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# Software-Design Document

for

# Shop Inventory Management System

Version 1.2

Prepared by

Group #: 20

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Course: CS253

Mentor TA: Swastik Maiti

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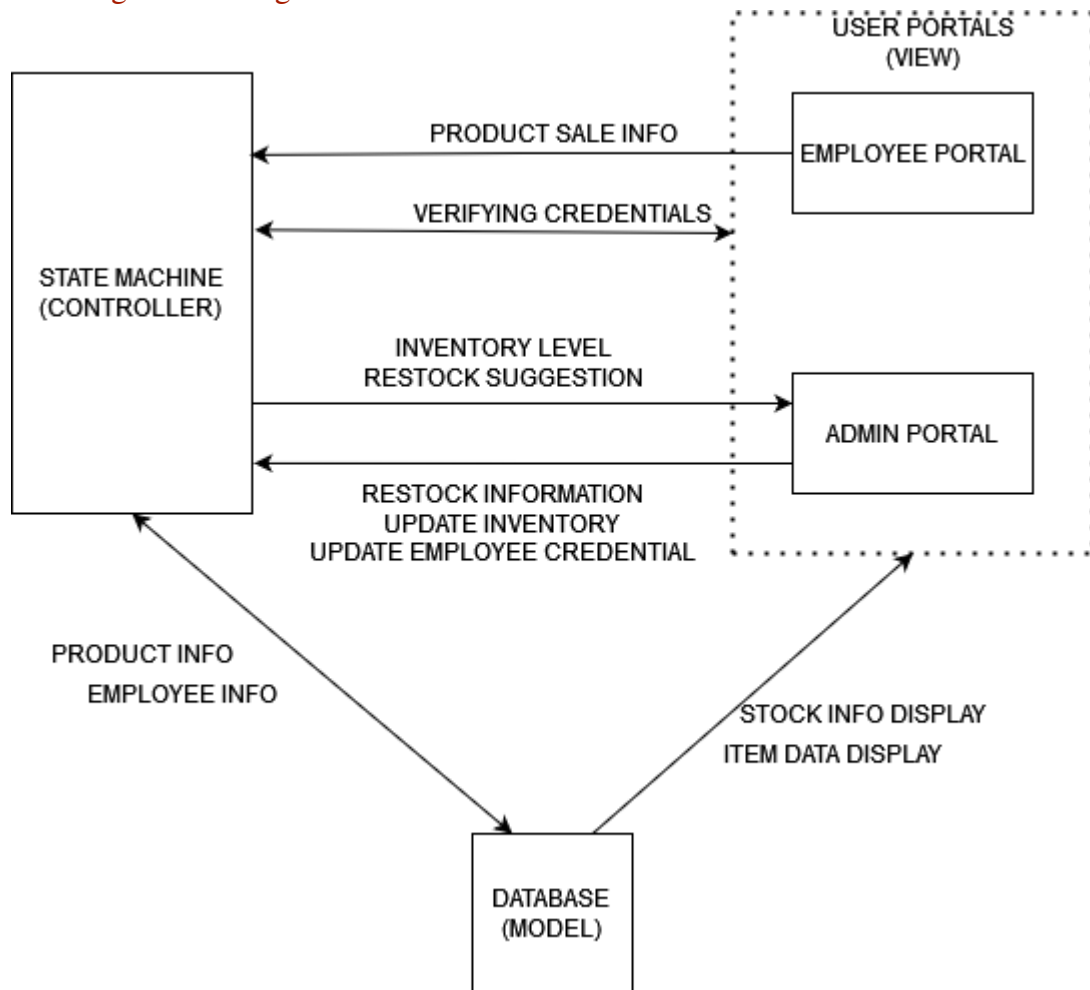
## Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.1	Kshitij Kabeer Rishabh Kothary Kartavya	Added all diagrams related to software design	15/02/2022
1.2	Kshitij Kabeer Rishabh Kothary	Changed all diagrams to better match the final product we developed	28/04/2022

