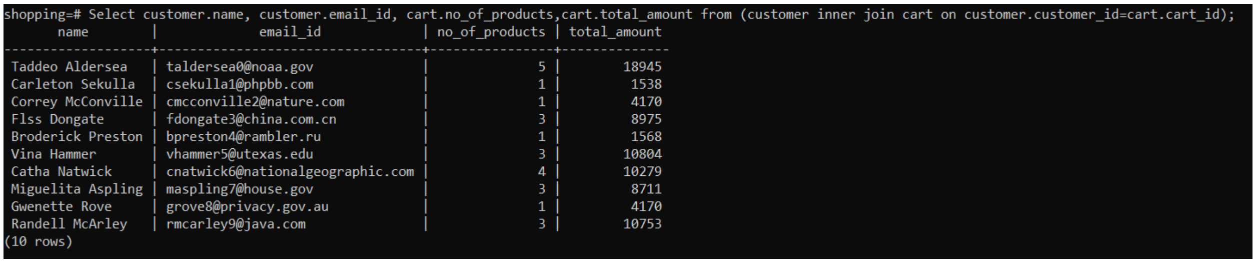
```
shopping=# insert into customer values(11,'YASHI_TEST','xyz','yashichawla1@gmail.com','7777111122','2001-08-28','PES','PES');
INSERT 0 1
shopping=# select * from customer;
 customer_id |       name        |   password    |             email_id              |  phone_no  |    dob     |    billing_address     |    shipping_address
-------------+-------------------+---------------+-----------------------------------+------------+------------+------------------------+------------------------
           1 | Taddeo Aldersea   | YhxiNqYCs     | taldersea0@noaa.gov               | 6007773273 | 1994-07-11 | 81308 Grayhawk Avenue  | 52 Kropf Road
           2 | Carleton Sekulla  | jVlFJuBErZ    | csekulla1@phpbb.com               | 8082495533 | 1996-10-09 | 791 Farmco Terrace     | 88 Oakridge Parkway
           3 | Correy McConville | fvy8LF        | cmcconville2@nature.com           | 5246283383 | 1998-01-05 | 54 Di Loreto Plaza     | 270 Bartillon Way
           4 | Flss Dongate      | 1C500k7Of5j   | fdongate3@china.com.cn            | 5054492575 | 1996-07-16 | 02819 Heffernan Court  | 79 Twin Pines Place
           5 | Broderick Preston | M7oUQw7O6eMb  | bpreston4@rambler.ru              | 4819256685 | 1997-10-15 | 447 Dennis Alley       | 7 Westridge Plaza
           6 | Vina Hammer       | T4cgPDs       | vhammer5@utexas.edu               | 5169715969 | 2001-07-22 | 91111 Pleasure Point   | 28 Amoth Avenue
           7 | Catha Natwick     | ylWekF9uMcW   | cnatwick6@nationalgeographic.com  | 3167215176 | 2003-04-13 | 34 Waubesa Parkway     | 71397 Morningstar Road
           8 | Miguelita Aspling | shl9bOz74     | maspling7@house.gov               | 2373430425 | 1997-09-24 | 925 Chive Road         | 418 Victoria Center
           9 | Gwenette Rove     | xZ5T6WD       | grove8@privacy.gov.au             | 8833436581 | 1997-09-24 | 12 Dakota Lane         | 96877 Scofield Center
          10 | Randell McArley   | ruwr6R        | rmcarley9@java.com                | 9652444117 | 1997-05-25 | 9 Hollow Ridge Crossing | 0 Prentice Hill
          11 | YASHI_TEST        | xyz           | yashichawla1@gmail.com            | 7777111122 | 2001-08-28 | PES                    | PES
(11 rows)


shopping=# select *from cart;
 cart_id | no_of_products | total_amount
---------+----------------+--------------
      11 |              0 |            0
       1 |              5 |        18945
       2 |              1 |         1538
```

2. No of customers that have bought the same number of products



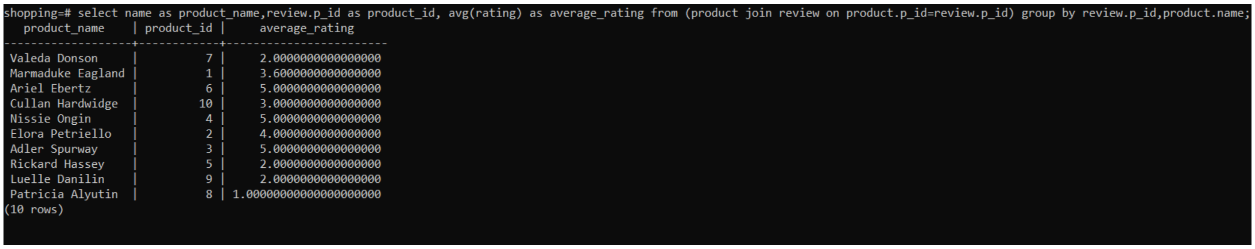
```
shopping=# select count(cart_id), no_of_products from cart group by(no_of_products);
 count | no_of_products
-------+----------------
     1 |              0
     4 |              1
     4 |              3
     1 |              5
     1 |              4
(5 rows)
```

3. Name, email of customers displayed with the number of products, amount of their carts.



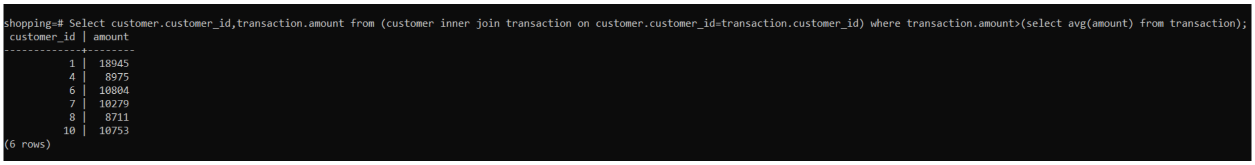
```
shopping=# Select customer.name, customer.email_id, cart.no_of_products,cart.total_amount from (customer inner join cart on customer.customer_id=cart.cart_id);
       name        |             email_id              | no_of_products | total_amount
-------------------+-----------------------------------+----------------+--------------
 Taddeo Aldersea   | taldersea0@noaa.gov               |              5 |        18945
 Carleton Sekulla  | csekulla1@phpbb.com               |              1 |         1538
 Correy McConville | cmcconville2@nature.com           |              1 |         4170
 Flss Dongate      | fdongate3@china.com.cn            |              3 |         8975
 Broderick Preston | bpreston4@rambler.ru              |              1 |         1568
 Vina Hammer       | vhammer5@utexas.edu               |              3 |        10804
 Catha Natwick     | cnatwick6@nationalgeographic.com  |              4 |        10279
 Miguelita Aspling | maspling7@house.gov               |              3 |         8711
 Gwenette Rove     | grove8@privacy.gov.au             |              1 |         4170
 Randell McArley   | rmcarley9@java.com                |              3 |        10753
(10 rows)
```

