Data Flow Diagrams

Level 0

DFD level 0 describes the interaction of the system and the environment. It shows us all the input and outputs of the system. It is a high level abstraction of the design. In our project we have registered user, admin and visitor interacting with the system. This design shows the functionalities these users can perform on the system.

Level 1

DFD level 1 is an even more detailed description of the interaction between the system and the environment. It shows all the functionalities given to different users (registered user, visitor and admin) and the flow of data when each of the user performs the functionalities given to them. The System in Level 0 Diagram is exploded into the different functionalities in the Level 1 DFD. Thus, it gives a clearer picture of the system than the Level 0 DFD.

SWIM LANE DIAGRAMS

Swim lane visually distinguishes job sharing and responsibilities for sub-processes of a business process. The different sub-processes are the different activities that can be performed the users. This design shows the sequence in which each of this activities are performed. The various activities in our project include registration by user, viewing stock details by user and visitor, managing the company and stocks by admin, buying and selling of stocks by admin and user.

Our system has 4 different sub-processes each of which has been represented as a swim lane diagram below. The 4 sub-processes are

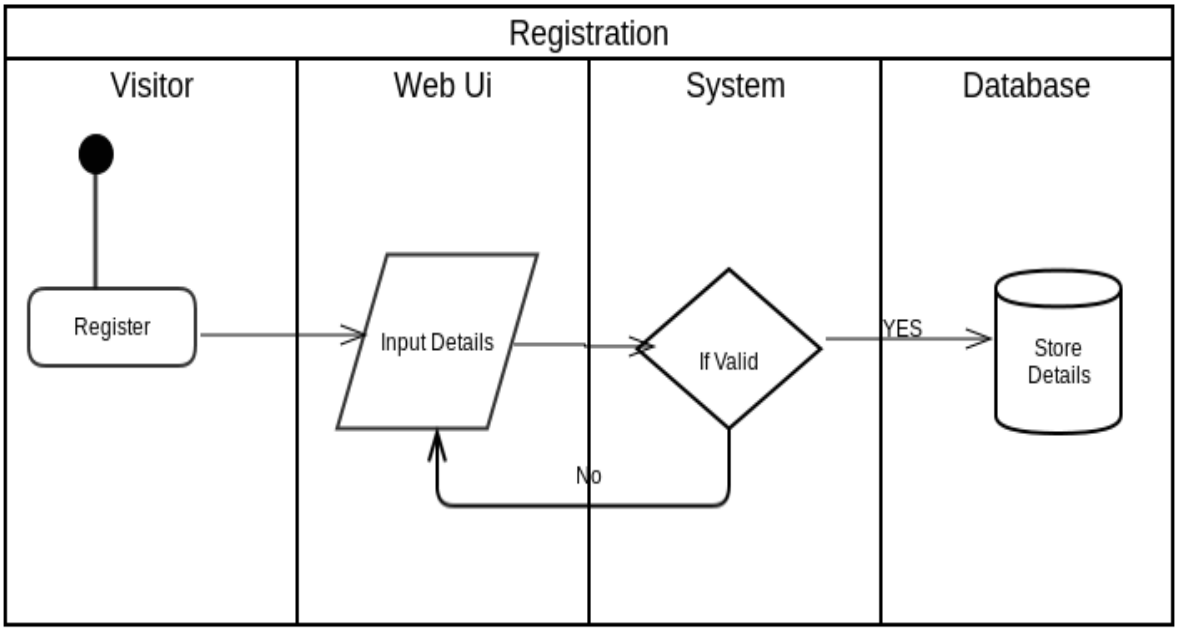
- Registration - Visitor
- View Stock Details - Registered User
- Buy/Sell Stocks - Registered User
- Modify Stock Details – System Administrator

