**Terpbuy SQL Assignment Questions and Answers**

**SQL Query Execution with Screenshots for Reference:**

Q1. 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.

Ans 1.

SELECT 'category' AS Table\_Name, COUNT(\*) AS Count\_Of\_Rows

FROM category

UNION

SELECT 'customer', COUNT(\*)

FROM customer

UNION

SELECT 'department', COUNT(\*)

FROM department

UNION

SELECT 'order\_line', COUNT(\*)

FROM order\_line

UNION

SELECT 'orders', COUNT(\*)

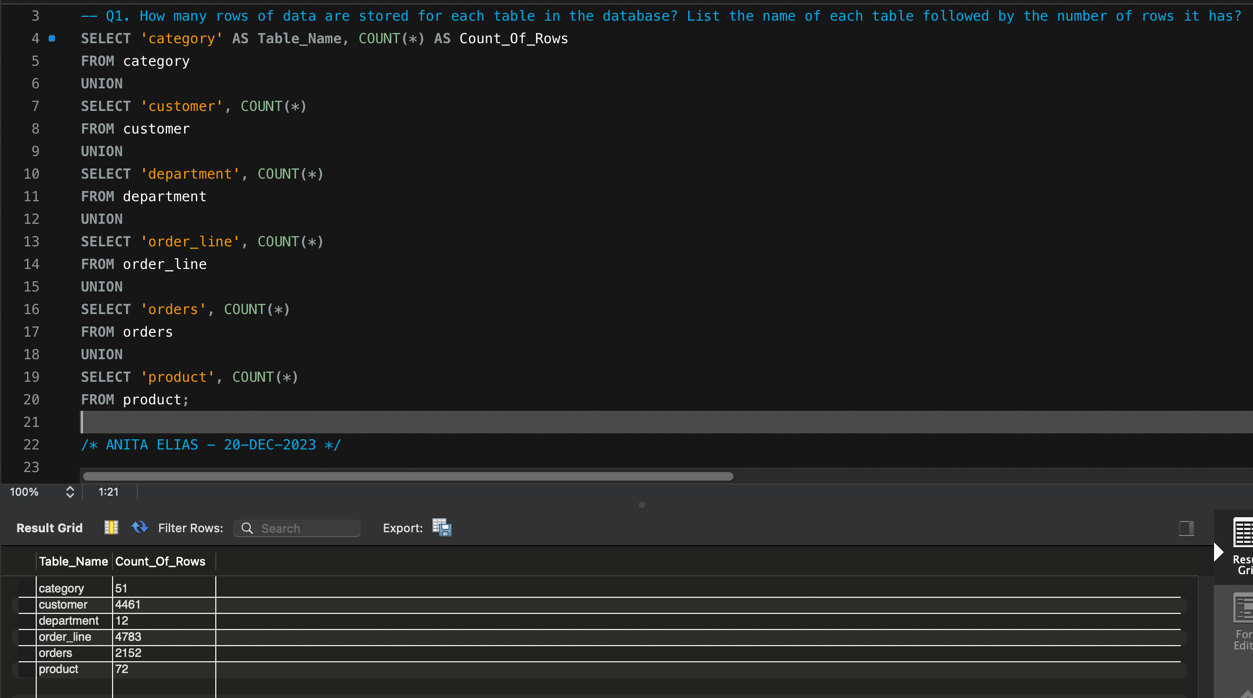
FROM orders

UNION

SELECT 'product', COUNT(\*)

FROM product;

6 rows were returned in the answer.



Q2. 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.

