

Inventory Management System

1.1 Problem Statement

Managing the details is not recommended since it is highly difficult and time-consuming to handle each product's records manually, and if there is a problem—for example, if a record is lost that was saved offline—it creates a host of other issues and makes it challenging to recover the data.

1.2 Importance

This makes it easier for us to handle and retrieve the information. Additionally, this aids in checking the goods they already have on hand and updating them as needed. This cuts down on the time it takes to find the product in the stock that is currently on hand. An inventory system's job is to keep track of your supplies and goods. Inventory management is the act of keeping track of the components that a business orders, stores, and uses to make the goods it sells.

2. Overview and Planning

2.1 Proposed System Overview

This system has the following modules

□ **Login**

The seller gives the username and password and logs into the system.

□ **Register**

The seller gives the necessary details and registers in the system

□ **View and select the product**

The database contains the list of available products and is displayed when selected.

The total amount of the selected produced is displayed.

To maintain the customer and owner relationship discount option is added

□ **Billing**

On selecting the products and quantity the amount is displayed along with the details of the selected products

2.2 Challenges

- To explain that this software is better than a manual system.
- To explain the detailed process involved in the software.
- To develop software which easy to use and avoid complexity.
- The software should satisfy the user's needs.
- To provide accurate database services.
- To make sure that the software works at the user's place (user environment).
- Mis-communication between the sales and the supply chain management team.

2.3 Assumptions

- Based on the sales orders given to the supply chain management they check the availability of the raw materials and then they supply and manufacture products.
- The inventory system has the list of the products and the quantity of the products. Depending upon the sales of the product the exact details about the product are displayed to the user.
- From this the customers select the product to sell.

2.4 Architecture Specifications

- The architecture of the inventory management system uses a client-server model
- The design or architectural specification for the inventory management system is Java since the JSP architecture will be used.

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- The Java Database Connectivity (JDBC) will use the MySQL Connector for the server to communicate with the inventory database.
- Upon receiving requests from the clients, the server will issue transactions to the MySQL database.