4. Avg rating of every product, with name, id



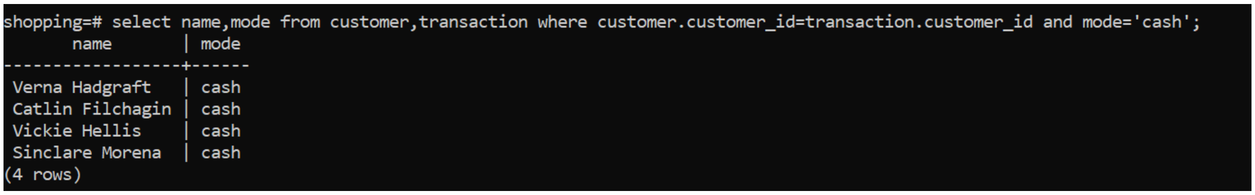
```
shopping=# select name as product_name,review.p_id as product_id, avg(rating) as average_rating from (product join review on product.p_id=review.p_id) group by review.p_id,product.name;
   product_name    | product_id |     average_rating
-------------------+------------+------------------------
 Valeda Donson     |          7 |     2.0000000000000000
 Marmaduke Eagland |          1 |     3.6000000000000000
 Ariel Ebertz      |          6 |     5.0000000000000000
 Cullan Hardwidge  |         10 |     3.0000000000000000
 Nissie Ongin      |          4 |     5.0000000000000000
 Elora Petriello   |          2 |     4.0000000000000000
 Adler Spurway     |          3 |     5.0000000000000000
 Rickard Hassey    |          5 |     2.0000000000000000
 Luelle Danilin    |          9 |     2.0000000000000000
 Patricia Alyutin  |          8 | 1.00000000000000000000
(10 rows)
```

5. Get customer info for customers whose transaction amount was greater than the average transaction amount. (nested)



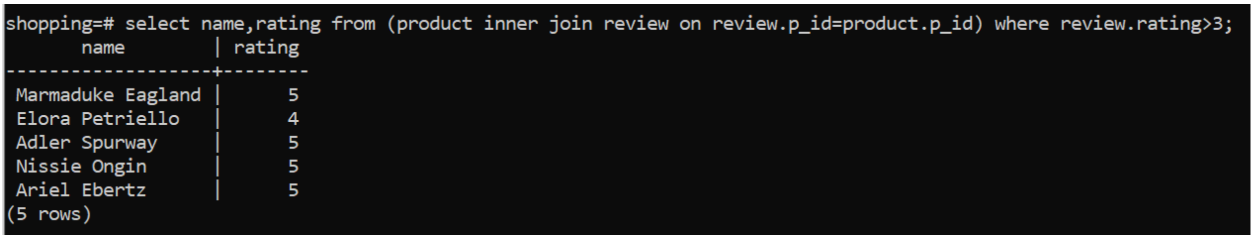
```
shopping=# Select customer.customer_id,transaction.amount from (customer inner join transaction on customer.customer_id=transaction.customer_id) where transaction.amount>(select avg(amount) from transaction);
 customer_id | amount
-------------+--------
           1 |  18945
           4 |   8975
           6 |  10804
           7 |  10279
           8 |   8711
          10 |  10753
(6 rows)
```

6. Customers who paid by cash



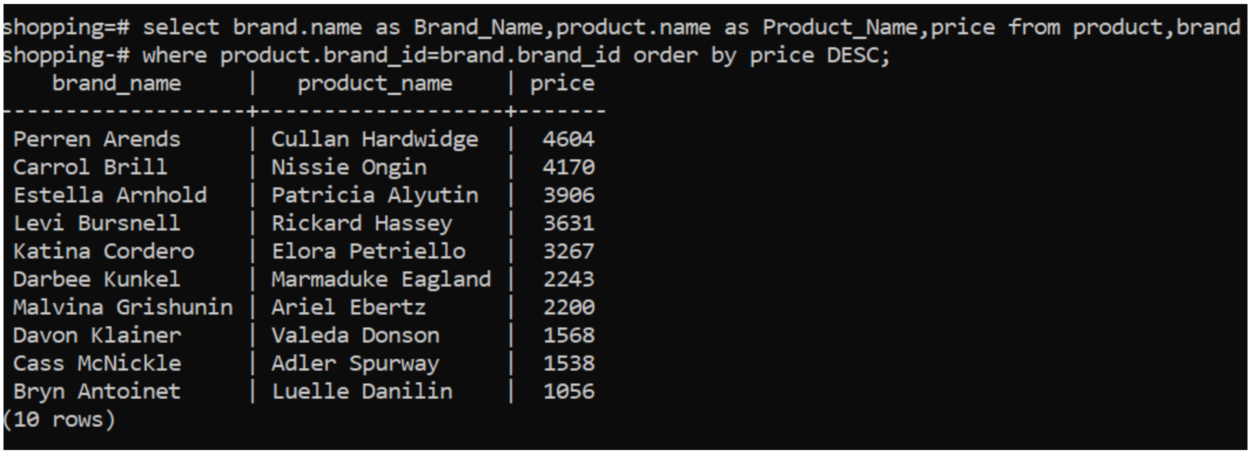
```
shopping=# select name,mode from customer,transaction where customer.customer_id=transaction.customer_id and mode='cash';
       name        | mode
-------------------+------
 Verna Hadgraft    | cash
 Catlin Filchagin  | cash
 Vickie Hellis     | cash
 Sinclare Morena   | cash
(4 rows)
```

7. List of Products that got rating above 3



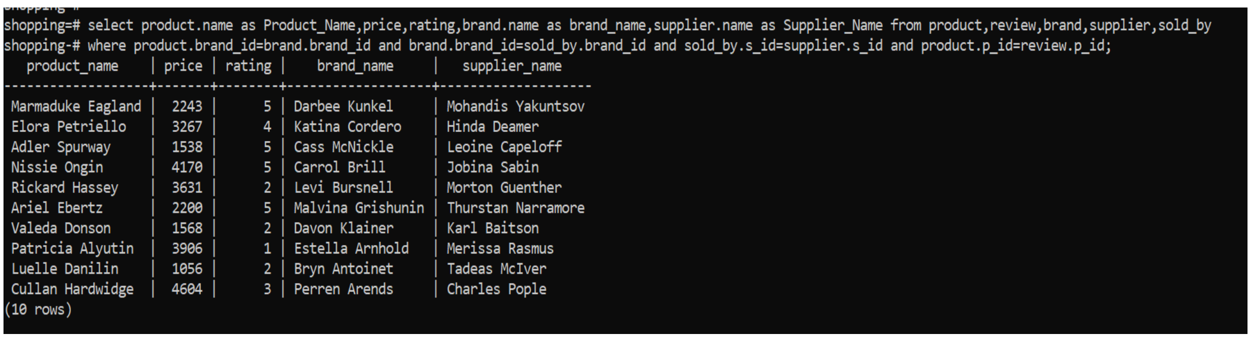
```
shopping=# select name,rating from (product inner join review on review.p_id=product.p_id) where review.rating>3;
       name        | rating
-------------------+--------
 Marmaduke Eagland |      5
 Elora Petriello   |      4
 Adler Spurway     |      5
 Nissie Ongin      |      5
 Ariel Ebertz      |      5
(5 rows)
```