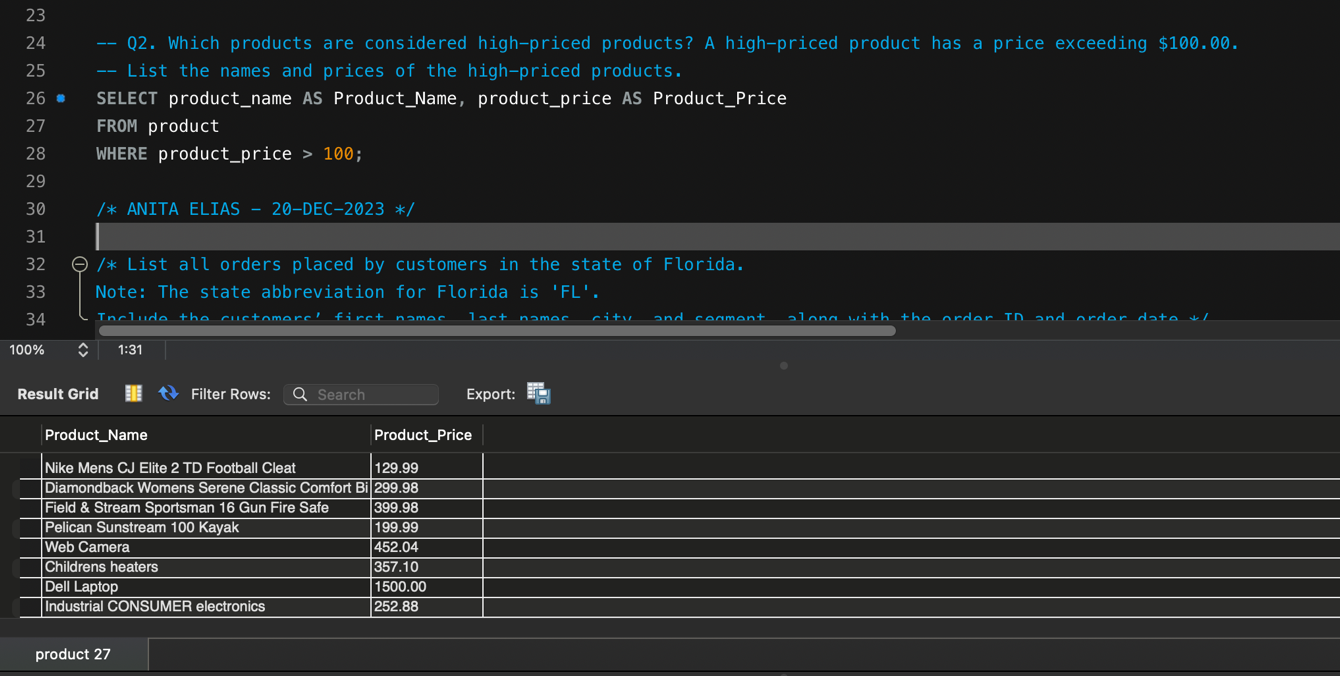
Ans 2.

SELECT product\_name AS Product\_Name, product\_price AS Product\_Price

FROM product

WHERE product\_price > 100;

16 rows were returned in the answer.



Q3. 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.

Ans 3.

SELECT c.first\_name AS Customer\_First\_Name, c.last\_name AS Customer\_Last\_Name, c.city AS City, c.segment AS Segment,