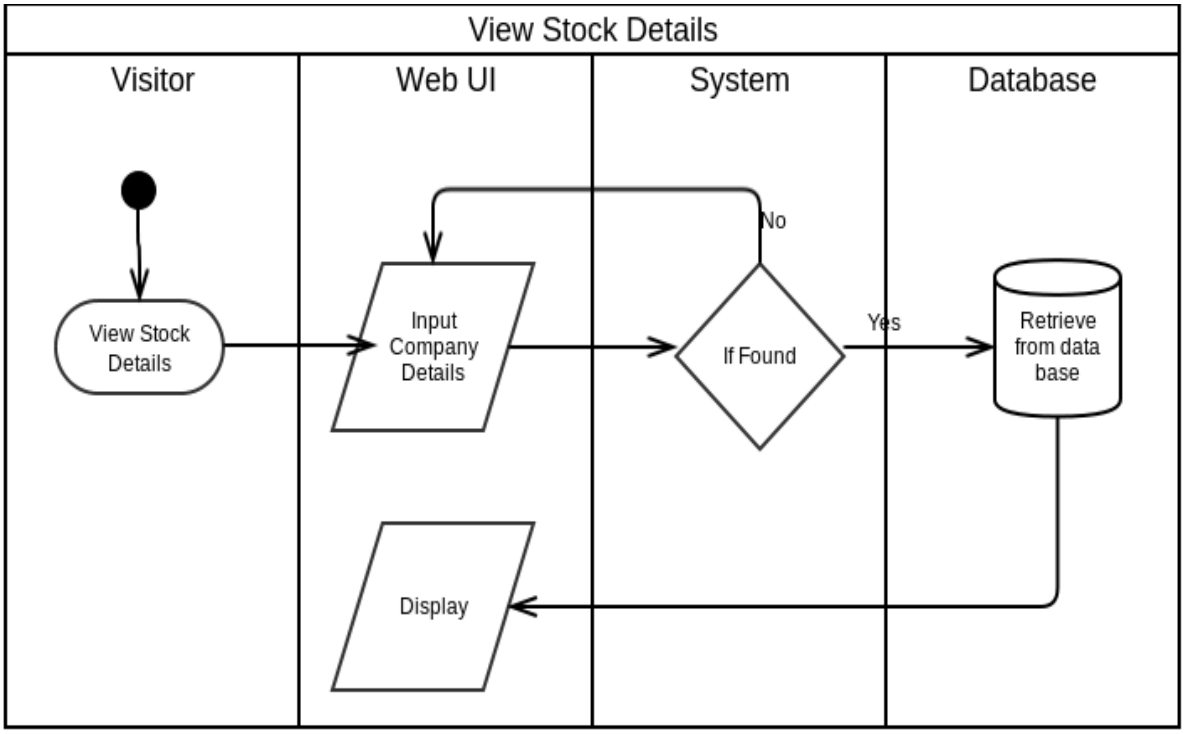
CRC and Class Diagram

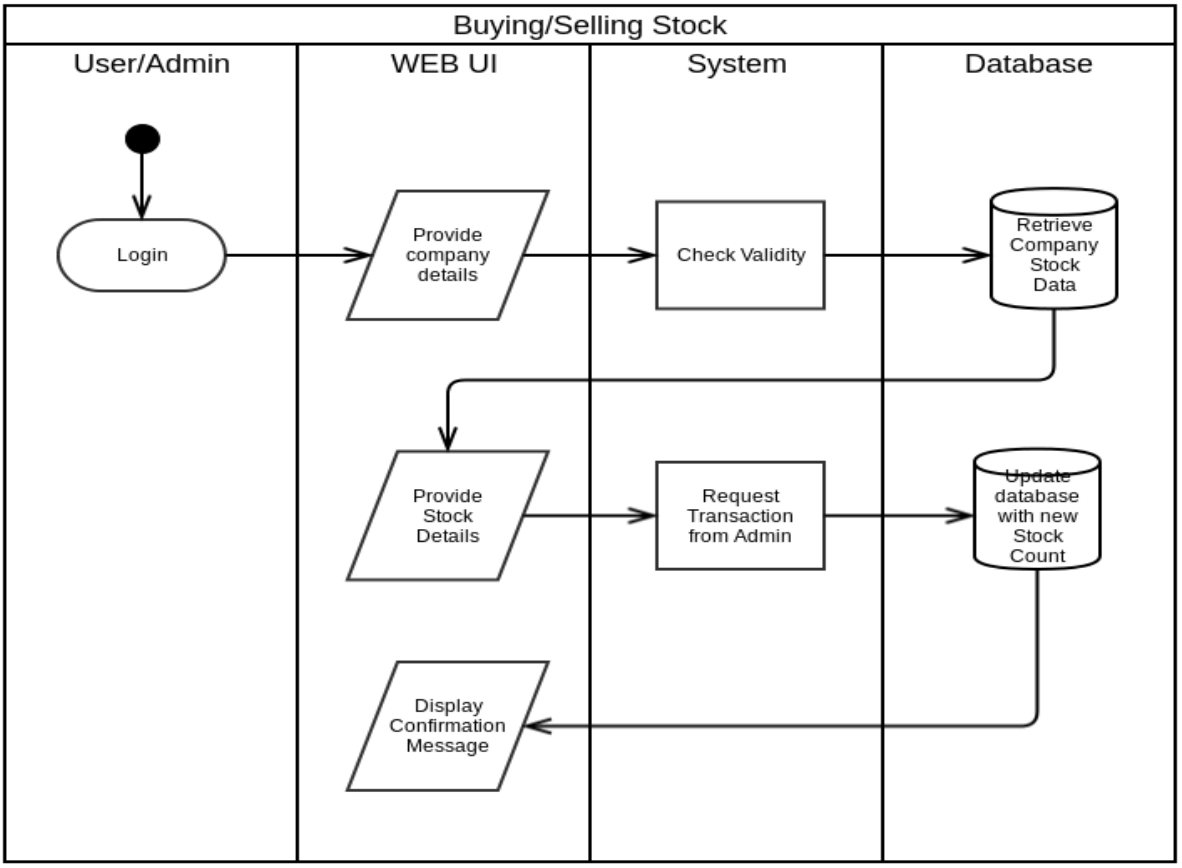
Class Responsibility Collaboration diagram tells us how each class is collaborated with other classes and the functionalities through which the classes are collaborated. The classes in our project are user, admin, buy, sell, company, ownership, stocks and visitor. The diagram shows the link between these classes.

