Assignment 1:

Write a SELECT query to retrieve all columns from a 'customers' table, and modify it to return only the customer name and email address for customers in a specific city.

SELECT customer\_name, email\_address

FROM customers

WHERE city = 'New York';

Assignment 2:

Craft a query using an INNER JOIN to combine 'orders' and 'customers' tables for customers in a specified region, and a LEFT JOIN to display all customers including those without orders.

SELECT \*

FROM customers

LEFT JOIN orders ON customers.customer\_id = orders.customer\_id

WHERE customers.region = 'specified\_region';

Assignment 3:

Utilize a subquery to find customers who have placed orders above the average order value, and write a UNION query to combine two SELECT statements with the same number of columns.

1) SELECT \*

FROM customers

WHERE customer\_id IN (

SELECT customer\_id

FROM orders

GROUP BY customer\_id

HAVING AVG(order\_value) > (

SELECT AVG(order\_value)

FROM orders

)

);

2)

SELECT customer\_name

FROM

UNION

SELECT customer\_name

FROM table2;

Assignment 4:

Compose SQL statements to BEGIN a transaction, INSERT a new record into the 'orders' table, COMMIT the transaction, then UPDATE the 'products' table, and ROLLBACK the transaction.

-- BEGIN a transaction

BEGIN TRANSACTION;

-- INSERT a new record into the 'orders' table

INSERT INTO orders (order\_id, customer\_id, order\_date, order\_value)

VALUES (12345, 101, '2024-05-22', 500.00);

-- COMMIT the transaction

COMMIT;

-- UPDATE the 'products' table

BEGIN TRANSACTION;

UPDATE products

SET stock\_quantity = stock\_quantity - 1

WHERE product\_id = 1001;

-- ROLLBACK the transaction

ROLLBACK;