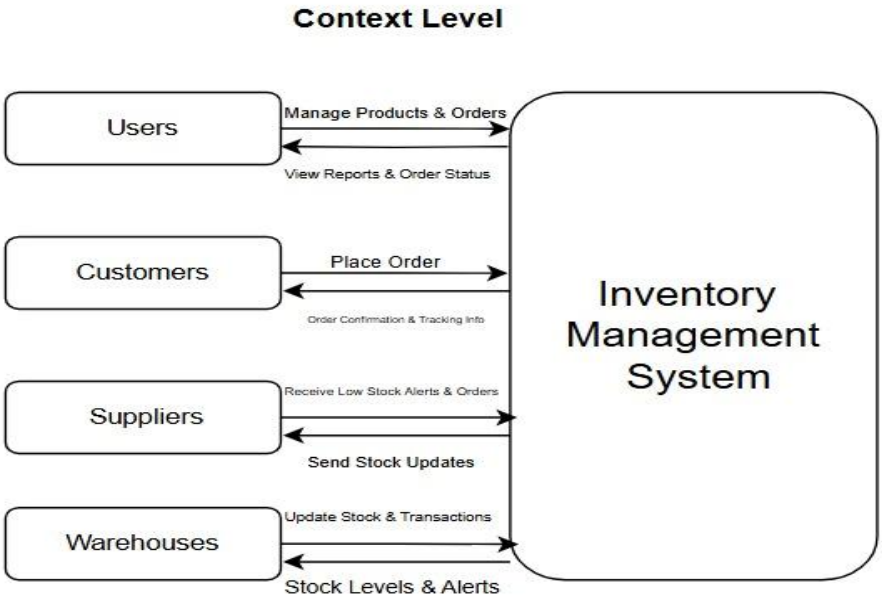
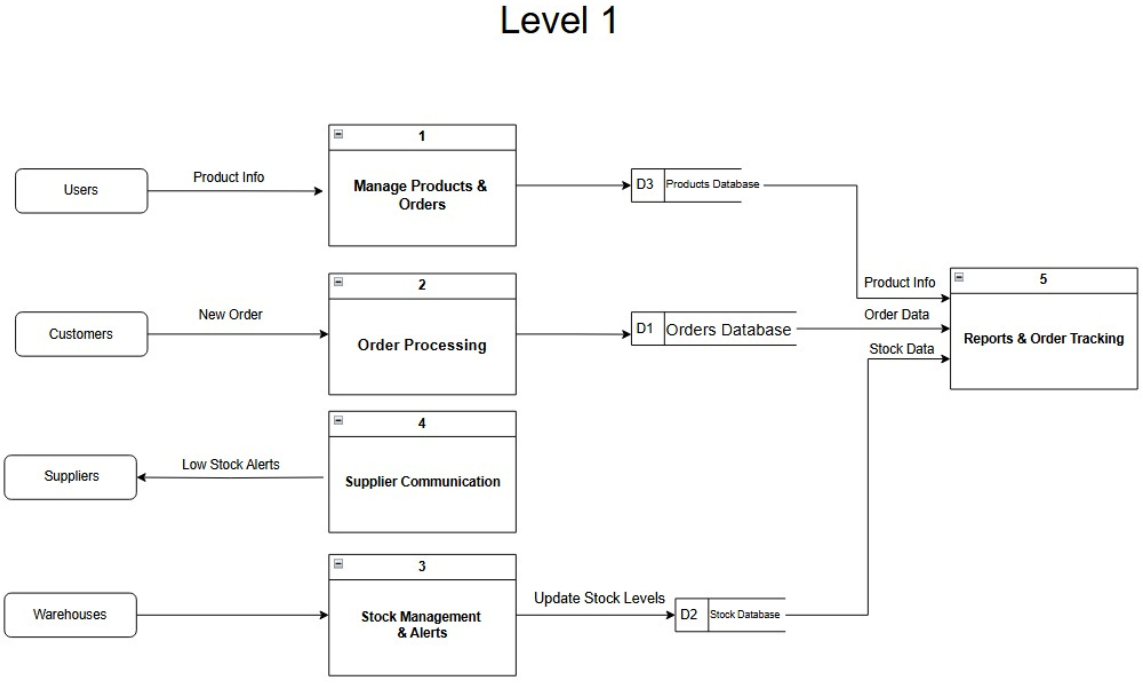
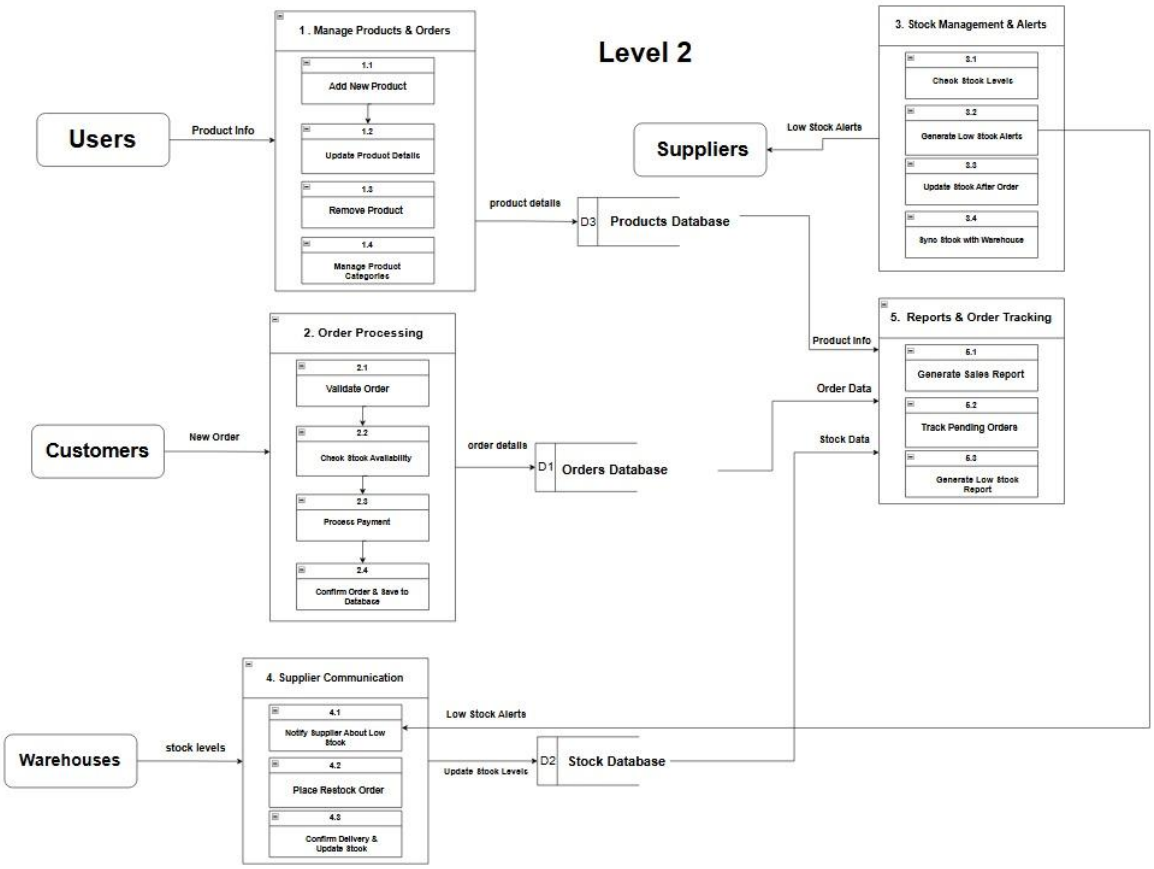
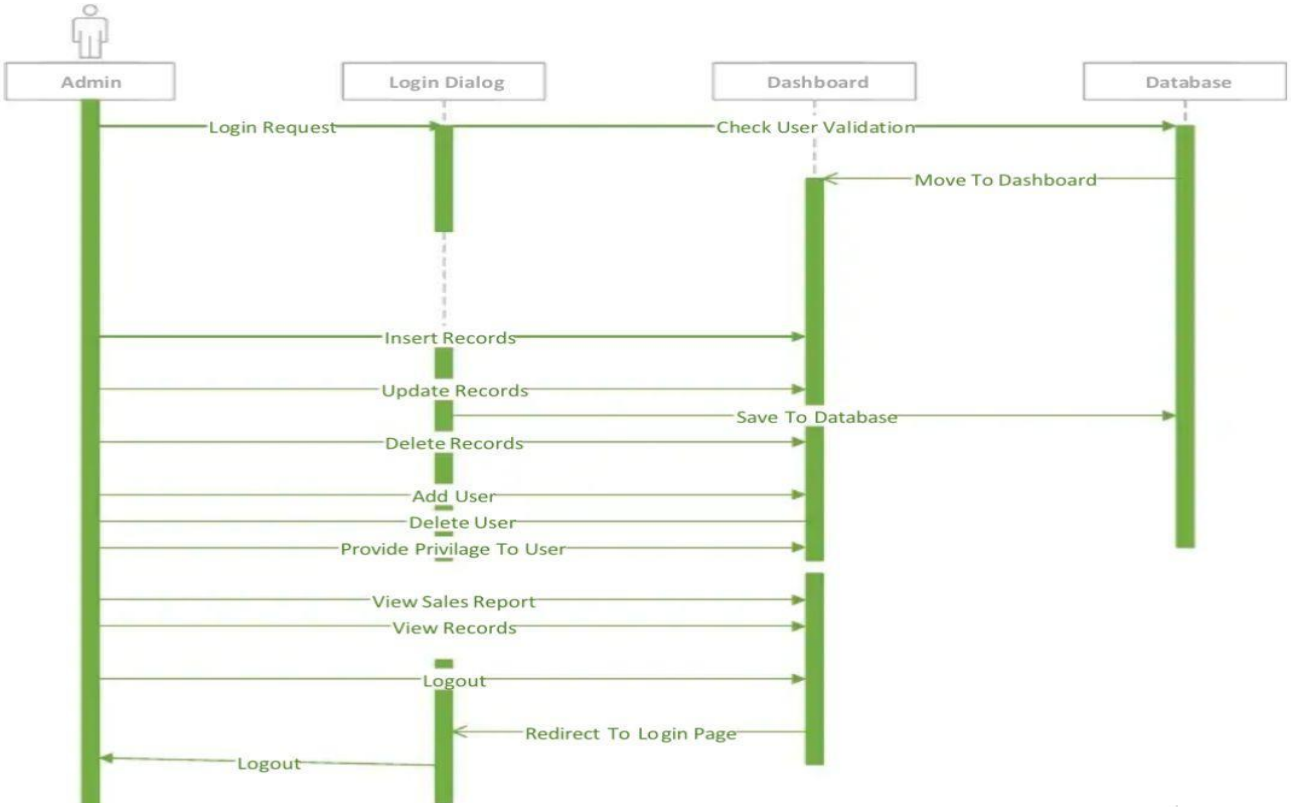
3. Data Flow & System Behavior

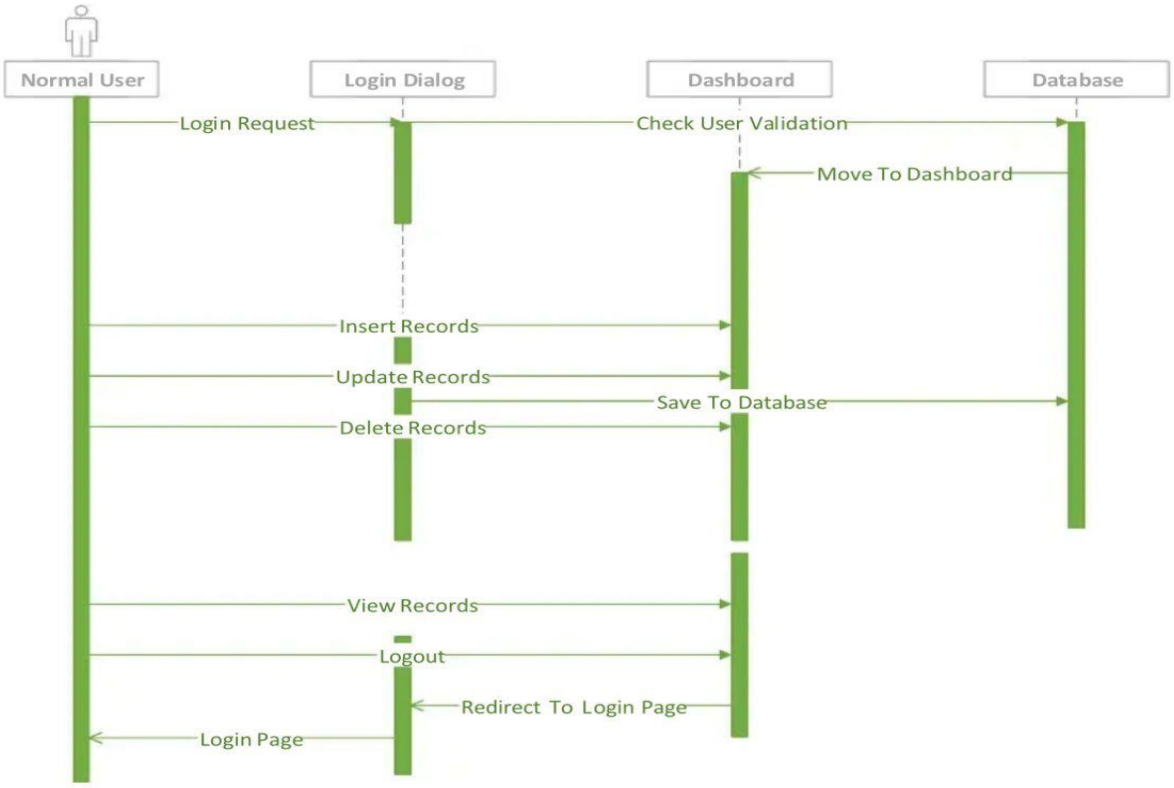
1. Data Flow Diagram:

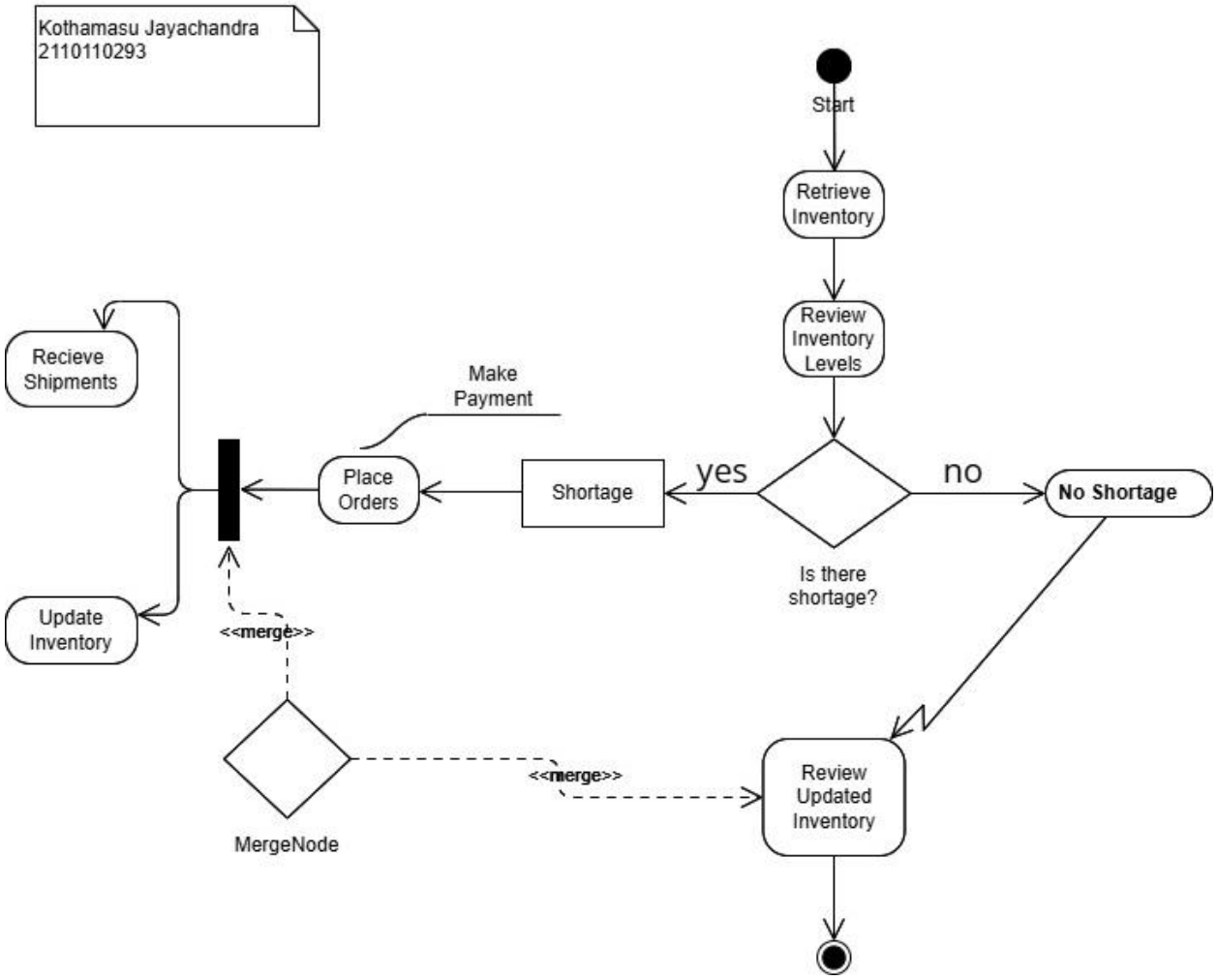


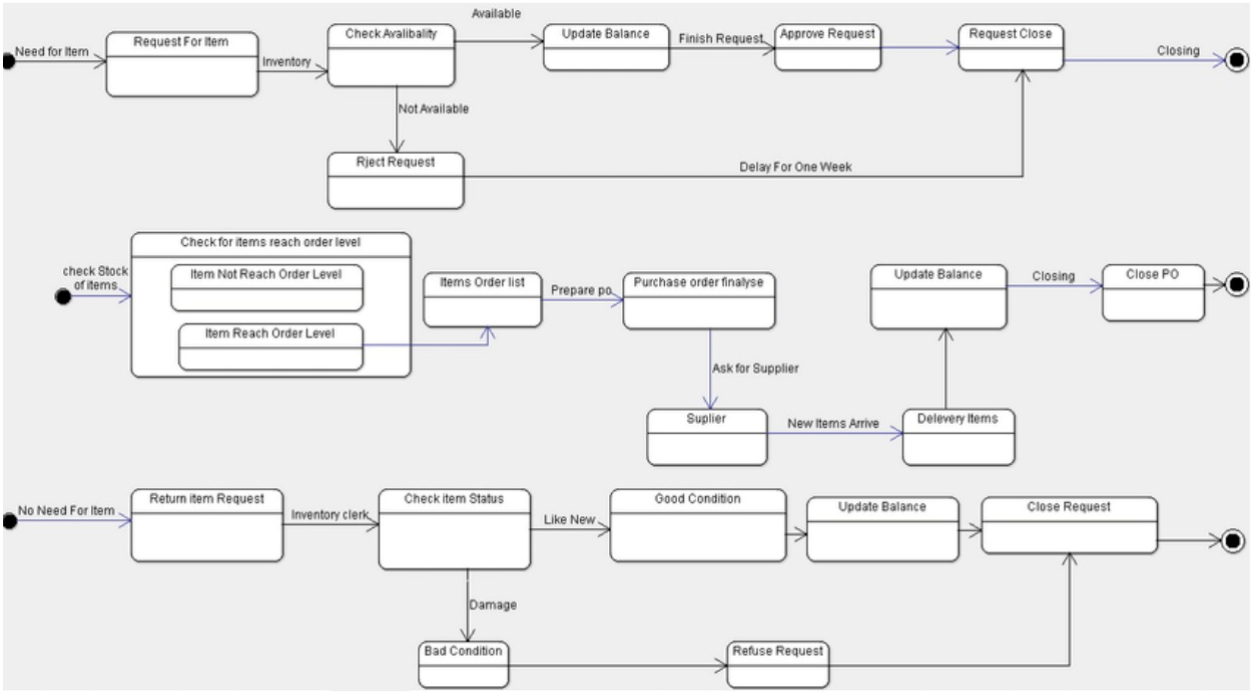


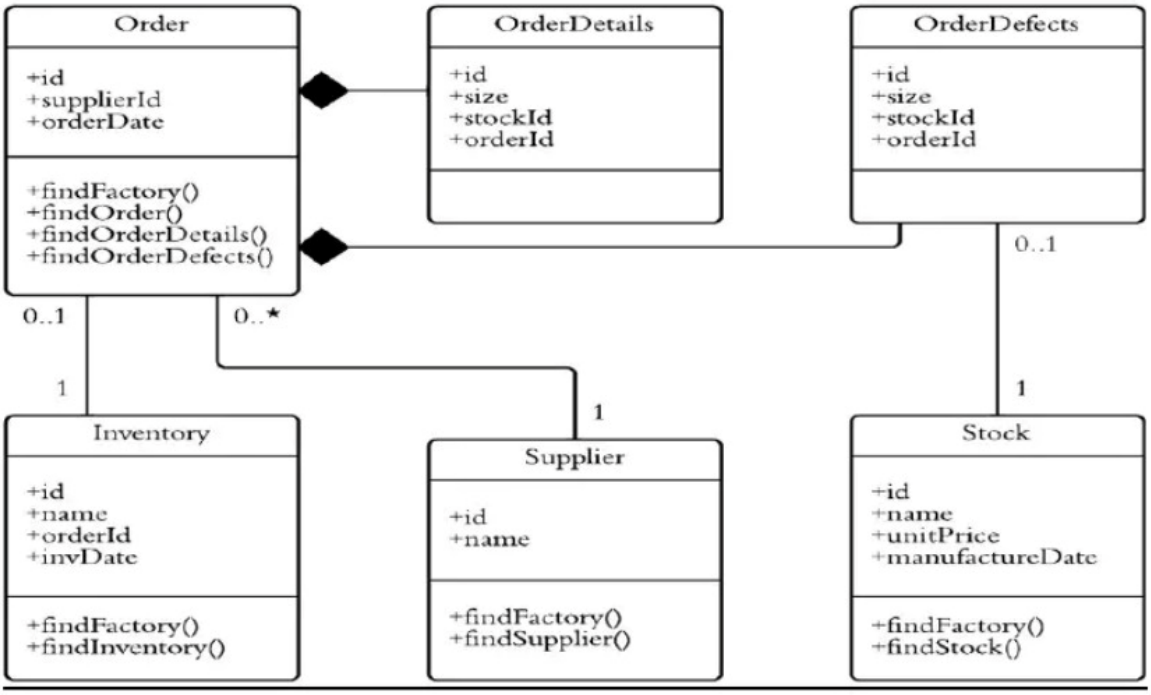

Level 2
Users
Product Info
1 . Manage Products & Orders
1.1
Add New Product
1.2
Update Product Details
1.3