8. Arrange price of products from brands in descending order



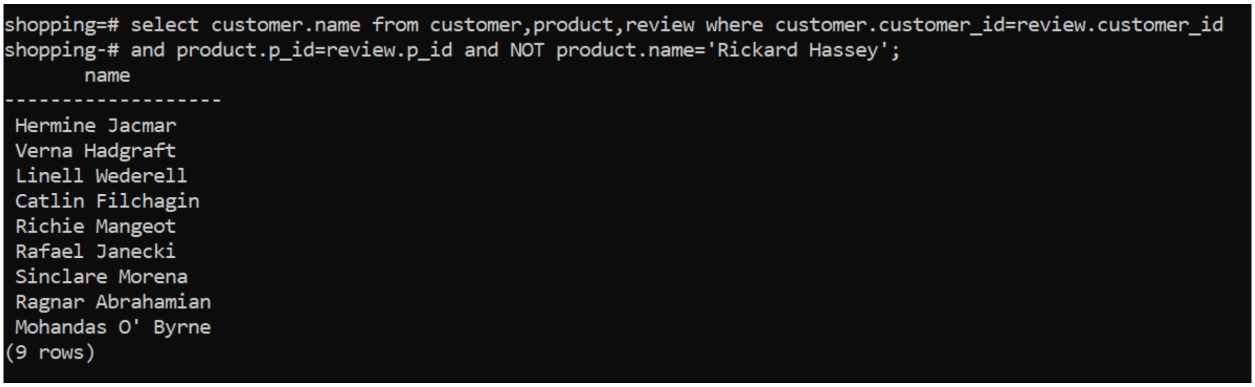
```
shopping=# select brand.name as Brand_Name,product.name as Product_Name,price from product,brand
shopping-# where product.brand_id=brand.brand_id order by price DESC;
    brand_name      |    product_name    | price
-------------------+-------------------+-------
 Perren Arends      | Cullan Hardwidge   |  4604
 Carrol Brill       | Nissie Ongin       |  4170
 Estella Arnhold    | Patricia Alyutin   |  3906
 Levi Bursnell      | Rickard Hassey     |  3631
 Katina Cordero     | Elora Petriello    |  3267
 Darbee Kunkel      | Marmaduke Eagland  |  2243
 Malvina Grishunin  | Ariel Ebertz       |  2200
 Davon Klainer      | Valeda Donson      |  1568
 Cass McNickle      | Adler Spurway      |  1538
 Bryn Antoinet      | Luelle Danilin     |  1056
(10 rows)
```

9. Get all product-related info from the product, brand, supplier, review tables.



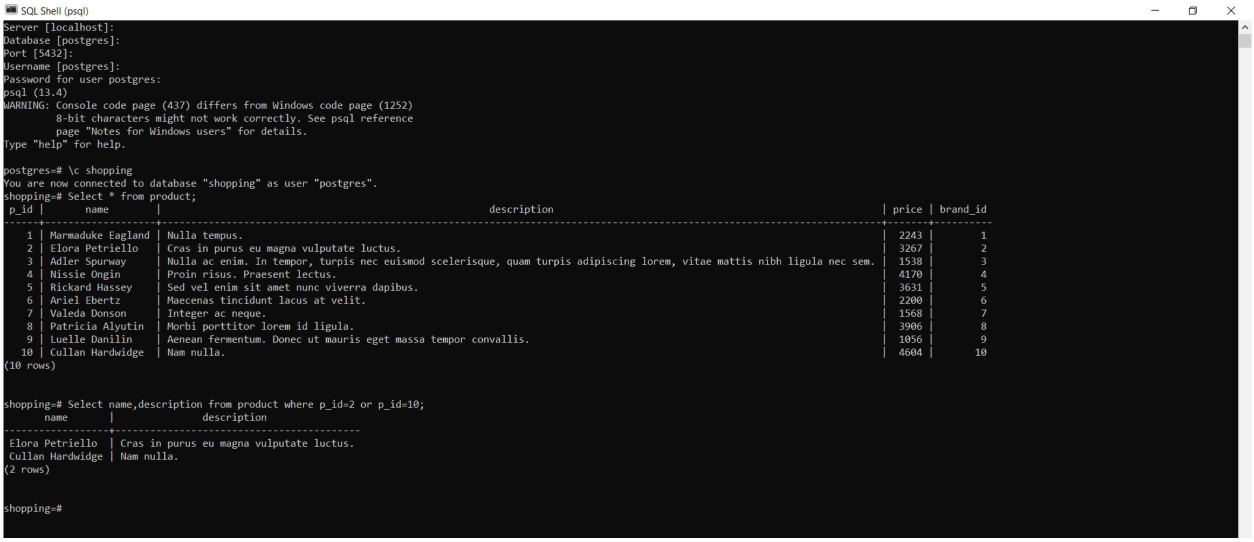
```
shopping-#
shopping=# select product.name as Product_Name,price,rating,brand.name as brand_name,supplier.name as Supplier_Name from product,review,brand,supplier,sold_by
shopping-# where product.brand_id=brand.brand_id and brand.brand_id=sold_by.brand_id and sold_by.s_id=supplier.s_id and product.p_id=review.p_id;
   product_name    | price | rating |    brand_name     |   supplier_name
-------------------+-------+--------+-------------------+--------------------
 Marmaduke Eagland |  2243 |      5 | Darbee Kunkel     | Mohandis Yakuntsov
 Elora Petriello   |  3267 |      4 | Katina Cordero    | Hinda Deamer
 Adler Spurway     |  1538 |      5 | Cass McNickle     | Leoine Capeloff
 Nissie Ongin      |  4170 |      5 | Carrol Brill      | Jobina Sabin
 Rickard Hassey    |  3631 |      2 | Levi Bursnell     | Morton Guenther
 Ariel Ebertz      |  2200 |      5 | Malvina Grishunin | Thurstan Narramore
 Valeda Donson     |  1568 |      2 | Davon Klainer     | Karl Baitson
 Patricia Alyutin  |  3906 |      1 | Estella Arnhold   | Merissa Rasmus
 Luelle Danilin    |  1056 |      2 | Bryn Antoinet     | Tadeas McIver
 Cullan Hardwidge  |  4604 |      3 | Perren Arends     | Charles Pople
(10 rows)
```

10. Customers who have not bought product-`Rickard Hassey`



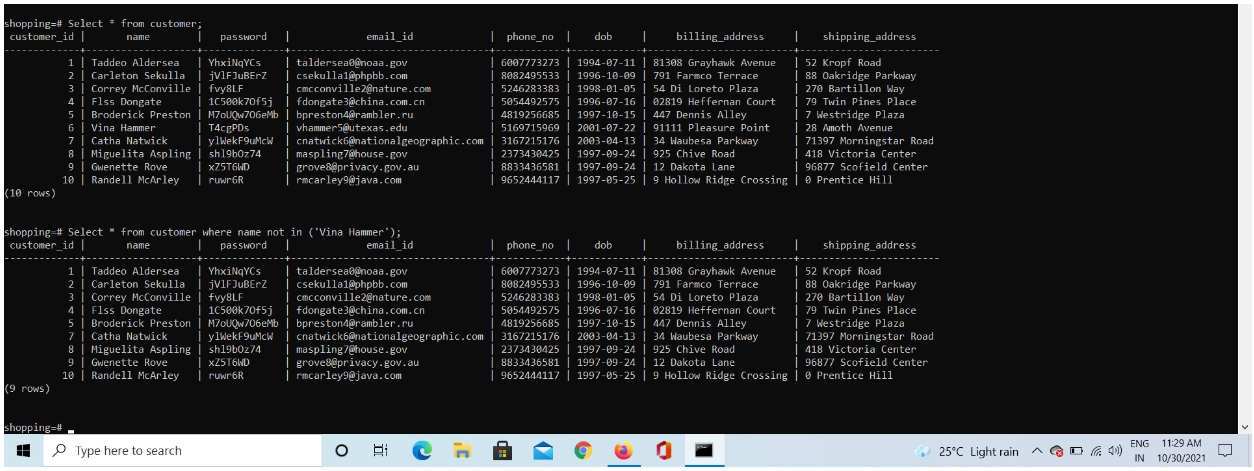
```
shopping=# select customer.name from customer,product,review where customer.customer_id=review.customer_id
shopping-# and product.p_id=review.p_id and NOT product.name='Rickard Hassey';
       name
-------------------
 Hermine Jacmar
 Verna Hadgraft
 Linell Wederell
 Catlin Filchagin
 Richie Mangeot
 Rafael Janecki
 Sinclare Morena
 Ragnar Abrahamian
 Mohandas O' Byrne
(9 rows)
```