2.5 Hardware Requirements

PROCESSOR: 64-bit

ROM : 2GB

RAM : 4GB

2.6 Software Requirements

OPERATING SYSTEM: WINDOWS 8/10 FRONT

END: JAVA NETBEANS

BACK END: MYSQL

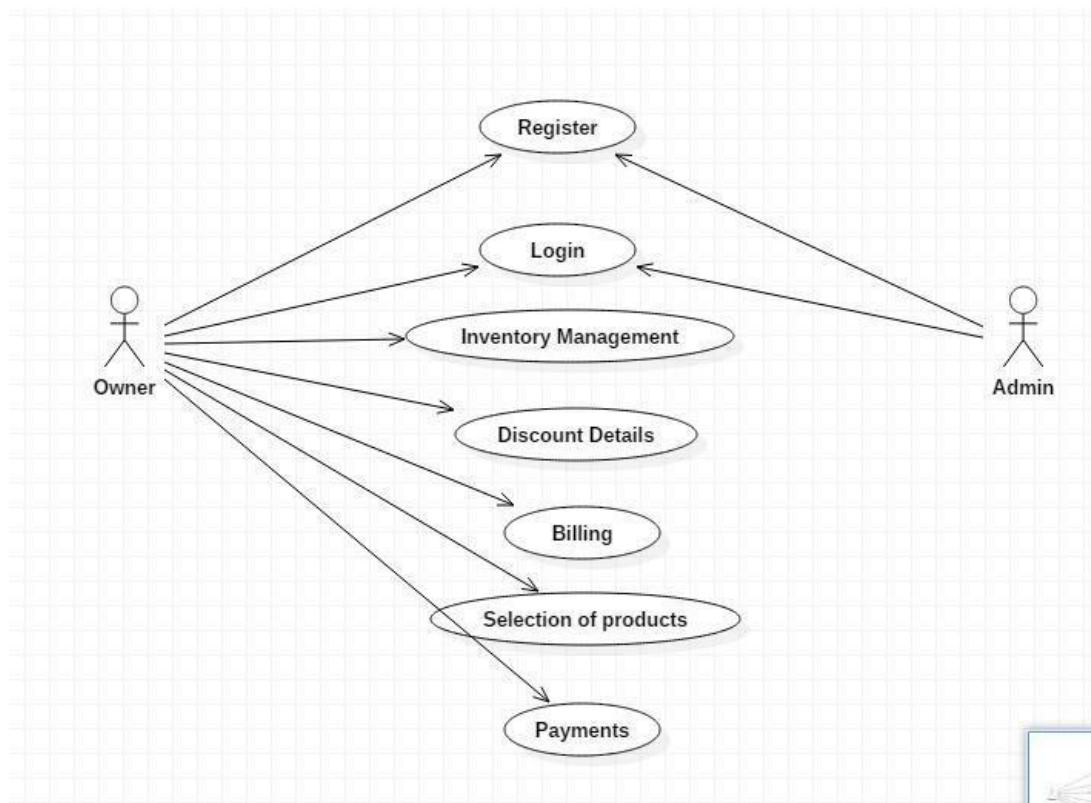
3. System Design

3.1 High-Level Design

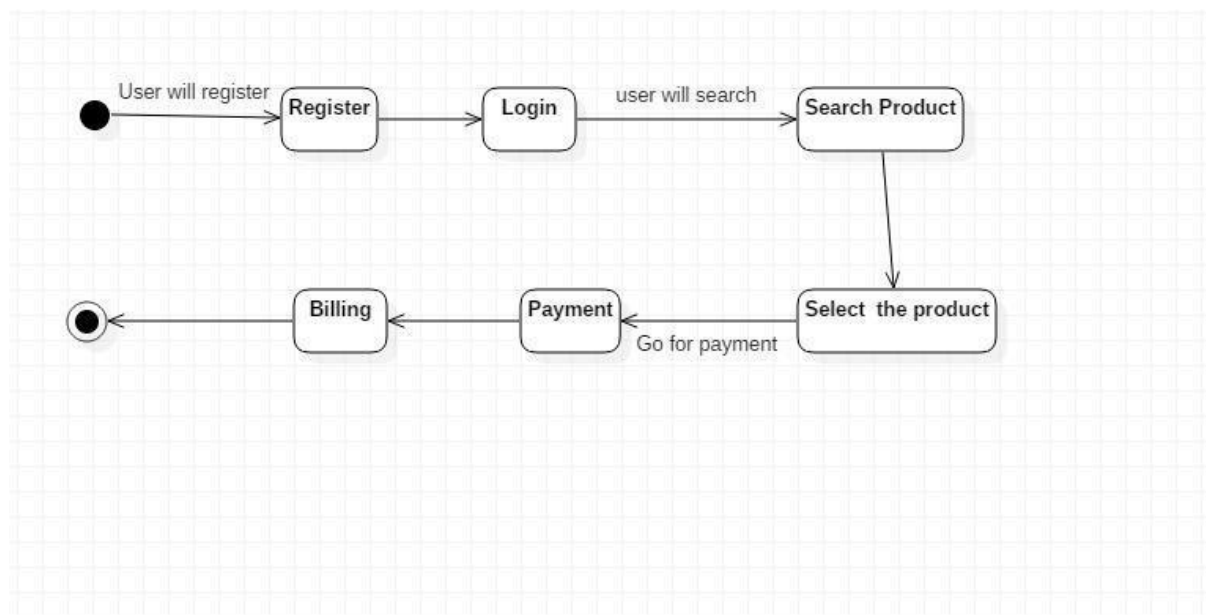
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USE CASE DIAGRAM



