Non-Conflicting Serializable transactions

1.

START TRANSACTION;
UPDATE Customers SET username = 'bruhmemer', contact_info = "387-808-6458"
WHERE customer_id= 3;
SELECT * from customers where first_name='Norman';
COMMIT;

START TRANSACTION;
UPDATE Customers SET username = 'high-jackman', contact_info = "424-563-4235"
WHERE customer_id = 13;
SELECT * from customer where first_name ='Atalanta';
COMMIT;

2.

START TRANSACTION;

-- Update the quantity of a product in the inventory
UPDATE products
SET count = count - 2
WHERE product_id = 2;

-- Insert a new order for a customer
insert into orders (order_id, customer_id, ordered_date, req_date, shipping_date, status,
total_amount, comments) values (114, 114, now(), now(), now(), 'ordered', '519', 'plankton
raise');
select * from orders;
COMMIT;

START TRANSACTION;

-- Update the customer's address
UPDATE Customers
SET username = 'vip'
WHERE customer_id = 100;

select * from Customers;
COMMIT;

3.

```sql
START TRANSACTION;

-- update the product inventory
UPDATE Products SET price = price - 10 WHERE product_id = 10;

-- insert a new order
insert into orders (order_id, customer_id, ordered_date, req_date, shipping_date, status,
total_amount, comments) values (10, 10, '2023-02-15 15:05:00', '2022-02-14', '2022-09-23',
'ordered', '519', 'wizarding hole ');
COMMIT;

START TRANSACTION;

-- update the customer's balance
UPDATE orders SET total_amount = total_amount - 50 WHERE customer_id = 3;

UPDATE orders SET status = 'ordered' WHERE order_id = 17;

COMMIT;
```

4.

```sql
START TRANSACTION;

insert into Products (category_id, product_id, p_name, count, price, description, stock,
manf_date, expiry_date) values (96, 103, 'Loin feather', 200, 460, "it was just a lion feather" ,
'available', '2018-03-27', '2023-11-22');

-- Update the inventory for Product A
UPDATE Products SET count = count - 50 WHERE product_id = 103;


insert into Customers (customer_id, first_name, last_name, username, password, contact_info)
values (109, 'Aryann', 'malik', 'staffe0', 'fffdPaRLs', '161-435-1671');

-- Add a new order for John Doe
insert into orders (order_id, customer_id, ordered_date, req_date, shipping_date, status,
total_amount, comments)
VALUES (104,(SELECT customer_id FROM Customers WHERE first_name =
'Aryann'),'2023-01-11 15:04:00', '2022-02-23', '2022-09-23','ordered','51017','Metadata');
```

COMMIT;

Conflicting Serializable Transactions :

1.

```sql
START TRANSACTION;

-- Update the inventory for Product A
UPDATE Products SET count = count - 50 WHERE product_id = 99;

-- Add a new order for John Doe
insert into orders (order_id, customer_id, ordered_date, req_date, shipping_date, status,
total_amount, comments)
VALUES (106,(SELECT customer_id FROM Customers WHERE first_name =
'Aryann'),'2023-01-11 15:04:00', '2022-02-23', '2022-09-23','ordered','51017','Metadata');
select * from orders;
COMMIT;


START TRANSACTION;

-- Update the inventory for Product B
UPDATE Products SET count = count - 30 WHERE product_id = 100;

-- Add a new order for John Doe for Product B
insert into orders (order_id, customer_id, ordered_date, req_date, shipping_date, status,
total_amount, comments)
VALUES (107,(SELECT customer_id FROM Customers WHERE first_name =
'Aryann'),'2023-01-11 15:04:00', '2022-02-23', '2022-09-23','ordered','51017','Metadata');
select * from orders;
COMMIT;
```

2.

```sql
-- Transaction 1:
START TRANSACTION;
UPDATE Products SET count = count - 7 WHERE product_id = 5;
COMMIT;

-- Transaction 2:
START TRANSACTION;
```

```sql
UPDATE Products SET count = count  - 9 WHERE product_id = 5;
COMMIT;



3.

-- Transaction 1
START TRANSACTION;
UPDATE Customers SET contact_info ='161-405-1641' WHERE customer_id=4;

-- Transaction 2
START TRANSACTION;
UPDATE Customers SET contact_info ='131-305-3601' WHERE customer_id=4;

-- Commit one of the transactions
select * from Customers;
COMMIT;

-- Transaction 1
START TRANSACTION;
UPDATE Products SET stock=0 WHERE product_id=1;

-- Transaction 2
START TRANSACTION;
insert into orders (order_id, customer_id, ordered_date, req_date, shipping_date, status,
total_amount, comments) values (118, 118, '2023-02-13 14:11:09', '2022-07-18', '2022-11-29',
'ordered', '627', 'packet applicat');

-- Commit one of the transactions
select * from Products;
select * from orders;
COMMIT;
```