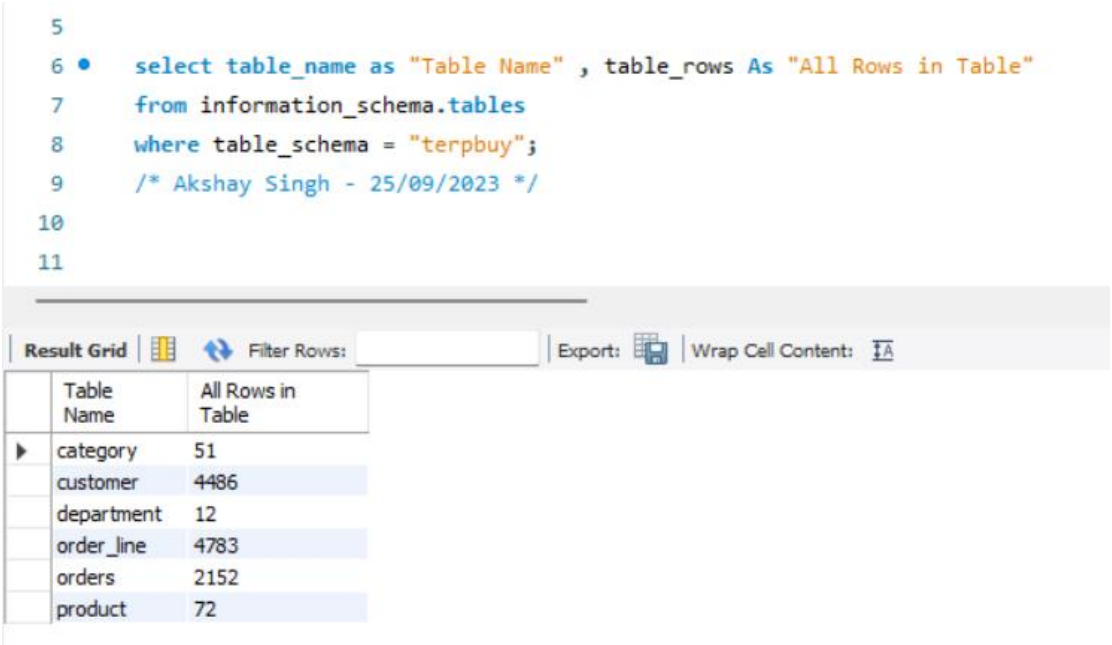
Question 1:

How many rows of data are stored for each table in the database?

List the name of each table followed by the number of rows it has.

Query 1:

```
select table_name as "Table Name" , table_rows As "All Rows in Table"
from information_schema.tables
where table_schema = "terpbuy";
/* Akshay Singh - 25/09/2023 */
```



```
5
6 •   select table_name as "Table Name" , table_rows As "All Rows in Table"
7     from information_schema.tables
8     where table_schema = "terpbuy";
9     /* Akshay Singh - 25/09/2023 */
10
11
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Table Name	All Rows in Table
category	51
customer	4486
department	12
order_line	4783
orders	2152
product	72

Question 2:

Which products are considered high-priced products? A high-priced product has a price exceeding $100.00. List the names and prices of the high-priced products.

Query2:

```
select product_name,product_price
from product
where product_price > 100.00;
/*Akshay Singh - 23/09/2023 */
```

```
10    /*Question 2:*/
11    /*Which products are considered high-priced products? A high-priced product has a price exceeding $100.00.
12
13 •  select product_name,product_price
14    from product
15    where product_price > 100.00;
16    /*Akshay Singh - 23/09/2023 */
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product_name	product_price
Nike Mens CJ Elite 2 TD Football Cleat	129.99
Diamondback Womens Serene Classic Comfort Bi	299.98
Field & Stream Sportsman 16 Gun Fire Safe	399.98
Pelican Sunstream 100 Kayak	199.99
Web Camera	452.04
Childrens heaters	357.10
Dell Laptop	1500.00
Industrial CONSUMER electronics	252.88
Porcelain crafts	461.48
DVDs	164.38
Lawn mower	532.58

product 20 ×

Question 3:

List all orders placed by customers in the state of Florida. Note: The state abbreviation for Florida is 'FL'. Include the customers' first names, last names, city, and segment, along with the order ID and order date.