# 1 Context Design

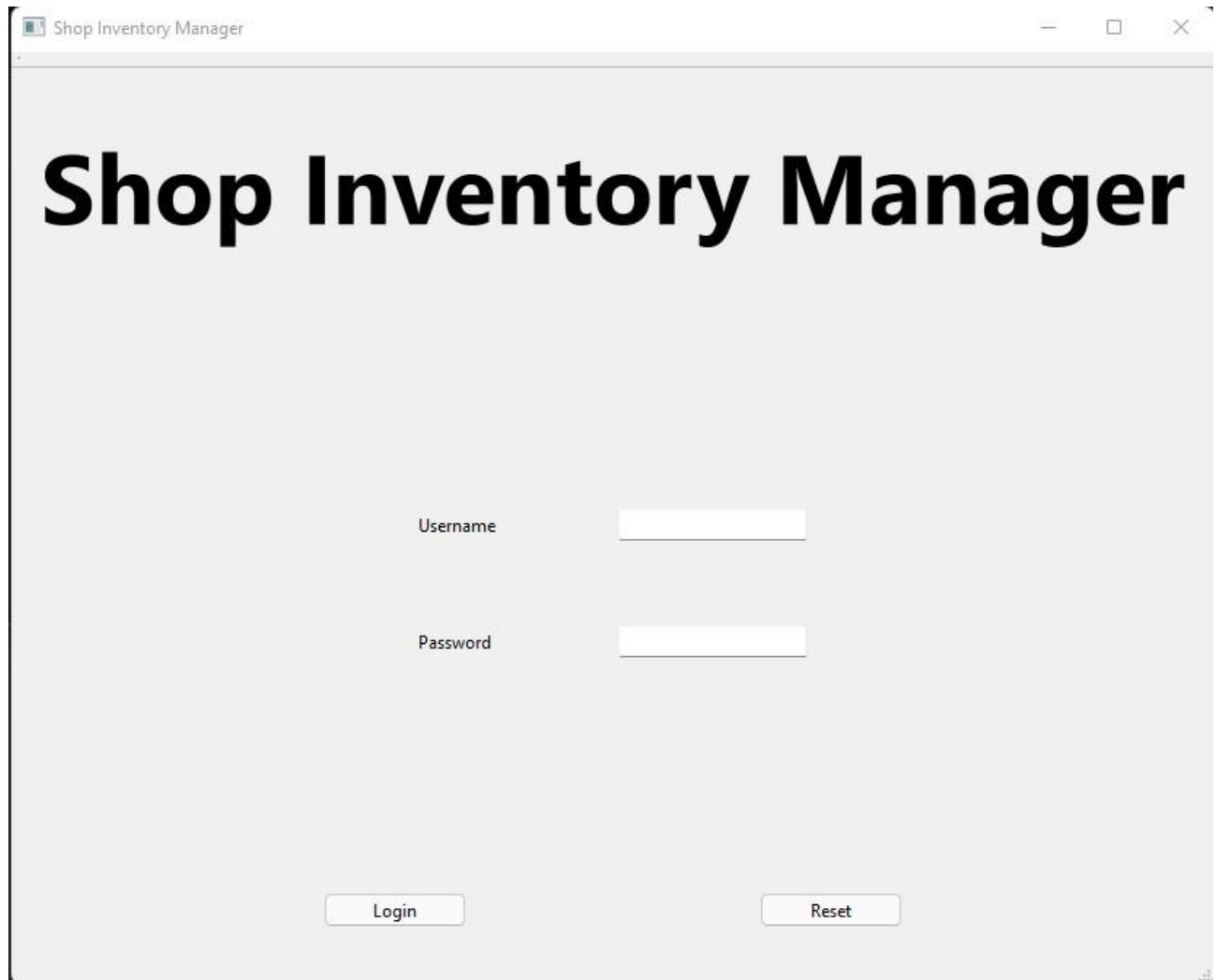
## 1.1 Context Model

This diagram is changed



## 1.2 Human Interface Design

(These diagrams are changed)



The image shows a screenshot of a web application window titled "Shop Inventory Manager". The window has a light gray background and a title bar with standard minimize, maximize, and close buttons. The main content area features the title "Shop Inventory Manager" in a large, bold, black font. Below the title, there are two input fields: "Username" and "Password", each with a corresponding label to its left. The "Password" field is masked with dots. At the bottom of the form, there are two buttons: "Login" and "Reset", both with rounded corners and a light gray background.