11. Displaying the particular number of attributes (name and description) from a set of attributes relating to a table called product based on product id.



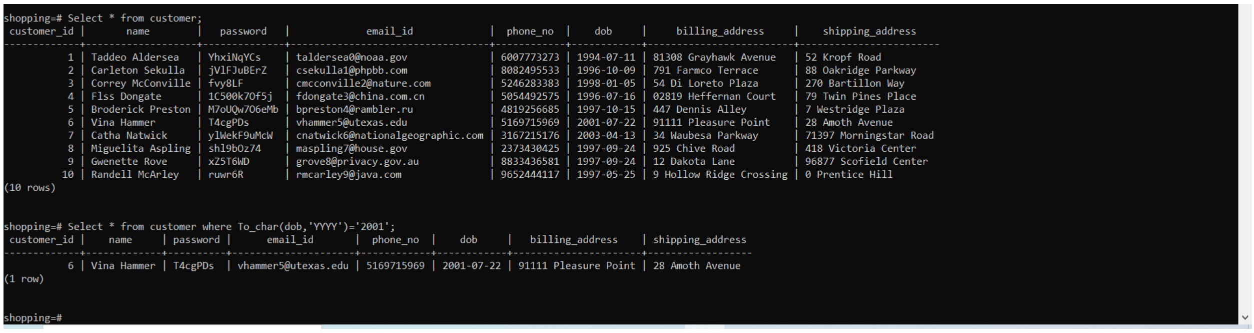
```
Server [localhost]:
Database [postgres]:
Port [5432]:
Username [postgres]:
Password for user postgres:
psql (13.4)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

postgres=# \c shopping
You are now connected to database "shopping" as user "postgres".
shopping=# Select * from product;
 p_id |       name        |                                                        description                                                        | price | brand_id
------+-------------------+---------------------------------------------------------------------------------------------------------------------------+-------+----------
    1 | Marmaduke Eagland | Nulla tempus.                                                                                                             |  2243 |        1
    2 | Elora Petriello   | Cras in purus eu magna vulputate luctus.                                                                                  |  3267 |        2
    3 | Adler Spurway     | Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem. |  1538 |        3
    4 | Nissie Ongin      | Proin risus. Praesent lectus.                                                                                             |  4170 |        4
    5 | Rickard Hassey    | Sed vel enim sit amet nunc viverra dapibus.                                                                               |  3631 |        5
    6 | Ariel Ebertz      | Maecenas tincidunt lacus at velit.                                                                                        |  2200 |        6
    7 | Valeda Donson     | Integer ac neque.                                                                                                         |  1568 |        7
    8 | Patricia Alyutin  | Morbi porttitor lorem id ligula.                                                                                          |  3906 |        8
    9 | Luelle Danilin    | Aenean fermentum. Donec ut mauris eget massa tempor convallis.                                                            |  1056 |        9
   10 | Cullan Hardwidge  | Nam nulla.                                                                                                                |  4604 |       10
(10 rows)


shopping=# Select name,description from product where p_id=2 or p_id=10;
       name       |               description
------------------+------------------------------------------
 Elora Petriello  | Cras in purus eu magna vulputate luctus.
 Cullan Hardwidge | Nam nulla.
(2 rows)


shopping=#
```

