



Sri Lanka Institute of Information Technology
Management System for Union Pharmaceuticals
Project Report

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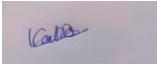
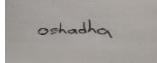
Declaration

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Project Details

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Abstract

This application was built for Union Pharmaceuticals in Beliatta area. It was designed to make the work and the purchases easy for the owners, staff and the customers of the pharmacy. The client wanted a perfect web application which collaborates with the tasks of ordering drugs, delivery of drugs, stock handling, supplier handling and as well as staff maintenance, etc.

All the necessary data and criteria required to build the application was taken by contacting the client and then those requirements were classified according their functionalities by the development team to give the perfect output to the client.

When evaluating the project and it's tasks, each and every member of the team worked hard to make this project a success. All the team members were very much enthused about completing the tasks in which they were assigned to do.

The final outcome of the project was very much helpful and supportive for the Union Pharmaceuticals to organize it's operational activities as well as the data regarding those operations in an effective and secured way. More to that, this user friendly system was the ideal solution to overcome the manual procedure which continued for years at the pharmacy.

Acknowledgement

We would like to make this opportunity to convey our gratitude to our lecturer in charge Mrs. Archchana Kugadasan, who supported throughout our journey to make this project a success by giving the guidance and motivation, which was always needed.

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Table of Contents

1 Introduction.....	11
1.1 Problem Statement.....	11
1.2 Product Scope	12
1.3 Project Report Structure.....	17
2 Methodology	18
2.1 Requirements and Analysis.....	18
2.1.1 functional requirements	18
2.1.2 Non-functional Requirements.....	19
2.1.3 Use case diagram	20
2.1.4 Activity diagram	21
2.2 Design	50
2.2.1 High Level Architecture Diagram	50
2.2.2 ER Diagram	51
2.2.3 User Interfaces.....	52
2.3 Implementation	107
2.4 Testing.....	108
3 Conclusion	114
4 References.....	115

List of Figures

Figure 2.1.3.1	Use case diagram 1	20
Figure 2.1.4.1	Activity diagram for customer management 1	23
Figure 2.1.4.2	Activity diagram for employee management 1	28
Figure 2.1.4.3	Activity diagram for inventory management 1	31
Figure 2.1.4.4	Activity diagram for showcase management 1	34
Figure 2.1.4.5	Activity diagram for order management 1	38
Figure 2.1.4.6	Activity diagram for delivery management 1	41
Figure 2.1.4.7	Activity diagram for supplier management 1	44
Figure 2.1.4.8	Activity diagram for feedback and inquiry management 1	48
Figure 2.2.1	High level architecture diagram 1	50
Figure 2.2.2.1	ER diagram 1	51
Figure 2.2.3.1.1	User Sign up 1	52
Figure 2.2.3.1.2	Use login 1	53
Figure 2.2.3.1.3	Add order 1	54
Figure 2.2.3.1.4	View my order 1	55
Figure 2.2.3.1.5	Order details 1	56
Figure 2.2.3.1.6	Edit order 1	57
Figure 2.2.3.1.7	Order Summary 1	58
Figure 2.2.3.2.1	Add new employee 1	59
Figure 2.2.3.2.2	All employees 1	60
Figure 2.2.3.2.3	Employee salary details 1	61
Figure 2.2.3.2.4	Salary calculate 1	62
Figure 2.2.3.2.5	Employee details 1	63
Figure 2.2.3.2.6	Employee details report 1	64
Figure 2.2.3.3.1	Add supplier 1	65
Figure 2.2.3.3.2	Create invoice 1	66
Figure 2.2.3.3.3	Generate report 1	67
Figure 2.2.3.3.4	Home 1	68
Figure 2.2.3.3.5	Inventory requests 1	69
Figure 2.2.3.3.6	Issued invoices 1	70

Figure 2.2.3.3.7	Supplier details 1	71
Figure 2.2.3.3.8	Update invoice 1	72
Figure 2.2.3.3.9	Update requests1	73
Figure 2.2.3.3.10	Update supplier 1	74
Figure 2.2.3.3.11	View supplier 1	75
Figure 2.2.3.4.1	Home 1	76
Figure 2.2.3.4.2	Orders to be delivered 1	77
Figure 2.2.3.4.3	Delivery note form 1	78
Figure 2.2.3.4.4	All delivery notes 1	79
Figure 2.2.3.4.5	Delivery note details 1	80
Figure 2.2.3.4.6	Delivery note update form 1	81
Figure 2.2.3.4.7	All orders 1	82
Figure 2.2.3.4.8	Report 1	83
Figure 2.2.3.5.1	View accepted orders 1	84
Figure 2.2.3.5.2	Received order 1	85
Figure 2.2.3.5.3	Received order details 1	86
Figure 2.2.3.5.4	Home 1	87
Figure 2.2.3.5.5	Report generation 1	88
Figure 2.2.3.6.1	Home page 1	89
Figure 2.2.3.6.2	Add feedback or inquiry 1	90
Figure 2.2.3.6.3	All feedbacks 1	91
Figure 2.2.3.6.4	Feedback view 1	92
Figure 2.2.3.6.5	Update feedback or inquiry status 1	93
Figure 2.2.3.6.6	Report generation 1	94
Figure 2.2.3.6.7	Add reply 1	95
Figure 2.2.3.7.1	List of drugs about to be expired 1	96
Figure 2.2.3.7.2	Expired drugs 1	97
Figure 2.2.3.7.3	Edit delete drugs to be expired 1	98
Figure 2.2.3.7.4	Add expired drugs 1	99
Figure 2.2.3.7.5	Expired drugs report 1	100

Figure 2.2.3.8.1	Add request 1	101
Figure 2.2.3.8.2	Update drugs 1	102
Figure 2.2.3.8.3	All drugs 1	103
Figure 2.2.3.8.4	Add drugs 1	104
Figure 2.2.3.8.5	Drugs about to be expired 1	105
Figure 2.2.3.8.6	All drugs details report 1	106
Appendix B.1	Login success	116
Appendix B.2	Invalid mobile number	117
Appendix B.3	Password mismatch	118
Appendix B.4	Order already accepted	119
Appendix B.5	Input valid ID	120
Appendix B.6	Fill out the field	121
Appendix B.7	Fill out the filed	122
Appendix B.8	Supplier already exists	123
Appendix B.9	Match email to the requested format	124
Appendix C.1	Salary calculation	125
Appendix C.2	Search function	126
Appendix C.3	Report generation	127

List of Tables

Table 1:	Use case scenario customer management	21
Table 2:	Use case scenario employee management	24
Table 3:	Use case scenario inventory management	29
Table 4:	Use case scenario showcase management	32
Table 5:	Use case scenario order management	35
Table 6:	Use case scenario delivery management	39
Table 7:	Use case scenario supplier management	42
Table 8:	Use case scenario inquiry and feedback management	46
Table 9:	Test cases	108

List of Acronyms and Abbreviations

Acronyms and Abbreviations	Meaning of terms
CSS	Cascading style sheets
UI	User interfaces

1 Introduction

1.1 Problem Statement

With the gradual expansion of its operational activities, it has been a challenging time for Union pharmaceuticals, because of it's manually driven procedures. Also with the prevailing covid situation, customers are more likely to make their orders without any physical contact.

The client expects to avoid the current difficulties faced by the Union pharmaceuticals with the help of their newly proposed automated online platform.

- The major issue identified in the current system by the client is, the absence of a proper way to take order from it's customers. Sometimes the order misplacing, wrong order packages being sent to wrong customers are caused by this. So the customer complaints have also been increasing gradually, thus causing a bad reputation for the store.
- The stocks of the store are maintained by paperwork. So, there are some instances where the most important records about drug lots are being unable to find due to misplacing. Also when matching the sold out quantities and bought up quantities from the suppliers, they are not tallying with each other. The client has also identified this as a major weakness of this system. When purchasing goods from the pharmacy, this most of rush hours, the customer have to wait in long queues. This has led the customers to choose other nearby stores to get their merchandize. So, the managing of time is also a key point. The client want to avoid this time wastage problem of the customers by make the system more efficient.
- The supplier is also a valuable asset for the entity. To enhance the communication and maintain proper dealership with the suppliers, the system has been expected to set up with a good supplier reaching functionality.
- The monetary transactions of the entity has also expected to initiate in a properly monitored process, allowing customers to transfer their payments in a more reliable

way. This is because, the client has identified the payments made by the customers are sometimes not getting recorded properly in the system. And it severely affects the financial strength of the store.

- The staff handling also has been a highly labour enforced task in the pharmaceutical store. To make it simpler and easier the client has identified that, it also should be a major component of the proposed system which are from implemented.

1.2 Product Scope

Union Pharmaceuticals is a company which deals with a lot of customers and as well as suppliers in the area it is located in. This web application was developed by using MERN stack technology to make the work easy for the pharmaceutical company, when going through its operational activities. For the convenience of the users, this application is supported by the MongoDB database which enhances the reliability of the application to a greater extent.

To meet the specifications requested, the system of the web application has been utilized to fulfill the below mentioned requirements and functionalities.

1. Customer management system
2. Order management system
3. Delivery management system
4. Showcase management system
5. Inventory management system
6. Supplier management system
7. Employee management system
8. Feedback and inquiry handling system

Customer management system

A customer can register with an account by providing name, username, password, address, mobile number, etc. and get logged in to the system. Then he can decide which drug items he need to purchase. After deciding, the details of those items are added to the form along with the personal details of the customer. That includes person's symptoms, online payment details, items and quantities, etc. Then he can confirm the order.

After order confirmation customer can generate a summary report of the orders placed, if necessary. One can view the placed orders after making order, where he can update the items and their quantities and as well as delete the orders in the way he need. Previously made order details can be searched by the customer in order to get their details early. The major beneficial act of this is that the customer can effectively choose what he wants and go through the store system without any interruption.

Order Management system

In this function, order manager can retrieve all the order details which are placed by customers and check the order content.

Here, the order manager checks whether the medication requested by the customer matches with the symptoms he stated. Then the order manager add and update the status and the customer can also view the status and can know about whether his order is accepted or not. The discarded orders can be deleted from the database and while accepted orders are going to be arranged. Further, in this function order manager can search and get orders according to the date. And also he can generate the report about the orders accepted. By using this function, we can reduce the complications by analyzing the order in a proper manner and in current covid situation, the pharmacy can deliver medicines in a way that minimizes the health effects.

Delivery Management system

This function is mainly used by delivery manager and deliverers of the system. Delivery management is primarily about delivering orders to customers and managing the process until it reaches to the customer.

Once the order manager has confirmed the orders, delivery manager can view orders list. Then delivery manager can search and get upcoming orders which are to be delivered by giving a date. After viewing forthcoming orders delivery manager may assign a respective deliverer to place the order. Thereby delivery manager can create a delivery note which can be viewed by the deliverer. If there is any issue with the delivery, delivery manager can update delivery note when needed and it can be also viewed by the deliverer. Then after the delivery is done and when delivery is confirmed by the deliverer, delivery manager can re-updated the delivery note as completed delivery. Also delivery manager can delete unwanted old distribution records when needed and at end of the day delivery manager can generate the report on the orders delivered to customers.

As mentioned above, we have used this function to facilitate this supply process and to build good customer faith on the pharmacy.

Showcase Management system

Showcase management function is created for managing all the details of the drugs which are about to be expired. The relevant personnel in branches, explore the drugs physically and decide the procedure. After entering the details of the drugs which are about to be expired to the system, that person can retrieve those details when necessary and make updates as well as do deletions in the system.

The purpose of this function is to ensure the quality of the drugs issued by the pharmacy to its customers as it is a key factor for ensuring the customer satisfaction and protection.

Inventory Management system

In any kind of company, there should be a well managed stock to keep all the items that is sold under the company. Specially, when it comes to having few branches under the same company. The person in charge of the inventory, should handle all the items that send to other branches and such.

Inventory manager receive list of drugs that come to the stocks from the supplier manager. Then he can update newly acquired drug quantities and he can insert new drugs to the system which were not in the system before. When he retrieve those details, drug details can also be deleted according to the prevailing conditions of stocks. More to that, he can create a drug list which is visible for the customers.

Inventory manager check the system and generates a report about the drugs when they are running low on stocks and send it to the supplier manager. He can also search a specific date in the system and he can get the list of drugs which arrived in a respective day.

Supplier Management system

This function is used by supplier manager of the pharmacy. It includes managing supplier details and coordinating between inventory and supplier parties.

By using this system, supplier manager can add new suppliers to the system database, update or remove their details when needed. Also, supplier manager can view inventory report about running out drugs/medicines, create invoices for each supplier who supplies the respective drugs, update inventory about the status of stock orders after communicating with suppliers, inform inventory when a stock order gets rejected or cancelled and generate a report stating list of stocks supplied by each supplier.

This functionality is helpful because maintaining supplier details manually is a tough task to do. And it helps with performing a proper invoice creating, status updating and generating reports without any mistakes being made.

Employee Management system

An employee can login with an account registered in to the system. Then, employee can view his employee profile. After that employee can get an idea about his profile and his monthly salary details. Employee manager can go to the employee profiles. He can also create new employee accounts, update the employee details, delete the employee details and edit to the employee details. As well as previously paid salaries to the employees can be searched by the employee id in order to get their details early. Employee manager can get the OT hours and basic salary, calculated and add those amounts to the monthly salary. After that, employee manager can generate monthly salary report. It's very useful to pharmacy manager. By that, he can get the idea of a monthly salary payments for the employees. It results in higher accuracy in calculating the salary for the employees. Therefore, it's useful to pharmacy manager and employee manager both in multiple ways. Better financial management and easy to find details of an employee are the advantages of this. Other than that, his can be used for efficient work allocation for employees.

Feedback and Inquiry Handling system

After customer is logged in to the system and purchase the items, he can view the feedback and inquiry form. If he wishes he can include his feedback or inquiry in the form. That form includes customer id, date, inquiry type or feedback etc. After filling the form he can submit it to the system. Then the manager views the forms forwarded by the customers and provide replies and solutions for their feedbacks and inquiries. If the manager needs to update replies with the progress or delete the solved inquiries, he needs to identify the relevant inquiry or feedback by searching the customer id.

After a month the manager has to generate a report on the statistical data of frequently made feedback types by the customers.

This is a powerful guide as we can identify customer issues and easily find the quick solutions for those issues which makes the customer satisfied about the store and to make effective business decisions.

1.3 Project Report Structure

Chapter 01 - This chapter includes the three main sections

- i. Problem statement
- ii. Product scope
- iii. Structure of the project report

Chapter 02 – This chapter includes the subsections

- i. Requirement analysis
- ii. Design
- iii. Implementation
- iv. Testing

Chapter 03 – This chapter contains the summary of the report, how the target was completed

Chapter 04 – This chapter includes the references used to build up the report

2 Methodology

2.1 Requirements and Analysis

Requirement analysis is the main process that makes the developers understand the expectations of the users. In this system that has been developed the requirement analysis was done by contacting the company owner.

The company team noted down some basic requirements that the company wanted to be implemented through this newly developed system this made the work easy. The requirement analysis was done according to it, the development team added some other features too by consulting the client. To develop the system in a good flow the use case diagram was designed so that both the development team and the client can have a blueprint regarding the system.

The system requirements were divided and identified in two parts, namely,

- Functional requirements
- Non-functional requirements

2.1.1 functional requirements

- The system should have a well-organized database where the data can be handled without any interruption.
- The system should be able to handle the orders, deliveries in a way that nothing will be missed when drugs are handed over to the customers.
- The details regarding the stocks should be kept intact along with the suppliers.
- The system should allow the users to generate reports in some unique functionalities.
- The system should be a fully automated one without any serious errors.
- The system should always operate in a way that everyone gets notified about the ongoing processes related to themselves.

2.1.2 Non-functional Requirements

- Portability should be high.
- Security should be well considered.
- Supportability should be there.
- Maintainability should be easy.
- Cost should be bearable.
- Reliability should be high.
- User friendliness should be there.
- Usability should be made available.

2.1.3 Use case diagram

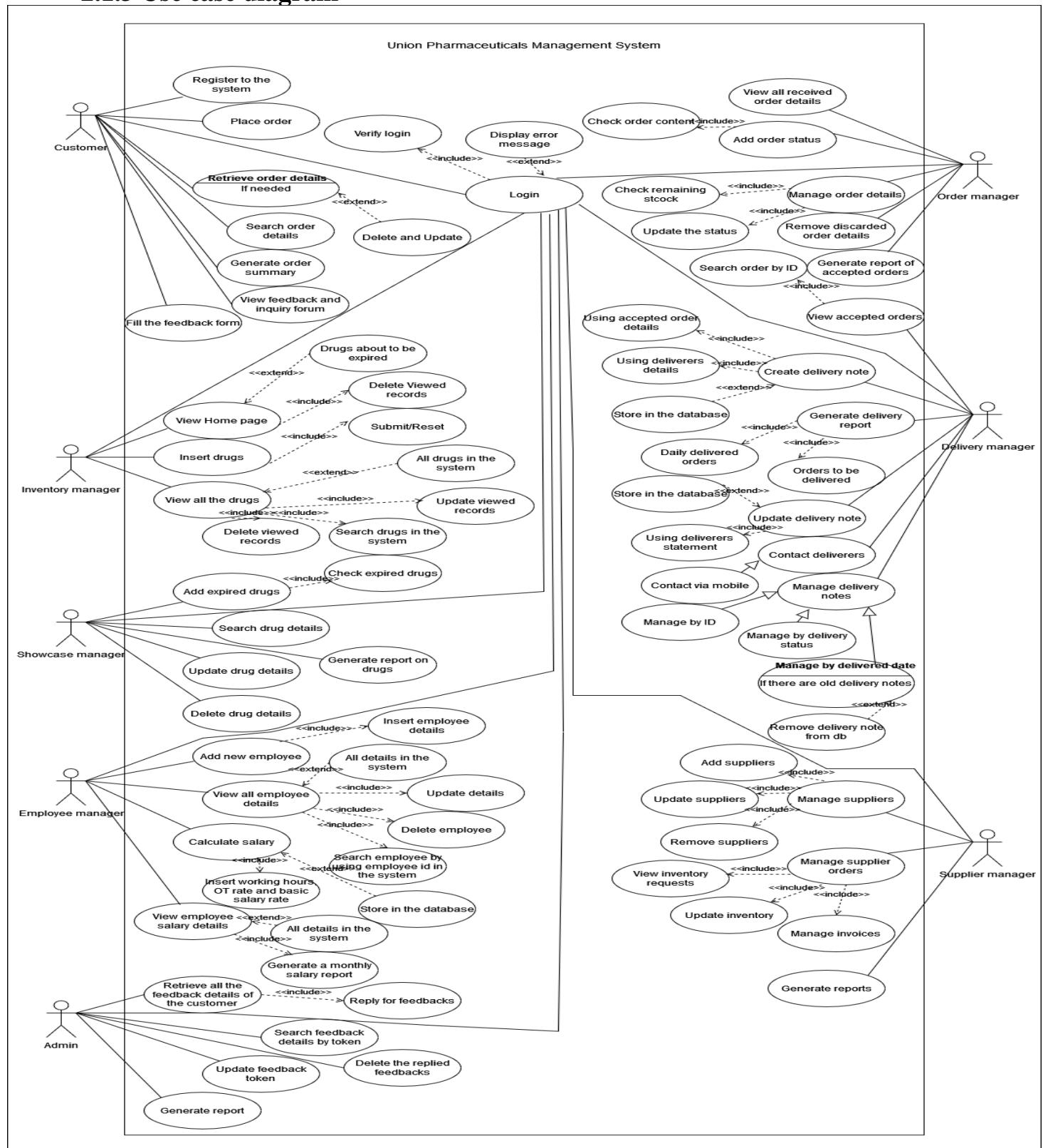


Figure 2.1.3.1 Use case Diagram 1

2.1.4 Activity diagram

2.1.4.1 Customer management

Use Case Scenario

Use Case ID	001	
Use Case Name	New customer place an order and generate order summary report.	
Summary	Register as a new customer, login to the system, then place an order and generate order summary report.	
Priority	High	
Pre-conditions	Customer should enter all the relevant details about the order to the form.	
Post-conditions	All the orders placed by the customers up to now are displayed on a summary report.	
Primary Actors	Customer	
Trigger	Customer login to the system.	
Main Success Scenario	Step	Action
	1	Customer register to the system.
	2	Login to the system by entering user details to the login form.
	3	System validates the login information.
	4	Add the order details to your order details form and submit the form.