Shop Inventory Manager

# Shop Inventory Manager

Username

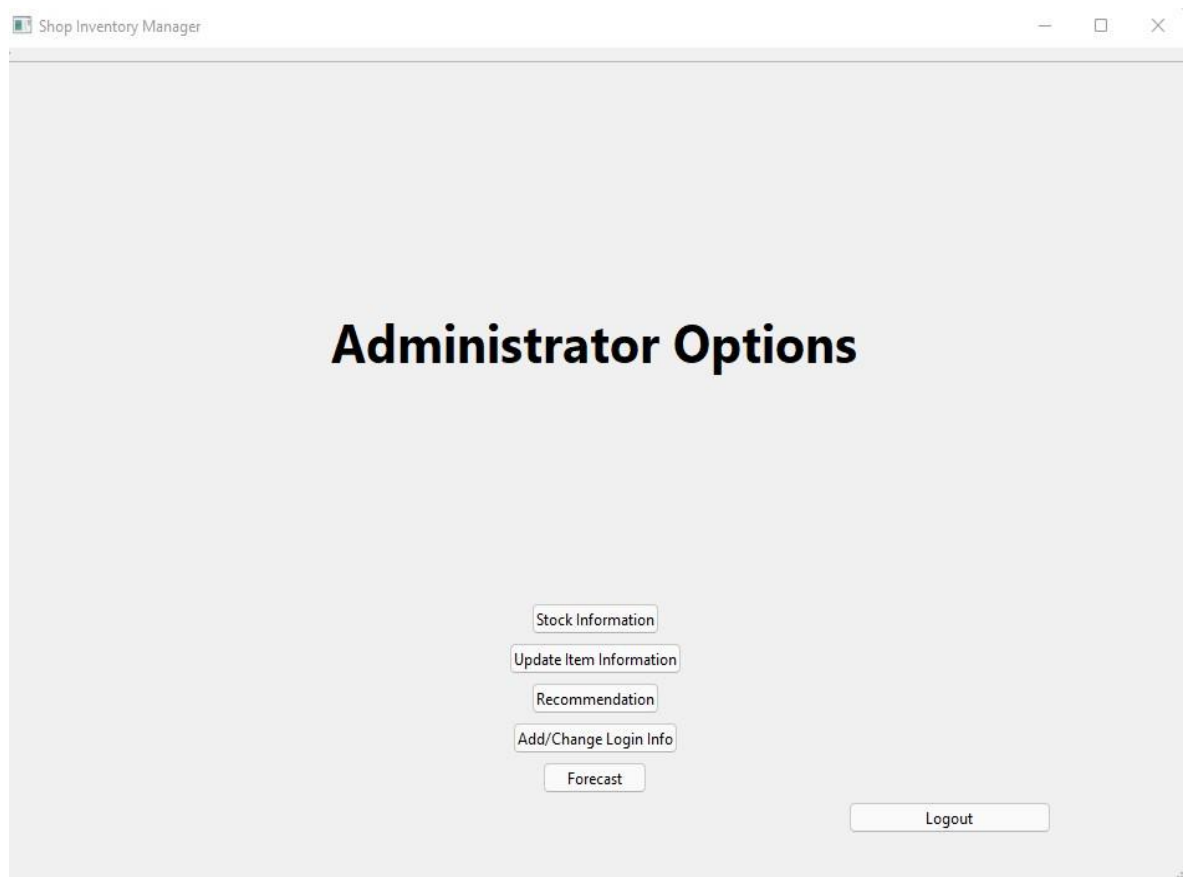
Password

Shop Inventory Manager

## Bill Generator

	Item ID	Item Name	Price	Quantity	Amount
1	64	coca-cola	20.000000	5	100.000000

Item ID  Quantity  Total 100.000000



Shop Inventory Manager

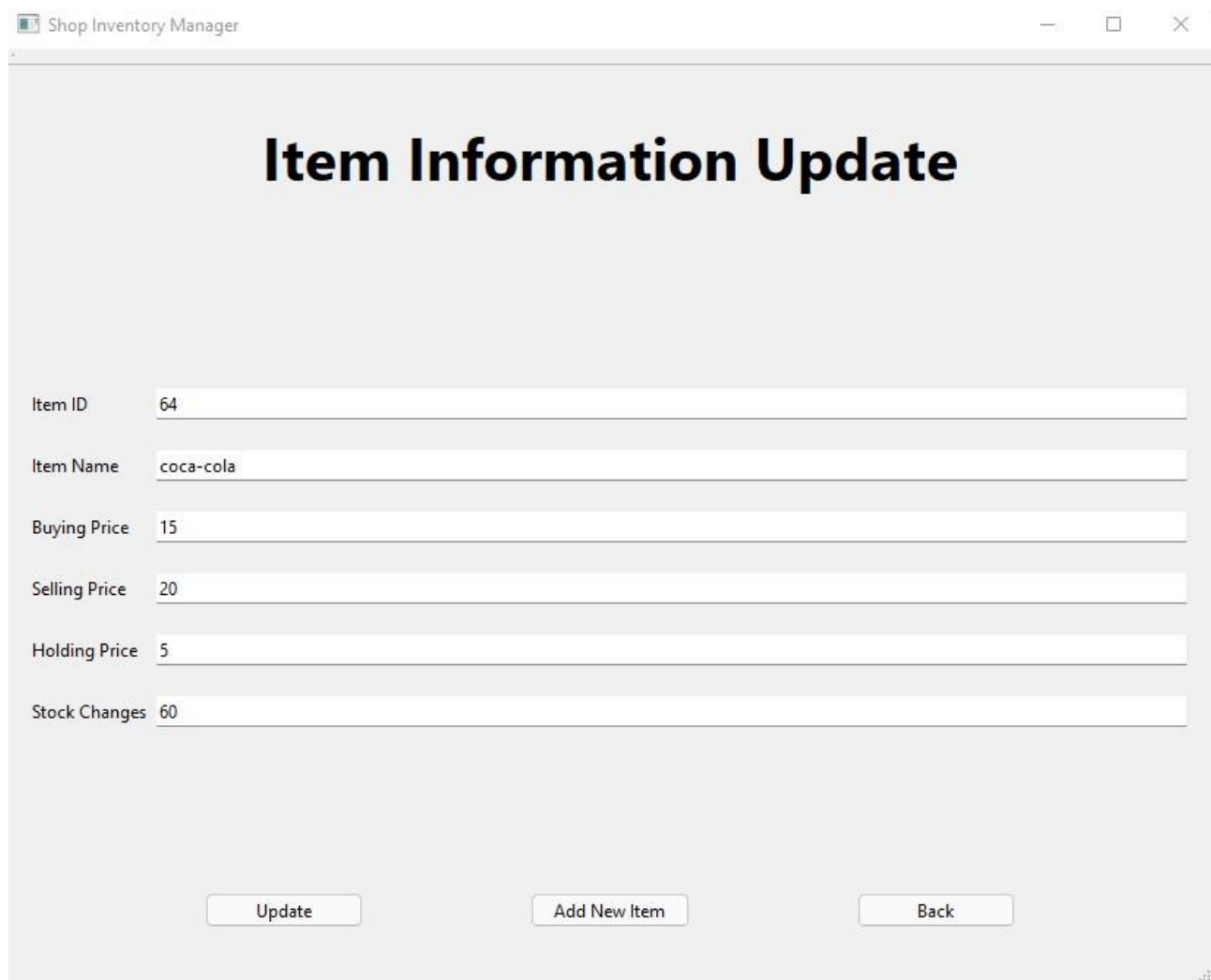
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## Stock Information

	Item ID	Item Name	Buying Price	Holding Price	Selling Price	Current Stock
17	17	Perk	0.000000	0.000000	10.000000	15
18	18	5-Star	0.000000	0.000000	20.000000	15
19	19	Noodles	0.000000	0.000000	55.000000	15
20	20	Kellogs	0.000000	0.000000	105.000000	15
21	21	Muesli	0.000000	0.000000	585.000000	15
22	22	Melody	0.000000	0.000000	1.000000	15
23	23	Wafer	0.000000	0.000000	5.000000	45
24	24	Water	0.000000	0.000000	50.000000	150
25	25	Sandwich	0.000000	0.000000	50.000000	150
26	26	Lays-Tomato	7.000000	10.000000	10.000000	17
27	64	coca-cola	15.000000	5.000000	20.000000	50
28	343	kurkure	15.000000	10.000000	20.000000	50
29	54654	rthtrh	56.000000	14.000000	87.000000	56

Back





The screenshot displays a web application window titled "Shop Inventory Manager". The main heading is "Item Information Update". Below the heading, there are six input fields, each with a label and a value:

Field Label	Value
Item ID	64
Item Name	coca-cola
Buying Price	15
Selling Price	20
Holding Price	5
Stock Changes	60

At the bottom of the form, there are three buttons: "Update", "Add New Item", and "Back".