12. Choosing a set of records from the customer table without a particular record based on the customer name.



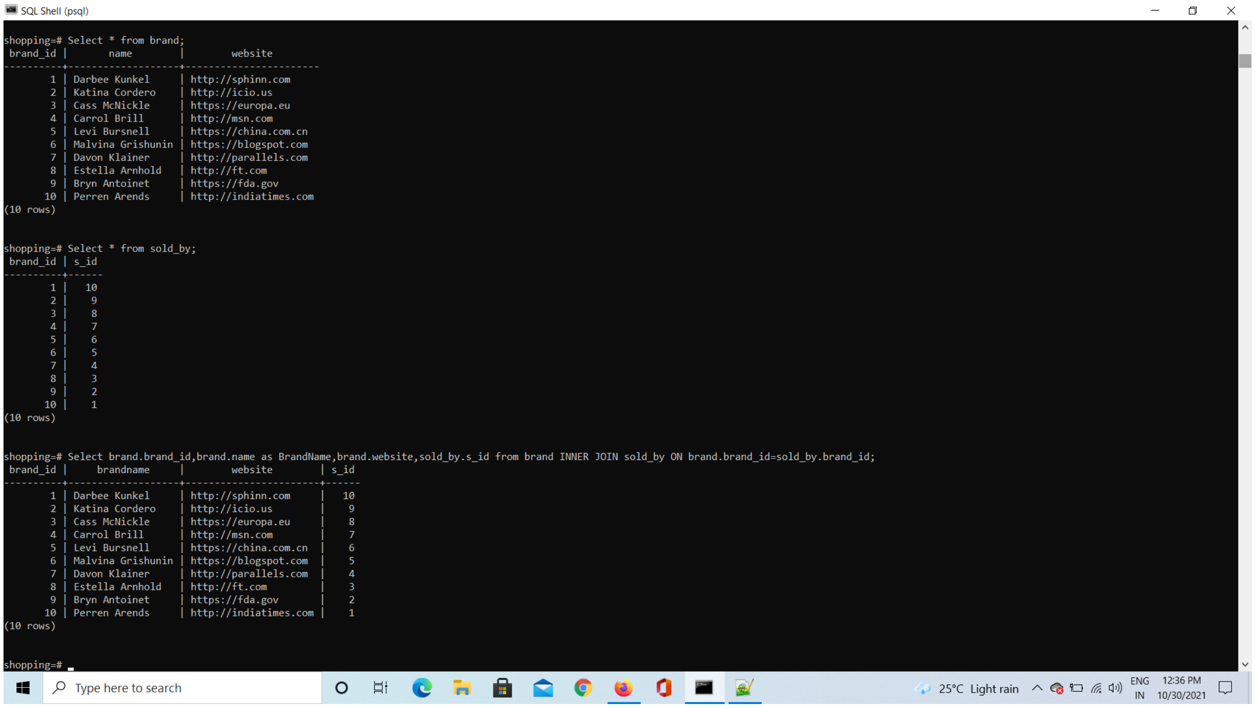
```
shopping=# Select * from customer;
 customer_id |       name        |   password   |             email_id             |  phone_no  |    dob     |     billing_address     |    shipping_address
-------------+-------------------+--------------+----------------------------------+------------+------------+-------------------------+------------------------
           1 | Taddeo Aldersea   | YhxiNqYCs    | taldersea0@noaa.gov              | 6007773273 | 1994-07-11 | 81308 Grayhawk Avenue   | 52 Kropf Road
           2 | Carleton Sekulla  | jVlFJuBErZ   | csekulla1@phpbb.com              | 8082495533 | 1996-10-09 | 791 Farmco Terrace      | 88 Oakridge Parkway
           3 | Correy McConville | fvy8LF       | cmcconville2@nature.com          | 5246283383 | 1998-01-05 | 54 Di Loreto Plaza      | 270 Bartillon Way
           4 | Flss Dongate      | 1C500k7Of5j  | fdongate3@china.com.cn           | 5054492575 | 1996-07-16 | 02819 Heffernan Court   | 79 Twin Pines Place
           5 | Broderick Preston | M7oUQw7O6eMb | bpreston4@rambler.ru             | 4819256685 | 1997-10-15 | 447 Dennis Alley        | 7 Westridge Plaza
           6 | Vina Hammer       | T4cgPDs      | vhammer5@utexas.edu              | 5169715969 | 2001-07-22 | 91111 Pleasure Point    | 28 Amoth Avenue
           7 | Catha Natwick     | ylWekF9uMcW  | cnatwick6@nationalgeographic.com | 3167215176 | 2003-04-13 | 34 Waubesa Parkway      | 71397 Morningstar Road
           8 | Miguelita Aspling | shl9bOz74    | maspling7@house.gov              | 2373430425 | 1997-09-24 | 925 Chive Road          | 418 Victoria Center
           9 | Gwenette Rove     | xZ5T6WD      | grove8@privacy.gov.au            | 8833436581 | 1997-09-24 | 12 Dakota Lane          | 96877 Scofield Center
          10 | Randell McArley   | ruwr6R       | rmcarley9@java.com               | 9652444117 | 1997-05-25 | 9 Hollow Ridge Crossing | 0 Prentice Hill
(10 rows)


shopping=# Select * from customer where name not in ('Vina Hammer');
 customer_id |       name        |   password   |             email_id             |  phone_no  |    dob     |     billing_address     |    shipping_address
-------------+-------------------+--------------+----------------------------------+------------+------------+-------------------------+------------------------
           1 | Taddeo Aldersea   | YhxiNqYCs    | taldersea0@noaa.gov              | 6007773273 | 1994-07-11 | 81308 Grayhawk Avenue   | 52 Kropf Road
           2 | Carleton Sekulla  | jVlFJuBErZ   | csekulla1@phpbb.com              | 8082495533 | 1996-10-09 | 791 Farmco Terrace      | 88 Oakridge Parkway
           3 | Correy McConville | fvy8LF       | cmcconville2@nature.com          | 5246283383 | 1998-01-05 | 54 Di Loreto Plaza      | 270 Bartillon Way
           4 | Flss Dongate      | 1C500k7Of5j  | fdongate3@china.com.cn           | 5054492575 | 1996-07-16 | 02819 Heffernan Court   | 79 Twin Pines Place
           5 | Broderick Preston | M7oUQw7O6eMb | bpreston4@rambler.ru             | 4819256685 | 1997-10-15 | 447 Dennis Alley        | 7 Westridge Plaza
           7 | Catha Natwick     | ylWekF9uMcW  | cnatwick6@nationalgeographic.com | 3167215176 | 2003-04-13 | 34 Waubesa Parkway      | 71397 Morningstar Road
           8 | Miguelita Aspling | shl9bOz74    | maspling7@house.gov              | 2373430425 | 1997-09-24 | 925 Chive Road          | 418 Victoria Center
           9 | Gwenette Rove     | xZ5T6WD      | grove8@privacy.gov.au            | 8833436581 | 1997-09-24 | 12 Dakota Lane          | 96877 Scofield Center
          10 | Randell McArley   | ruwr6R       | rmcarley9@java.com               | 9652444117 | 1997-05-25 | 9 Hollow Ridge Crossing | 0 Prentice Hill
(9 rows)


shopping=# _
```

13. Fetching a set of records from the customer table based on the year of dob.



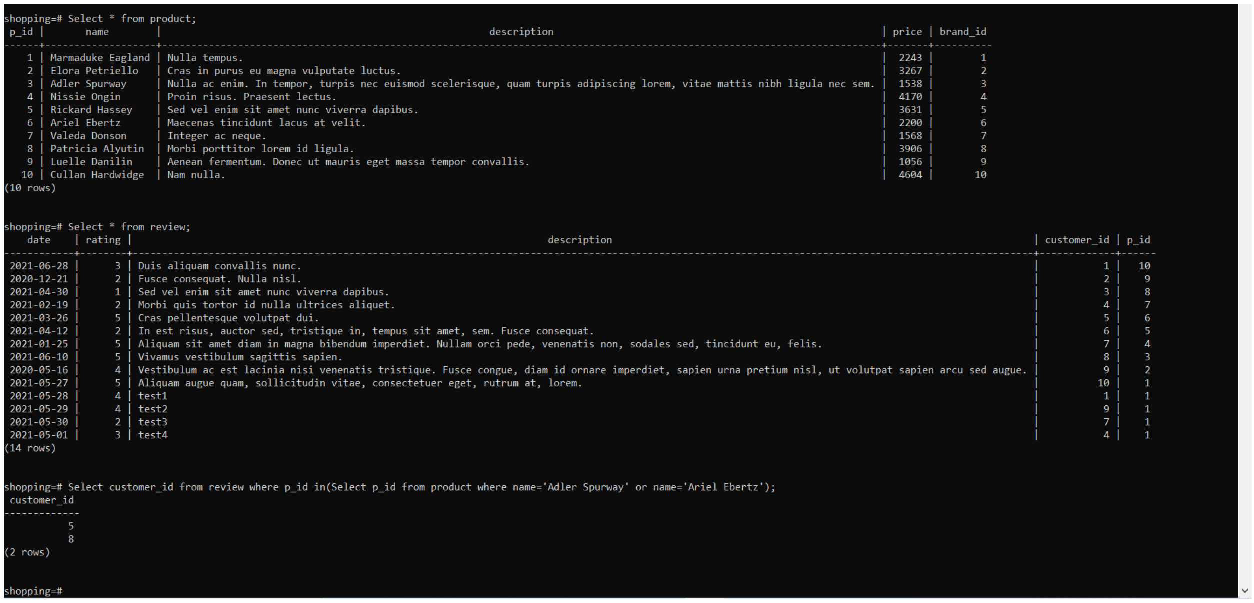
```
shopping=# Select * from customer;
 customer_id |       name        |   password   |             email_id             |  phone_no  |    dob     |     billing_address     |    shipping_address
-------------+-------------------+--------------+----------------------------------+------------+------------+-------------------------+------------------------
           1 | Taddeo Aldersea   | YhxiNqYCs    | taldersea0@noaa.gov              | 6007773273 | 1994-07-11 | 81308 Grayhawk Avenue   | 52 Kropf Road
           2 | Carleton Sekulla  | jVlFJuBErZ   | csekulla1@phpbb.com              | 8082495533 | 1996-10-09 | 791 Farmco Terrace      | 88 Oakridge Parkway
           3 | Correy McConville | fvy8LF       | cmcconville2@nature.com          | 5246283383 | 1998-01-05 | 54 Di Loreto Plaza      | 270 Bartillon Way
           4 | Flss Dongate      | 1C500k7Of5j  | fdongate3@china.com.cn           | 5054492575 | 1996-07-16 | 02819 Heffernan Court   | 79 Twin Pines Place
           5 | Broderick Preston | M7oUQw7O6eMb | bpreston4@rambler.ru             | 4819256685 | 1997-10-15 | 447 Dennis Alley        | 7 Westridge Plaza
           6 | Vina Hammer       | T4cgPDs      | vhammer5@utexas.edu              | 5169715969 | 2001-07-22 | 91111 Pleasure Point    | 28 Amoth Avenue
           7 | Catha Natwick     | ylWekF9uMcW  | cnatwick6@nationalgeographic.com | 3167215176 | 2003-04-13 | 34 Waubesa Parkway      | 71397 Morningstar Road
           8 | Miguelita Aspling | shl9bOz74    | maspling7@house.gov              | 2373430425 | 1997-09-24 | 925 Chive Road          | 418 Victoria Center
           9 | Gwenette Rove     | xZ5T6WD      | grove8@privacy.gov.au            | 8833436581 | 1997-09-24 | 12 Dakota Lane          | 96877 Scofield Center
          10 | Randell McArley   | ruwr6R       | rmcarley9@java.com               | 9652444117 | 1997-05-25 | 9 Hollow Ridge Crossing | 0 Prentice Hill
(10 rows)


shopping=# Select * from customer where To_char(dob,'YYYY')='2001';
 customer_id |    name     | password |      email_id       |  phone_no  |    dob     |   billing_address    | shipping_address
-------------+-------------+----------+---------------------+------------+------------+----------------------+------------------
           6 | Vina Hammer | T4cgPDs  | vhammer5@utexas.edu | 5169715969 | 2001-07-22 | 91111 Pleasure Point | 28 Amoth Avenue
(1 row)


shopping=#
```