	5	View my order button is clicked.
	6	Orders made by the customers are displayed.
	7	Generate summary button is clicked.
	8	Summary report is displayed and can be downloaded if necessary.
Extensions	Step	Action
	3a	If the validation is unsuccessful, the login unsuccess message will be displayed.
	3b	Login form should be filled again.
	4a	If next button is clicked without making any order no order will be displayed, if the customer is a new customer.
	4b	Go back and make a new order.
	6a	If needed, the orders can be searched by specific drugs, order ids by the search function.
	6b	Orders sorted by the specific content are displayed.

Table 1 : Use case scenario | Customer management

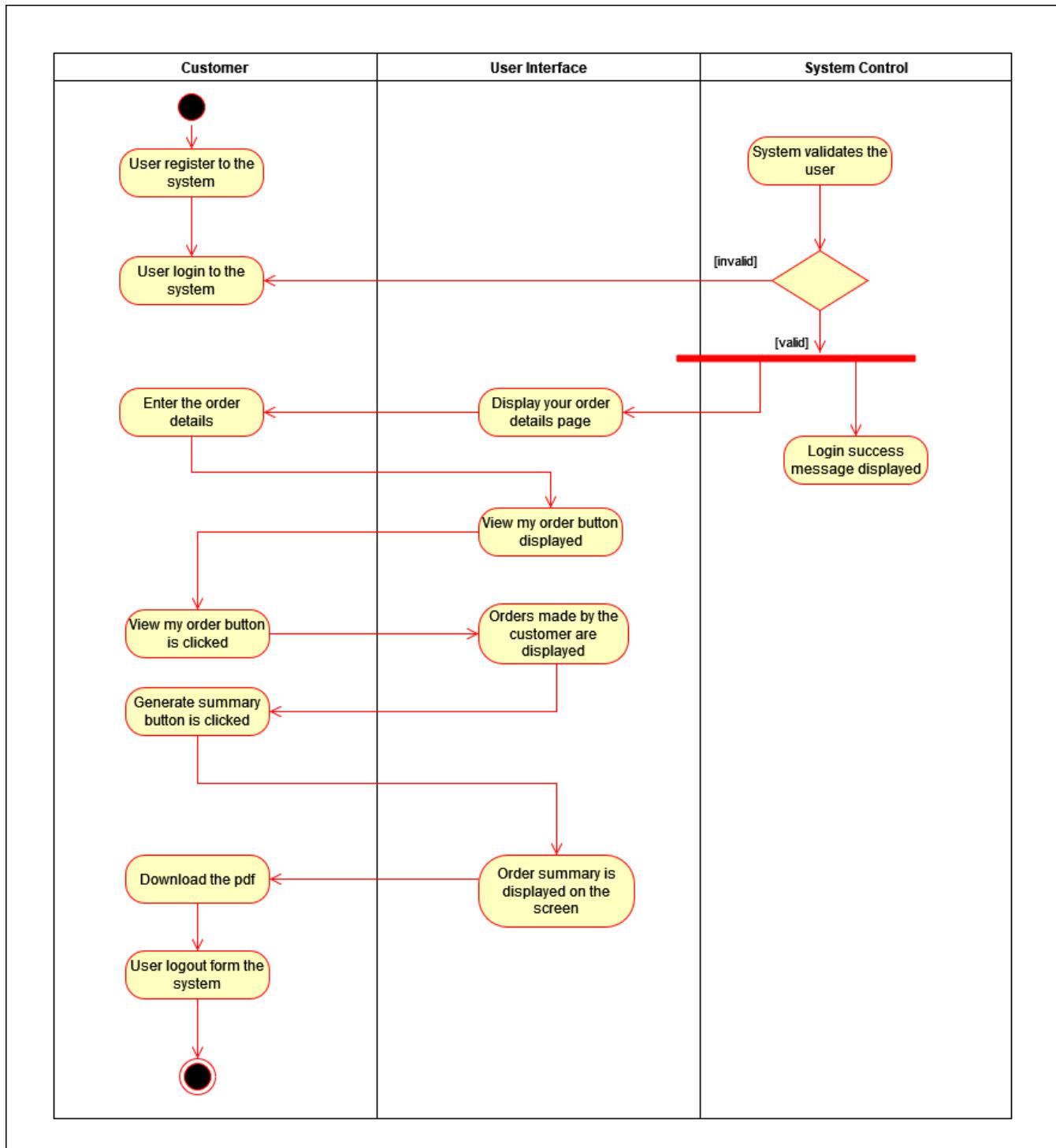


Figure 2.1.4.1 Activity diagram for Customer management

2.1.4.2 Employee management

Use Case Scenario

Use Case ID	002	
Use Case Name	Employee Manager	
Summary	The employee manager registers employees and calculate employee's salary.	
Priority	High	
Pre-Conditions	The employee manager should have valid login.	
Post-Conditions	The employees are registered, and their details and their salary details are stored in the database.	
Primary Actor(s)	Employee Manager	
Trigger	The employee manager gets details of employees.	
Main Success Scenario	Step	Action
	1	The employee manager login to the system.

	2	The employee manager navigates to the add employee page.
	3	The system displays add employee form.
	4	An employee manager fills the form by entering the employee details.
	5	The system displays submit button.
	6	The employee manager clicks 'SUBMIT' button.
	7	The employee manager navigates to the all the employee details page.
	8	The system displays an employee details table.
	9	The system stores the details of the employee in the database.
	10	The employee manager manages the employee details.
	11	An employee manager click on the View salary details tab.
	12	The employee manager navigates to the all-employee salary details page.
	13	The system displays the download report button.

	14	An employee clicks on the download report button. Then, system generate the monthly salary report.
Extensions	Steps	Branching Action
	01.a	If the login credentials are invalid, a) The system will prompt error message. b) The employee manager will enter the username and password again. c) The employee manager will login to the system.
	04.a	If the employee manager submits the form without filling in a single field, a) He will get a validation massage. (Like, please fill out this field). b) He will fill the field again.
	04.b	If the employee manager adds an address with 0-9A-Za-z / ,100numbers. a) He will get an error message. b) He will check the address. c) He will add correct address.
	04.c	If the employee manager adds a phone number greater than 10 characters, a) He will get an error message b) He will check the phone number c) He will add correct phone number

	06.a	The system displays an alert message. ("Employee Added")
	10.a	If the employee manager needs to search some details, <ul style="list-style-type: none"> a) He will search employee by using=g his/her employeeID b) The system will display relevant employee details.
	10.b	If the employee manager needs to specific details of an employee <ul style="list-style-type: none"> a) He will click the update details button b) He will navigate to the update details page c) He will change the details d) He will click the submit button e) The system will update the details and store
	10.c	If the employee manager needs delete specific employee into the system <ul style="list-style-type: none"> a) The employee manager will click the remove employee button b) The system will delete relevant employee

Table 2 : Use case scenario | Employee management

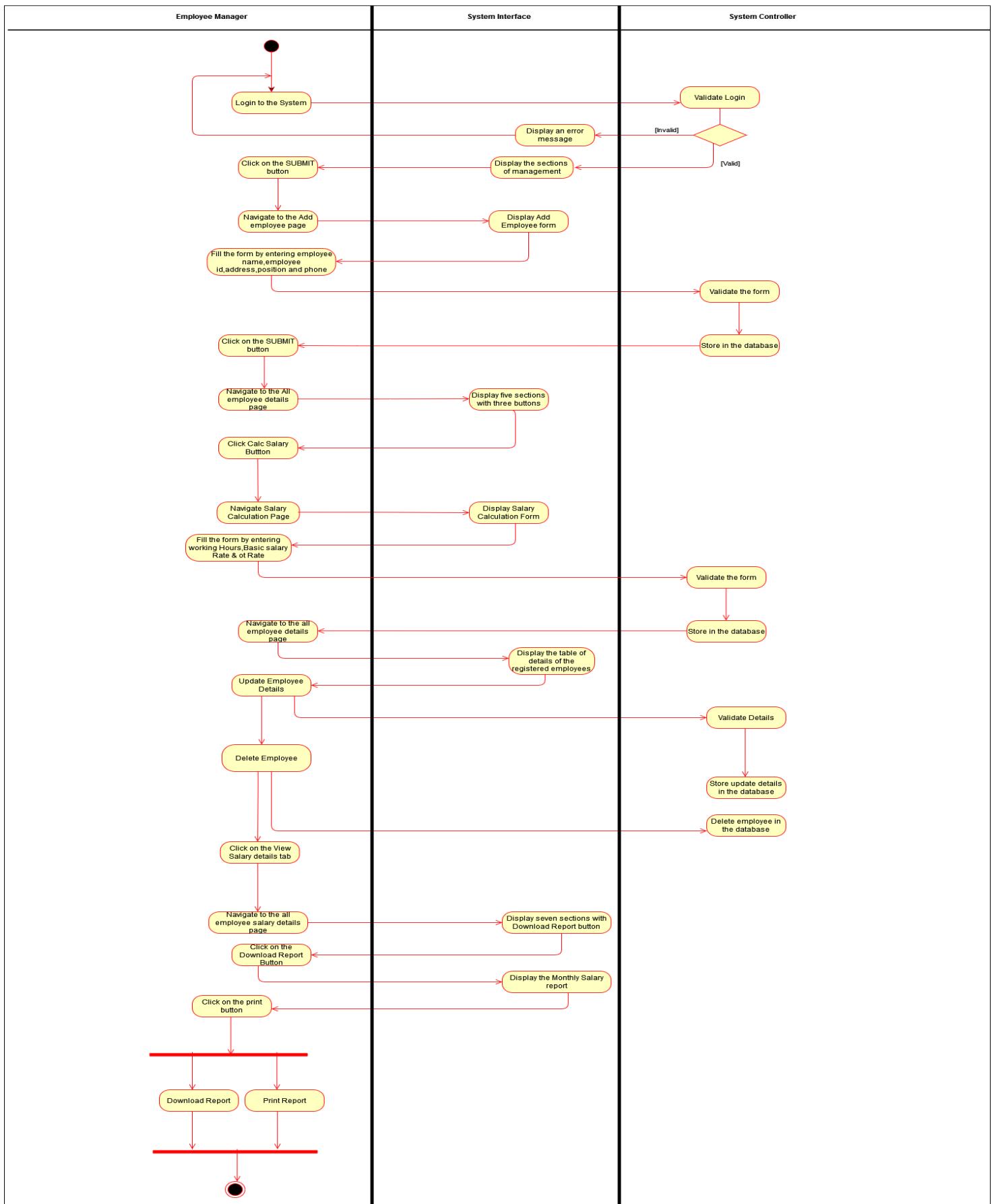


Figure 2.1.4.2 Activity diagram for Employee management

2.1.4.3 Inventory management

Use Case Scenario

Use Case ID	003	
Use Case Name	Inventory Management	
Summary	Inventory manager logs in and insert, view, update and delete drugs on the system.	
Priority	High	
Primary Actor	Inventory Manager	
Pre-Conditions	Users should enter all drug details.	
Post-Conditions	All the drugs should be stored inside the system and should display when user visit view drug page and search them by Date, Id, or Name.	
Main Success Scenario	Steps	Action
	1	The Inventory Manager logs in to the system.
	2	Navigates to the home page automatically.
	3	The system displays drugs that about to be expired.
	4	Inventory manager manages that data.
	5	Navigates to Add Drugs page.
	6	Enter Drug details in the form.
	7	Click the submit button.
	8	Navigates to View Drugs page.
	9	The system displays all drugs in the system.
	10	Inventory manager manages drugs from there.
	11	Inventory manager searches from the search bar to get specific data.
Extensions	Steps	Branch Action
	1.a	If the login conditions are valid Displays a success message and logs in.
	1.b	If the login conditions are invalid a) System will display an error message. b) Inventory manager re-enters the login details.
	4.a	If the inventory manager wants to delete a record, a) Click the Delete button Infront of the record b) System will delete that record from the system and shows a success message.
	7.a	If the inventory manager clicks submit without filling all fields in the form a) Displays an error message saying “please fill out this field.” b) Inventory manager fills that missing field and submit.
	10.a	If the inventory manager wants to change a record,

		<p>a) He selects the field and clicks the update button.</p> <p>b) He will navigate automatically to update page.</p> <p>c) He changes the details he wants and clicks the update button.</p> <p>d) System will change the details and save it in the System.</p>
10.b		<p>If the inventory manager wants to delete a record,</p> <p>a) Click the Delete button Infront of the record</p> <p>b) System will delete that record from the system and shows a success message.</p>
	11.a	<p>If the inventory manager wants to find a specific drug detail in the system,</p> <p>a) He searches in the search bar by drug id, drug name or the date.</p> <p>b) System will display the relevant details according to the search key.</p>

Table 3 : Use case scenario | Inventory management

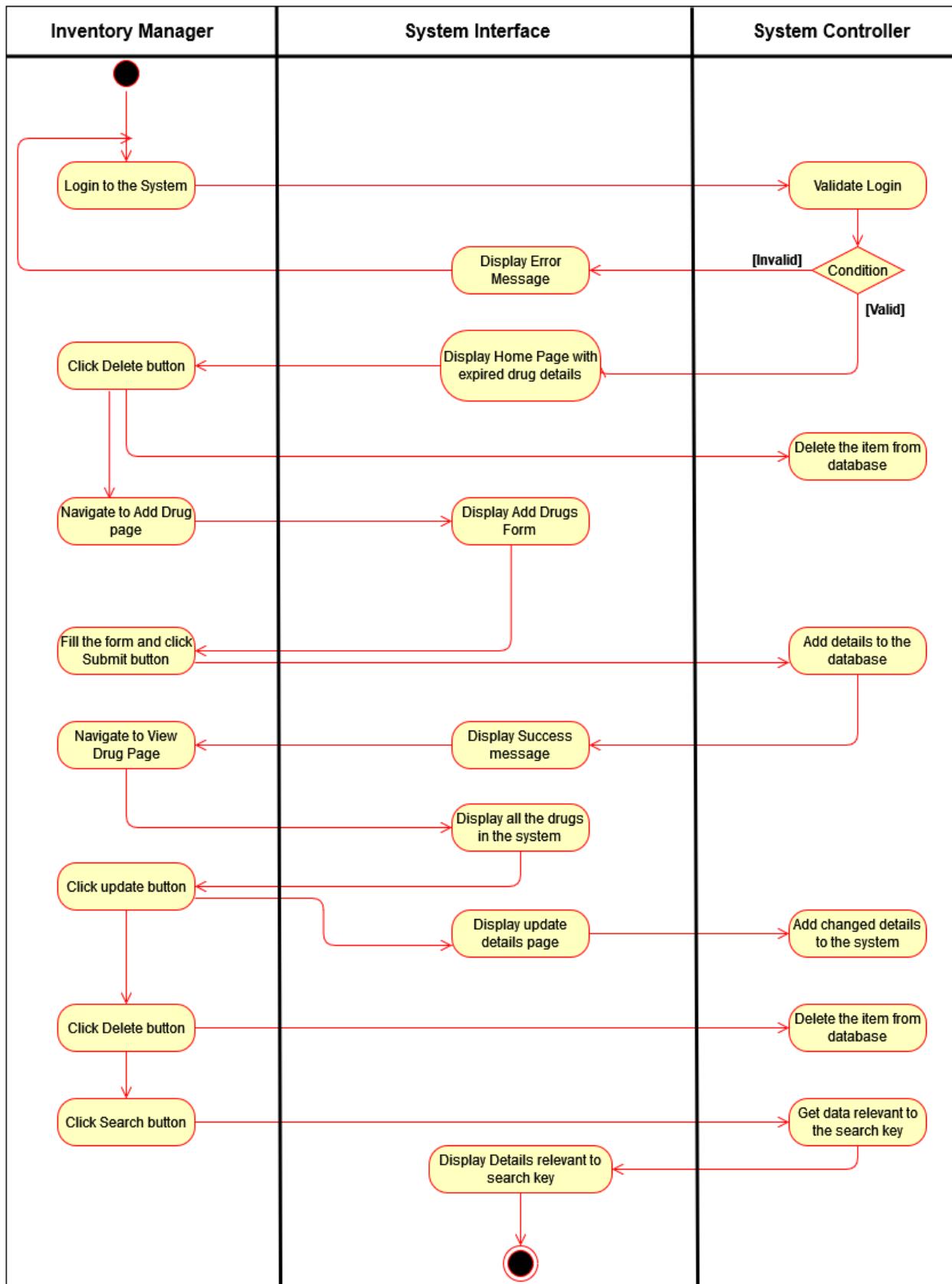


Figure 2.1.4.3 Activity diagram for Inventory management

2.1.4.4 Showcase management

Use Case Scenario

Use Case ID	004	
Use Case Name	Showcase Management	
Summary	Showcase manager logs into the system and insert, view, update and delete drugs which are to be expired on the system.	
Priority	-	
Primary Actor	Showcase Manager	
Pre-Conditions	Users should enter all drug details which are going to be expired.	
Post-Conditions	All the expired drugs should be stored inside the system and should display when user visit view drug page and search them by Id, or Name.	
Main Success Scenario	Steps	Action
	1	Showcase manager has to log in to the system successfully.
	2	Navigates to the home page automatically.
	3	The system displays drug list which are available in the showcases.
	4	Showcase manager can search drug details by using drug id and drug name.
	5	Showcase manager should check the expiry dates of that drugs.
	6	Navigates to Add Expired Drugs page.
	7	Enter Drug details which are going to be expired through the form.
	8	Click on the submit button.
	9	Navigates to Expired Drug List page.
	10	The system displays all details of the drugs that are to be expired in the system.
	11	Showcase manager manages drugs from there.
Extensions	Steps	Branch Action
	1.a	If the login conditions are valid successfully logs into the system.
	1.b	If the login conditions are invalid a) System will display an error message. b) Showcase manager has to re-enters the login details.
	5.a	If the given drugs which are going to be expired soon, add in to the system.
	8.a	If the showcase manager clicks submit without filling all fields in the form