Query 3:

```
select  first_name, last_name, city, state, segment,order_id,order_date
from customer
        inner join orders on orders.customer_id=customer.customer_id
  where state = "FL";
/*Akshay Singh - 22/09/2023 */
```

```
20
21    /*Question 3:*/
22    /*List all orders placed by customers in the state of Florida. Note: The state abbreviation for Florida is 'FL'.
23 •  select  first_name, last_name, city, state, segment,order_id,order_date
24    from customer
25        inner join orders on orders.customer_id=customer.customer_id
26        where state = "FL";
27    /*Akshay Singh - 22/09/2023 */
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

first_name	last_name	city	state	segment	order_id	order_date
Laura	Smith	Winter Park	FL	CORPORATE	20366	2018-10-24
Linda	Murray	Pompano Beach	FL	CORPORATE	20428	2018-10-25
Mary	Smith	Tallahassee	FL	CORPORATE	20492	2018-10-26
Mary	Morrison	Brandon	FL	HOME_OFFICE	20745	2018-10-29
Jose	Smith	Miami	FL	CORPORATE	20877	2018-10-31
Patricia	Smith	Fort Lauderdale	FL	CORPORATE	21239	2018-11-06
Mary	Harris	Miami	FL	CORPORATE	21278	2018-11-06
Mary	Weaver	Miami	FL	CONSUMER	22082	2018-11-18
Mary	Holmes	Pompano Beach	FL	CONSUMER	22188	2018-11-19
James	Trevino	Miami	FL	CONSUMER	22219	2018-11-20
Katherine	Rogers	Hollywood	FL	CONSUMER	22337	2018-11-22

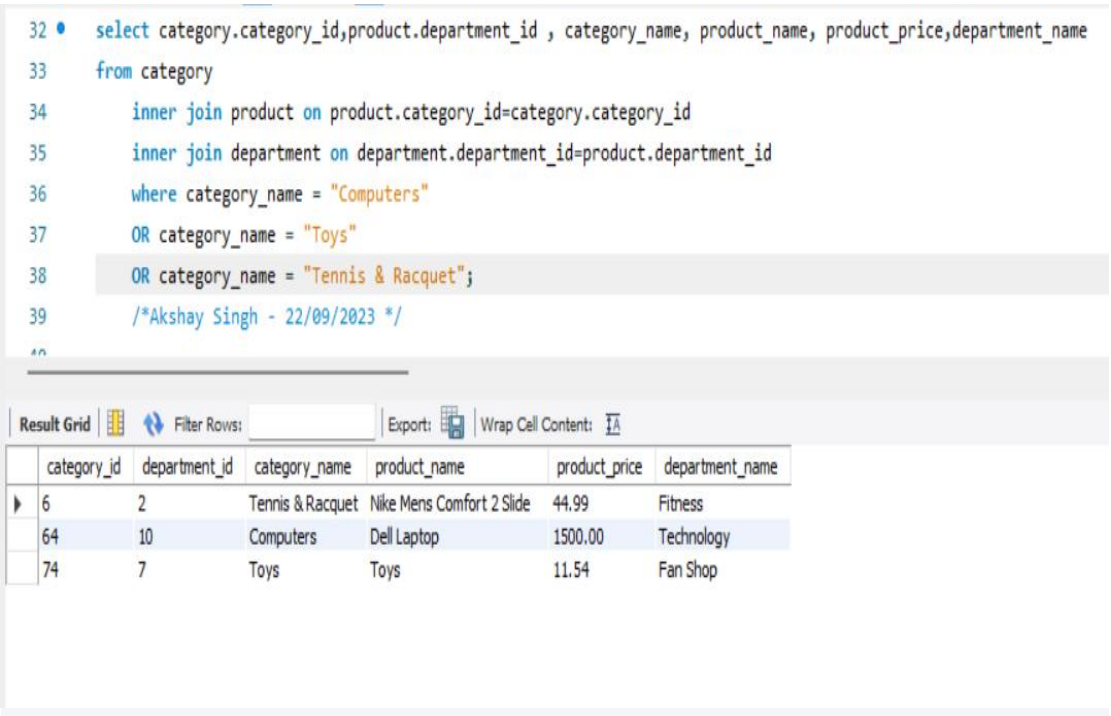
Result 21

Question 4:

List all products that fall in one of the following categories: 'Computers', 'Toys', 'Tennis & Racquet'. Include the products' names, category, department, and price.

QUERY 4:

```
select category.category_id,product.department_id , category_name,
product_name, product_price,department_name
from category
    inner join product on product.category_id=category.category_id
  inner join department on
department.department_id=product.department_id
  where category_name = "Computers"
  OR category_name = "Toys"
  OR category_name = "Tennis & Racquet";
  /*Akshay Singh - 22/09/2023 */
```



```
32 • select category.category_id,product.department_id , category_name, product_name, product_price,department_name
33   from category
34       inner join product on product.category_id=category.category_id
35       inner join department on department.department_id=product.department_id
36       where category_name = "Computers"
37       OR category_name = "Toys"
38       OR category_name = "Tennis & Racquet";
39       /*Akshay Singh - 22/09/2023 */
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

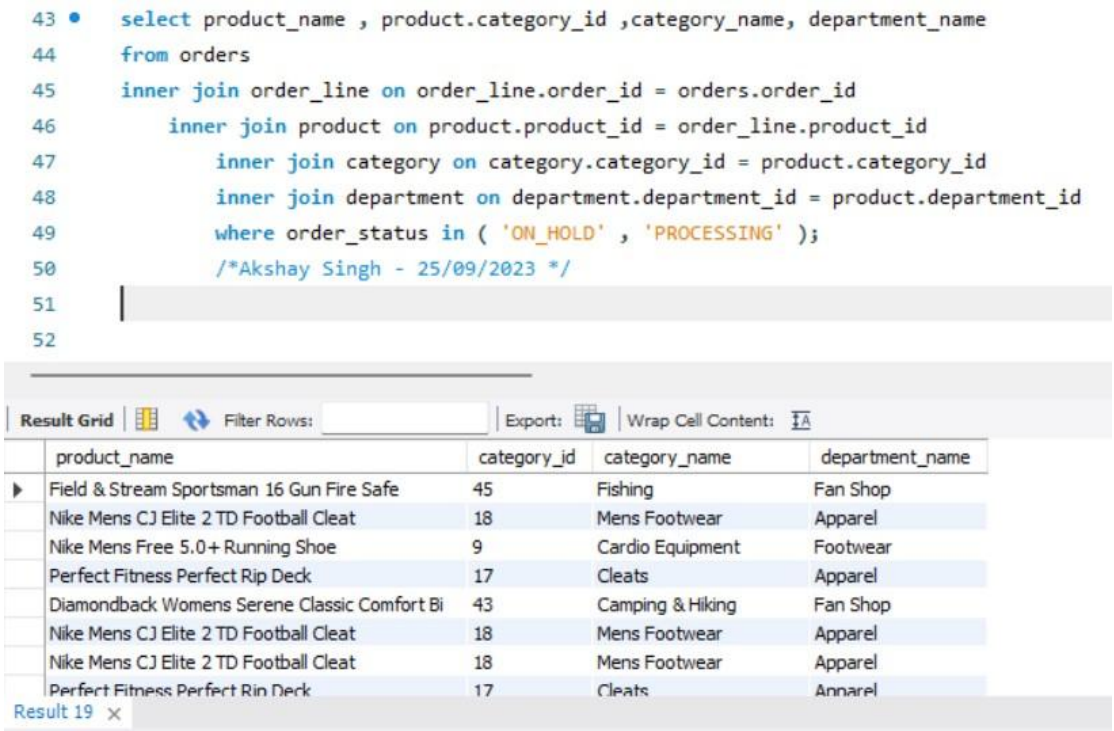
category_id	department_id	category_name	product_name	product_price	department_name
6	2	Tennis & Racquet	Nike Mens Comfort 2 Slide	44.99	Fitness
64	10	Computers	Dell Laptop	1500.00	Technology
74	7	Toys	Toys	11.54	Fan Shop

Question 5:

TerpBuy is considering reducing its product offerings. Which products have not yet been sold? Include the name, category, and department for each such product.