14. Displaying the brand attributes along with their related supplier id.



```
shopping=# Select * from brand;
 brand_id |       name        |        website
----------+-------------------+-----------------------
        1 | Darbee Kunkel     | http://sphinn.com
        2 | Katina Cordero    | http://icio.us
        3 | Cass McNickle     | https://europa.eu
        4 | Carrol Brill      | http://msn.com
        5 | Levi Bursnell     | https://china.com.cn
        6 | Malvina Grishunin | https://blogspot.com
        7 | Davon Klainer     | http://parallels.com
        8 | Estella Arnhold   | http://ft.com
        9 | Bryn Antoinet     | https://fda.gov
       10 | Perren Arends     | http://indiatimes.com
(10 rows)


shopping=# Select * from sold_by;
 brand_id | s_id
----------+------
        1 |   10
        2 |    9
        3 |    8
        4 |    7
        5 |    6
        6 |    5
        7 |    4
        8 |    3
        9 |    2
       10 |    1
(10 rows)


shopping=# Select brand.brand_id,brand.name as BrandName,brand.website,sold_by.s_id from brand INNER JOIN sold_by ON brand.brand_id=sold_by.brand_id;
 brand_id |     brandname     |        website        | s_id
----------+-------------------+-----------------------+------
        1 | Darbee Kunkel     | http://sphinn.com     |   10
        2 | Katina Cordero    | http://icio.us        |    9
        3 | Cass McNickle     | https://europa.eu     |    8
        4 | Carrol Brill      | http://msn.com        |    7
        5 | Levi Bursnell     | https://china.com.cn  |    6
        6 | Malvina Grishunin | https://blogspot.com  |    5
        7 | Davon Klainer     | http://parallels.com  |    4
        8 | Estella Arnhold   | http://ft.com         |    3
        9 | Bryn Antoinet     | https://fda.gov       |    2
       10 | Perren Arends     | http://indiatimes.com |    1
(10 rows)


shopping=# _
```

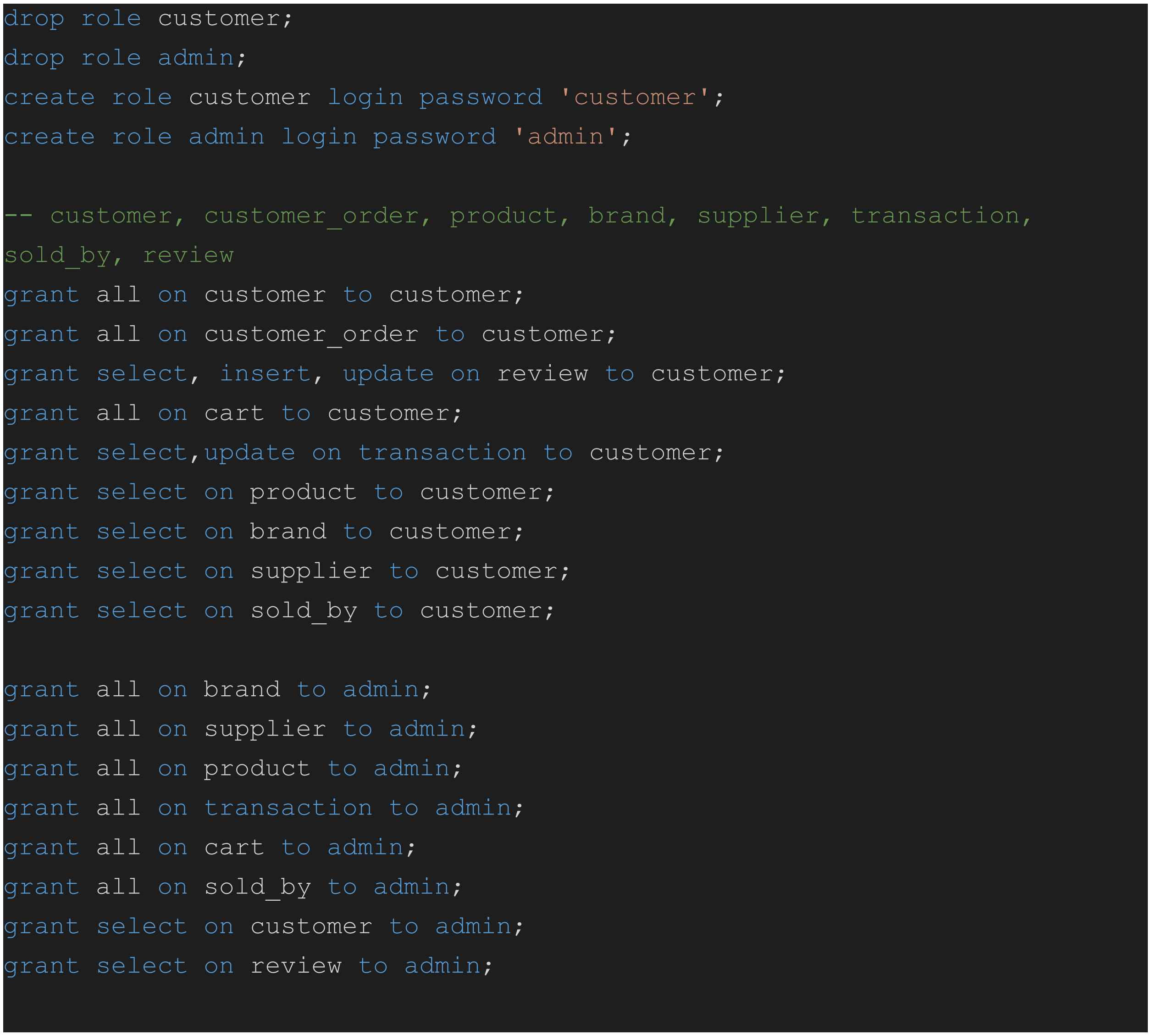
15. Displaying customer id using product id in the review table, the product id is fetched based on the name.



