NON-CONFLICTING TRANSACTIONS

1. **Transaction 1:** A customer adds a product to their cart

```
INSERT INTO CART(CartId, CustId) VALUES ('cart001', 'cust001');
INSERT INTO CART_ITEMS(ProductId, ProductName) VALUES ('prod001',
   'Product 1');
```

2. **Transaction 2:** A customer places an order for the items in their cart

```
INSERT INTO ORDERS(OrderId, CustId, OrderDate, OrderAmount,
Contact, Address) VALUES ('order001', 'cust001', '2023-05-03',
'50', '123456789', '123 Main St');
```

3. **Transaction 3:** A new customer creates an account

```
INSERT INTO CUSTOMER(CustId, CustName, Contact, Address) VALUES
('cust002', 'John Doe', '987654321', '456 Elm St');
INSERT INTO LOGIN(username, Email, Password) VALUES ('johndoe',
'johndoe@gmail.com', 'password');
```

4. **Transaction 4:** A new product is added to a category

```
INSERT INTO PRODUCT(ProductId, ProductName, ProductPrice) VALUES
('prod002', 'Product 2', '20');
INSERT INTO CATEGORY(CategoryId, ProductId, CategoryName) VALUES
('cat001', 'prod002', 'Category 1');
```

CONFLICTING TRANSACTIONS

5. **Transaction 5:** A customer tries to place an order for a product that doesn't exist

```
INSERT INTO ORDERS(OrderId, CustId, OrderDate, OrderAmount,
Contact, Address) VALUES ('order002', 'cust001', '2023-05-03',
'30', '123456789', '123 Main St');
INSERT INTO CART(CartId, CustId) VALUES ('cart002', 'cust001');
INSERT INTO CART_ITEMS(ProductId, ProductName) VALUES ('prod003',
'Non-existent product');
```

This transaction will fail because the product 'prod003' does not exist in the PRODUCT table.

6. **Transaction 6:** A product is added to a category that doesn't exist

```
INSERT INTO PRODUCT(ProductId, ProductName, ProductPrice) VALUES
('prod004', 'Product 4', '10');
INSERT INTO CATEGORY(CategoryId, ProductId, CategoryName) VALUES
('cat002', 'prod004', 'Non-existent category');
```

This transaction will fail because the category 'Non-existent category' does not exist in the CATEGORY table.