Query 5:

```
select product_name , product.category_id ,category_name,
department_name
from orders
inner join order_line on order_line.order_id = orders.order_id
  inner join product on product.product_id = order_line.product_id
        inner join category on category.category_id = product.category_id
    inner join department on department.department_id =
product.department_id
    where order_status in ( 'ON_HOLD' , 'PROCESSING' );
        /*Akshay Singh - 25/09/2023 */
```



```
43 •  select product_name , product.category_id ,category_name, department_name
44    from orders
45    inner join order_line on order_line.order_id = orders.order_id
46        inner join product on product.product_id = order_line.product_id
47            inner join category on category.category_id = product.category_id
48            inner join department on department.department_id = product.department_id
49            where order_status in ( 'ON_HOLD' , 'PROCESSING' );
50            /*Akshay Singh - 25/09/2023 */
51
52
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product_name	category_id	category_name	department_name
Field & Stream Sportsman 16 Gun Fire Safe	45	Fishing	Fan Shop
Nike Mens CJ Elite 2 TD Football Cleat	18	Mens Footwear	Apparel
Nike Mens Free 5.0+ Running Shoe	9	Cardio Equipment	Footwear
Perfect Fitness Perfect Rip Deck	17	Cleats	Apparel
Diamondback Womens Serene Classic Comfort Bi	43	Camping & Hiking	Fan Shop
Nike Mens CJ Elite 2 TD Football Cleat	18	Mens Footwear	Apparel
Nike Mens CJ Elite 2 TD Football Cleat	18	Mens Footwear	Apparel
Perfect Fitness Perfect Rip Deck	17	Cleats	Apparel

Result 19

Question 6:

List the names of all cities from where orders are shipped. Also, for such cities, find the number of orders for which shipping was delayed. Sort the list of cities in order from the highest to the least number of shipping orders.

Query: 6

```
select  order_city, count(order_id) as total
from orders
where actual_shipping_days > scheduled_shipping_days
group by order_city
order by total desc;
/*Akshay Singh - 25/09/2023 */
```

```
55 •        select  order_city, count(order_id) as total
56          from orders
57              where actual_shipping_days > scheduled_shipping_days
58          group by order_city
59          order by total desc;
60      /*Akshay Singh - 25/09/2023 */
61
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

order_city	total
Bangalore	51
Mumbai	45
Pune	41
Delhi	37
Chennai	32
Surat	31
Visakhapatnam	30
Hyderabad	29

Result 20

Question 7:

How many customers are there in each segment? Show the most popular segment at the top of the result. Incorporate a column alias in the result.