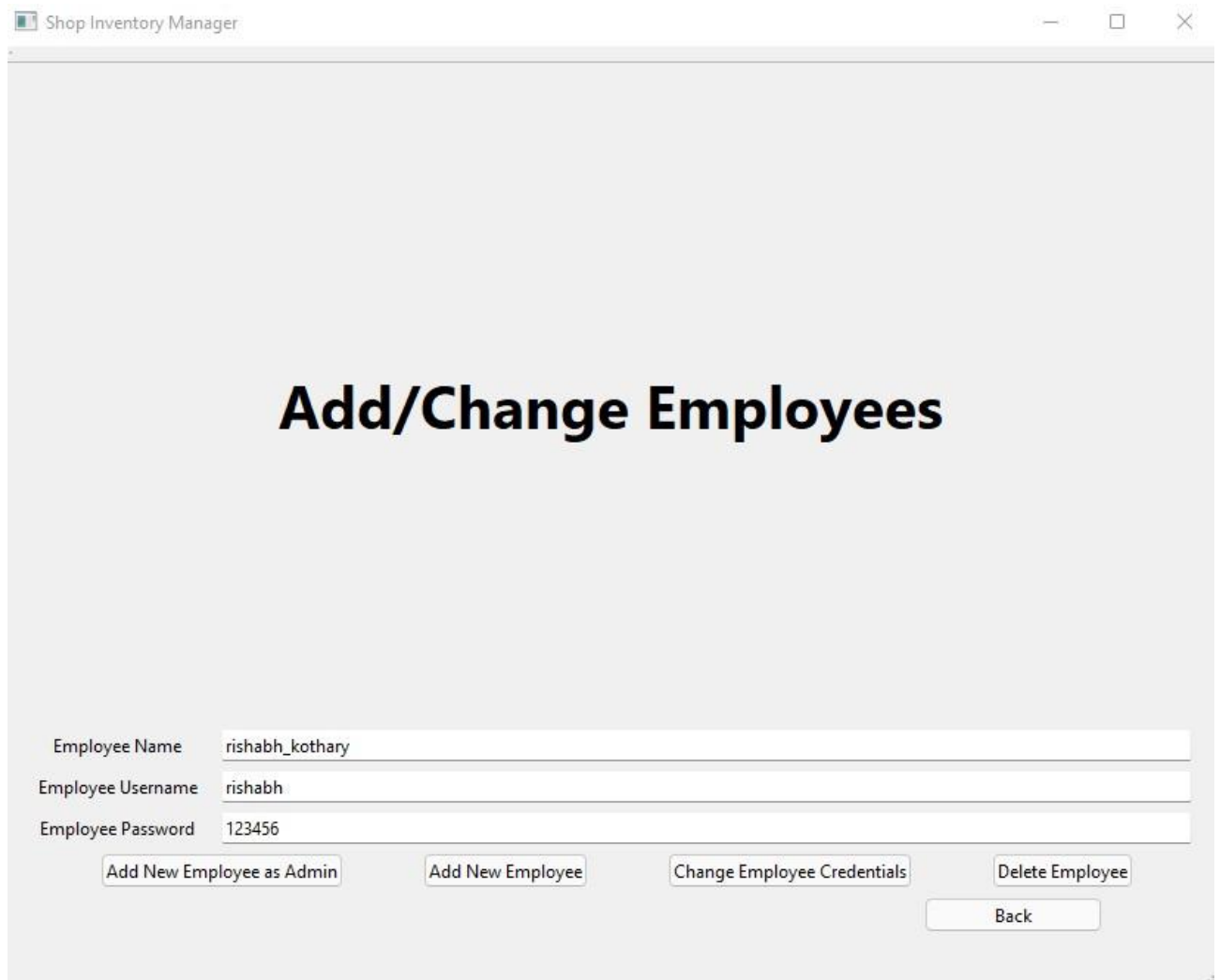
# Restocking Suggestion

Available Capital

Item ID	Item Name	Restock Amount
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Get suggestion

Back



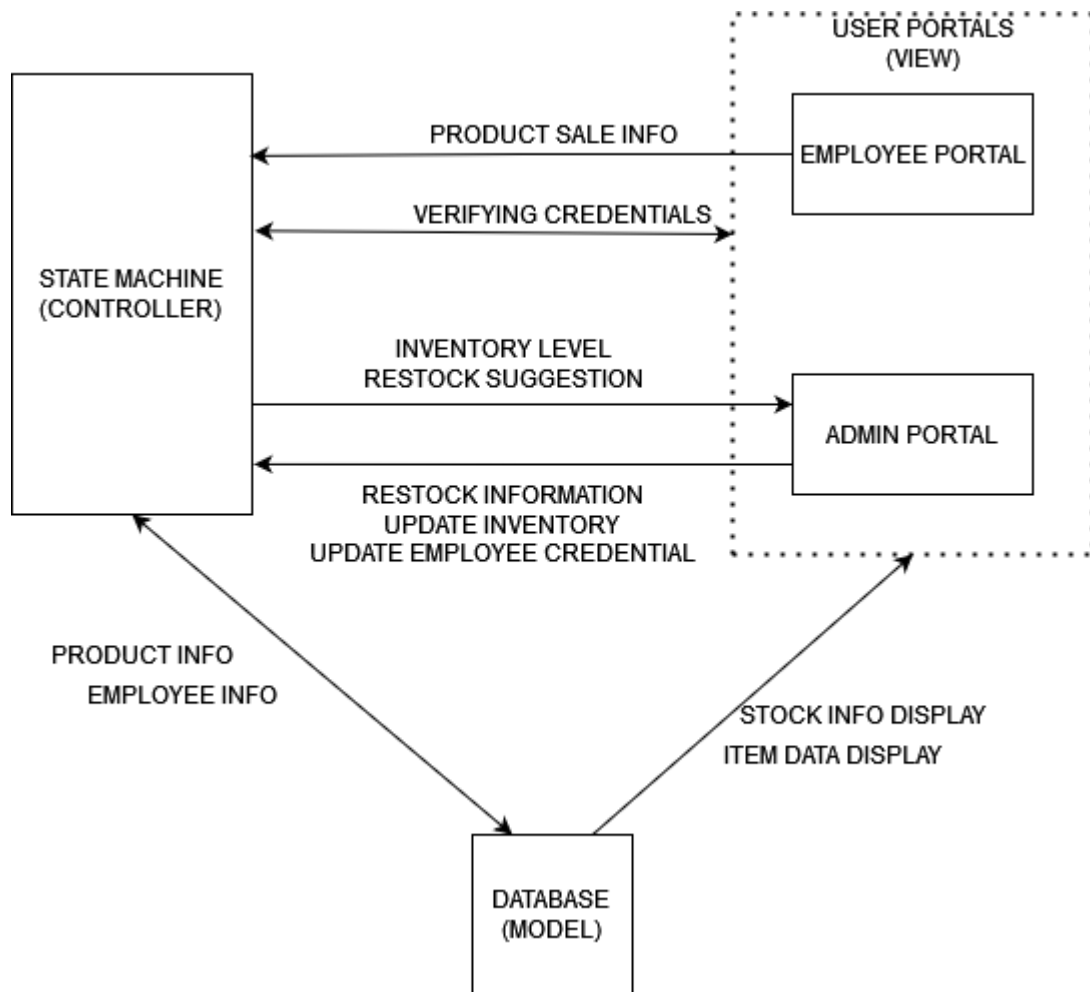
The screenshot shows a web application window titled "Shop Inventory Manager". The main heading in the center is "Add/Change Employees". Below the heading, there are three input fields for employee information:

- Employee Name: rishabh\_kothary
- Employee Username: rishabh
- Employee Password: 123456

At the bottom of the form, there are five buttons:

- Add New Employee as Admin
- Add New Employee
- Change Employee Credentials
- Delete Employee
- Back

## 2 Architecture Design



(This diagram has changed)