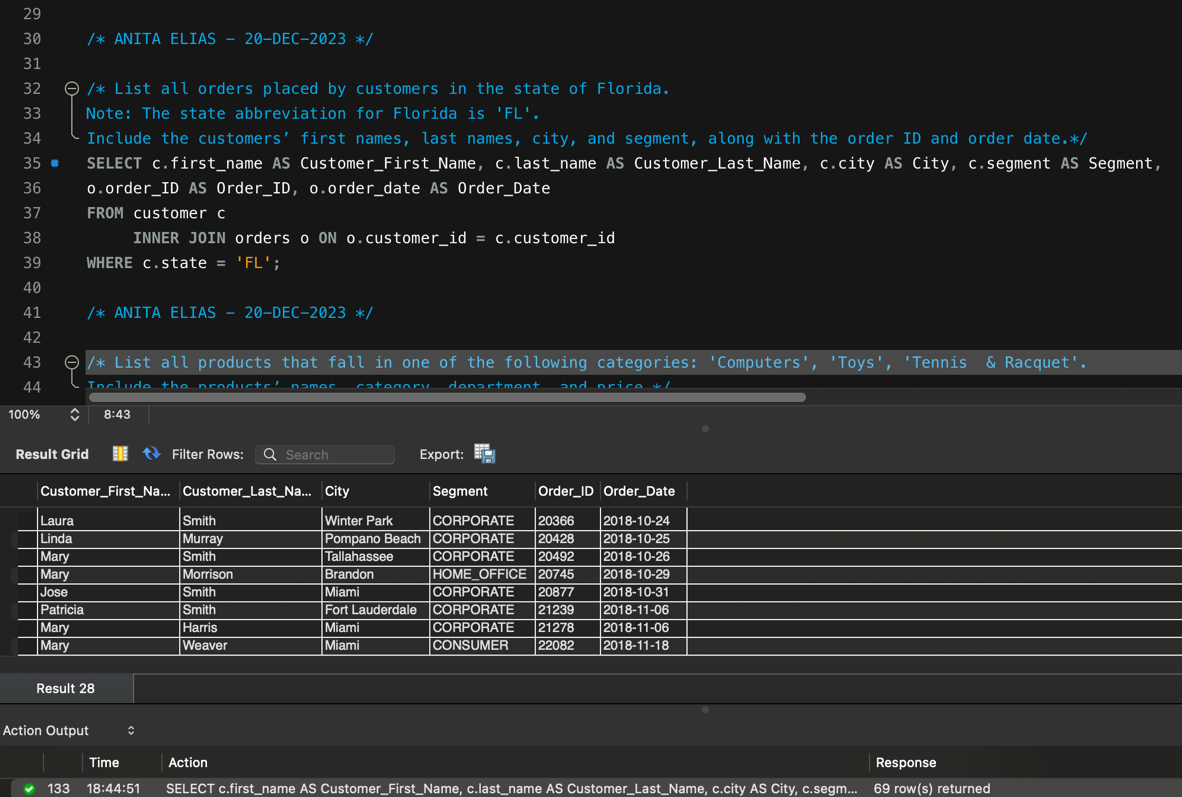
o.order\_ID AS Order\_ID, o.order\_date AS Order\_Date

FROM customer c

INNER JOIN orders o ON o.customer\_id = c.customer\_id

WHERE c.state = 'FL';

69 rows were returned in the answer.



Q4. List all products that fall in one of the following categories: 'Computers', 'Toys', 'Tennis & Racquet'. Include the products’ names, category, department, and price.

Ans 4.

SELECT p.product\_name AS Product\_Name, ca.category\_name AS Category, de.department\_name as Department\_Name, p.product\_price AS Product\_Price

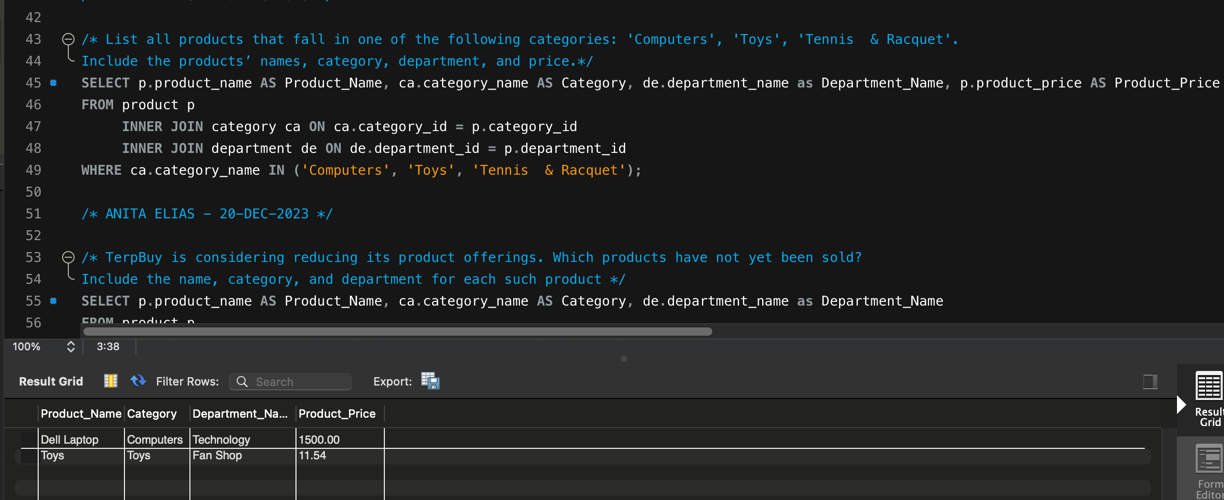
FROM product p

INNER JOIN category ca ON ca.category\_id = p.category\_id

INNER JOIN department de ON de.department\_id = p.department\_id

WHERE ca.category\_name IN ('Computers', 'Toys', 'Tennis & Racquet');

2 rows were returned in the answer.