		<p>a) Displays an error message saying “please fill out this field.”</p> <p>b) Showcase manager fills that missing field and submit.</p>
11.a		<p>If the showcase manager wants to change a record,</p> <p>a) He selects the field and clicks the update button.</p> <p>b) He will navigate automatically to update page.</p> <p>c) He changes the details he wants and clicks the update button.</p> <p>d) System will change the details and save it in the System.</p>
	11.b	<p>If the showcase manager wants to delete a record,</p> <p>a) Click the Delete button Infront of the record</p> <p>b) System will delete that record from the system and shows a success message.</p>

Table 4 : Use case scenario | Showcase management

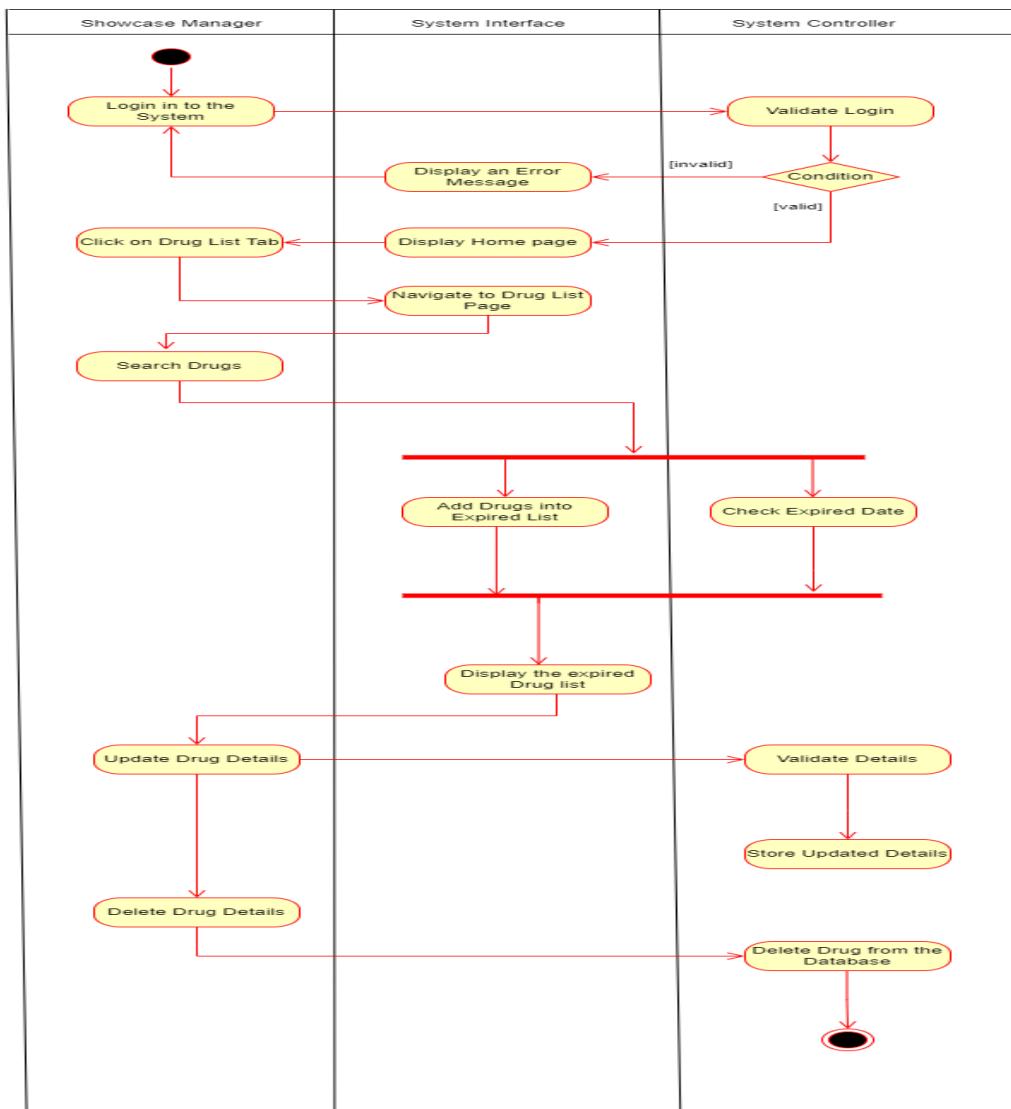


Figure 2.1.4.4 Activity diagram for Showcase management

2.1.4.5 Order management

Use Case Scenario

Use Case ID	005	
Use Case Name	Arranged the Orders and Generate the Order Report Which are going to be Arranged.	
Summary	Order Manager Checks the Order Content which placed by Customer and Update the Order Status.	
Priority	High	
Pre-Conditions	<ul style="list-style-type: none">• Order Manager should Login to the System.• Order Manager must Enter valid Username and Password	
Post-Conditions	<ul style="list-style-type: none">• All the Received Order Details Must Store in the System Database.• Received Orders must Display When It Searches by the Received Date.• Order Manager Should Generate the Accepted Order Details Report.	
Primary Actor(s)	Order Manager	
Trigger	Order Manager Should Update the Order Status and Generate the Report.	
Main Success Scenario	Step	Action
	1	The Order Manager Login to the System Using their Login Credential.
	2	The System Validates the User and Order Manager can navigate to the Home Page.
	3	The System Display Two Sections.
	4	The Order Manager Should Click on the Received Order Details Section.
	5	System Navigates Order Manager, to the Received Order Details Page.
	6	The Order manager Checks the Order Content.

	7	The Order Manager Decides What are going to be Approved and Discarded.
	8	By Clicking the “Accept” button, Order Manager Can Add the Status Instead “Pending”
	9	By Clicking “Discard” Button, Order Manager can Update the Order Status.
	10	By Clicking “Delete” Button, Order Manager Can Delete the Orders Which be Already Discarded.
	11	System Shows Search Bar.
	12	The Order Manager Can Enter Some Specific Date.
	13	System Display All the Received Orders Under That Date.
	14	System Shows “View Accepted Orders” button.
	15	By Clicking “View Approved List” Button, Order Manager Can Navigate to the “View Accepted Orders” Page.
	16	Order Manager Can View All the Accepted Orders.
	17	Order Manager Can Update and Delete the Orders by Clicking “Discard” and “Delete” buttons.
	18	System Shows “Download Report” Button.
	19	When click on that Download Report Button, System Will Generate the Accepted Order Report.
Extensions	Step	Action
	2a	If the Username and Password invalid, System Shows the Error Message and Redirect to the Login Page.
	8a	The System Display the Message, “Accepted Successful”
	8b	If Order Manager Click Accept Button Again and again, the system Show the Message “The Order Already Accepted”

	9a	System Shows the Success Message, “Discard Successful”
	10a	System Shows the Success Message, “Delete Successful”.
	12a	If the Order Manager Search the Orders by Some other variable, System Doesn’t Filter Any Orders.
	16a	System Display the Message, “Discarded Successful”
	16b	System Display the Message, “Delete Successful”

Table 5 : Use case scenario | Order management

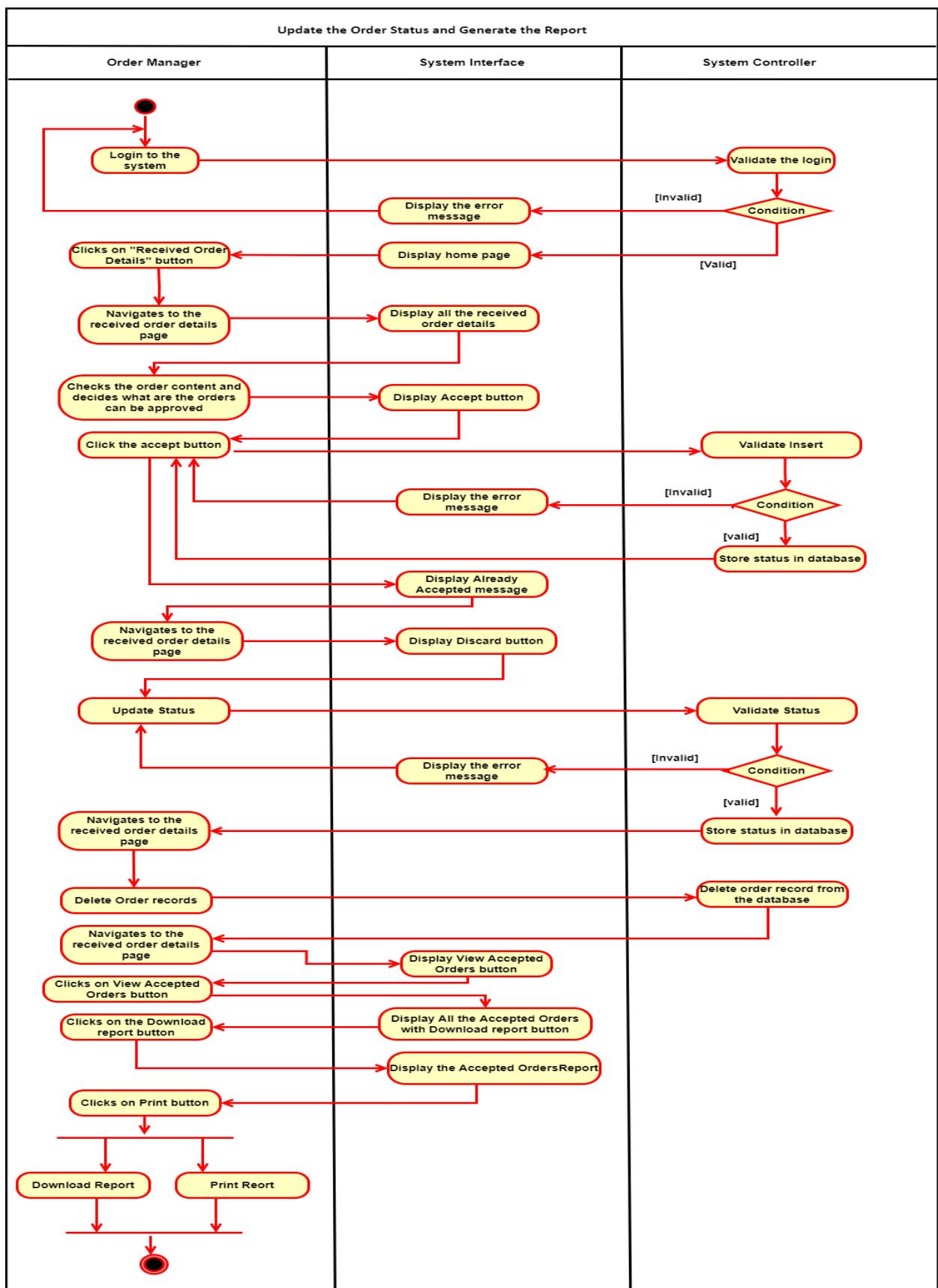


Figure 2.1.4.5 Activity diagram for Order management

2.1.4.6 Delivery management

Use Case Scenario

Use Case ID	006	
Use Case Name	Create delivery note and generate the delivery report.	
Summary	User generates the meaningful delivery report by giving a date and entering delivery details.	
Priority	High	
Pre-Conditions	<ul style="list-style-type: none"> ✓ User should log into the system. ✓ User should know all the orders accepted by order manager. ✓ Mandatory to enter all delivery details correctly. 	
Post-Conditions	<ul style="list-style-type: none"> ✓ All the delivery note details entered by the user should be stored in the database system. ✓ Inserted data must display when it searches by the delivery status. ✓ User will be generated the delivery report by giving delivery status or delivered date. 	
Primary Actor	Delivery Manager	
Secondary Actor	Deliverers	
Trigger	Delivery manager will update delivery details.	
Main Scenario	Step	Action
	01	Delivery manager login to the system using their login credential.
	02	System check whether login details true and correct.
	03	System displays an alert message login successfully.
	04	System directs to the delivery home page.
	05	Delivery manager should view the orders accepted by the order manager.
	06	The delivery manager must select the relevant delivery order and click the “Add delivery note” button to create a delivery note.
	07	System directs to the page that creates the delivery note, including the details of that order.
	08	The delivery manager creates a delivery note by providing other details related to the delivery.
	09	System displays an alert message that delivery note created successfully.
	10	System refreshes the page.

	11	System will store the newly added delivery note data in the database.
	12	Manager must select “Delivery Report” tab in the navigation bar and the system directs to the delivery report page.
	13	System displays all the delivery notes with their details.
	14	Delivery manager should enter the delivered date or delivery status to get relevant delivery notes.
	15	System only displays the delivery notes relevant to the delivery manager’s option.
	16	Delivery manager should click the “Create report” button.
	17	A new window will appear with the new report created by the system.
Extensions	Step	Action
	02.a	If given details are not true or incorrect, system displays an error message login failed.
	02.b	Retype the password and confirm with the username.
	02.c	Employee manager should be contacted to obtain the correct user login credentials.
	06.a	If delivery manager can’t find what he want the accepted order, system gives a search option.
	08.a	If given data are not matched, the system displays an error message.
	08.b	The relevant data should be provided according to the form validation.

Table 6 : Use case scenario | Delivery management

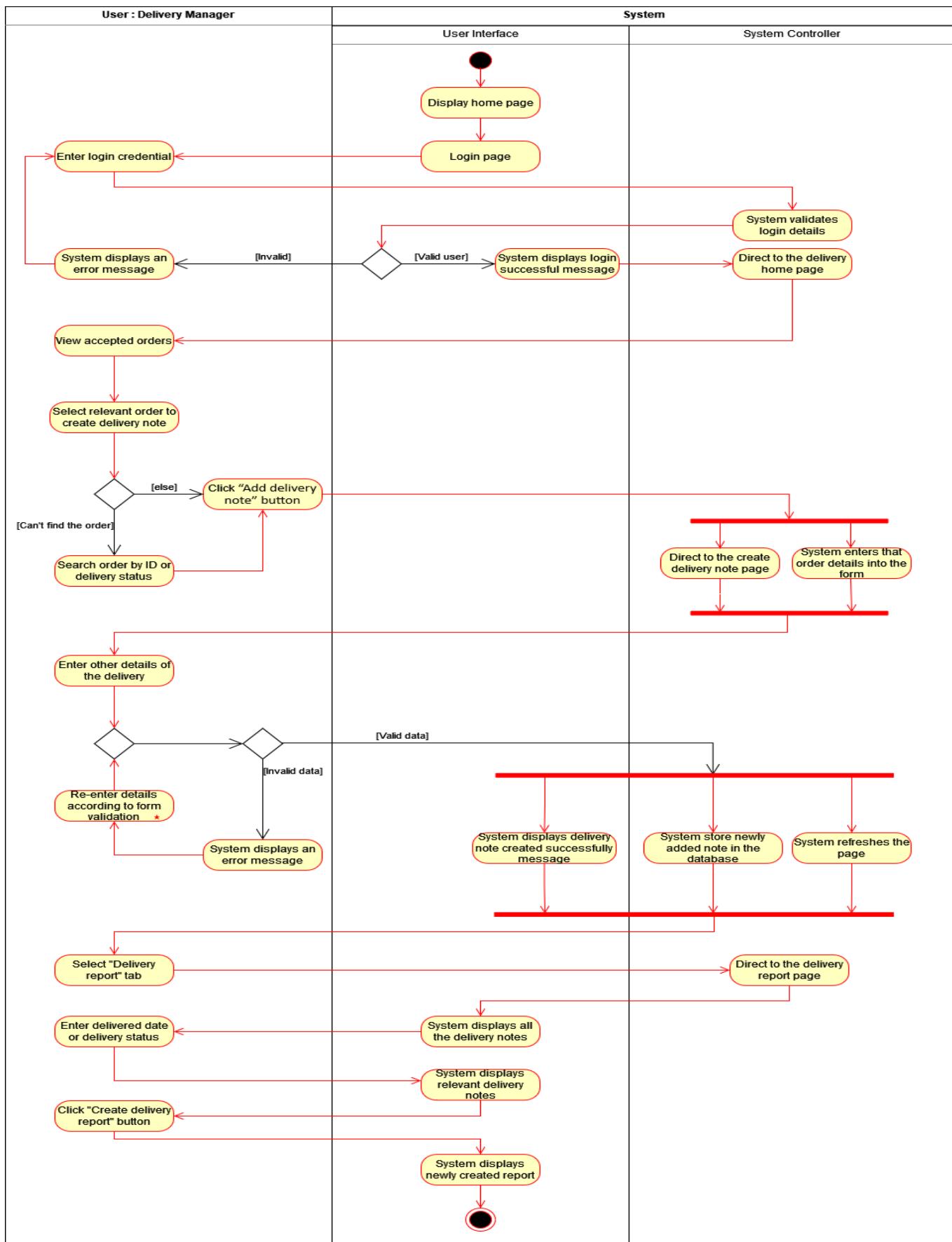


Figure 2.1.4.6 Activity diagram for Delivery management

2.1.4.7 Supplier management

Use Case Scenario

Use Case ID	007	
Use Case Name	Supplier Management	
Summary	The supplier manager performs insert, view, update and delete actions on details of the suppliers.	
Priority	High	
Primary Actor	Supplier Manager	
Pre-Conditions	The user should log in to the system as a supplier manager.	
Post-Conditions	The supplier manager has added a new supplier to the system successfully.	
Main Success Scenario	Steps	Action
	1	The supplier manager logs into the system.
	2	The system navigates him to the dashboard.
	3	The supplier manager clicks on 'Add Supplier'.
	4	The system directs him to the Add Supplier page.
	5	The system displays a form to fill.
	6	The manager enters data and clicks on the 'Submit' button.
	7	The system displays an alert stating that inserting succeeded.
	8	The system navigates the manager to the 'View Suppliers' page.
	9	The system displays all existing suppliers, including newly added supplier.
	10	The supplier manager manipulates supplier details there.
	11	The supplier manager searches from the search bar to get details of a specific supplier.
Extensions	Steps	Branch Action
	1.a	If the login credentials are invalid a) System will display an error message. b) Supplier manager re-enters the login details.
	3.a	If he clicks either on 'Inventory report', 'View Suppliers', or 'Issued Invoices' buttons, He will be navigated to the respective page.
	6.a	If the supplier manager clicks on submit button without filling all fields in the form, a) The system displays an error message saying "Please fill out this field." b) Supplier manager fills that missing field and submits.