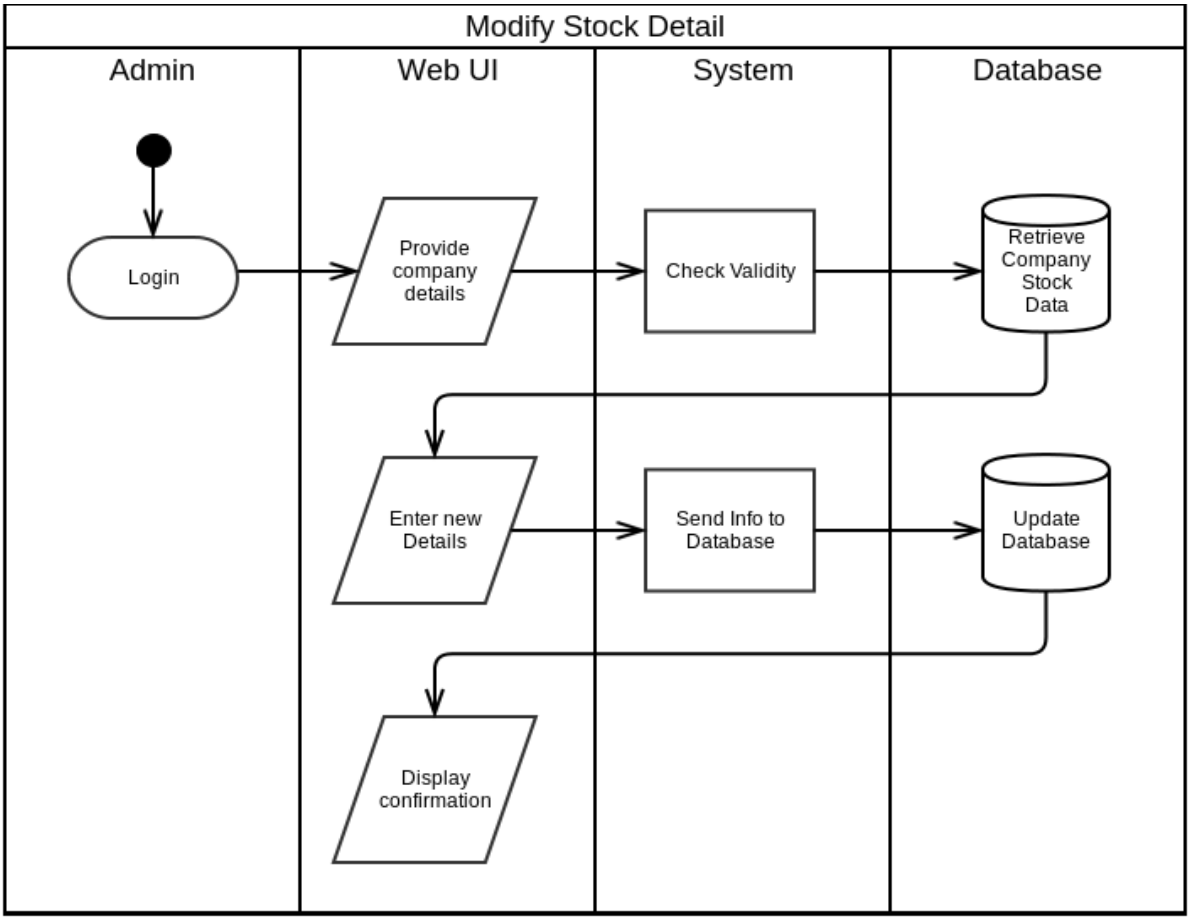
Class diagram describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. The class diagram shows the relationship between the classes in our project (user, admin, buy, sell, company, ownership, stocks and visitor).

Swim Lane Diagrams






Buying/Selling Stock
User/Admin
WEB UI
System
Database
Login
Provide company details
Check Validity
Retrieve Company Stock Data
Provide Stock Details
Request Transaction from Admin
Update database with new Stock Count
Display Confirmation Message


Modify Stock Detail
Admin
Web UI
System
Database
Login
Provide company details
Check Validity
Retrieve Company Stock Data
Enter new Details
Send Info to Database
Update Database
Display confirmation

CRC Diagram

SELL
RESPONSIBILITIES Buy Id Price Volume Stock Id Timestamp User Id
COLLABORATIONS

BUY
RESPONSIBILITIES Buy Id Price Volume Stock Id Timestamp User Id
COLLABORATIONS

Ownership
RESPONSIBILITIES Ownership Id Stock Id User Id Number of Stocks Ticker Company Id Price
COLLABORATIONS

COMPANY
RESPONSIBILITIES Company Id Website Company Name Address Share Price Day High Day Low Week High Week Low Average Price Number of shares Number of Shares Sold
COLLABORATIONS

ADMINISTRATOR
RESPONSIBILITIES Admin Id Password 1. Manage Price 2. Calculate Index 3. View User Details 4. Manage Companies 5. Buy Stocks 6. Sell Stocks 7. Sign In 8. Sign Out
COLLABORATIONS Company Stocks Buy Sell

USER
RESPONSIBILITIES User Id Password Email Name Address Liquid cash Market value Rank Age Day worth Week worth 1. Sell stocks 2. Buy stocks 3. Sign in 4. Sign out 5. View information about owned stocks 6. Edit profile 7. Cancel order 8. View Information About Companies
COLLABORATIONS Company Ownership Sell Buy

STOCKS
RESPONSIBILITIES Stock Id Ticker Company Id Price
COLLABORATIONS

VISITOR
RESPONSIBILITIES 1. Register 2. View Information about Share Prices
COLLABORATIONS Company Sell Buy