Q5. TerpBuy is considering reducing its product offerings. Which products have not yet been sold? Include the name, category, and department for each such product.

Ans 5.

SELECT p.product\_name AS Product\_Name, ca.category\_name AS Category, de.department\_name as Department\_Name

FROM product p

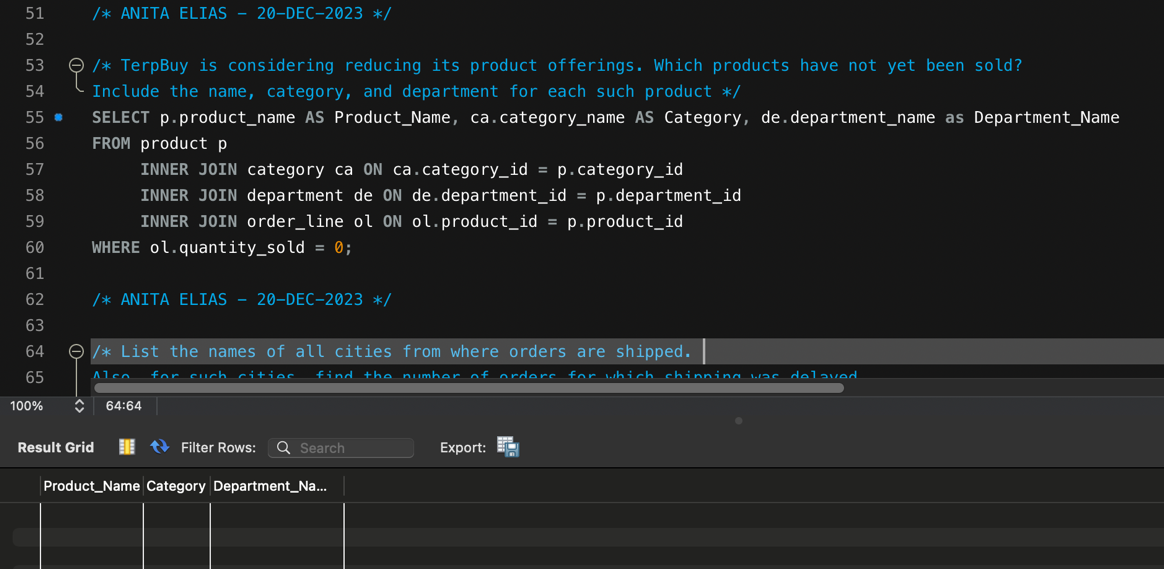
INNER JOIN category ca ON ca.category\_id = p.category\_id

INNER JOIN department de ON de.department\_id = p.department\_id

INNER JOIN order\_line ol ON ol.product\_id = p.product\_id

WHERE ol.quantity\_sold = 0;

0 rows were returned in the answer.



Q6. 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.

Ans 6.

SELECT o.order\_city AS City\_Name, COUNT(o.order\_id) AS No\_of\_orders\_shipping\_delayed