Query :7

```
SELECT
   segment AS "Customer Segment",
   COUNT(*) AS "Number of Customers"
FROM
   customer
GROUP BY
   segment
ORDER BY
   COUNT(*) DESC;
/*Akshay Singh - 24/09/2023 */
```

```
64
65 •  SELECT
66        segment AS "Customer Segment",
67        COUNT(*) AS "Number of Customers"
68    FROM
69        customer
70    GROUP BY
71        segment
72    ORDER BY
73        COUNT(*) DESC;
74    /*Akshay Singh - 24/09/2023 */
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

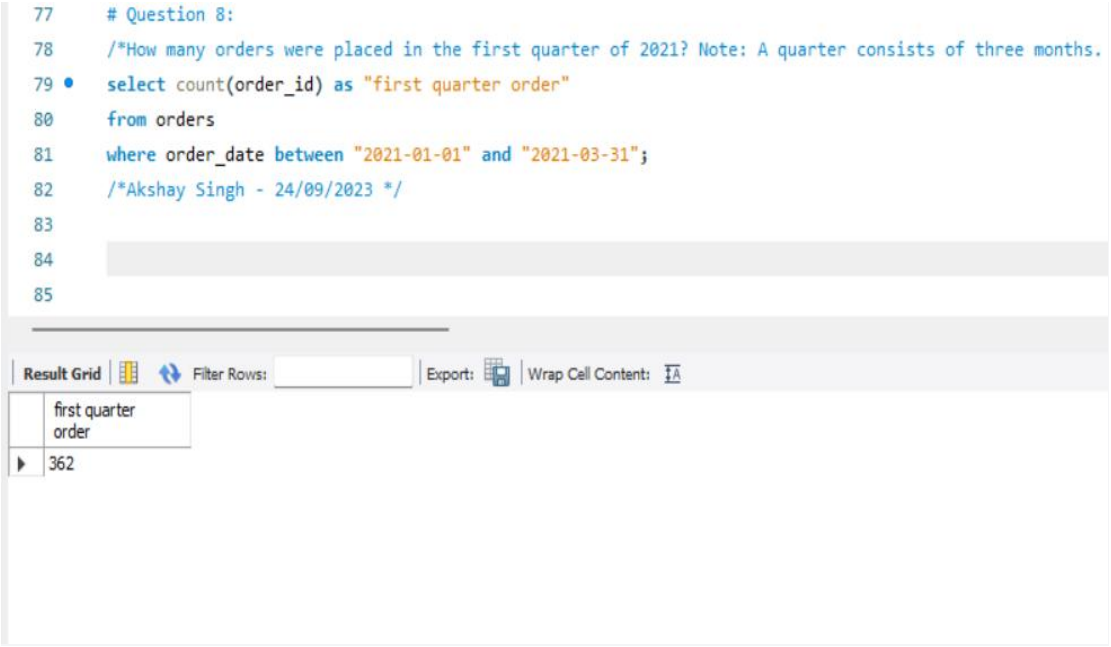