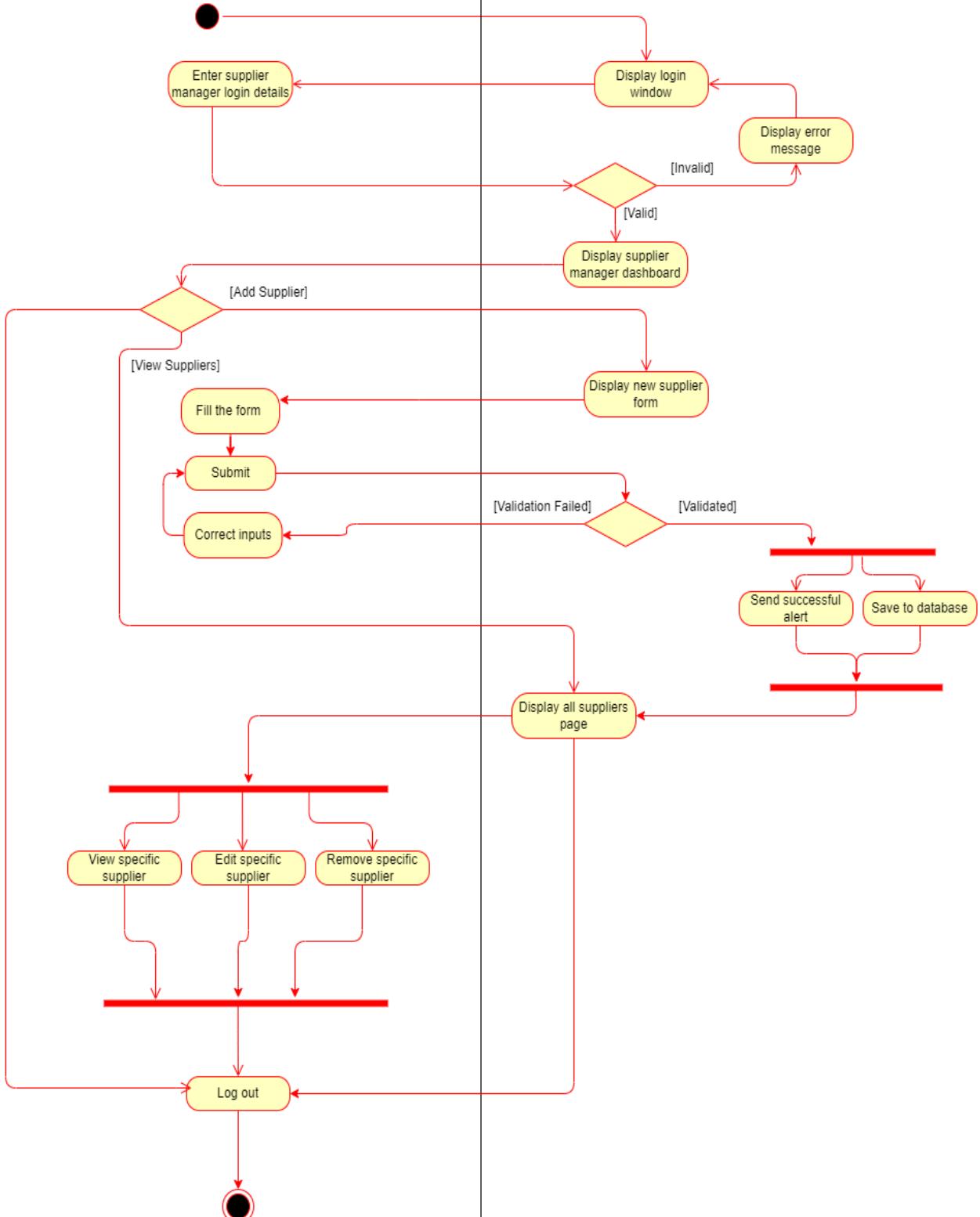
	10.a	If the manager wants to view further details about a specific supplier, a) He clicks on the ‘View’ button in front of the specific supplier’s record. b) System navigates him to the ‘Supplier Details’ page.
	10.b	If the supplier manager wants to change the details of a specific supplier, a) He clicks on the ‘Update’ button in front of the suppliers’ record. b) System navigates him to the ‘Update Supplier’ page. c) He changes the details he wants and clicks the ‘Save Changes’ button. d) System will change the details and save them in the database.
	10.c	If the supplier manager wants to remove a specific supplier, a) He clicks on the ‘Remove’ button in front of the specific supplier record. b) System will ask for a confirmation and when confirmed it will remove that supplier’s details from the existing suppliers’ data.

Table 7 : Use case scenario | Supplier management

Activity Diagram : Supplier Details Management

Supplier Manager

System



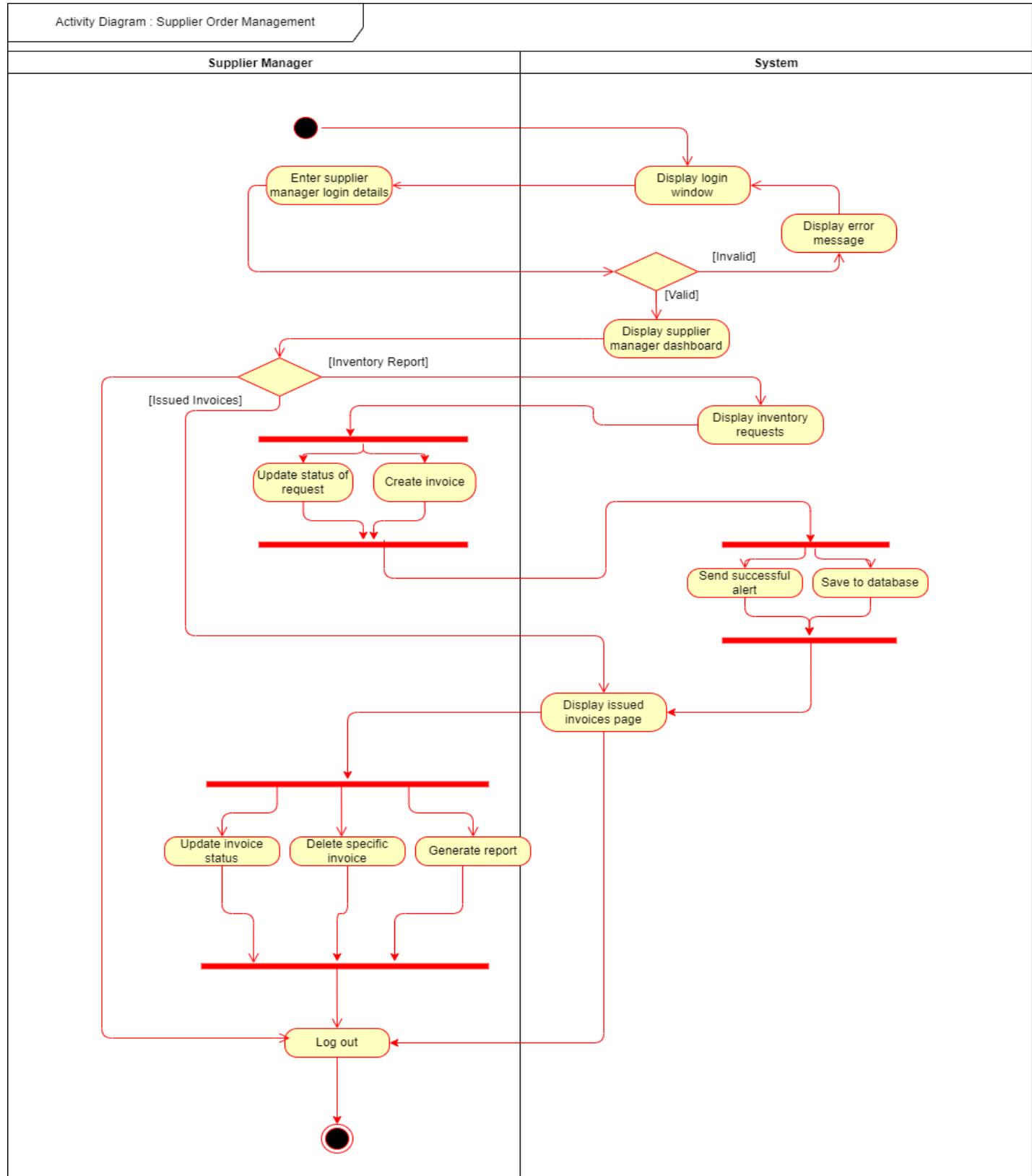


Figure 2.1.4.7 Activity diagram for Supplier management

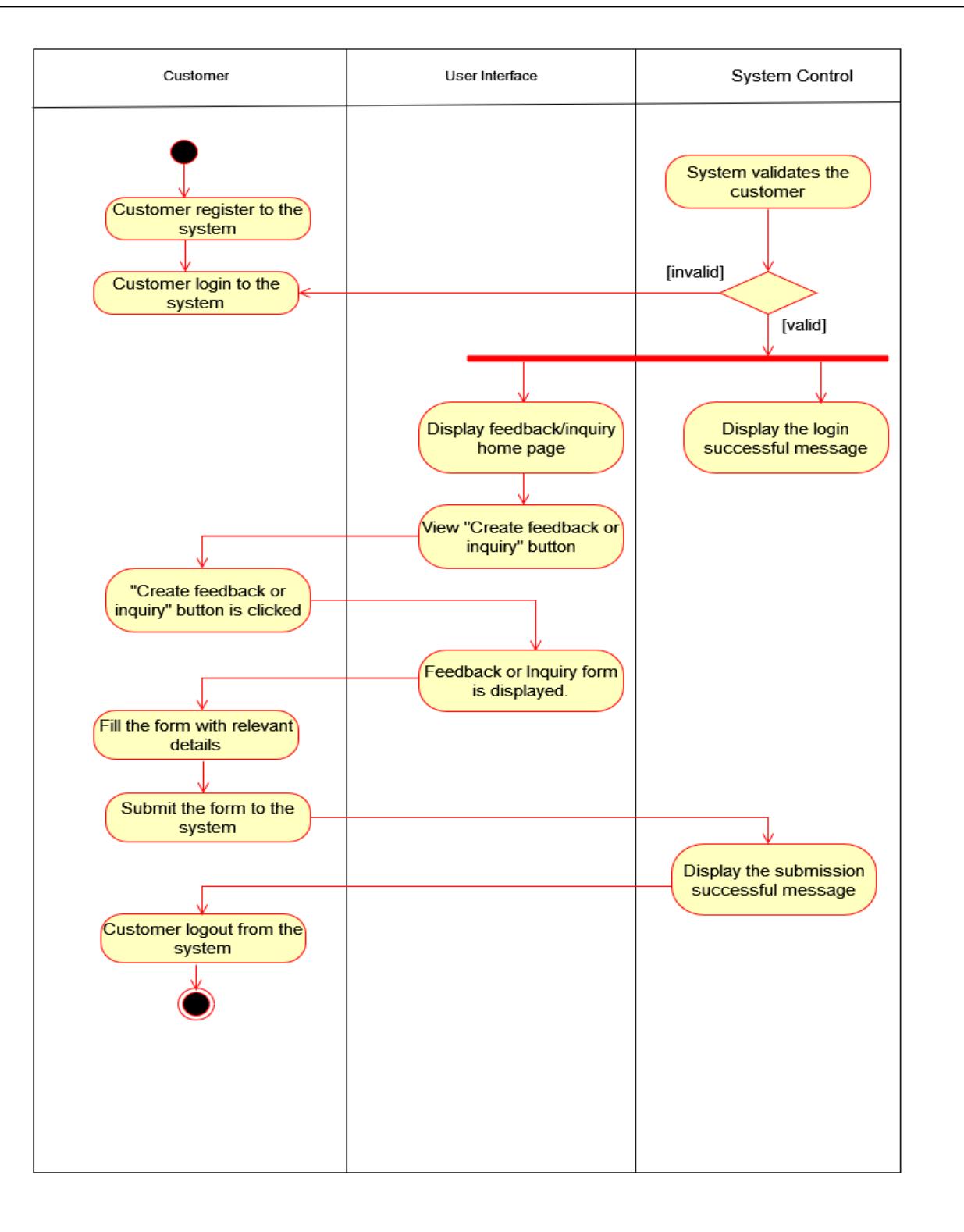
2.1.4.8 Feedback and Inquiry management

Use Case Scenario

Use case ID	008	
Name	Fill the Feedback or Inquiry Form.	
Summary	Fill in all the details in the feedback form and submit it to the system.	
Priority	High.	
Pre-conditions	Access to Union-Pharmaceuticals system.	
Postconditions	Submit the feedback form with the relevant details.	
Primary Actor	Customer.	
Main Scenario	Step	Action
	01	Customer has to access the Union-Pharmaceuticals system.
	02	System displays the login page.
	03	Enter the login credentials.
	04	System validates the login.
	05	Get the feedback/ inquiry form through the home page.
	06	Fill all the fields successfully.
	07	Submit the form to the system
	08	View the confirmation message.
Extensions	Step	Branching Action
	02a	If not registered, ask to register to the system.
	04a	If the credentials are invalid, the system shows an error message.
	04b	System redirects to the login page for re-enter credentials.
	07a	If the email is not in the correct format, display an error message.
	7b	If the phone number is not included with ten numbers display an error message.

Use case ID	009	
Name	Feedback and Inquiry Handling.	
Summary	Generate report on feedback and inquiries made by the customer at end of each month.	
Priority	High.	
Pre-conditions	Access to Union-Pharmaceuticals system.	
Postconditions	Generate all the reports included with feedback and inquiries successfully.	
Primary Actor	Admin	
Main Scenario	Step	Action
	01	Admin has to access the Union-Pharmaceuticals system.
	02	System displays the login page.
	03	Enter the login credentials.
	04	System validates the login.
	05	Retrieve all the feedback and inquiries made by customers.
	06	Retrieve the specific details of feedback through the link.
	07	Search the specific details of feedback by the token.
	08	Reply for each feedback or inquiry.
	09	Visualize the data by updating the token as null for replied feedback.
	10	Delete all the replied feedback or inquiries at the end of the month.
	11	Get the confirmation message of deletion.
	12	Create, format, and download the general report.
Extensions	Step	Branching Action
	02a	If not registered, ask to register to the system.
	04a	If the credentials are invalid, the system shows an error message.
	04b	System redirects to the login page for re-enter credentials.
	10a	If the token is not displayed as null check whether it is replied one or not.