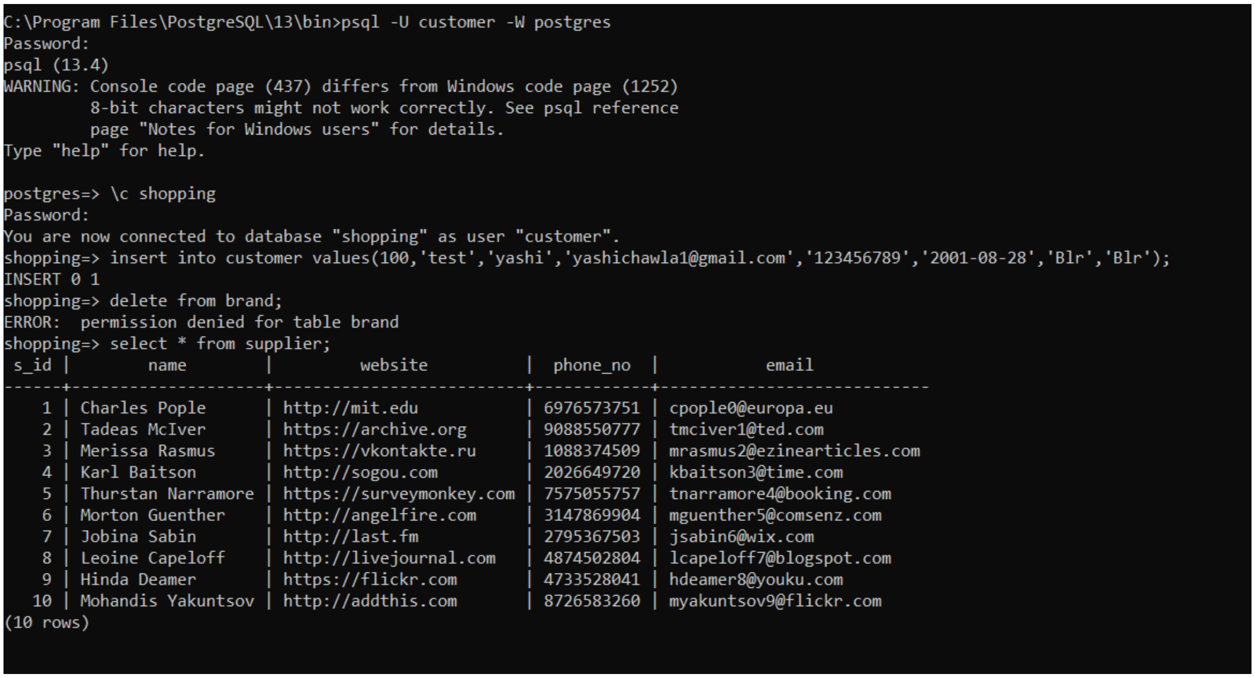
```
shopping=# Select * from product;
 p_id |       name        |                                                        description                                                        | price | brand_id
------+-------------------+---------------------------------------------------------------------------------------------------------------------------+-------+----------
    1 | Marmaduke Eagland | Nulla tempus.                                                                                                             |  2243 |        1
    2 | Elora Petriello   | Cras in purus eu magna vulputate luctus.                                                                                  |  3267 |        2
    3 | Adler Spurway     | Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem. |  1538 |        3
    4 | Nissie Ongin      | Proin risus. Praesent lectus.                                                                                             |  4170 |        4
    5 | Rickard Hassey    | Sed vel enim sit amet nunc viverra dapibus.                                                                               |  3631 |        5
    6 | Ariel Ebertz      | Maecenas tincidunt lacus at velit.                                                                                        |  2200 |        6
    7 | Valeda Donson     | Integer ac neque.                                                                                                         |  1568 |        7
    8 | Patricia Alyutin  | Morbi porttitor lorem id ligula.                                                                                          |  3906 |        8
    9 | Luelle Danilin    | Aenean fermentum. Donec ut mauris eget massa tempor convallis.                                                            |  1056 |        9
   10 | Cullan Hardwidge  | Nam nulla.                                                                                                                |  4604 |       10
(10 rows)


shopping=# Select * from review;
    date    | rating |                                                                       description                                                                        | customer_id | p_id
------------+--------+----------------------------------------------------------------------------------------------------------------------------------------------------------+-------------+------
 2021-06-28 |      3 | Duis aliquam convallis nunc.                                                                                                                             |           1 |   10
 2020-12-21 |      2 | Fusce consequat. Nulla nisl.                                                                                                                             |           2 |    9
 2021-04-30 |      1 | Sed vel enim sit amet nunc viverra dapibus.                                                                                                              |           3 |    8
 2021-02-19 |      2 | Morbi quis tortor id nulla ultrices aliquet.                                                                                                             |           4 |    7
 2021-03-26 |      5 | Cras pellentesque volutpat dui.                                                                                                                          |           5 |    6
 2021-04-12 |      2 | In est risus, auctor sed, tristique in, tempus sit amet, sem. Fusce consequat.                                                                           |           6 |    5
 2021-01-25 |      5 | Aliquam sit amet diam in magna bibendum imperdiet. Nullam orci pede, venenatis non, sodales sed, tincidunt eu, felis.                                    |           7 |    4
 2021-06-10 |      5 | Vivamus vestibulum sagittis sapien.                                                                                                                      |           8 |    3
 2020-05-16 |      4 | Vestibulum ac est lacinia nisi venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. |           9 |    2
 2021-05-27 |      5 | Aliquam augue quam, sollicitudin vitae, consectetuer eget, rutrum at, lorem.                                                                             |          10 |    1
 2021-05-28 |      4 | test1                                                                                                                                                    |           1 |    1
 2021-05-29 |      4 | test2                                                                                                                                                    |           9 |    1
 2021-05-30 |      2 | test3                                                                                                                                                    |           7 |    1
 2021-05-01 |      3 | test4                                                                                                                                                    |           4 |    1
(14 rows)


shopping=# Select customer_id from review where p_id in(Select p_id from product where name='Adler Spurway' or name='Ariel Ebertz');
 customer_id
-------------
           5
           8
(2 rows)


shopping=#
```

Privileges.