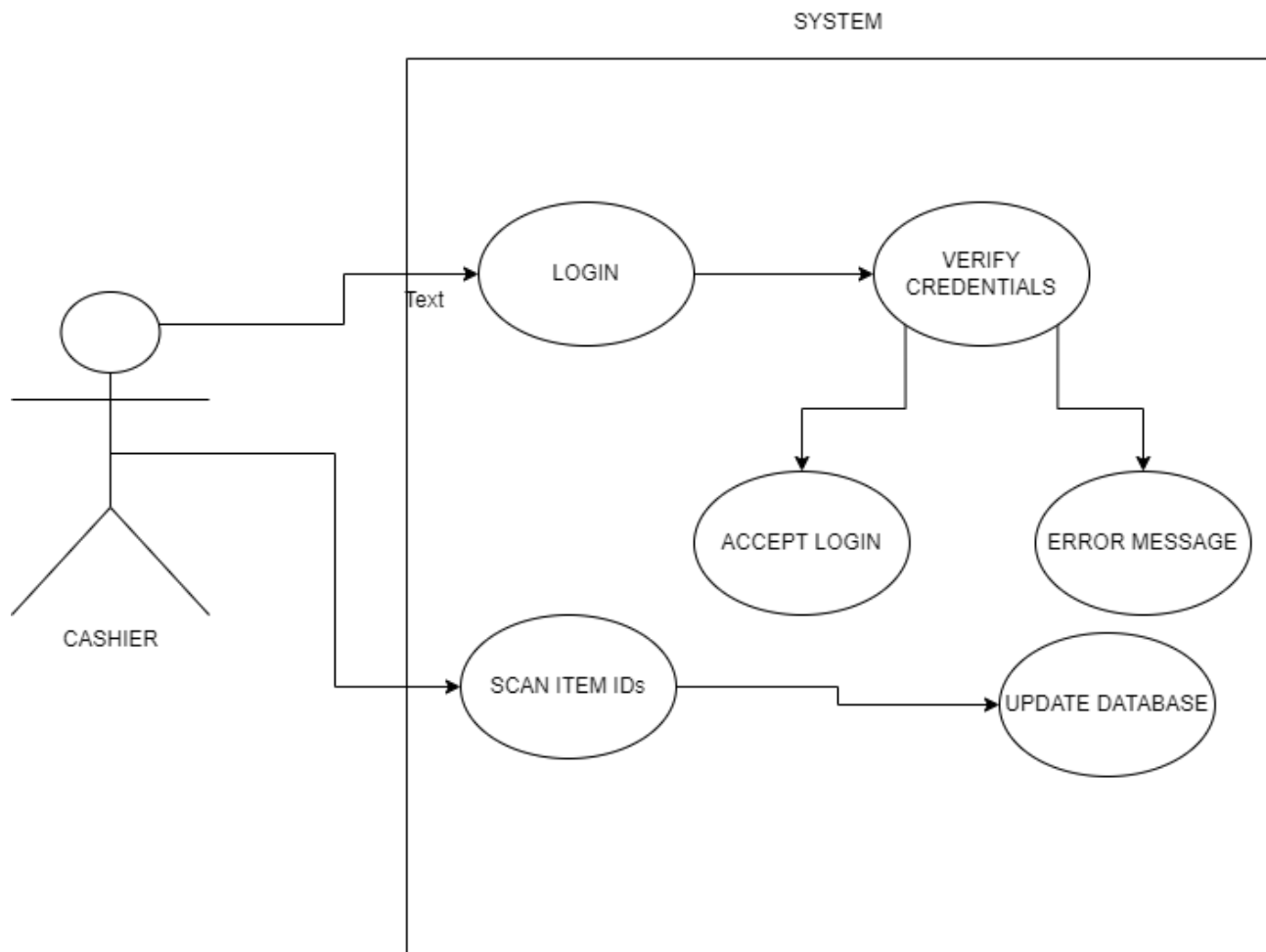
The architecture used is the Model-View-Controller Architecture, which is the most commonly used architecture for GUI programs