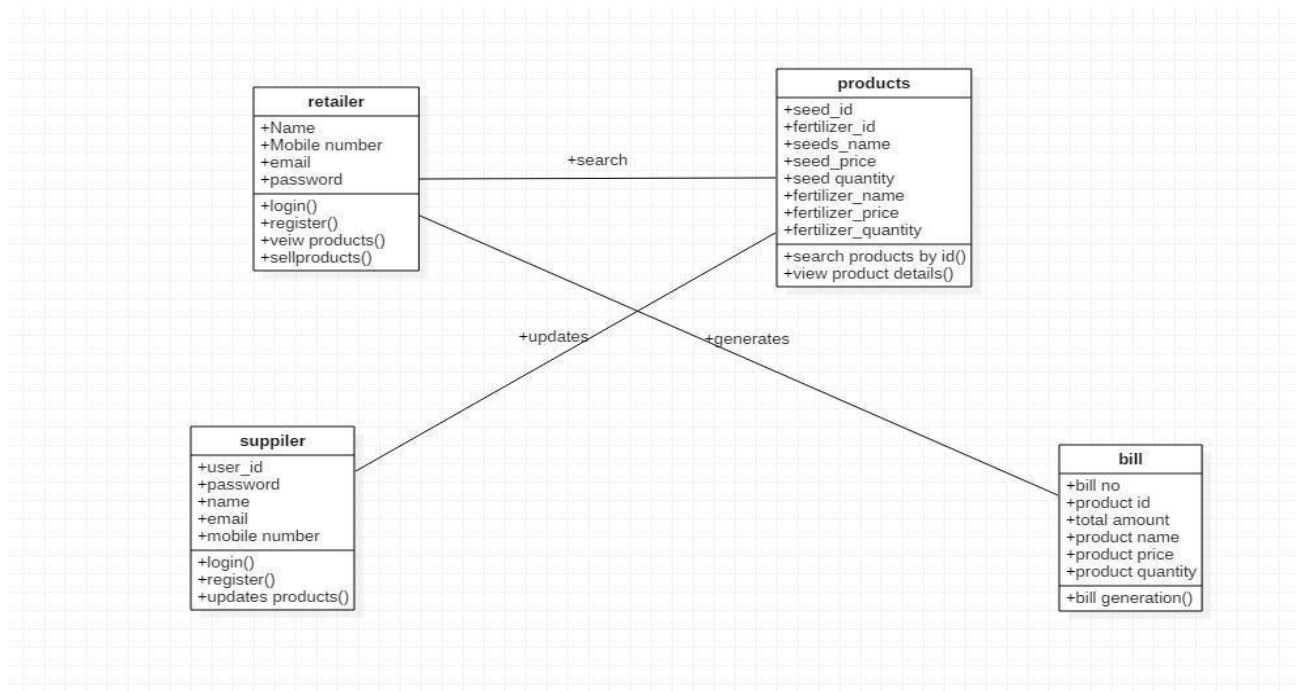
STATECHART DIAGRAM



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CLASS DIAGRAM