Table 8 : Use case scenario | Feedback and inquiry management



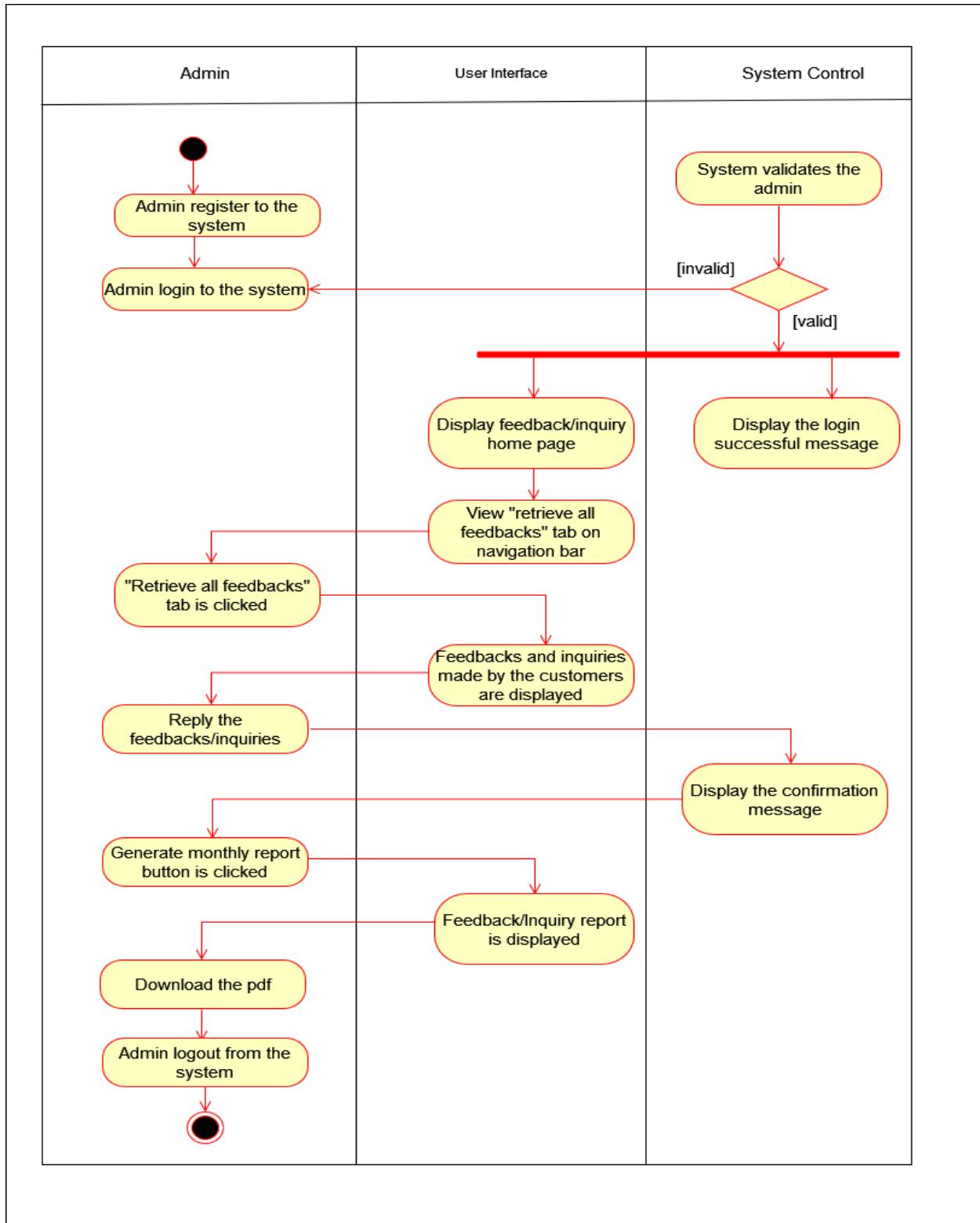


Figure 2.1.4.8 Activity diagram for Feedback and inquiry management

2.2 Design

2.2.1 High Level Architecture Diagram

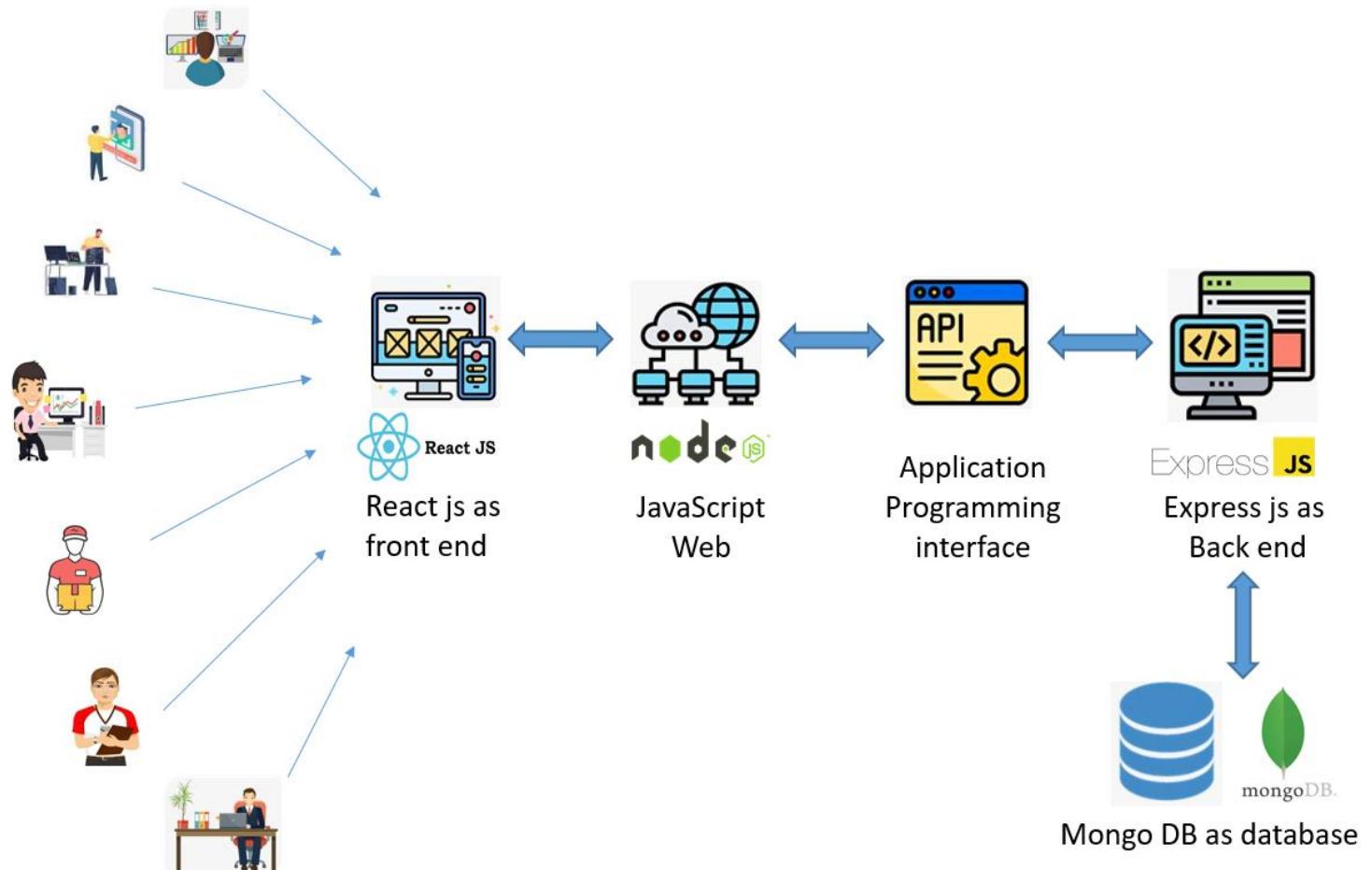


Figure 2.2.1 High Level Architecture Diagram 1

2.2.2 ER Diagram

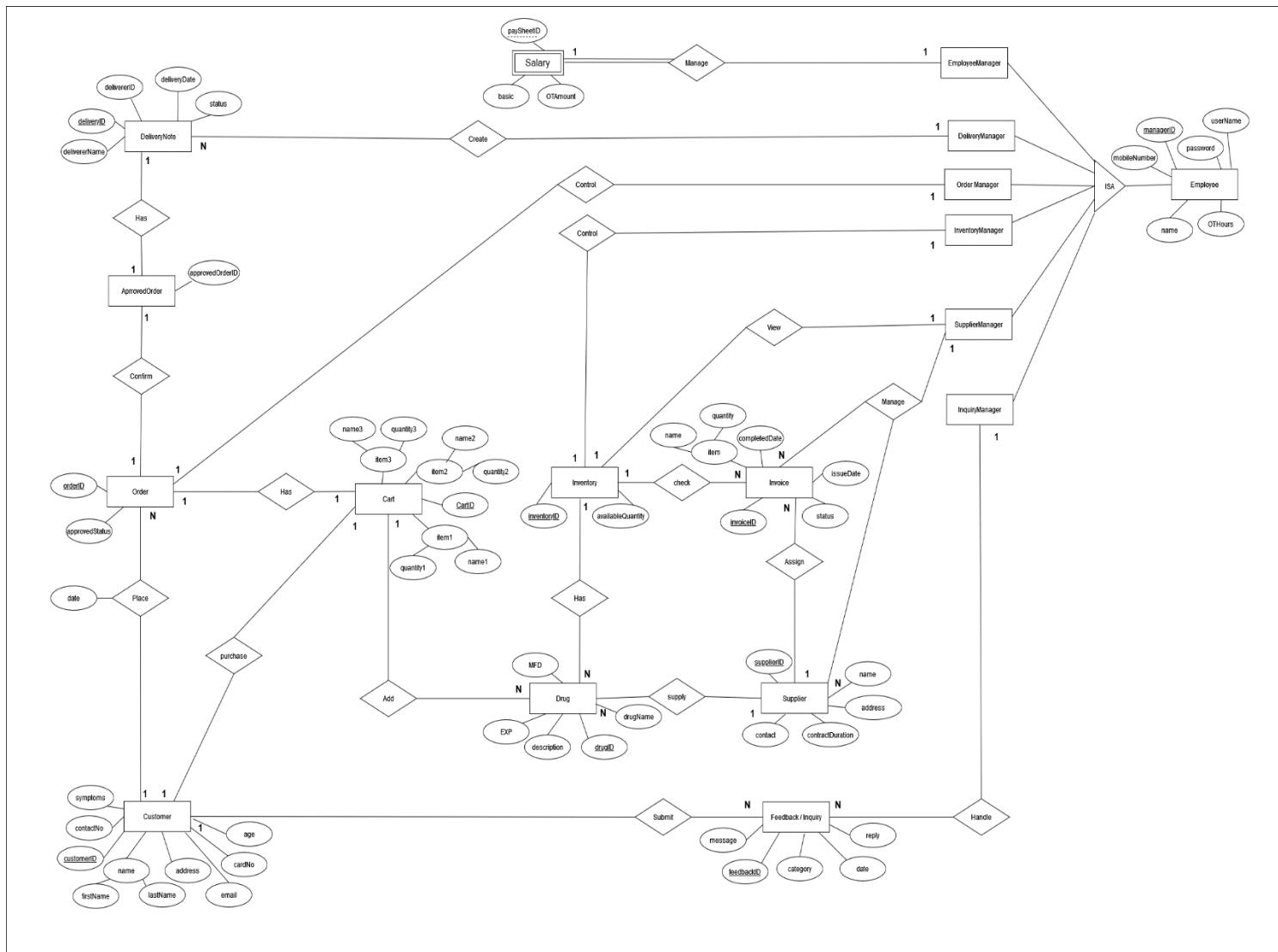


Figure 2.2.2.1 ER Diagram 1

2.2.3 User Interfaces

2.2.3.1 Interfaces of Customer Management function

The screenshot shows the sign-up page for the Union Pharmaceuticals website. The header features a logo of a green cross with a lock, the text "Union Pharmaceuticals", and links for "LOG IN", "SIGN UP FOR FREE", and a user icon. A navigation bar below includes "Home", "Showcase", "Place Order", "Inquiry & Feedback", and "About us". The main section is titled "SIGN UP" with the sub-instruction "Create your account and sign up for free". It contains six input fields: "Name", "Age", "Mobile no", "Username", "Address", and "Password". Below these is a "Confirm Password" field. A checkbox labeled "I hereby accept all the terms and conditions" is present, followed by a large green "REGISTER" button. A note at the bottom says "If you already have an account click [here](#) to login". The footer is dark with white text, containing sections for "About Us", "Quick Links", "Contact Us", and "Maps". The "About Us" section includes social media icons for Facebook, Twitter, LinkedIn, and YouTube. The "Quick Links" section lists "Home", "Showcase", "Place Order", "Inquiry & Feedback", and "About us". The "Contact Us" section lists an address, email, and phone number. The "Maps" section shows a map of a city area.

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Maps

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Figure 2.2.3.1.1 User Sign up 1

The screenshot shows the homepage of the Union Pharmaceuticals website. At the top left is a logo consisting of a stylized green cross or plus sign inside a white square. To the right of the logo, the company name "Union Pharmaceuticals" is displayed in a bold, black, sans-serif font. In the top right corner, there are three buttons: "LOG IN" (in blue), "SIGN UP FOR FREE" (in pink), and a user icon (a blue person silhouette). Below the header is a dark navigation bar containing five items: "Home", "Showcase", "Place Order", "Inquiry & Feedback", and "About us". The main content area has a light blue gradient background. In the center, the word "LOGIN" is written in large, bold, blue capital letters. Below it are two input fields: a white one labeled "Username" and another white one labeled "Password". A green rectangular button labeled "Login" is positioned below the password field. At the bottom of the page, a dark footer section contains four columns: "About Us" (with text about trustworthiness and a decade of service, and social media icons for Facebook, Twitter, LinkedIn, and YouTube), "Quick Links" (with links to Home, Showcase, Place Order, Inquiry & Feedback, and About us), "Contact Us" (with address, email, and phone number), and "Maps" (with a small map of the area). The footer also includes a copyright notice: "Copyright Company 2012 : All Rights Reserved".

Union Pharmaceuticals

LOG IN SIGN UP FOR FREE

Home Showcase Place Order Inquiry & Feedback About us

LOGIN

Username

Password

Login

If you haven't registered click [here](#)

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Figure 2.2.3.1.2 User login 1



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[LOG IN](#) [SIGN UP FOR FREE](#) 

YOUR ORDER DETAILS

Symptoms	Card no.
Card cvv	Date
Item1 name	Item quantity1
Item2 name	Item quantity2
Item3 name	Item quantity3

CONFIRM DETAILS

NEXT

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Figure 2.2.3.1.3 Add order 1

The screenshot shows the homepage of the Union Pharmaceuticals website. At the top left is the company logo, which is a stylized green and blue cross-like shape. To the right of the logo is the company name "Union Pharmaceuticals". In the top right corner, there are links for "LOG IN" and "SIGN UP FOR FREE", along with a user icon. Below the header is a navigation bar with links for "Home", "Showcase", "Place Order", "Inquiry & Feedback", and "About us". A large green button labeled "View My Order" is centered on the page. At the bottom, there is a dark footer section containing four columns: "About Us" (with text about trustworthy service since 2011), "Quick Links" (with links to Home, Showcase, Place Order, Inquiry & Feedback, and About us), "Contact Us" (with address, email, and phone number), and "Maps" (with a small map of the area). The footer also includes a copyright notice: "Copyright Company 2012 : All Rights Reserved".

Figure 2.2.3.1.4 View My Order 1



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[Home](#) [Showcase](#) [Place Order](#) [Inquiry & Feedback](#) [About us](#)

Search..

ID	Item1 Name	Item1 Quantity	Item2 Name	Item2 Quantity	Item3 Name	Item3 Quantity	Edit	Delete
627a1a5d1465c7cda31368a2	Amoxcillin	6	Penicillin	8	Piriton	10	edit	delete
6280637722a48dd54bf6c4fb	Panadene	12	Zart	6	Piriton	4	edit	delete
6283383f34b53cd344d9f640	Ciprofloxacin	8	Panadol	4	Amoxcillin	6	edit	delete
628b93deabba25a0b00278ae	Cough syrup	1	Panadol syrup	1	Panadene	8	edit	delete
628c7227dbe92ab659e4f1d8	Panadol	6	Piriton	4	Amoxcillin	8	edit	delete

[GENERATE SUMMARY](#) [ADD ORDER](#)

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Figure 2.2.3.1.5 Order details 1

EDIT ORDER

fever	2323-1313-2241-8297
422	2022.08.09
Panadol	6
Piriton	4
Amoxcillin	8

CONFIRM DETAILS

Figure 2.2.3.1.6 Edit Order 1

The screenshot displays a mobile application interface for managing orders. On the left, a sidebar lists order IDs: 627a1a5d1465c7cda3, 6280637722a48dd54, 6283383f34b53cd344d9f640, 628b93deabba25a0b00278ae, and 628c7227dbe92ab659e4f1d8. Below this is a 'GENERATE SUMMARY' button. The main area shows an 'Order Summary' table with the following data:

ID	Item1 Name	Item1 Quantity	Item2 Name	Item2 Quantity	Item3 Name	Item3 Quantity
627a1a5d1465c7cda3	Amoxcillin	6	Penicillin	8	Piriton	10
6280637722a48dd54	Panadene	12	Zart	6	Piriton	4
6283383f34b53cd344d9f640	Ciprofloxacin	8	Panadol	4	Amoxcillin	6
628b93deabba25a0b00278ae	Cough syrup	1	Panadol syrup	1	Panadene	8
628c7227dbe92ab659e4f1d8	Panadol	6	Piriton	4	Amoxcillin	8

At the bottom of the main screen, it says '1 of 1' and '5/24/2022, 11:23 AM'. To the right, a 'Print' dialog is open, showing settings for 'Microsoft Print to PDF' in 'Portrait' orientation, 'Color' mode, 'Letter' paper size, 'Scale' at 128%, '1' page per sheet, and margins. The dialog includes 'Print', 'Cancel', and 'ADD ORDER' buttons.

Figure 2.2.3.1.7 Order Summary Report 1

2.2.3.2 Interfaces of Employee Management function

 Union Pharmaceuticals

CREATE ACCOUNT VIEW EMPLOYEES VIEW SALARY DETAILS

ADD NEW EMPLOYEE....

Employee Name

Employee ID

Address

Phone

SUBMIT

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[!\[\]\(80c3a465fa06bcc03b035652b4dc0e8d_img.jpg\)](#) [!\[\]\(1c1359abeb03f160d4a7809212f20768_img.jpg\)](#) [!\[\]\(da66a75002f671d053953d3eab1305cb_img.jpg\)](#) [!\[\]\(747380e24e4baab8c40a23d3ee2c092b_img.jpg\)](#)

Quick Links
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[View Employees](#)
[View Salary Details](#)

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Maps


Figure 2.2.3.2.1 Add New Employee 1



Union Pharmaceuticals

[CREATE ACCOUNT](#) [VIEW EMPLOYEES](#) [VIEW SALARY DETAILS](#)

ALL EMPLOYEES

Search

	Employee Name	Employee ID	Address	phone			
1	Prashanthi Anushika	EID01	No:1234, kandy rd ,Matale	0716570640	Calc Salary	Update Details	Remove Employee
2	Adithya Panchali	EID02	No:123 E, kandy rd Matale	0772045798	Calc Salary	Update Details	Remove Employee
3	Pasindu Senanayake	EID03	Trinco rd Dambulla	0789025909	Calc Salary	Update Details	Remove Employee
4	Oshada Geeth	EID04	Sirimalwaththa rd Digana	0772035909	Calc Salary	Update Details	Remove Employee
5	Heshan Siriwardana	EID05	Kurunegala rd Galewela	0772090800	Calc Salary	Update Details	Remove Employee
6	Sanjana Kavindi	EID06	No:156 kandy rd dambulla	0772035890	Calc Salary	Update Details	Remove Employee
7	Ravishani Siriwardana	EID07	Anuradhapura rd Dambulla	0776383993	Calc Salary	Update Details	Remove Employee
8	Ranushi Perera	EID08	Maldenipura rd Kekirawa	0772657950	Calc Salary	Update Details	Remove Employee

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Figure 2.2.3.2.2 All Employees 1

60 | Page



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[CREATE ACCOUNT](#) [VIEW EMPLOYEES](#) [VIEW SALARY DETAILS](#)

EMPLOYEE SALARY DETAILS

[Download Report](#)

Employee Name	Employee ID	Address	phone	Salary	OT Hours	Leave Hours
1 Prashanthi Anushika	EID01	No:1234, kandy rd ,Matale	0716570640	115000	0	10
2 Adithya Panchali	EID02	No:123 E, kandy rd Matale	0772045798	140000	50	0
3 Pasindu Senanayake	EID03	Trinco rd Dambulla	0789025909			
4 Oshada Geeth	EID04	Sirimalwaththa rd Digana	0772035909	138000	30	0
5 Heshan Siriwardana	EID05	Kurunegala rd Galewela	0772090800			
6 Sanjana Kavindi	EID06	No:156 kandy rd dambulla	0772035890			
7 Ravishani Siriwardana	EID07	Anuradhapura rd Dambulla	0776383993			
8 Ranushi Perera	EID08	Maldenipura rd Kekirawa	0772657950			

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Figure 2.2.3.2.3 Employee Salary Details 1

The screenshot shows the 'SALARY CALCULATE' section of the Union Pharmaceuticals website. At the top, there is a navigation bar with links for 'CREATE ACCOUNT', 'VIEW EMPLOYEES', and 'VIEW SALARY DETAILS'. Below the navigation bar, the user's name 'Amila Ishara Wijerathne' and employee ID 'EID01' are displayed. The main form area has three input fields: 'Working Hours', 'Basic Salary Rate', and 'OT Rate', followed by a red 'ADD SALARY' button. At the bottom of the page, there are four sections: 'About Us' (with text about trustworthiness and a decade of service), 'Quick Links' (with links to Create Account, View Employees, and View Salary Details), 'Contact Us' (with address, email, and phone number), and a 'Maps' section showing a location map.

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Create Account
View Employees
View Salary Details

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Maps

Figure 2.2.3.2.4 Salary calculate 1

 **Union Pharmaceuticals**

CREATE ACCOUNT VIEW EMPLOYEES VIEW SALARY DETAILS

EMPLOYEE DETAILS

Employee Name
Amila Ishara Wijerathne

Employee ID
EID01

Address
No:1234, kandy rd ,Matale

phone
0716570640

Submit

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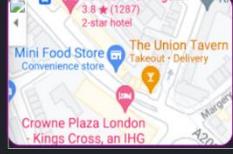
Maps


Figure 2.2.3.2.5 Employee Details 1

The screenshot shows a web-based application interface for managing employee details. On the left, there's a sidebar with a logo, a search bar, and a list of employee names. The main content area displays a table of employee details, and a modal window is open for printing.

Print Dialog:

- Print:** 1 sheet of paper
- Destination:** Microsoft Print to PDF
- Pages:** All
- Layout:** Portrait
- Color:** Color
- More settings:** A dropdown menu with a 'Search' button.
- Buttons:** Print and Cancel.