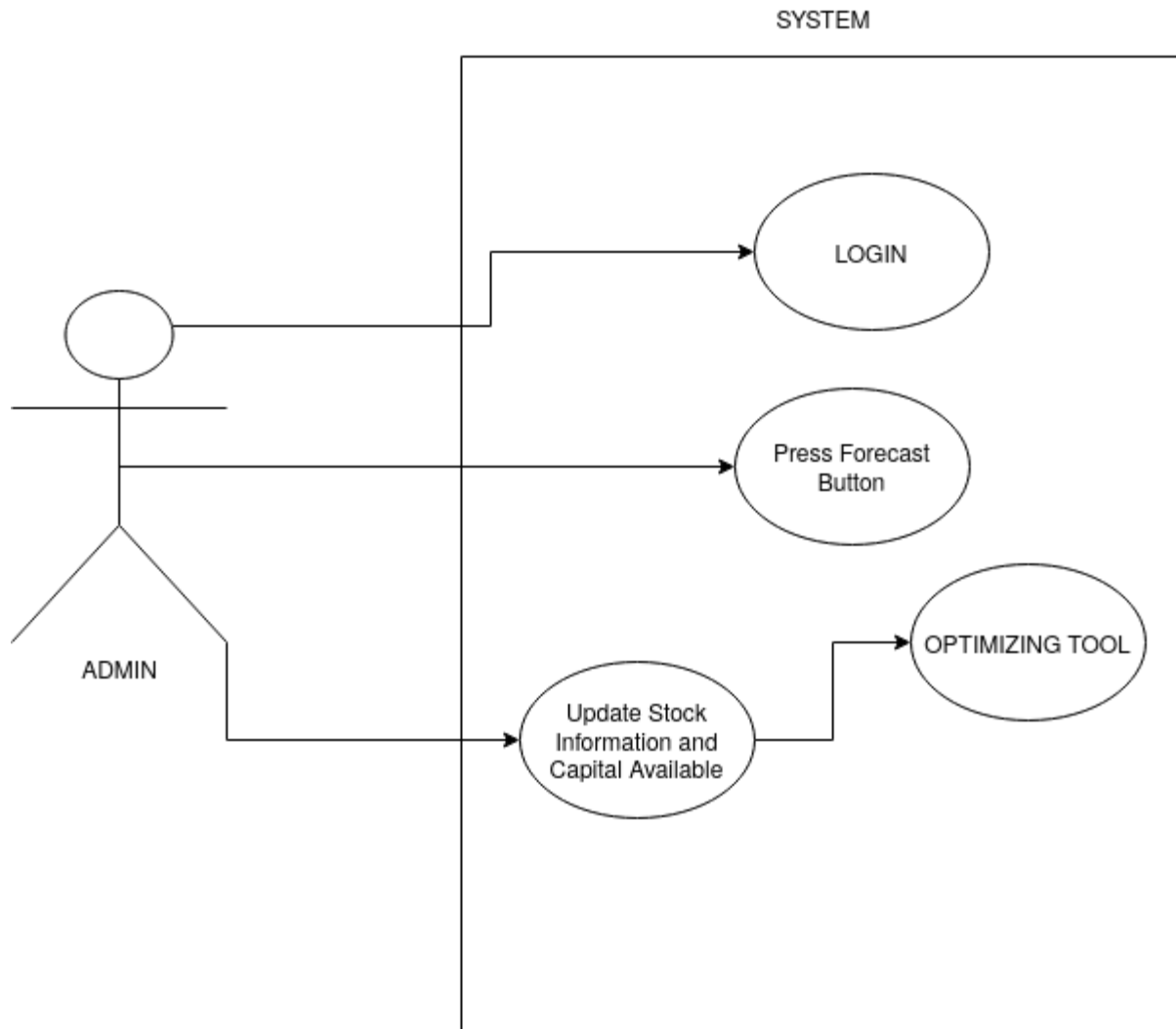
## 3 Object Oriented Design

### 3.1 Use Case Diagrams

(These diagrams have changed)