Customer Segment	Number of Customers
CONSUMER	2312
CORPORATE	1312
HOME_OFFICE	837

Question 8:

How many orders were placed in the first quarter of 2021? Note: A quarter consists of three months. Incorporate a column alias in the result

Query :8

```
select count(order_id) as "first quarter order"
from orders
where order_date between "2021-01-01" and "2021-03-31";
/*Akshay Singh - 24/09/2023 */
```

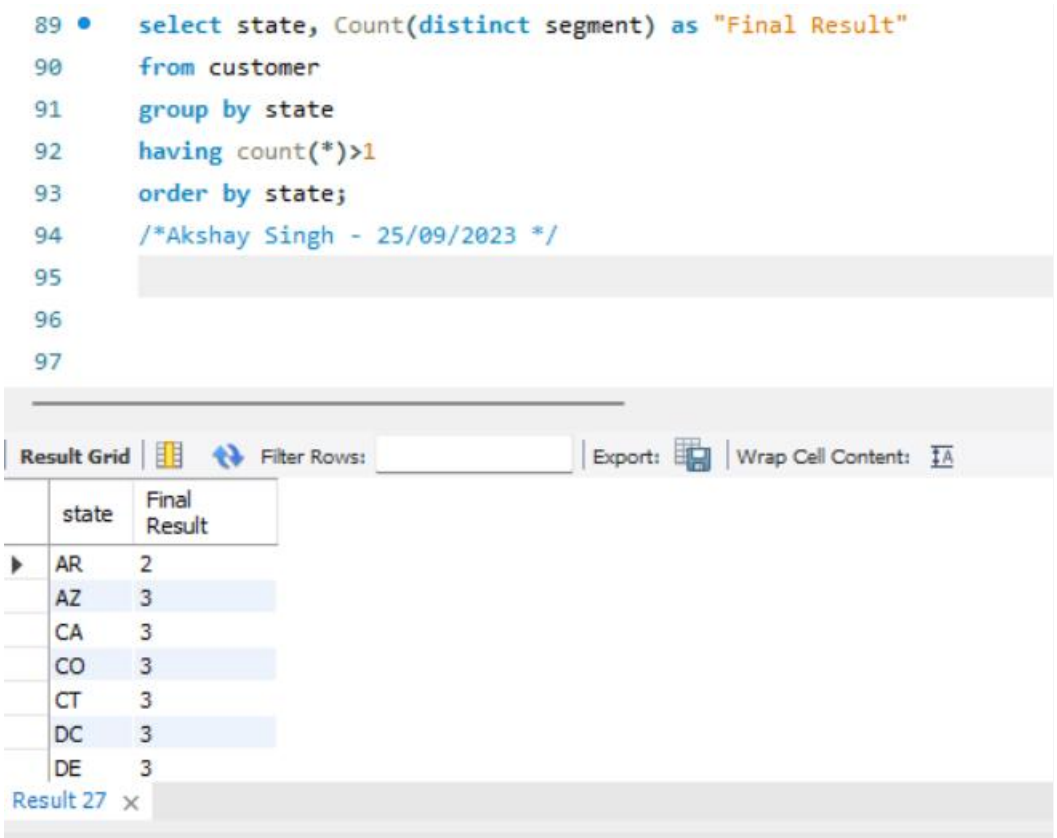


Question 9:

List in alphabetical order all states supporting multiple customer segments.

Query :9

