**Assignment 11**

**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.**

1. **Begin a Transaction**

BEGIN;

1. **Insert a New Record into the orders Table**

Assume the orders table has columns order\_id, customer\_id, order\_date, and total\_amount.

INSERT INTO orders (order\_id, customer\_id, order\_date, total\_amount)

VALUES (101, 1, '2024-05-23', 250.00);

1. **Commit the Transaction**

COMMIT;

1. **Begin Another Transaction**

BEGIN;

1. **Update the products Table**

Assume the products table has columns product\_id, product\_name, price, and we want to update the price of a product.

UPDATE products

SET price = price \* 1.10

WHERE product\_id = 5;

1. **Rollback the Transaction**

ROLLBACK;

**Explanation**

1. BEGIN: Starts a new transaction.
2. INSERT INTO orders: Adds a new record to the orders table.
3. COMMIT: Saves the changes made in the current transaction to the database.
4. BEGIN: Starts another new transaction for the subsequent operations.
5. UPDATE products: Modifies the price of a specific product in the products table.
6. ROLLBACK: Reverts the changes made in the current transaction, discarding the update operation.

Using transactions ensures that the operations are executed reliably and allows you to revert changes if necessary, maintaining the integrity of your database.