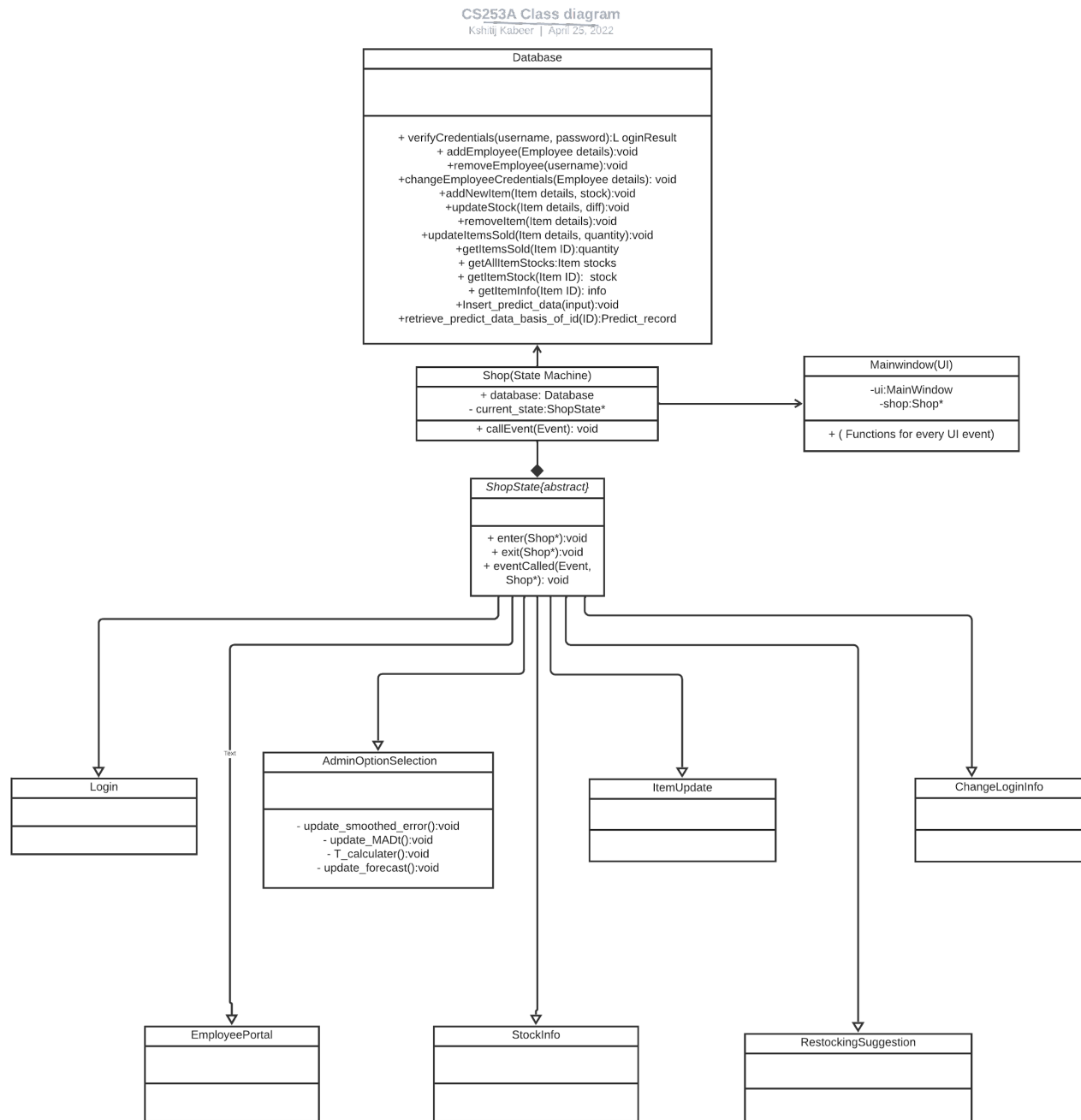
#### Use Case : Item Invoice



**Use Case : Restocking Recommendations**

## 3.2 Class Diagrams

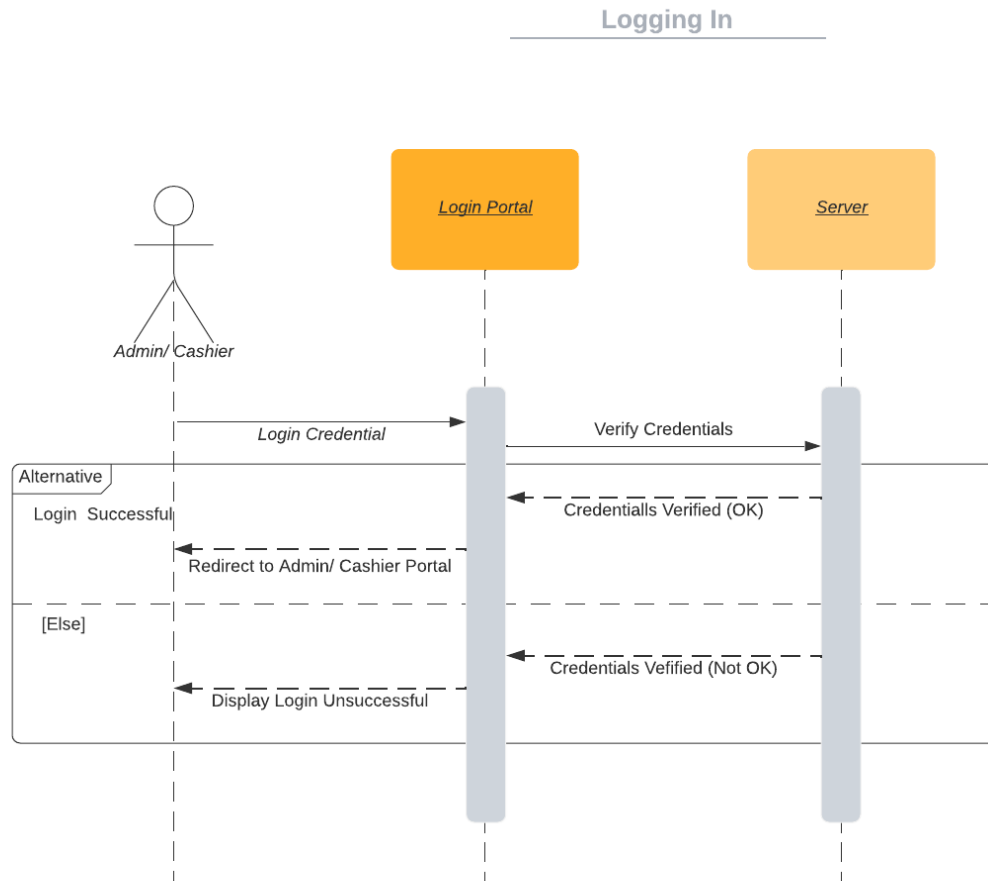
(This diagram has changed)



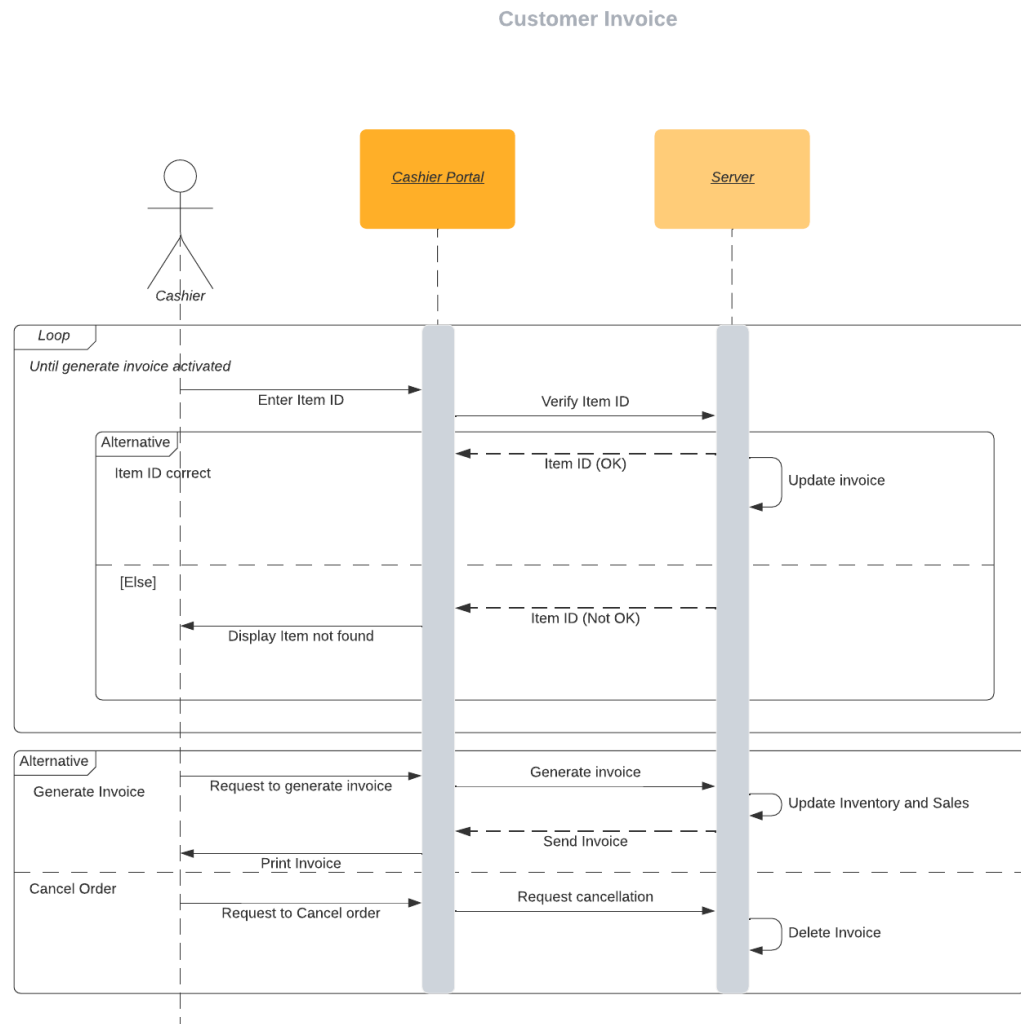
(Class diagram contains only the important classes and functions. Otherwise it will become too large to fit here)