```
select state, Count(distinct segment) as "Final Result"
from customer
group by state
having count(*)>1
order by state;
/*Akshay Singh - 25/09/2023 */
```



Question 10:

To help the commercial sales department with its marketing, find all customers in the corporate segment who have not placed any orders. Include each customers' first name, last name, street, city, state, and zip code. Sort the results by the last name first and then by the first name.

Query 10:

```
SELECT c.last_name, c.first_name, c.street, c.city, c.state
FROM
customer AS c
LEFT JOIN orders AS o ON c.customer_id = o.customer_id
WHERE c.segment = 'Corporate'
   AND o.order_id IS NULL
ORDER BY
   c.last_name asc,
   c.first_name asc;
   /*Akshay Singh - 24/09/2023 */
```

```
101 •  SELECT c.last_name, c.first_name, c.street, c.city, c.state
102    FROM
103    customer AS c
104    LEFT JOIN orders AS o ON c.customer_id = o.customer_id
105    WHERE c.segment = 'Corporate'
106        AND o.order_id IS NULL
107    ORDER BY
108        c.last_name asc,
109        c.first_name asc;
110        /*Akshay Singh - 24/09/2023 */
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

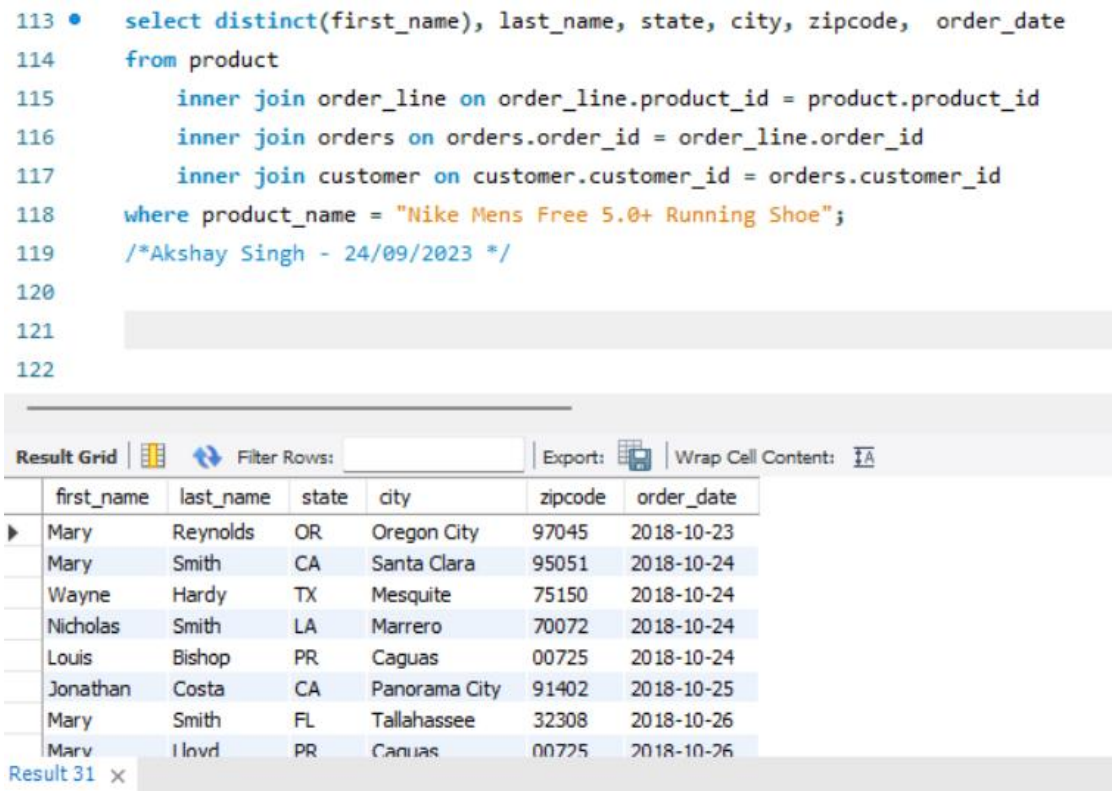
last_name	first_name	street	city	state
	BlueOneal	9279 Quaking Key	Caguas	PR
Acosta	Peter	1761 Noble Barn Heath	Caguas	PR
Adams	Eliana	7592 Heather Circuit	Detroit	MI
Adkins	Ryan	1855 Silver Manor	East Brunswick	NJ
Adkins	Sarah	2264 Silent Freeway	Salt Lake City	UT
Alexander	Ethan	4155 Bright Deer Line	La Crosse	WI
Allen	Gregory	1906 Amber Dale	Morristown	NJ

Question 11:

There has been a recall of the product Nike Mens Free 5.0+ Running Shoe. TerpBuy would have to offer a discount coupon to all customers who purchased this product. Find all orders that included this product as a part of the purchase. For all such orders, list the customers' first names, last names, street, state, zip code, and order date. Each customer can be offered only one discount coupon. Hence, do not list the same customer more than once.