Employee Details Table:

Employee Name	Employee ID	Address	Phone	Salary	OT Hours	Leave Hours
1 Prashanthi Anushika	EID01	No:1234, kandy rd ,Matale	0716570640	115000	0	10
2 Adithya Panchali	EID02	No:123 E, kandy rd Matale	0772045798	140000	50	0
3 Pasindu Senanayake	EID03	Trinco rd Dambulla	0789025909			
4 Oshada Geeth	EID04	Sirimalwaththa rd Digana	0772035909	138000	30	0
5 Heshan Siriwardana	EID05	Kurunegala rd Galewela	0772090800			
6 Sanjana Kavindi	EID06	No:156 kandy rd dambulla	0772035890			
7 Ravishani Siriwardana	EID07	Anuradhapura rd Dambulla	0776383993			
8 Ranushi Perera	EID08	Maldenipura rd Kekirawa	0772657950			

localhost:3000 views 1/1

Figure 2.2.3.2.6 Employee Details Report 1

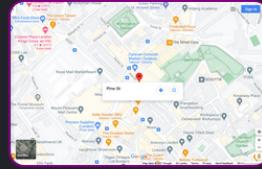
2.2.3.3 Interfaces of Supplier Management function



Union Pharmaceuticals

Home Add Supplier View Suppliers Inventory Report Issued Invoices

Agent Name <input type="text"/>	Company Name <input type="text"/>
Registered ID(in Medical Supplies Division of Ministry of Healthcare) <input type="text"/>	Registered Date <input type="text"/> mm / dd / yyyy
Contact Number <input type="text"/>	Warehouse Contact Number <input type="text"/>
Warehouse Address <input type="text"/>	
Contract Duration <input type="text"/> 6	Date <input type="text"/> mm / dd / yyyy
<input type="button" value="Reset"/> <input type="button" value="Submit"/>	

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Figure 2.2.3.3.1 Add Supplier 1

65 | Page

INVOICE

Drug ID

did734686

Name and Description

Flector Patch 1.3%

Quantity

700

Supplier

Hemas

Request Status

Accepted

Date

mm/dd/yyyy



Return

Create

Figure 2.2.3.3.2 Create Invoice 1



Union Pharmaceuticals

Home Add Supplier View Suppliers Inventory Report Issued Invoices Generate Report

Search

Invoice 1
Description: Flector Patch 1.3% Issued For: Hemas Issued Date: 2022-05-22 Accepted
Invoice 2
Description: Glucerna 1.0 Cal Issued For: Astron Issued Date: 2022-05-25 Accepted
Invoice 3
Description: Levoxyl Issued For: SPC Issued Date: 2022-05-20 Invoice Issued
Invoice 4
Description: Azitopline Issued For: Samara Issued Date: 2022-05-24 Invoice Issued

Generate Report

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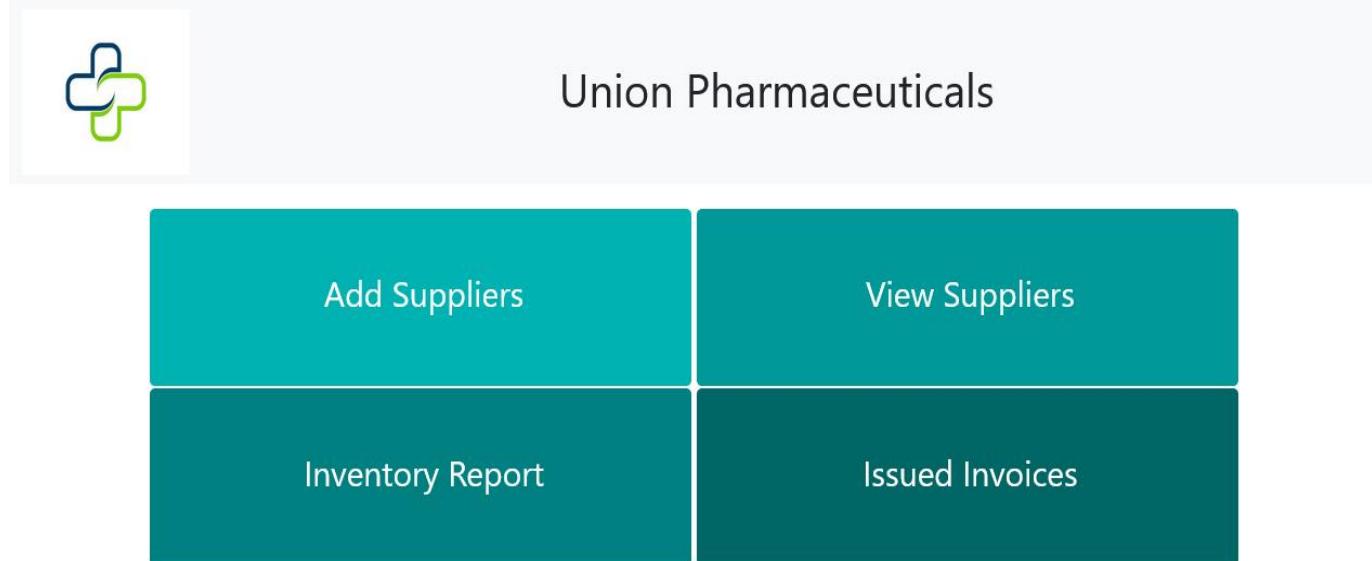
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Figure 2.2.3.3.3 Generate Report 1



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Figure 2.2.3.3.4 Home 1



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Drug Id	Description	Supplier	Quantity	Status	Update Status	Create Invoice
1	Flidor Patch 1.3%	Hemas	700	Accepted	Update Status	Create Invoice
2	Glucerna 1.0 Cal	Astron	150	Accepted	Update Status	Create Invoice
3	Levoxyl	SPC	150	Invoice Issued	Update Status	Create Invoice
4	Levoxyl syrup 100ml- 12w/w	Navesta	10	Invoice Issued	Update Status	Create Invoice
5	Azitopline	Samara	2022-04-10	Invoice Issued	Update Status	Create Invoice

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Figure 2.2.3.3.5 Inventory Requests 1



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Home Add Supplier View Suppliers Inventory Report Issued Invoices [Generate Report](#)

Search

Invoice 1 Flector Patch 1.3% 2022-05-22 Hemas	Accepted <input type="button" value="Update Status"/> <input type="button" value="Delete Invoice"/>
Invoice 2 Glucerna 1.0 Cal 2022-05-25 Astron	Accepted <input type="button" value="Update Status"/> <input type="button" value="Delete Invoice"/>
Invoice 3 Levoxyl 2022-05-20 SPC	Invoice Issued <input type="button" value="Update Status"/> <input type="button" value="Delete Invoice"/>
Invoice 4 Azitopline 2022-05-24 Samara	Invoice Issued <input type="button" value="Update Status"/> <input type="button" value="Delete Invoice"/>

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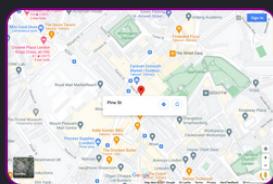
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Figure 2.2.3.3.6 Issued Invoices 1

Navesta

Agent Anjali Senadheera

Registered ID sid765383

Registered Date 2022-05-01

Contact Number 0718719735

Warehouse Contact Number 0413410930

Warehouse Address Kottawa

Contract Duration 48 months

Contracted Date 2022-05-24

[Return](#)

Figure 2.2.3.3.7 Supplier Details 1

INVOICE

Drug ID	did734686
Name and Description	Flecter Patch 1.3%
Supplier	Hemas
Request Status	Accepted ▾

Return **Save Changes**

Figure 2.2.3.3.8 Update Invoice 1

INVENTORY REQUEST

Drug ID	did734686
Name and Description	Flector Patch 1.3%
Quantity	700
Supplier	Hemas
Request Status	Accepted ▾

[Return](#) [Save Changes](#)

Figure 2.2.3.3.9 Update Requests 1

Home Update Supplier View Suppliers Inventory Report Issued Invoices

Agent Name

Sandaru Induwara

Company

SPC

Registered ID

sid249761

Contact Number

0712673883

Warehouse Contact Number

0115327835

Warehouse Address

Kottawa

Return

Save Changes

Figure 2.2.3.3.10 Update Supplier 1



Union Pharmaceuticals

Home Add Supplier View Suppliers Inventory Report Issued Invoices

All Suppliers

	Company Name	Agent Name	Registered ID	Contact Number	Address			
1	SPC	Chamindu Ashan	sid142354	0711119878	Middeniya	View	Update	Remove
2	NF	Dinithi Kavithma	sid612653	0761534822	Dematagoda	View	Update	Remove
3	RG	Jayantha Pathirana	sid123456	0712673883	Matara	View	Update	Remove
4	Navesta	Anjali Senadheera	sid657123	0712673883	Kottawa	View	Update	Remove

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Figure 2.2.3.3.11 View Suppliers 1

2.2.3.4 Interfaces of Delivery Management function

The screenshot shows the homepage of the Union Pharmaceuticals website. At the top, there is a navigation bar with a logo, the company name "Union Pharmaceuticals", and links for "HOME", "ACCEPTED ORDERS", "DELIVERY NOTES", and "DELIVERY REPORT". Below the navigation bar, a large banner features the text "Welcome to Delivery Unit...." in red. To the left of the banner are three buttons: "Accepted Orders", "View Delivery Notes", and "Delivery Report". To the right of the banner is an illustration of a delivery person handing a package to a customer, with a smartphone showing a prescription app in the background. The illustration is titled "Medical Prescription Delivery". At the bottom of the page, there are four main sections: "About Us" (with a message about trustworthiness and a decade of service), "Quick Links" (with links to Home, Accepted Orders, Delivery Notes, and Delivery Report), "Contact Us" (with an address, email, and phone number), and "Maps" (with a map showing the company's location). A copyright notice at the very bottom reads "Copyright Company 2012 : All Rights Reserved".

Figure 2.2.3.4.1 Home 1



Union Pharmaceuticals

HOME ACCEPTED ORDERS DELIVERY NOTES DELIVERY REPORT

Orders to be delivered

Customer ID	Name	Mobile No	Address	Action
1 626530c0a702e1de6a93efe8	Keshan Gamage	0717879981	12/3, New lane, Beliatta	Add Delivery Note
2 626530c0a702e1de6a93efe8	Harith Ranaweera	0717879981	23/A kirimatinmulla	Add Delivery Note
3 627a0bbd1465c7cda31367e5	Kavith Senadeera	0717878878	76/3,Kadawatha	Add Delivery Note
4 627a0bbd1465c7cda31367e5	Anjalee Jayaweera	0717878878	65/9,Gampaha	Add Delivery Note
5 627a0bbd1465c7cda31367e5	Kamaj Silva	0717878878	7/21, Meda para, Weeraketiya	Add Delivery Note

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Figure 2.2.3.4.2 Orders to be delivered 1



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- [HOME](#)
- [ACCEPTED ORDERS](#)
- [DELIVERY NOTES](#)
- [DELIVERY REPORT](#)

Delivery Note Form

Delivery ID	Order ID
<input type="text"/>	62653354a702e1de6a93f018
Order Items	Contact No
Tatanyl	0717879981
Address	Deliverer ID
12/3, New lane, Beliatta	<input type="text"/>
Delivery Date	Deliverer Name
<input type="text"/> mm/dd/yyyy	<input type="text"/>
Status	
<input type="text"/> Choose...	
<input type="button" value="Create"/>	

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Figure 2.2.3.4.3 Delivery Note Form 1



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HOME ACCEPTED ORDERS DELIVERY NOTES DELIVERY REPORT

All Delivery Notes

Search by delivery status

Delivery ID	Order ID	Deliverer Name	Date	Status	Action	
1	DID03	62653354a702e1de6a93f018	Malith Perera	2022-05-28	On Delivery	View Details Update Delete
2	DID20	6266568f438867c8c7ba8777	Kasun Randima	2022-05-26	Delivered	View Details Update Delete
3	DID41	627a1a5d1465c7cda31368a2	Janith Gamage	2022-05-24	Delivered	View Details Update Delete
4	DID55	628b93deabba25a0b00278ae	Akila Manage	2022-05-27	On Delivery	View Details Update Delete
5	DID63	628c7227dbe92ab659e4f1d8	Malith Perera	2022-05-30	Pending	View Details Update Delete

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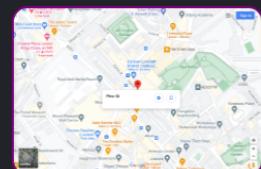
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Figure 2.2.3.4.4 All Delivery Notes 1



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HOME ACCEPTED ORDERS DELIVERY NOTES DELIVERY REPORT

Delivery Note Details

Delivery ID : DID41

Order ID	627a1a5d1465c7cda31368a2
Items	Amoxicillin
Mobile Number	0717878878
Address	7/21,Weeraketiya
Deliverer ID	DID12
Deliverer Name	Janith Gamage
Delivery Date	2022-05-24
Status	Delivered

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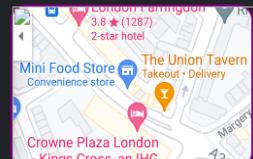
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Figure 2.2.3.4.5 Delivery Note Details 1



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HOME ACCEPTED ORDERS DELIVERY NOTES DELIVERY REPORT

Delivery Note Update Form

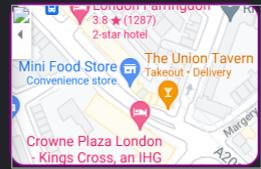
Delivery ID DID20	Order ID 6266568f438867c8c7ba8777
Order Items Amoxcillin	Contact No 0717879981
Address 23/A kirimatimulla	Deliverer ID DRID30
Delivery Date 05/26/2022	Deliverer Name Kasun Randima
Status Choose...	
Submit	

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Figure 2.2.3.4.6 Delivery Note Update Form 1



Union Pharmaceuticals

HOME ACCEPTED ORDERS DELIVERY NOTES DELIVERY REPORT

All Orders

Delivered Date :

Status :

Delivery ID	Order ID	Mobile No	Address	Deliverer ID	Deliverer	Status	Delivered Date
1 DID03	62653354a702e1de6a93f018	0717879981	12/3, New lane, Beliatta	DRID25	Malith Perera	On Delivery	2022-05-28
2 DID20	6266568f438867c8c7ba8777	0717879981	23/A kirimatimulla	DRID30	Kasun Randima	Delivered	2022-05-26
3 DID41	627a1a5d1465c7cda31368a2	0717878878	7/21,Weeraketiya	DRID12	Janith Gamage	Delivered	2022-05-24
4 DID55	628b93deabba25a0b00278ae	0717878878	76/3,Kadawatha	DRID26	Akila Manage	On Delivery	2022-05-27
5 DID63	628c7227dbe92ab659e4f1d8	0717878878	65/9,Gampaha	DRID24	Malith Perera	Pending	2022-05-30

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Figure 2.2.3.4.7 All Orders 1

The screenshot shows a web-based application interface. On the left, there's a sidebar with a logo, navigation links like 'All Orders', 'Deliveries', 'Status', and a dropdown menu. The main area displays a table titled 'Delivered delivery notes report' with columns: Delivery ID, Order ID, Mobile No, Address, Deliverer ID, Deliverer, Status, and Delivered Date. The table contains five rows of data. A modal window is open in the center, titled 'Print', showing options for 'Destination' (Save as PDF), 'Pages' (All), and 'Layout' (Landscape). Below these are 'More settings' and 'Save' / 'Cancel' buttons. To the right of the print dialog, a preview of the report is visible, showing the header 'EVERY REPORT' and the data from the table.

Delivery ID	Order ID	Mobile No	Address	Deliverer ID	Deliverer	Status	Delivered Date
1 DID03	62653354a702e1de6a93f018	0717879981	12/3, New lane, Beliatta	DRID25	Malith Perera	On Delivery	2022-05-28
2 DID20	6266568438867c87ba8777	0717879981	23/A kirimatumulla	DRID30	Kasun Randima	Delivered	2022-05-26
3 DID41	627a1a5d14657cd31368a2	0717878878	7/21,Weeraketiya	DRID12	Janith Gamage	Delivered	2022-05-24
4 DID55	628b93deabba25a0b00278ae	0717878878	76/3,Kadawatha	DRID26	Akila Manage	On Delivery	2022-05-27
5 DID63	628c7227dbe52ab659e4f1db	0717878878	65/9,Gampaha	DRID24	Malith Perera	Pending	2022-05-30

Figure 2.2.3.4.8 Report 1

2.2.3.5 Interfaces of Order Management function

Union Pharmaceuticals

[Home](#) [Received Orders](#) [View Accepted Orders](#)

VIEW ACCEPTED ORDERS

[Download Report](#)

Order ID	Customer ID	Name	Item Name1	Item Quantity1	Item Name2	Item Quantity2	Item Name3	Item Quantity3	Mobile No	Address	Date	Order Status		
62653354a702e1de6a93f018	626530c0a702e1de6a93efe8	Keshan Gamage	Tatanyl	4	Piricol	6	Panadol	10	0717879981	12/3, New lane, Beliatta	2022.05.12	Accepted	Discard	Delete
6266568f438867c8c7ba8777	626530c0a702e1de6a93efe8	Harith Ranaweera	Amoxcillin 33		Penicillin 44		Piriton	33	0717879981	23/A kirimatumulla	2022.05.12	Accepted	Discard	Delete
628b93deabba25a0b00278ae	627a0bbd1465c7cda31367e5	Kavith Senadeera	Cough syrup	1	Panadol syrup	1	Panadene	8	0717878878	76/3.Kadawatha	2022.05.20	Accepted	Discard	Delete
628c7227dbe92ab659e4fd8	627a0bbd1465c7cda31367e5	Anjalee Jayaweera	Panadol	6	Piriton	4	Amoxcillin	8	0717878878	65/9.Gampaha	2022.05.20	Accepted	Discard	Delete

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Figure 2.2.3.5.1 View Accepted Orders 1



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RECEIVED ORDER DETAILS.

2022.05.12

Order ID	Customer ID	Name	Item Name1	Item Quantity1	Item Name2	Item Quantity2	Item Name3	Item Quantity3	Mobile No	Address	Date	Symptoms	Order Status
62653354a702e1de6a93f018	626530c0a702e1de6a93efe8	Keshan Gamage	Tatanyl	4	Piricol	6	Panadol	10	0717879981	12/3, New lane, Beliatta	2022.05.12	fever	Accepted
													Accept
													Discard
													Delete
6266568f438867c8c7ba8777	626530c0a702e1de6a93efe8	Harith Ranaweera	Amoxcillin 33		Penicillin 44		Piriton	33	0717879981	23/A kirimatumulla	2022.05.12	severe throat	Accepted
													Accept
													Discard
													Delete

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Figure 2.2.3.5.2 Received Order 1



RECEIVED ORDER DETAILS.