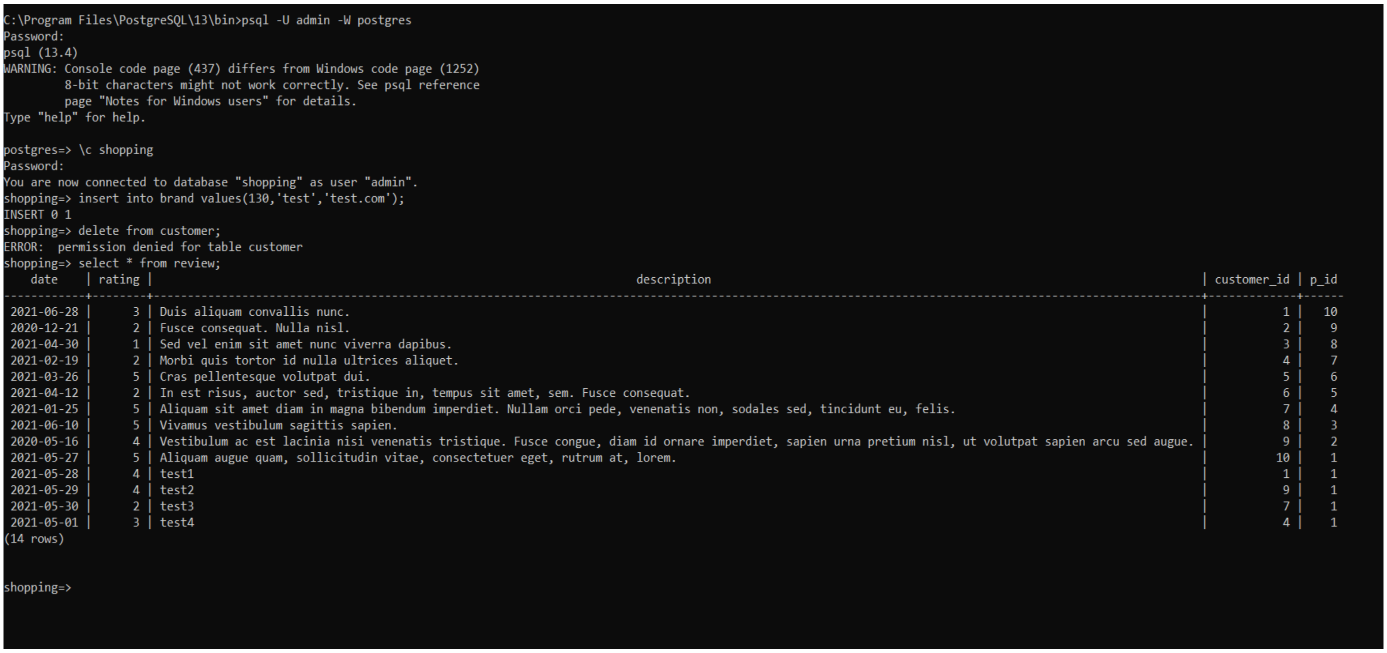
```
\c shopping
```



```sql
drop role customer;
drop role admin;
create role customer login password 'customer';
create role admin login password 'admin';

-- customer, customer_order, product, brand, supplier, transaction,
sold_by, review
grant all on customer to customer;
grant all on customer_order to customer;
grant select, insert, update on review to customer;
grant all on cart to customer;
grant select,update on transaction to customer;
grant select on product to customer;
grant select on brand to customer;
grant select on supplier to customer;
grant select on sold_by to customer;

grant all on brand to admin;
grant all on supplier to admin;
grant all on product to admin;
grant all on transaction to admin;
grant all on cart to admin;
grant all on sold_by to admin;
grant select on customer to admin;
grant select on review to admin;
```



```
C:\Program Files\PostgreSQL\13\bin>psql -U customer -W postgres
Password:
psql (13.4)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

postgres=> \c shopping
Password:
You are now connected to database "shopping" as user "customer".
shopping=> insert into customer values(100,'test','yashi','yashichawla1@gmail.com','123456789','2001-08-28','Blr','Blr');
INSERT 0 1
shopping=> delete from brand;
ERROR:  permission denied for table brand
shopping=> select * from supplier;
 s_id |        name        |         website          |  phone_no  |           email
------+--------------------+--------------------------+------------+----------------------------
    1 | Charles Pople      | http://mit.edu           | 6976573751 | cpople0@europa.eu
    2 | Tadeas McIver      | https://archive.org      | 9088550777 | tmciver1@ted.com
    3 | Merissa Rasmus     | https://vkontakte.ru     | 1088374509 | mrasmus2@ezinearticles.com
    4 | Karl Baitson       | http://sogou.com         | 2026649720 | kbaitson3@time.com
    5 | Thurstan Narramore | https://surveymonkey.com | 7575055757 | tnarramore4@booking.com
    6 | Morton Guenther    | http://angelfire.com     | 3147869904 | mguenther5@comsenz.com
    7 | Jobina Sabin       | http://last.fm           | 2795367503 | jsabin6@wix.com
    8 | Leoine Capeloff    | http://livejournal.com   | 4874502804 | lcapeloff7@blogspot.com
    9 | Hinda Deamer       | https://flickr.com       | 4733528041 | hdeamer8@youku.com
   10 | Mohandis Yakuntsov | http://addthis.com       | 8726583260 | myakuntsov9@flickr.com
(10 rows)
```



```
C:\Program Files\PostgreSQL\13\bin>psql -U admin -W postgres
Password:
psql (13.4)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

postgres=> \c shopping
Password:
You are now connected to database "shopping" as user "admin".
shopping=> insert into brand values(130,'test','test.com');
INSERT 0 1
shopping=> delete from customer;
ERROR:  permission denied for table customer
shopping=> select * from review;
    date    | rating |                                                                       description                                                                        | customer_id | p_id
------------+--------+----------------------------------------------------------------------------------------------------------------------------------------------------------+-------------+------
 2021-06-28 |      3 | Duis aliquam convallis nunc.                                                                                                                             |           1 |   10
 2020-12-21 |      2 | Fusce consequat. Nulla nisl.                                                                                                                             |           2 |    9
 2021-04-30 |      1 | Sed vel enim sit amet nunc viverra dapibus.                                                                                                              |           3 |    8
 2021-02-19 |      2 | Morbi quis tortor id nulla ultrices aliquet.                                                                                                             |           4 |    7
 2021-03-26 |      5 | Cras pellentesque volutpat dui.                                                                                                                          |           5 |    6
 2021-04-12 |      2 | In est risus, auctor sed, tristique in, tempus sit amet, sem. Fusce consequat.                                                                           |           6 |    5
 2021-01-25 |      5 | Aliquam sit amet diam in magna bibendum imperdiet. Nullam orci pede, venenatis non, sodales sed, tincidunt eu, felis.                                    |           7 |    4
 2021-06-10 |      5 | Vivamus vestibulum sagittis sapien.                                                                                                                      |           8 |    3
 2020-05-16 |      4 | Vestibulum ac est lacinia nisi venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. |           9 |    2
 2021-05-27 |      5 | Aliquam augue quam, sollicitudin vitae, consectetuer eget, rutrum at, lorem.                                                                             |          10 |    1
 2021-05-28 |      4 | test1                                                                                                                                                    |           1 |    1
 2021-05-29 |      4 | test2                                                                                                                                                    |           9 |    1
 2021-05-30 |      2 | test3                                                                                                                                                    |           7 |    1
 2021-05-01 |      3 | test4                                                                                                                                                    |           4 |    1
(14 rows)


shopping=>
```

Work distribution

Queries 1-5 Written by Yashi.
6-10 by Yashaswini.
11-15 by Vandana.
Assigning privileges to multiple users was done over a google meet call together.