Remove Product
1.4
Manage Product Categories
product details
D3
Products Database
Suppliers
Low Stock Alerts
3. Stock Management & Alerts
3.1
Check Stock Levels
3.2
Generate Low Stock Alerts
3.3
Update Stock After Order
3.4
Sync Stock with Warehouse
Product Info
5. Reports & Order Tracking
5.1
Generate Sales Report
5.2
Track Pending Orders
5.3
Generate Low Stock Report
Order Data
Stock Data
Customers
New Order
2. Order Processing
2.1
Validate Order
2.2
Check Stock Availability
2.3
Process Payment
2.4
Confirm Order & Save to Database
order details
D1
Orders Database
Warehouses
stock levels
4. Supplier Communication
4.1
Notify Supplier About Low Stock
4.2
Place Restock Order
4.3
Confirm Delivery & Update Stock
Low Stock Alerts
Update Stock Levels
D2
Stock Database


Admin
Login Dialog
Dashboard
Database
Login Request
Check User Validation
Move To Dashboard
Insert Records
Update Records
Save To Database
Delete Records
Add User
Delete User
Provide Privilage To User
View Sales Report
View Records
Logout
Redirect To Login Page
Logout


Normal User
Login Dialog
Dashboard
Database
Login Request
Check User Validation
Move To Dashboard
Insert Records
Update Records
Save To Database
Delete Records
View Records
Logout
Redirect To Login Page
Login Page


Kothamasu Jayachandra
2110110293
Start
Retrieve Inventory
Review Inventory Levels
Is there shortage?
yes
no
Shortage
No Shortage
Make Payment
Place Orders
Recieve Shipments
Update Inventory
<<merge>>
MergeNode
<<merge>>
Review Updated Inventory


Need for Item
Request For Item
Inventory
Check Availability
Available
Update Balance
Finish Request
Approve Request
Request Close
Closing
Not Available
Rject Request
Delay For One Week
Check for items reach order level
check Stock of items
Item Not Reach Order Level
Item Reach Order Level
Items Order list
Prepare po
Purchase order finalyse
Ask for Supplier
Suplier
New Items Arrive
Delevery Items
Update Balance
Closing
Close PO
No Need For Item
Return item Request
Inventory clerk
Check item Status
Like New
Good Condition
Update Balance
Close Request
Damage
Bad Condition
Refuse Request


Order
+id
+supplierId
+orderDate
+findFactory()
+findOrder()
+findOrderDetails()
+findOrderDefects()
OrderDetails
+id
+size
+stockId
+orderId
OrderDefects
+id
+size
+stockId
+orderId
0..1
0..1
0..*
1
1
1
Inventory
+id
+name
+orderId
+invDate
+findFactory()
+findInventory()
Supplier
+id
+name
+findFactory()
+findSupplier()
Stock
+id
+name
+unitPrice
+manufactureDate
+findFactory()
+findStock()