Non-Conflicting TRANSACTIONS

-- Non-Conflicting Transaction 01

Add a new medicine to the database.

START TRANSACTION;

INSERT INTO Medicine (medID, description, Mname, MfgDate, ExpDate, Quantity, price)

VALUES (102, 'Pain Relief', 'Ibuprofen', '2022-01-01', '2023-12-31', 500, 0.50);

COMMIT;

-- Non-Conflicting Transaction 02

Update the contact and address of a customer.

START TRANSACTION;

UPDATE Customer

SET contact = 123456890, address = '123 Main St'

WHERE CID = 1;

COMMIT;

-- Non-Conflicting Transaction 03

Delete an Employee.

START TRANSACTION;

DELETE FROM Employee WHERE EID = 3;

COMMIT;

-- Non-Conflicting Transaction 04

Update the quantity of a medicine in the inventory.

START TRANSACTION;

UPDATE Medicine

SET Quantity = Quantity - 10

WHERE medID = 10;

COMMIT;

Conflicting TRANSACTIONS

-- Conflicting Transaction 01

Two customers trying to purchase the same medicine at the same time:

-- Customer 1

START TRANSACTION;

UPDATE Medicine SET Quantity = Quantity - 1 WHERE medID = 102;

INSERT INTO Invoice (CID, docID, medID, Quantity, amount, payment) VALUES (101, 21, 102, 1, 10, 'Credit Card');

COMMIT;

-- Customer 2

START TRANSACTION;

UPDATE Medicine SET Quantity = Quantity - 1 WHERE medID = 102;

INSERT INTO Invoice (CID, docID, medID, Quantity, amount, payment) VALUES (102, 22, 102, 1, 10, 'Cash');

COMMIT;

-- Conflicting Transaction 02

A pharmacist trying to update the price of a medicine while a customer is placing an order:

-- Pharmacist

START TRANSACTION;

UPDATE Medicine SET price = 20 WHERE medID = 100;

COMMIT;

-- Customer

START TRANSACTION;

INSERT INTO Invoice (CID, docID, medID, Quantity, amount, payment) VALUES (103, 20, 100, 2, 40, 'Debit Card');

COMMIT;