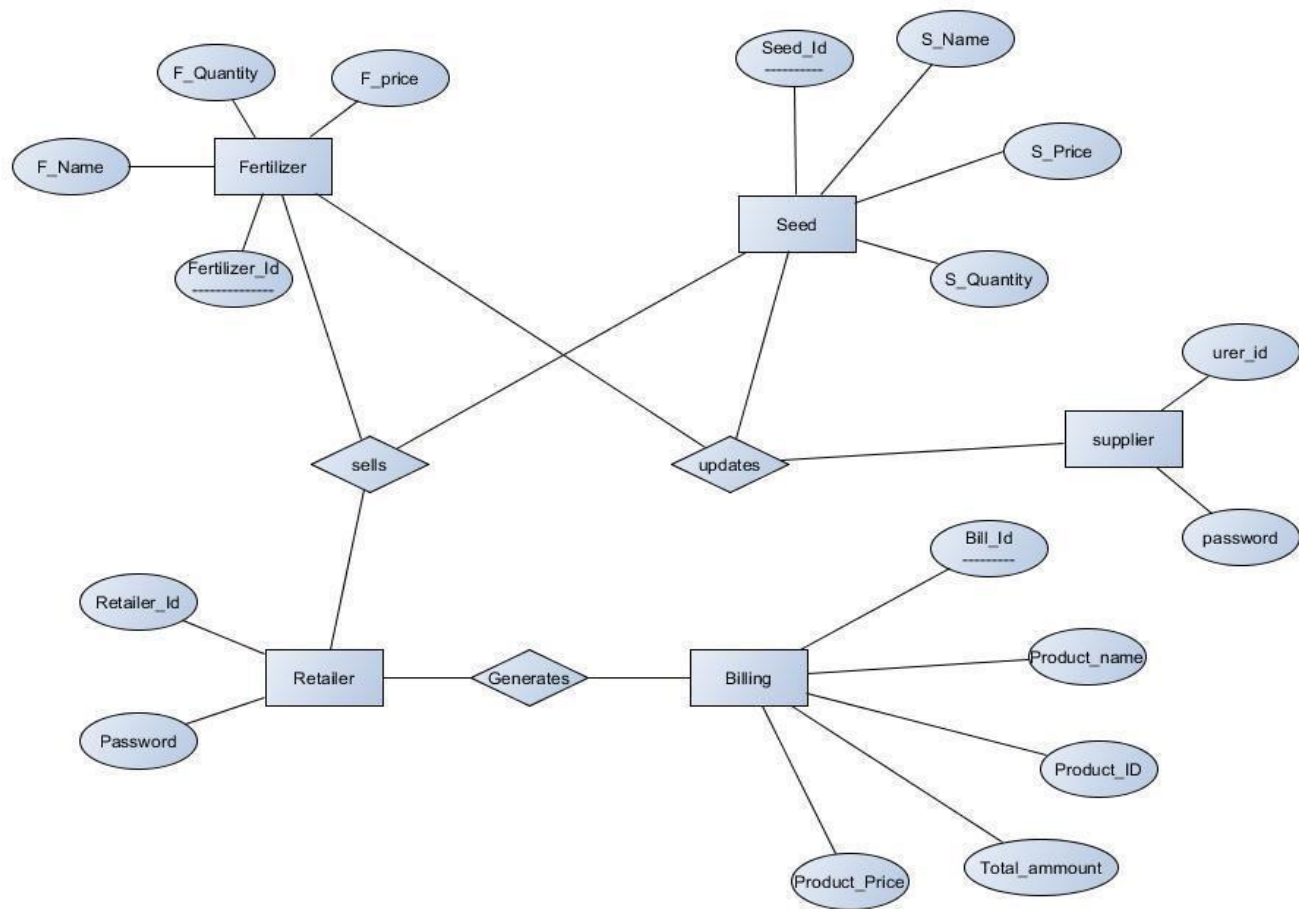


3.2 Low-Level Design

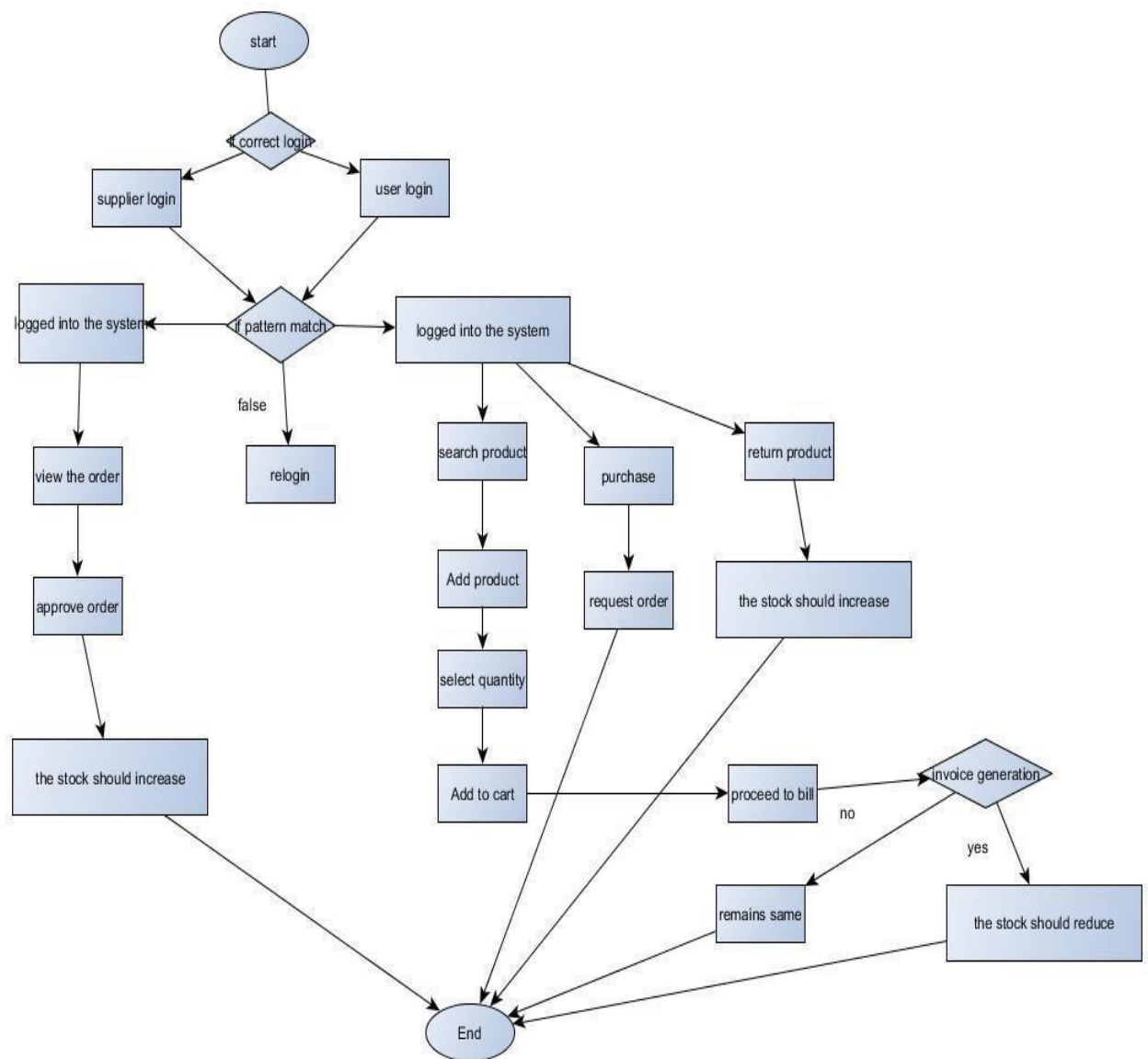
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ER DIAGRAM