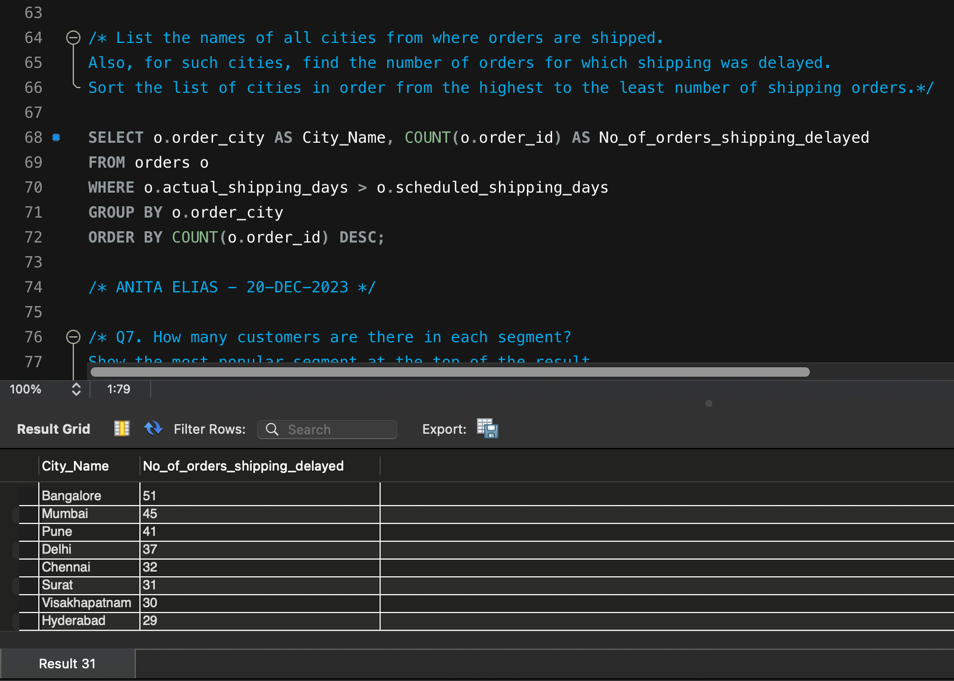
FROM orders o

WHERE o.actual\_shipping\_days > o.scheduled\_shipping\_days

GROUP BY o.order\_city

ORDER BY COUNT(o.order\_id) DESC;

140 rows were returned in the answer.



Q7. 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.

Ans 7.

SELECT c.segment AS Customer\_Segment\_Ratedby\_Popularity, COUNT(c.customer\_id) AS No\_of\_Customers\_in\_the\_Segment

FROM customer c