Query 11:

```
select distinct(first_name), last_name, state, city, zipcode,  order_date
from product
    inner join order_line on order_line.product_id = product.product_id
  inner join orders on orders.order_id = order_line.order_id
  inner join customer on customer.customer_id = orders.customer_id
where product_name = "Nike Mens Free 5.0+ Running Shoe";
/*Akshay Singh - 24/09/2023 */
```



```
113 •  select distinct(first_name), last_name, state, city, zipcode,  order_date
114    from product
115        inner join order_line on order_line.product_id = product.product_id
116        inner join orders on orders.order_id = order_line.order_id
117        inner join customer on customer.customer_id = orders.customer_id
118    where product_name = "Nike Mens Free 5.0+ Running Shoe";
119    /*Akshay Singh - 24/09/2023 */
120
121
122
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

first_name	last_name	state	city	zipcode	order_date
Mary	Reynolds	OR	Oregon City	97045	2018-10-23
Mary	Smith	CA	Santa Clara	95051	2018-10-24
Wayne	Hardy	TX	Mesquite	75150	2018-10-24
Nicholas	Smith	LA	Marrero	70072	2018-10-24
Louis	Bishop	PR	Caguas	00725	2018-10-24
Jonathan	Costa	CA	Panorama City	91402	2018-10-25
Mary	Smith	FL	Tallahassee	32308	2018-10-26
Mary	Lloyd	PR	Caguas	00725	2018-10-26

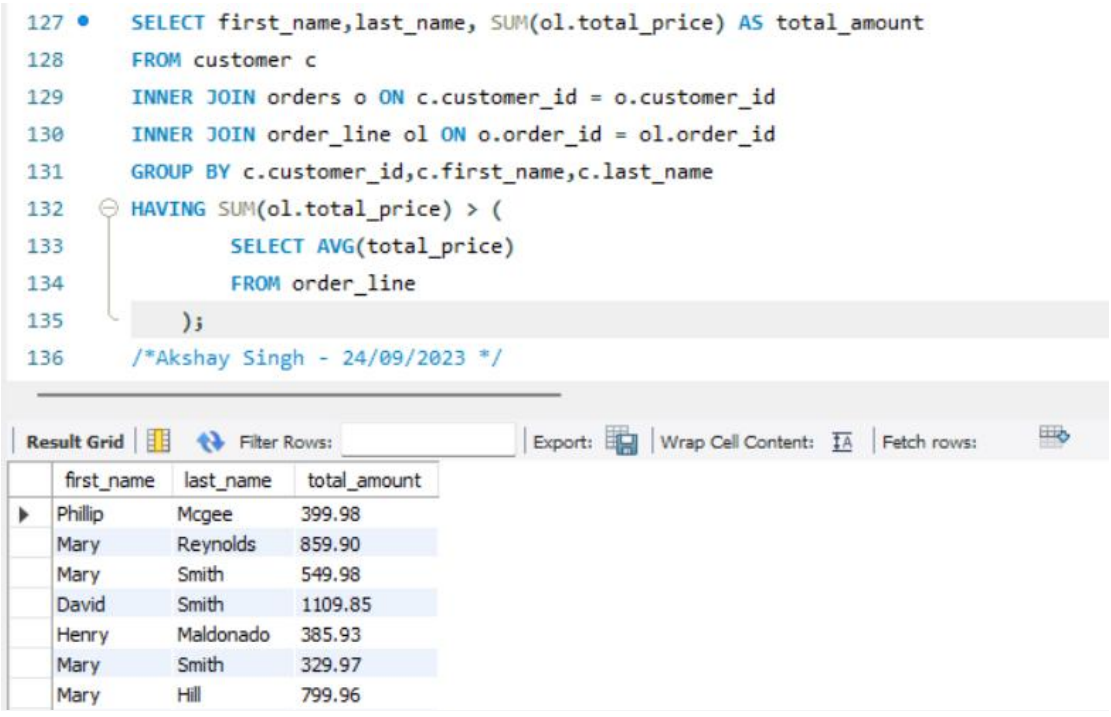
Result 31

Question 12:

Premium customers are those customers who have placed orders with order amounts greater than the average order amount. For each customer, find the first and last names, and the order amount for all orders that exceeded the average order amount.

Query 12:

```
SELECT first_name,last_name, SUM(ol.total_price) AS total_amount
FROM customer c
INNER JOIN orders o ON c.customer_id = o.customer_id
INNER JOIN order_line ol ON o.order_id = ol.order_id
GROUP BY c.customer_id,c.first_name,c.last_name
HAVING SUM(ol.total_price) > (
    SELECT AVG(total_price)
    FROM order_line
  );
/*Akshay Singh - 24/09/2023 */
```



```
127 •  SELECT first_name,last_name, SUM(ol.total_price) AS total_amount
128    FROM customer c
129    INNER JOIN orders o ON c.customer_id = o.customer_id
130    INNER JOIN order_line ol ON o.order_id = ol.order_id
131    GROUP BY c.customer_id,c.first_name,c.last_name
132    HAVING SUM(ol.total_price) > (
133            SELECT AVG(total_price)
134            FROM order_line
135        );
136    /*Akshay Singh - 24/09/2023 */
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

first_name	last_name	total_amount
Phillip	Mcgee	399.98
Mary	Reynolds	859.90
Mary	Smith	549.98
David	Smith	1109.85
Henry	Maldonado	385.93
Mary	Smith	329.97
Mary	Hill	799.96