4. System Implementation



4.1 Output/Results

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RETAILER LOGIN

Username


admin

Password

123

Login

SUPPLIER LOGIN



A hand is shown sowing small blue seeds into a black seedling tray. Three small green seedlings are already growing in the tray. The background is a soft, out-of-focus green. The text 'fotolia by Adobe' is visible in the center, and '#10255199' is in the bottom right corner.

—

□

×

Add Product

Item Id:

ft6

Item Name:

groundnut

Quantity:

30

Price Per Unit:

400

MFD:

4/5/2017

EXP:

4/4/2019

Batchno:

h23

Add Product

Back

Message

×

i

Product Successfully Added

OK

—

□

×

Back


Search Product

Item_Id:

ft6

Search Product

ft6



Item_Name:

groundnut

Qunatity (in lit/kg):

6

Price Per Unit:

400


Total Price:

2400

Add to cart

item_id	item_name	quntatity	price	mfd	exp	batchno
ft6	groundnut	30	400	4/5/2017	4/4/2019	h23


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
Search Product

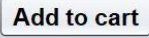
Item_Id:
Item_Name:
Qunatity (in lit/kg):
Price Per Unit:
Total Price:


Search Product



item_id	item_name	quantity	price	mfd	exp	batchno
400	4/5/2017	4/4/2019	h23			


**Message**
Product Successfully Added to cart






item_id	item_name	quantity	unit price	total price
ft6	groundnut	6	400	2400
ft6	groundnut	6	400	2400
ft6	groundnut	5	400	2000

Total Amount 6800



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Inventory

Display Inventory

Back

Item_Id	item_name	quantity	price	mfd	exp	batchno
ft5	sulphate	40	900	5/10/2017	6/10/2018	h789
ft4	ammonia	39	700	03/10/2017	03/10/2018	t200
ft3	NH4	50	700	22/11/2017	22/11/2018	b85
ft2	ammonia	90	150	20/08/2018	11/12/2019	am123
ft1	urea	57	200	20/10/2018	20/11/2019	asdc1
sd1	Grounnuts	400	300	4/5/2016	4/3/2018	h78
sd2	rice	66	500	4/6/2017	3/8/2108	g77
sd3	chilli	80	500	3/5/2017	5/7/2019	g67
sd4	wheat	90	300	7/2/2017	5/5/2019	h67
sd5	corn	50	900	8/7/2017	7/5/2019	hf6

Bill No: 45

Date: 2018-10-28 17:49:44.0

Item_Id	Item_name	Quantity	price	total_price
ft1	urea	2	200	400

Total Amount: 400

Generate Invoice

item_id	item_name	quntatity	price	totalprice
ft6	groundnut	6	400	2400

billno	item_id	item_name	quntatity	price	date
44	ft6	groundnut	6	400	2018-10-...

4.2 Discussion

In the future, a barcode scanner can be used to scan the merchandise. It is possible to create a system that will accept and deliver online orders from clients. With the use of feedback, the client relationship can be strengthened.

5. Conclusion and Future Developments

In this project, we created a system that makes it simple for retailers to manage and sell their inventory. Marketing and sales, supply chain management, accounting and finance, and human resources are just a few

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of the functional areas of ERP that are covered. So, using inventory management can aid in boosting the retailer's sales. Therefore, depending on demand, the necessary products can be purchased. In the future, a barcode scanner can be used to scan the merchandise. It is possible to create a system that will accept and deliver online orders from clients.

With the use of feedback, the client relationship can be strengthened.