User Guide to Wishlist (Pranav Aggarwal - 2021551 Prerak Gupta - 2021552)

There are a total of 5 modes to login in the system.

1. Admin
2. Sales Manager
3. Manufacturer
4. Delivery Partner
5. Customer

Functions of Admin

There are 2 admins who will monitor the whole working of the database.

Firstly, the admin has to sign in using his username and password. If wrong credentials are provided it will exit.

Now, if login is successful admin will have the following functions:

1. Browse Customer List
2. Browse Sales Manager List
3. Browse Manufacturer List
4. Browse Delivery partner List
5. Appoint Sales Manager
   Input - First Name, Last Name, E-mail, Mobile No.
   Inserted into Sales Manager table
6. Remove Sales Manager
   Input - Sales Manager ID
   Removed from Sales Manager table
7. OLAP Queries

Functions of Sales Manager

Firstly, the sales manager has to sign in.

Sales Manager will have the following functions:

1. Browse Manufacturer list
2. Browse Delivery Partner list

Functions of Manufacturer

Firstly, the manufacturer has to sign in.

Manufacturer will have the following functions:

1. Add Product
   Input - Name, Quantity, Price, Description, Category, Mfg Date
   Inserted into Product table
2. Update Product
   Input - Product ID
   - Update Quantity
     Input - Quantity
   - Update Price
     Input - Price

   Product details updated
3. Delete Product
   Input - Product ID
   Removed from Product table

Functions of Delivery Partner

Firstly, the delivery partner has to sign in.

Delivery Partner will have the following functions:

1. Browse Order Summary
   Details of orders showed
2. Check Order Status
   Status of Order IDs printed
3. Update Order Status
   Input - Order ID
   Input - New Status
   Status of given Order ID updated

Functions of Customer

Firstly, the customer has to sign in.

Customer will have the following functions:

1. Browse/Add products

Input (for adding) - Number of Products, Product ID, Product Quantity
Products added to cart

2. Update Cart
    - View Cart
    - Delete Product from cart
      Input - Product ID
      Product deleted from cart
3. View order
   All orders printed
4. Place order
   Order placed

Transactions

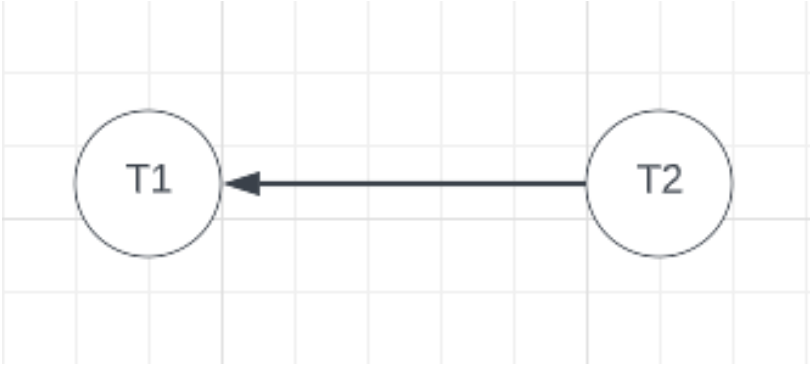
T1 - Quantity of product A is increased by 50 and B is decreased by 100.
T2 - Quantity of product B is decreased by 50.

Conflict Serializable Schedule

T1	T2
R(A) -> Read quantity of product A from product table.	
W(A) -> Update A = A + 50.	
	R(B) -> Read quantity of product B from product table.
	W(B) -> B = B - 50.
R(B) -> Read quantity of product B from product table.	
W(B) -> B = B - 100.	

Here, we have a **WR** as well as a **WW** (both from T2 to T1) conflict as highlighted.
Both the conflicts will be shown as an arrow **from T2 to T1**. This will form a directed acyclic graph, hence, it is a conflict serializable transaction schedule.

Precedence Graph



Non - conflict Serializable Schedule

T1	T2
R(A) -> Read quantity of product A from product table.	
W(A) -> Update A = A + 50.	
R(B) -> Read quantity of product B from product table.	
	R(B) -> Read quantity of product B from product table.
	W(B) -> B = B - 50.
W(B) -> B = B - 100.	

Here, we have a **RW** (from T1 to T2) as well as a **WW** (from T2 to T1) conflict as highlighted.
But the difference here is that one of the conflicts will be represented by an arrow from T1 to T2 while the other will be represented by an arrow from T2 to T1.
This will form a cyclic graph i.e. a loop, hence, it is a non-conflict serializable schedule.

Precedence Graph