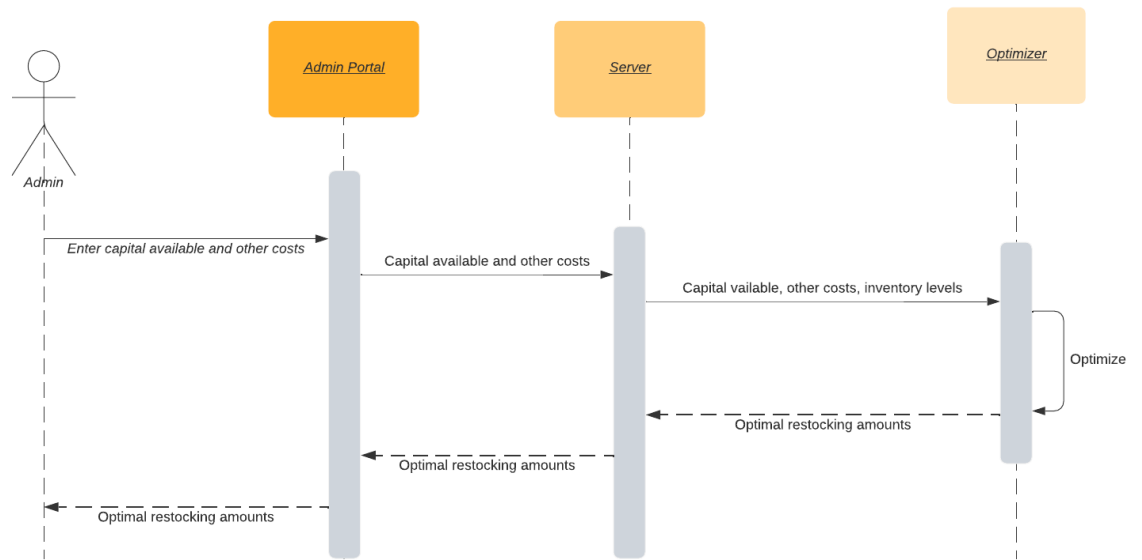
### 3.3 Sequence Diagrams

(These diagrams have changed)



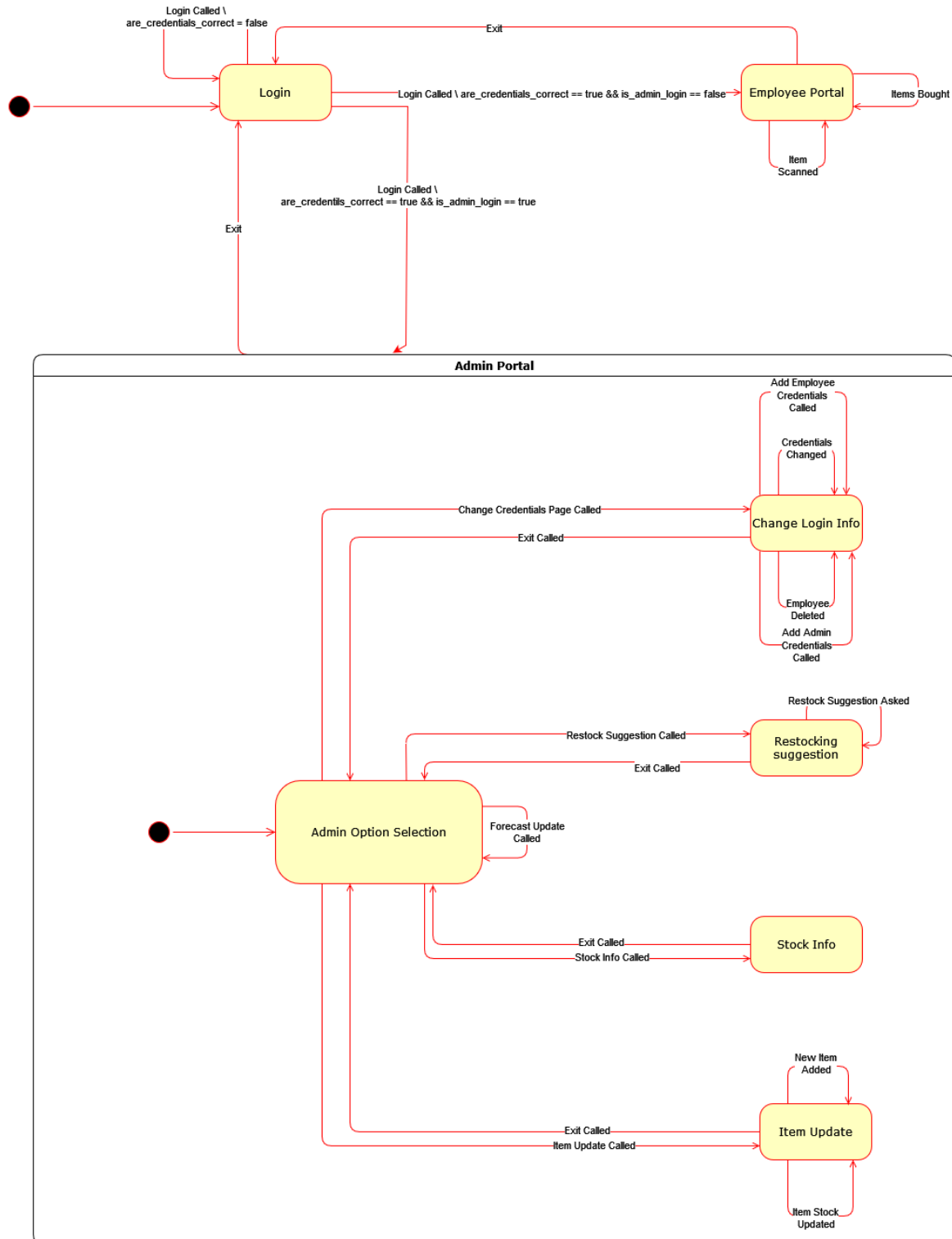




Request Recommendations

### 3.4 State Diagrams

#### Hierarchical State Machine diagram of the entire system



(This diagram has changed)

The state machine is implemented as a flattened version of this hierarchical state machine.

## 4 Project Plan

Timelines → Tasks↓	Week 7 (14 Feb - 21 Feb)		Week 8 (21 Feb - 28 Feb)	Week 9 (28 Feb - 7 Mar)		Week 10 (7th Mar - 14th Mar)		Week 11 (14th Mar - 21st Mar)	Week 12 (21st Mar - 28th Mar)	
UI Design			MIDSEM EXAMS					MIDSEM RECESS		
Database										
Core Functions										
Unit Tests										
Integration Tests										
System Tests										

Task	Assigned Members
UI Design	Vikas
Database	Kartavya, Pravar
Core Functions	Rishabh, Kabeer
Unit Tests	Kundan, Vikas
Integration Tests	Rishabh, Kabeer
System Tests	Everybody

## **5 Other Requirements**

*No other requirements*

## Appendix A - Group Log

10 Feb 2022

Work Assigned:-

- 1) Class Diagrams - Kshitij Kabeer
- 2) State Diagrams - Kartavya
- 3) Architecture Diagram - Pravar
- 4) Sequence Diagram - Rishabh
- 5) Context Diagram - Vikas

15 Feb 2022

Finished Gantt Chart, Context Diagram, Architecture Diagram, and edited the final document - Rishabh and Kshitij

25th April 2022

Updated Sequence Diagrams, added updated UI and new class diagram- Rishabh and Kshitij