Search

Order ID	Customer ID	Name	Item Name1	Item Quantity1	Item Name2	Item Quantity2	Item Name3	Item Quantity3	Mobile No	Address	Date	Symptoms	Order Status	
62653354a702e1de6a93f018	626530c0a702e1de6a93efe8	Keshan Gamage	Tatanyl	4	Piricol	6	Panadol	10	0717879981	12/3, New lane, Beliatta	2022.05.12	fever	Accepted	Accept Discard Delete
6266568f438867c8c7ba8777	626530c0a702e1de6a93efe8	Harith Ranaweera	Amoxcillin 33		Penicillin 44		Piriton	33	0717879981	23/A kirimatumulla	2022.05.12	severe throat	Accepted	Accept Discard Delete
6280637722a48dd54bf6c4fb	627a0bbd1465c7cda31367e5	Dasun Perera	Panadene	12	Zart	6	Piriton	4	0717878878	No:112,matara	2022.05.18	Headache	Discarded	Accept Discard Delete
6283383f34b53cd344d9f640	627a0bbd1465c7cda31367e5	Sachin Liyanage	Lipicard	2	Panadol	4	Amoxcillin	6	0717878878	65/1,Malabe	2022.05.19	Fever	Discarded	Accept Discard Delete
628b93deabba25a0b00278ae	627a0bbd1465c7cda31367e5	Kavith Senadeera	Cough syrup	1	Panadol syrup	1	Panadene	8	0717878878	76/3,Kadawatha	2022.05.20	cold	Accepted	Accept Discard Delete
628c7227dbe92ab659e4f1d8	627a0bbd1465c7cda31367e5	Anjalee Jayaweera	Panadol	6	Piriton	4	Amoxcillin	8	0717878878	65/9,Gampaha	2022.05.20	fever	Accepted	Accept Discard Delete
628da1d7dbe92ab659e4f320	627a0bbd1465c7cda31367e5	Kamaj Silva	Panadene	4	Penicillin	6	Clozaxyl	8	0717878878	7/21, Meda para, Weeraketiya	2022.09.12	cough and fever	pending...	Accept Discard Delete

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Figure 2.2.3.5.3 Received order Details 1

The screenshot shows the homepage of the Union Pharmaceuticals website. At the top left is a logo consisting of a stylized green and blue cross-like shape inside a square frame. To its right is the company name "Union Pharmaceuticals". On the far right of the header is a navigation bar with three items: "Home", "Received Orders", and "View Accepted Orders". Below the header is a large teal-colored button with the text "Retreive Order Details". To its right is another teal-colored button with the text "View Accepted Orders". The main content area has a light gray background. At the bottom of the page is a dark footer section containing four columns: "About Us", "Quick Links", "Contact Us", and "Maps". The "About Us" column includes text about being a trustworthy service for over a decade and a set of five circular icons. The "Quick Links" column lists "Home", "Received Orders", and "View Accepted Orders". The "Contact Us" column lists the address "No 28, Tangalle road, Beliatta.", the email "pharmacy@union.com", and the phone number "+(94)473456763". The "Maps" column features a small map of the area around the company's location.

Union Pharmaceuticals

Home Received Orders View Accepted Orders

Retreive Order Details

View Accepted Orders

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Figure 2.2.3.5.4 Home 1

localhost:3000/displayAccOrders

Accepted Order Details Report

Order ID	Customer ID	Name	Item Name1	Item Quantity1	Item Name2	Item Quantity2	Item Name3	Item Quantity3	Mobile No	Address	Date	Order Status
62653354a702e1de6a93f018	626530c0702e1de6a93fe4d	Keshan Garage	Tatmyl	4	Penicil	6	Panadol	10	0717879980	12/3, New lane, Bolaitta	2022.05.12	Accepted
6266568f438867c8c7ba8777	626530c0702e1de6a93fe4d	Harith Ranawera	Amoncillin	33	Penicillin	44	Piriton	33	0717879980	23/A korintumulla	2022.05.12	Accepted
628bf93deab2a25a0b0027bae627a0bbd1465c7cda31367e		Kavith Cough Seradene syrup		1	Panadol		Panadene	8	071787887876/3,Kadawatha	2022.05.20	Accepted	
628c7227db92ab659a4ffdb	627a0bbd1465c7cda31367e	Anjalee Jayawewa	Panadol	6	Piriton	4	Amoncillin	8	071787887865/9,Gampaha	2022.05.20	Accepted	

1 of 1

5/25/2022, 10:31 PM

Print 1 sheet of paper

Destination: Microsoft Print to PDF

Orientation: Landscape

Pages: All

Color mode: Color

Scale: Fit to page width

Pages per sheet: 1

Print Cancel

Figure 2.2.3.5.5 Report generation 1

2.2.3.6 Interfaces of Feedback and Inquiry Management function

Union Pharmaceuticals

Nav Home Create Feedback/Inquiry View Feedback/Inquiry

ANY FEEDBACKS/INQUIRIES?

CREATE FEEDBACK/INQUIRY

VIEW FEEDBACK/INQUIRY

GENERATE REPORT

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Figure 2.2.3.6.1 Home page 1



Union Pharmaceuticals

Nav Home Create Feedback/Inquiry View Feedback/Inquiry

Feedback/Inquiry

Feedback Id

Customer Name

Email

Date

Contact Number

Feedback Type

Feedback Or Inquiry

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Figure 2.2.3.6.2 Add Feedback or inquiry 1



Union Pharmaceuticals

Nav Home Create Feedback/Inquiry | View Feedback/Inquiry

All Feedbacks

Feedback Id	Name	Email	Date	Contact Number	Feedback Type	Feedback Or Inquiry	Action
1	Malsha	mal123@gmail.com	2022.05.26	0715634986	stock related	need more panadols	Reply Update Remove
2	Ravishani	rav123@gmail.com	2022.02.25	0772839647	delivery related	no delevered due date	Reply Update Remove
3	Radeesh	rade246@gmail.com	2022.05.13	0774397429	stock related	need more panadols	Reply Update Remove
4	Vajira	vaji246@gmail.com	2022.05.23	0717892563	stock related	Need more panadols	Reply Update Remove
5	Irushi	iru123@gmail.com	2022.04.02	0714785463	Stock related	Need more panadols	Reply Update Remove
6	ishani	ish576@gmail.com	2022.9.3	0968736745	srfdds	dddc	Reply Update Remove

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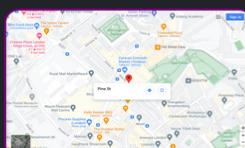
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Figure 2.2.3.6.3 All feedbacks 1

stock related

Feedback Id	FD001
Name	Malsha
Email	mal123@gmail.com
Date	2022.05.26
Contact Number	0715634986
Feedback or Inquiry	need more panadols

Figure 2.2.3.6.4 Feedback view 1

FEEDBACK DETAILS

Feedback/Inquiry

Feedback Id	FD001
Customer Name	Malsha
Email	mal123@gmail.com
Date	2022.05.26
Contact Number	0715634986
Feedback Type	stock related
Feedback Or Inquiry	need more panadols
<input type="button" value="Submit"/>	

Figure 2.2.3.6.5 Update Feedback or inquiry status 1

The screenshot shows a Microsoft Dynamics 365 application interface. On the left, there's a navigation bar with 'Nav', 'Home', and 'Create' buttons. The main area displays a report titled 'Feedbacks during a month'. The report table has columns: Feedback Id, Name, Email, Date, Contact Number, Feedback Type, and Feedback Or Inquiry. Six rows of data are listed:

Feedback Id	Name	Email	Date	Contact Number	Feedback Type	Feedback Or Inquiry
1 FD001	Malsha	mail123@gmail.com	2022.05.26	0715634986	stock related	need more panadol
2 FD004	Ravishani	rav123@gmail.com	2022.02.25	0772830647	delivery related	no delivery due date
3 FD006	Radeesh					
4 FD007	Vajira	vaji246@gmail.com	2022.05.13	0774397429	stock related	need more panadol
5 FD005	Iru					
6 FD006	ish					
4 FD007	Vajira	vaji246@gmail.com	2022.05.23	0717892563	stock related	Need more panadol

At the bottom right of the report area, there's a 'Print' button. A 'Print' dialog box is open on the right side of the screen, titled 'Print' with '2 sheets of paper' selected. The dialog includes sections for 'Destination' (set to 'Microsoft Print to PDF'), 'Orientation' (Portrait), 'Pages' (All), 'Color mode' (Color), 'Fewer settings', 'Paper size' (Letter), 'Scale' (set to 'Scale 100'), and 'Pages per sheet'. At the bottom of the dialog are 'Print' and 'Cancel' buttons.

Figure 2.2.3.6.6 Report generation 1

FEEDBACK DETAILS

Feedback/Inquiry

Feedback Id	FD001
Customer Name	Malsha
Email	mal123@gmail.com
Date	2022.05.26
Contact Number	0715634986
Feedback Type	stock related
Feedback Or Inquiry	need more panadols
Reply	<input type="text" value="Enter Reply"/>
<input type="button" value="Submit"/>	

Figure 2.2.3.6.7 Add reply 1

2.2.3.7 Interfaces of Showcase Management function

[Add Expired Drug](#) [Expired Drug List](#)

All Drugs to be Expired

DrugID	DrugName	Quantity	ExpiryDate
0012	Acetaminophen	10	2022.06.29
0005	Cymbalta	15	2022.07.15
0015	Buprenorphine	8	2022.06.29
0016	Gabapentin	9	2022.06.29
0020	Humira	11	2022.07.15
0120	Methotrexate	15	2022.07.03
0017	Rybelsus	18	2022.07.15
0133	Probuphine	20	2022.07.15

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Figure 2.2.3.7.1 List of Drugs about to be expired 1

Add Expired Drug Expired Drug List

Drug Id
0012

Drug Name
Acetaminophen

Quantity
10

Expired Date
2022.06.29

Save Changes

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Figure 2.2.3.7.2 Expired drugs 1

Add Expired Drug Expired Drug List

Drugs to be Expired

Search

	DrugId	DrugName	Quantity	EXD		
1	0012	Acetaminophen	10	2022.06.29	Edit	Delete
2	0005	Cymbalta	15	2022.07.15	Edit	Delete
3	0015	Buprenorphine	8	2022.06.29	Edit	Delete
4	0016	Gabapentin	9	2022.06.29	Edit	Delete
5	0020	Humira	11	2022.07.15	Edit	Delete
6	0120	Methotrexate	15	2022.07.03	Edit	Delete
7	0017	Rybelsus	18	2022.07.15	Edit	Delete
8	0133	Probuphine	20	2022.07.15	Edit	Delete

Report

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Figure 2.2.3.7.3 Edit Delete drugs to be expired 1

Add Expired Drug - Expired Drug List

Drugs to be Expired

DrugId

DrugName

EnterQuantity

EXD

Add Expired Drug

DEMO

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Figure 2.2.3.7.4 Add expired drugs 1

ExpiredDrug Details

DrugID	DrugName	Quantity	ExpiryDate
0012	Acetaminophen	10	2022.06.29
0005	Cymbalta	15	2022.07.15
0015	Buprenorphine	8	2022.06.29
0016	Gabapentin	9	2022.06.29
0020	Humira	11	2022.07.15
0120	Methotrexate	15	2022.07.03
0017	Rybelsus	18	2022.07.15
0133	Probuphine	20	2022.07.15

Figure 2.2.3.6.5 Expired drug report 1

2.2.3.8 Interfaces of Inventory Management function

Home Add Drugs View Drugs Add Request

Add Request

Drug ID

Description

Quantity

Supplier

Status

Demo

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Figure 2.2.3.8.1 Add request 1

Home Add Drugs View Drugs Add Request

Update Drugs

Drug ID	Drug Name
0001	Acetaminophen
Amount	Manufacture Date
45	mm / dd / yyyy
Expired Date	Price
mm / dd / yyyy	10
Description	
Fever Reducer	

Update

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Figure 2.2.3.8.2 Update drugs 1

Home Add Drugs View Drugs Add Request

All Drugs

Search 🔍

#	Drug ID	Drug Name	Manufacture Date	Expire Date	Amount (Box.)	Price (Rs.)	Description	Update	Delete
1	0001	Acetaminophen	2021-04-13T08:35:57.000Z	2022-04-13T08:35:57.000Z	45	10	Fever Reducer	Update	Delete
2	0002	Cymbalta	2022-05-26T08:37:03.000Z	2022-05-26T08:37:03.000Z	50	12	Major Depressive Disorder	Update	Delete
3	0003	Buprenorphine	2020-01-10T08:37:48.000Z	2022-01-10T08:37:48.000Z	60	15	Opioid Medication	Update	Delete
4	0004	Gabapentin	2022-05-26T08:38:39.000Z	2024-05-26T08:38:39.000Z	24	8	Nerve Pain	Update	Delete
5	0006	Humira	2022-05-26T08:40:00.000Z	2022-05-26T08:40:00.000Z	100	4	Flammatory Conditions	Update	Delete
6	0007	Methadone	2022-05-26T08:41:13.000Z	2022-05-26T08:41:13.000Z	80	9	Opioid Medication	Update	Delete
7	0008	Methotrexate	2022-05-26T08:43:59.000Z	2022-05-26T08:43:59.000Z	65	12	Leukemia	Update	Delete
8	0010	Rybelsus	2022-05-26T08:44:52.000Z	2022-05-26T08:44:52.000Z	80	14	Improve blood sugar control	Update	Delete
9	0015	Probuphine	2022-05-26T08:45:37.000Z	2022-05-26T08:45:37.000Z	100	25	Opioid Medication	Update	Delete
10	0012	Clindamycin	2022-05-26T08:46:48.000Z	2022-05-26T08:46:48.000Z	95	9	Fights bacteria in the body	Update	Delete

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Figure 2.2.3.8.3 All drugs 1

Home Add Drugs View Drugs Add Request

Add Drugs

Drug ID <input type="text" value="Enter Drug ID"/>	Drug Name <input type="text" value="Enter Drug Name"/>
Amount <input type="text" value="Enter Drug Amount (Boxes)"/>	M.F.D: <input type="text" value="mm / dd / yyyy"/>
E.X.D: <input type="text" value="mm / dd / yyyy"/>	Price (Rs.) <input type="text" value="Price (Rs.)"/>
Description <input type="text" value="Description"/>	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	<input type="button" value="DEMO"/>

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Figure 2.2.3.8.4 Add drugs 1

Home Add Drugs View Drugs Add Request

Drugs About to be Expired

#	Drug ID	Drug Name	Quantity	Expire Date	
1	0012	Acetaminophen	10	2022.06.29	Delete
2	0005	Cymbalta	15	2022.07.15	Delete
3	0015	Buprenorphine	8	2022.06.29	Delete
4	0016	Gabapentin	9	2022.06.29	Delete
5	0020	Humira	11	2022.07.15	Delete
6	0120	Methotrexate	15	2022.07.03	Delete
7	0017	Rybelsus	18	2022.07.15	Delete
8	0133	Probuphine	20	2022.07.15	Delete

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Figure 2.2.3.8.5 Drugs about to be expired 1

1 of 1

All Drug Details

DrugID	DrugName	MFD	EXD	Amount	Price(Rs.)	Description
0001	Acetaminophen	2021-04-13T08:35:57.000Z	2022-04-13T08:35:57.000Z	45	10	Fever Reducer
0002	Cymbalta	2022-05-26T08:37:03.000Z	2022-05-26T08:37:03.000Z	50	12	Major Depressive Disorder
0003	Buprenorphine	2020-01-10T08:37:48.000Z	2022-01-10T08:37:48.000Z	60	15	Opioid Medication
0004	Gabapentin	2022-05-26T08:38:39.000Z	2024-05-26T08:38:39.000Z	24	8	Nerve Pain
0006	Humira	2022-05-26T08:40:00.000Z	2022-05-26T08:40:00.000Z	100	4	Flammatory Conditions
0007	Methadone	2022-05-26T08:41:13.000Z	2022-05-26T08:41:13.000Z	80	9	Opioid Medication
0008	Methotrexate	2022-05-26T08:43:59.000Z	2022-05-26T08:43:59.000Z	65	12	Leukemia
0010	Rybelsus	2022-05-26T08:44:52.000Z	2022-05-26T08:44:52.000Z	80	14	Improve blood sugar control
0015	Probuphine	2022-05-26T08:45:37.000Z	2022-05-26T08:45:37.000Z	100	25	Opioid Medication

Figure 2.2.3.8.6 All drug details report 1

2.3 Implementation

To develop a good web application with perfect outcome, it is an accepted fact that we must use the technologies which can handle the specific workload of the build system.

This particular project has been developed by MERN stack technology, where React js was used as the frontend framework, Node js was used as the backend framework, Express js as the web application framework for Node js and Mongodb as the database.

These technologies are favorable and much convenient for the development tasks which were assigned to our group members as in most of the occasions, codes could be reused again. Also, in order to provide a much better user experience, CSS and bootstrap were used for the development.

2.4 Testing

Test ID	Test Inputs	Expected Output	Actual Output	Result(pass/fail)	Description
01	Username- Kamalrp Password- Kamal@87	Login successful and view place order panel	User login successful and view the place order panel	pass	After registration, logging in was easy and it could be done in seconds.
02	Name: Renu Peiris Username: Renup Age: 31 Address: Saman, Beliatta para, Walasmulla Mobile no.: 071989090 Password: Renu@90 Confirm password: Renu@90	Enter a valid phone number	Enter a valid phone number	pass	Perfectly working.
03	Name: Shyam Silva Username: Shyamk Age: 29 Address: 11/6, Weeraketiya road, Beliatta Mobile no.: 0716778767 Password: Shyam@89 Confirm password: Shyam@88	Password mismatch	Password mismatch	pass	Working as expected.

04	Enter Employee details with employee phone number greater than 10 characters.	. Display an error message as a “please match the requested format” and reenter to the correct format.	Display an error message as a “please match the requested format” and reenter to the correct format.	pass	Validation is successfully executed.
05	Enter working hours per month as 270, Basic salary rate per month as 500 and OT rate per month as 600 and submit the form.	Navigate to the employee salary details page and display automatically calculated salary as Rs.138000/=.	Navigate to the employee salary details page and display automatically calculated salary as Rs.138000/=.	pass	Navigation is successfully executed and displayed.
06	Search employee details by entering the employee ID using the search bar.	All the employee details should be retrieved from the database when the employee ID is inserted.	Display all the details are displayed under the specific employee ID.	pass	Retrieve process is being executed successfully.
07	Enter drugs details by using Drug Id with minimum 4 digits.	If user enters Id without minimum 3 digits, it should display an error message “Input valid ID number.”	If user enters Id without minimum 3 digits, display an error message “Input valid ID number.”	Pass	Validation is Successfully executed.

08	Search drug details from drug list by entering the drug id, drug name or date.	When the user enters id number, drug name or date all the drug details should be retrieve from the database.	When the user enters id number, drug name or date all the drug details retrieve from the database.	Pass	Retrieve process is being executed successfully.
09	Enter drugs details which are going to be expired by using Drug Id with minimum 4 digits.	If user enters Id without minimum 3 digits, it should display an error message "Input valid ID number."	If user enters Id without minimum 3 digits, display an error message "Input valid ID number."	Pass	Validation is Successfully executed.
10	Search drug details from expire drug list by entering the drug id or drug name.	When the user enters id number or drug name all the drug details which are going to be expired should be retrieve from the database.	When the user enters id number or drug name all the drug details which are going to be expired retrieve from the database.	Pass	Retrieve process is being executed successfully.
11	Enter following supplier details. "Kamal Weerasinghe",er details, "sid123456", "NF", "2018-05-09", "0719163282", "0116471887", "Maharagama", "12", "2022-05-26" and submit.	Must display a success message "Supplier Added" and then navigate to "View Suppliers" page.	Displays success message and navigates to "View Suppliers" page.	Pass	The data is passed to the database successfully.