GROUP BY Customer\_Segment\_Ratedby\_Popularity

ORDER BY COUNT(c.customer\_id) DESC;

3 rows were returned in the answer.



Q 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. You can refer to the documentation on date functions provided [here](https://dev.mysql.com/doc/refman/8.0/en/date-and-time-functions.html).

Ans 8.

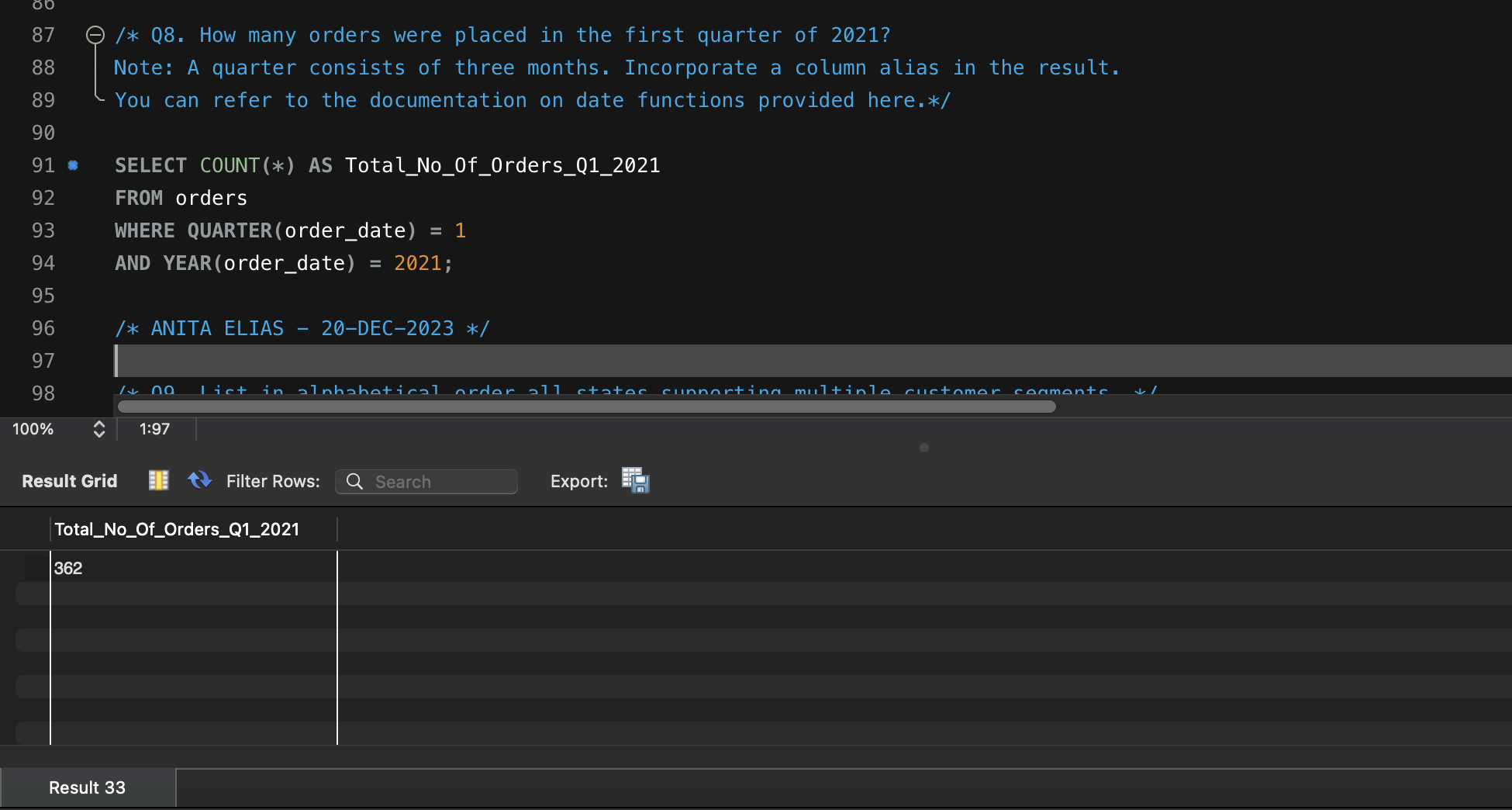
SELECT COUNT(\*) AS Total\_No\_Of\_Orders\_Q1\_2021