12	Enter following supplier details "Nimal Senadheera", "sid123456","Hemas", "2009-04-02", "0718374873", "0124224887", "Kandy", "48","2022-05-26" and submit.	Must display an error message "Supplier already exists".	Displays the error message.	Pass	Validation using supplier Id is successfully executed.
13	To create a delivery note, click on the “Add delivery note” button in the relevant accepted orders.	Must navigate the user to the delivery note form, including those order details	Display the delivery note form with the relevant order details.	Pass	The delivery note form is displayed with the order details when the button is clicked.
14	View specific deliveries by delivery status by entering the delivery status of the order using the search bar.	All delivery notes should be displayed according to status entered in the search option.	Display all delivery notes related to the entered delivery status	Pass	System displayed all delivery notes in the database according search option.

15	As a report, receive all deliveries made on that day by entering the delivered date.	All deliveries relevant to the date of entry must be displayed.	Displayed all deliveries made on the delivery date entered.	Pass	All deliveries related to the date of delivery are shown.
16	Click Accept button more than once pre order.	Display an error message as a “Order Already Accepted”	Display an error message as a “Order Already Accepted”	pass	Validation is successfully executed
17	Search All Received Order Details by entering received DATE using the search bar.	All the received order details are displayed according to the date, which entered.	All the received order details are displayed according to the date, which entered.	pass	Retrieve process is being executed successfully.
18	Enter feedback details with customer phone number less than 10 characters	Display an error message as a “Please match the requested format” and reenter to the correct format	Display an error message as a “Please match the requested format” and reenter to the correct format	Pass	Validation is executed successfully

19	Search specific feedback details by entering the feedback token using the search bar	All the relevant feedback details should be retrieved from the database when the feedback token is inserted	Display all the relevant details under the specific feedback token	Pass	All the feedback details related to specific feedback token is displayed
20	Receive all the feedback details that were made during a month as a report	All the feedback/Inquiries relevant to the month should be displayed	Display all the relevant feedback details during a month	Pass	All feedback/Inquiries related to the specific month are displayed

Table 9 | Test cases

3 Conclusion

The management system for Union Pharmaceuticals was developed by a development team of eight individuals. This system was developed according to the wish of the client, who was the manager of the pharmaceutical store. The development process was done in accordance with the completion of functionalities identified in the requirement analysis. The diagrams like ER diagram, use case diagram, high level architecture diagram were used to get an idea about the system.

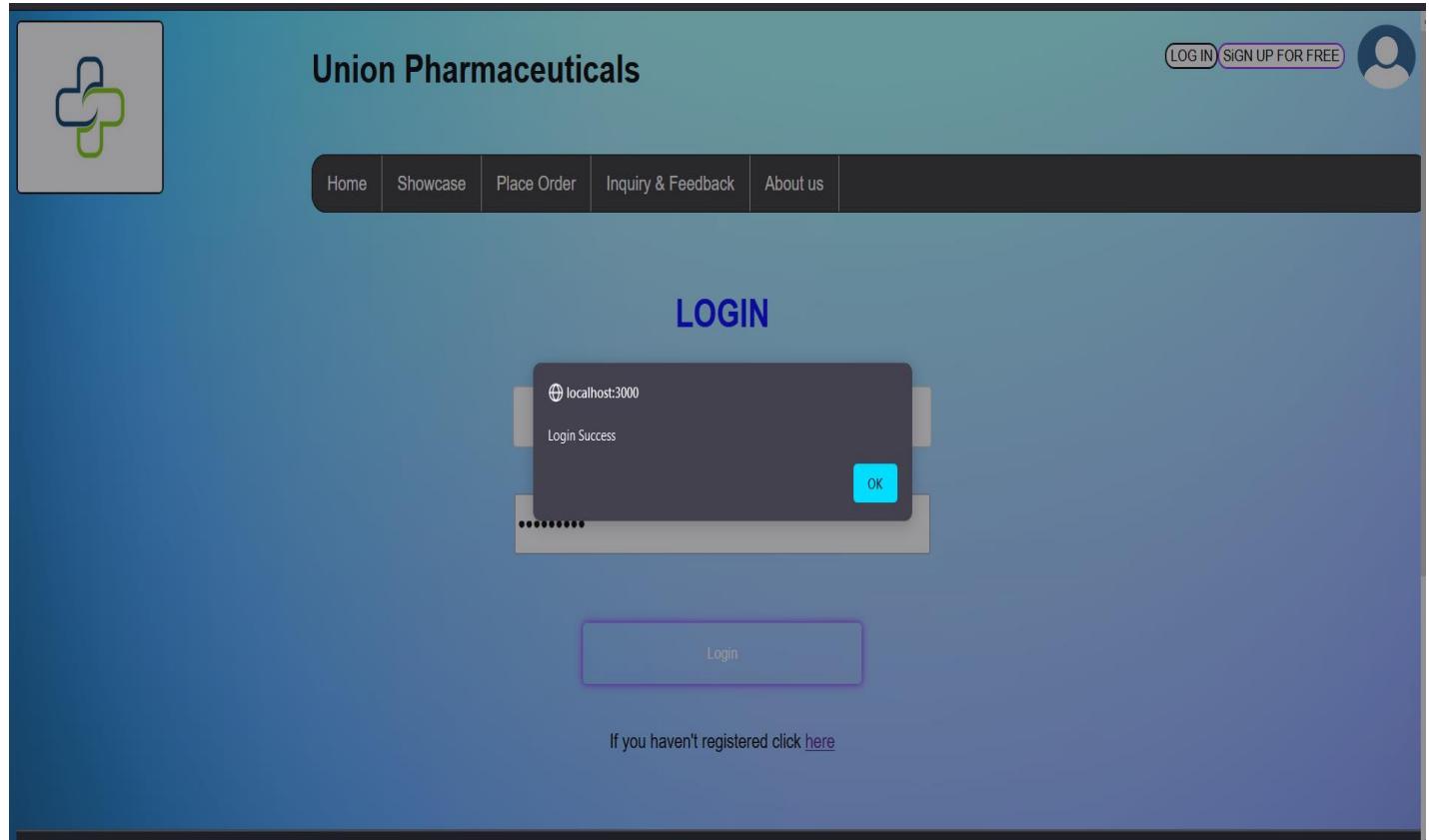
Client needed a stable and well maintained database connection and the development team was able to make it up to his standards. Altogether the development of the system was quite a big task for us. But the final output was up to the exact quality and performance as we expected. So, the hardships faced by us are still worth enough.

4 References

1.[1]" React documentation -<https://reactjs.org/docs/getting-started.html> [accessed 13-apr-2022].

1.[2]" Node js documentation -<https://nodejs.org/en/docs/> [accessed 15-apr-2022].

Appendix B: Test Results



Appendix B.1 Login success

SIGN UP

Create your account and sign up for free

Amal

32

071787998|

Please match the requested format.

Amalp

12/2, Weeraketiya road, Walasmulla

.....

.....

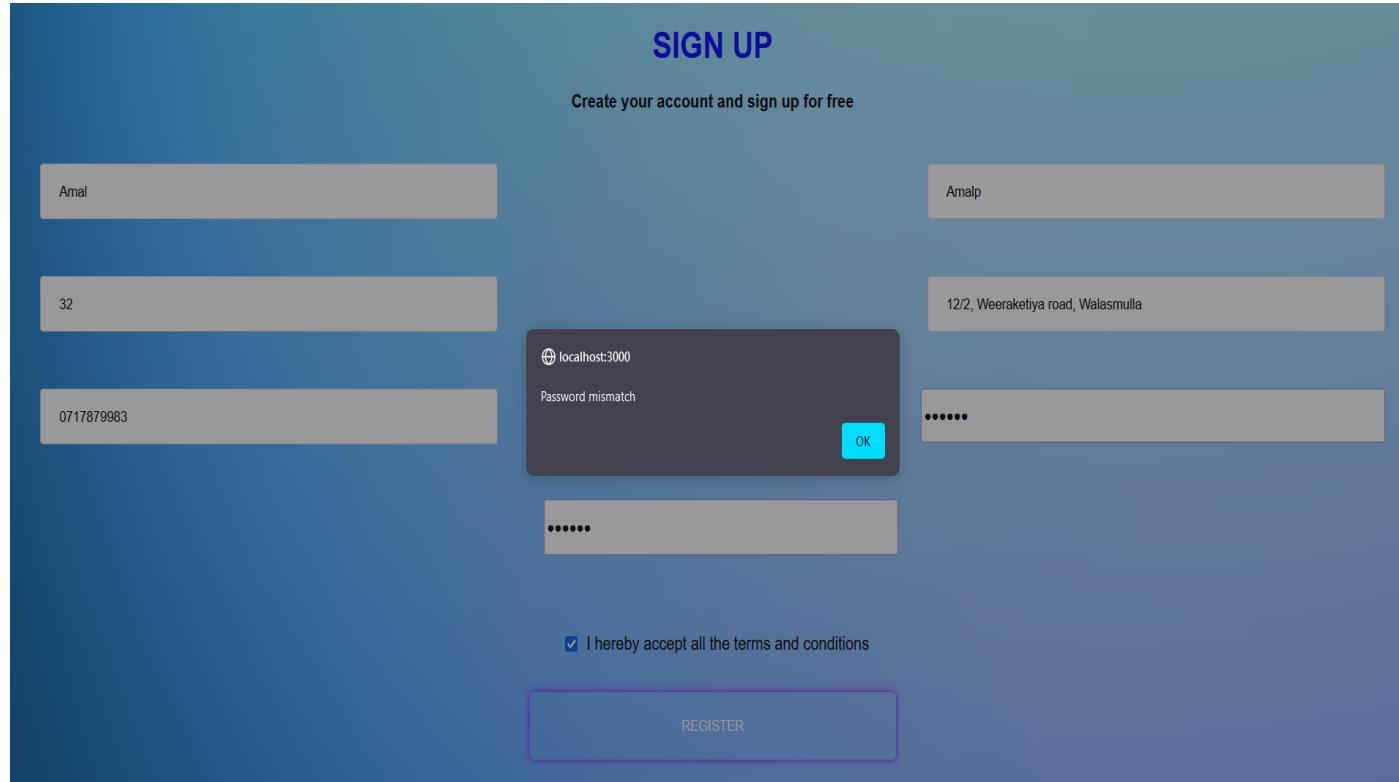
I hereby accept all the terms and conditions

REGISTER

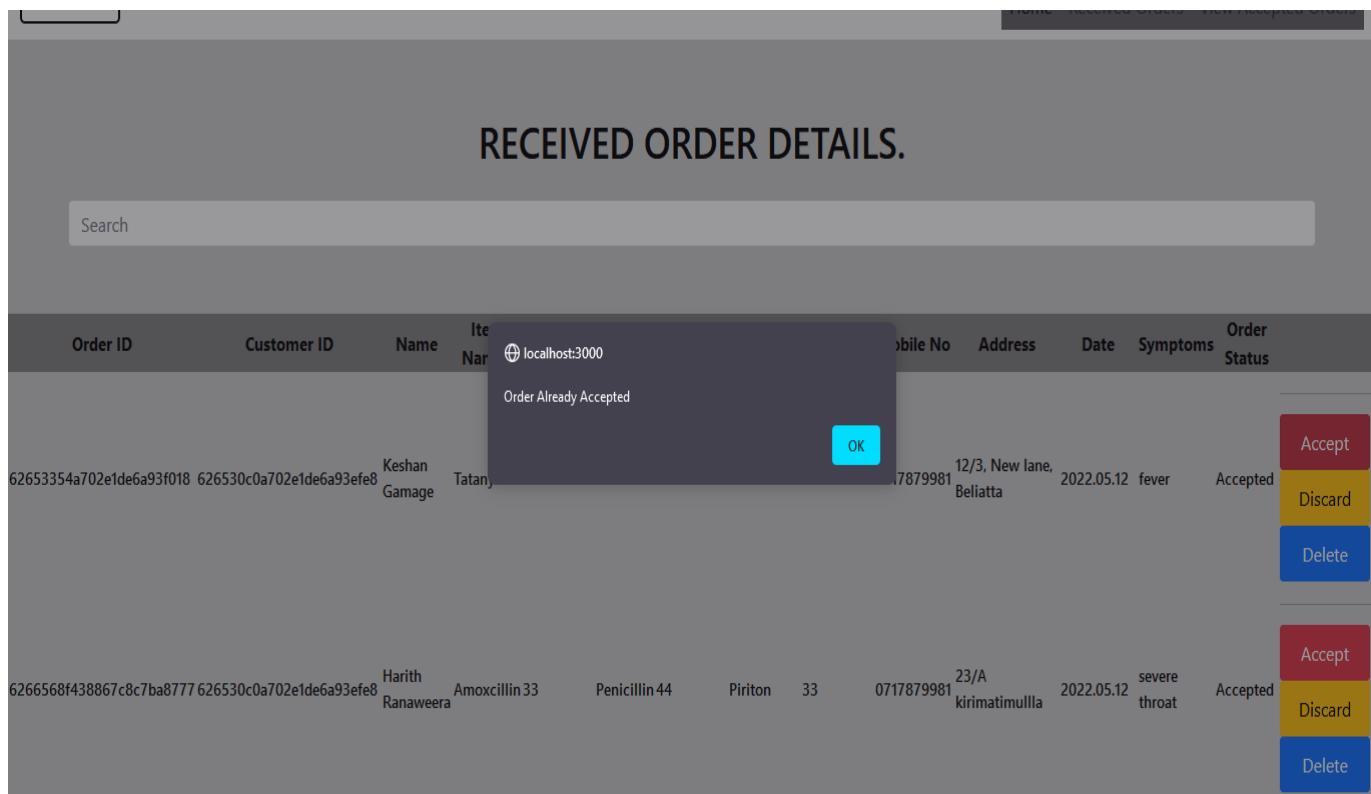
The screenshot shows a sign-up interface with the following fields and elements:

- First Name: Amal
- Last Name: Amalp
- Address: 12/2, Weeraketiya road, Walasmulla
- Mobile Number: 071787998 (highlighted with a red border)
- Password: (highlighted with a red border)
- Validation message: Please match the requested format.
- Terms and Conditions Checkbox: I hereby accept all the terms and conditions
- Register Button: A green button labeled "REGISTER".

Appendix B.2 Invalid mobile number



Appendix B.3 Password mismatch



Appendix B.4 Order already accepted

[Home](#) [Add Drugs](#) [View Drugs](#) [Add Request](#)

Add Drugs

Drug ID

Input Valid ID number

Drug Name

Amount

M.F.D:

E.X.D:

Price (Rs.)

Description

Submit

Reset

[DEMO](#)

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Appendix B.5 Input valid ID

ADD NEW EMPLOYEE....

Employee Name

Employee ID

Address

Phone

! Please fill out this field.

SUBMIT

Appendix B.6 Fill out the field

DEMO

Agent Name

Please fill out this field. (Medical Supplies Division of Ministry of Healthcare)

Company Name

Registered Date

mm / dd / yyyy

Contact Number

Warehouse Contact Number

Warehouse Address

Contract Duration

6

Date

mm / dd / yyyy

Reset

Submit

Appendix B.7 Fill out the field

DEMO

Agent Name

Kamal Weerasinghe

Company Name

Astron

Registered ID(in Medical Supplies Division of Ministry of Healthcare)

sid120845

Registered Date

03/09/2012

Contact Number

0713534391

Warehouse Address

Battaramulla

Contract Duration

18

Date

05/26/2022

Reset

Submit



Appendix B.8 Supplier already exists

Feedback Id	
FD008	
Customer Name	
Amila	
Email	
ami345@	
Please match the requested format.	Date
2022.04.21	
Contact Number	
07148985094	
Feedback Type	
stock related	
Feedback Or Inquiry	
Need more panadols	
<input type="button" value="Submit"/>	

Appendix B.9 Match email to the requested format

Appendix C: Selected Code Listings

```
180
181
182     try{
183
184         var {workingHours,basicSalaryRate,otRate} = req.body;
185
186         const emp = await employee.findById(id);
187         var bHours = 240;
188         var OtHours = workingHours - bHours;
189         var salary = 0;
190         var leaveHours = 0;
191
192
193
194
195         if(workingHours == bHours){
196             salary = basicSalaryRate * bHours;
197         }
198         else if(workingHours > bHours){
199             salary = (basicSalaryRate * bHours) + (otRate * OtHours)
200         }
201         else if(workingHours < bHours){
202
203             OtHours = 0;
204             leaveHours = bHours - workingHours;
205             salary = (basicSalaryRate * bHours) - ((bHours - workingHours) * basicSalaryRate)
206
207         }
208
209         console.log(salary);
210
211
212
213
214
215         if(workingHours == bHours){
216             salary = basicSalaryRate * bHours;
217         }
218         else if(workingHours > bHours){
219             salary = (basicSalaryRate * bHours) + (otRate * OtHours)
220         }
221         else if(workingHours < bHours){
222
223             OtHours = 0;
224             leaveHours = bHours - workingHours;
225             salary = (basicSalaryRate * bHours) - ((bHours - workingHours) * basicSalaryRate)
226
227         }
228
229     });
230
```

Appendix C.1 Salary calculation 1

```

64  //filterData function
65  filterData(order,searchKey){
66      const result = order.filter((orders) =>
67
68          orders._id.includes(searchKey) ||
69          orders.itemname1.includes(searchKey) ||
70          orders.itemname2.includes(searchKey) ||
71          orders.itemname3.includes(searchKey)
72
73    )
74    this.setState({orders:result})
75  }
76
77
78
79
80 //handle search area
81 handleSearchArea = (e) =>{
82     const searchKey = e.currentTarget.value;
83
84     const config = {
85
86         headers: {
87
88             Authorization: localStorage.getItem("Authorization"),
89         },
90     };
91
92
93
94
95     axios.get("http://localhost:8070/order/",config).then((res) => {
96         if(res.data.success){
97             this.filterData(res.data.existingPosts,searchKey)
98         }
99     });
100

```

Appendix C.2 Search function 1

```
148
149  <center><div style={{float:"left"}}>
150    <ReactToPrint
151      trigger={()=>{
152        return <input type="submit" style={{height:"45px",width:"200px",margin:"50px",color:"white",border_radius:"5px"}} value="Print"
153      }}
154      content={()=>this.componentRef}
155      documentTitle = 'Order Summary'
156      pageStyle= "print"
157    </>
```

Appendix C.3 Report generation 1