FROM orders

WHERE QUARTER(order\_date) = 1

AND YEAR(order\_date) = 2021;

1 row were returned in the answer.



Q 9. List in alphabetical order all states supporting multiple customer segments.

Ans 9.

SELECT c.state AS State\_Name, COUNT(DISTINCT c.segment) AS Customer\_Segment\_By\_Number

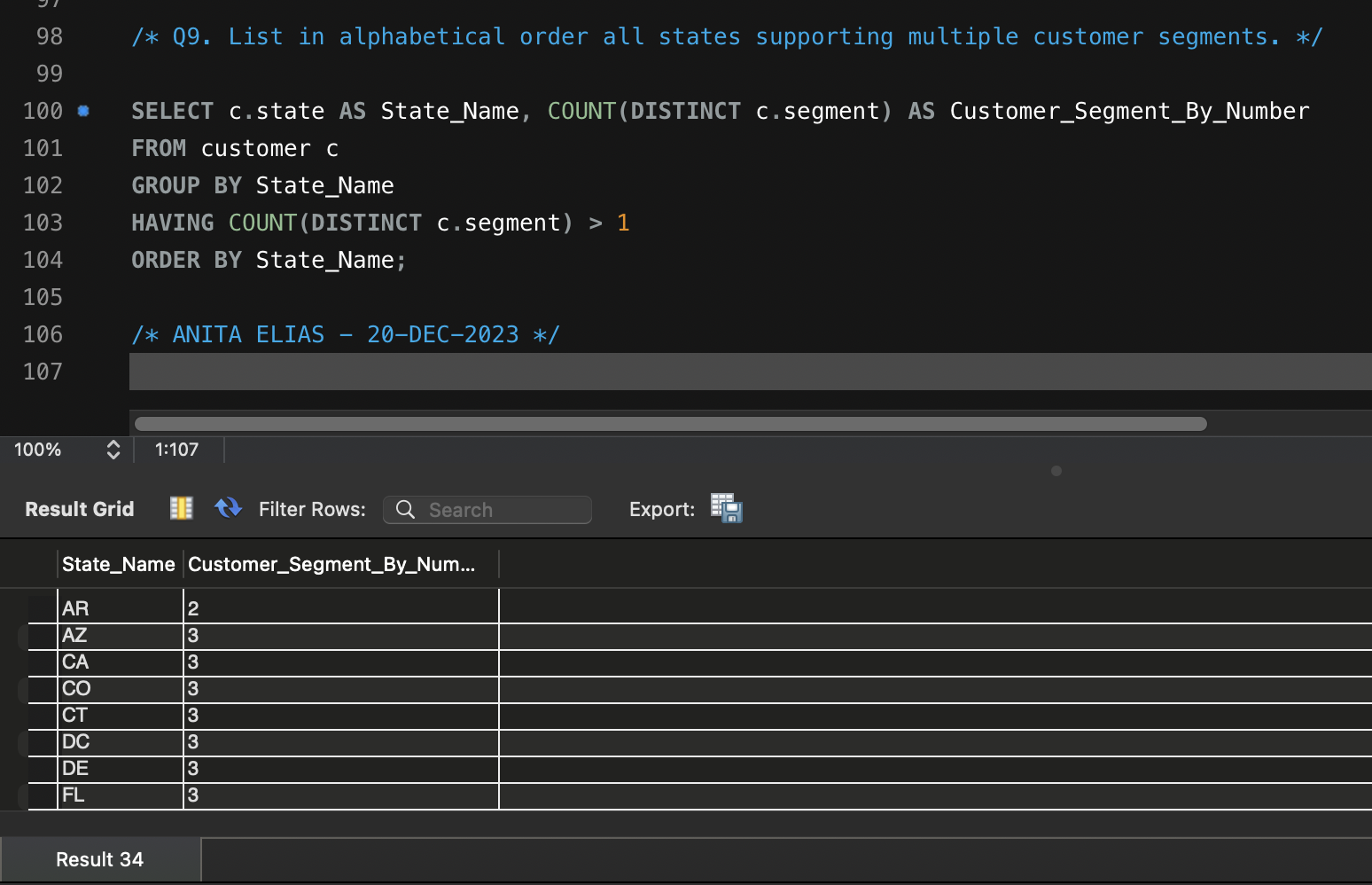
FROM customer c

GROUP BY State\_Name

HAVING COUNT(DISTINCT c.segment) > 1

ORDER BY State\_Name;

43 rows were returned in the answer.



Q 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.

Ans 10.

SELECT c.first\_name AS Customer\_First\_Name, c.last\_name AS Customer\_Last\_Name, c.street AS Street,

c.city AS City, c.state AS State, c.zipcode AS Zipcode

FROM customer c

WHERE c.segment = 'CORPORATE' AND c.customer\_id NOT IN (SELECT customer\_id FROM orders)

GROUP BY c.customer\_id

ORDER BY Customer\_Last\_Name, Customer\_First\_Name;

683 rows were returned in the answer.



Q 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.

Ans 11.

SELECT DISTINCT c.first\_name AS Customer\_First\_Name, c.last\_name AS Customer\_Last\_Name, c.street AS Street,

c.state AS State, c.zipcode AS Zipcode, o.order\_date AS Order\_Date, p.product\_name AS Product\_Name

FROM customer c

INNER JOIN orders o ON o.customer\_id = c.customer\_id

INNER JOIN order\_line ol ON ol.order\_id = o.order\_id

INNER JOIN product p ON p.product\_id = ol.product\_id

WHERE p.product\_name = 'Nike Mens Free 5.0+ Running Shoe'

ORDER BY Customer\_First\_Name;

244 rows were returned in the answer.

A screenshot of a computer

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Q 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.

Ans 12.

SELECT c.first\_name AS Customer\_First\_Name, c.last\_name AS Customer\_Last\_Name, SUM(ol.total\_price) AS Total\_Order\_Amount

FROM customer c

INNER JOIN orders o ON o.customer\_id = c.customer\_id

INNER JOIN order\_line ol ON ol.order\_id = o.order\_id

WHERE ol.total\_price > (SELECT AVG(total\_price) FROM order\_line)

GROUP BY c.first\_name, c.last\_name

ORDER BY Total\_Order\_Amount;

1000 rows were returned in the answer.

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