



Daffodil
International
University

Ekhata

Smart Shopkeeper's Solution

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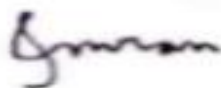
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This Project report has been submitted in fulfilment of the requirements for the Degree of Bachelor of Science in Software Engineering.

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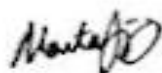
This **project** titled on “**Ekhata**”, submitted by Md. Shariar Zaman (ID: **171-35-1827**) to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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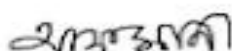
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DECLARATION

I hereby declare that project titled “Ekhata” has been completed by me under the supervisor of Tapushe Rabaya Toma, Senior Lecturer, Department of Software Engineering, Daffodil International University for the purpose of achieving degree of Bachelor of Science from Daffodil International University. This is also declared by me that neither this project nor any part of this project has been used or submitted elsewhere for any kind of degree or awards.

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ABSTRACT

This project aims to develop Ekhata. The project titled "**Ekhata**" is a web-based application. It was created using PHP and MySQL. This project has tried to incorporate all the advanced features of PHP such as to meet the project goals. A necessary platform for ordinary shopkeepers or small traders. This solution helps shopkeepers or vendors to keep all records of product price, sales, purchases information, customer information & payment information and also show daily or monthly profit. This software solution helps increase business growth and smart business management.

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CHAPTER 1

INTRODUCTION

1.1 Project Overview

As a developing country, Bangladesh is moving forward with the goal of 'Digital Bangladesh'. Technology touches every sector of our country now. There are many shopkeepers in the market in small and big cities. They are also using computers & the internet.

Shopkeepers have to deal with a lot of transactions every day, as well as keep in touch with many customers and suppliers and have to keep track of all the transactions and their information. It is very troublesome and complicated. In doing so, shopkeepers have to face many complications, patience and loss.

If the customer or supplier's information does not remember to record any transaction or accounts, it may ruin the business relationship. It is very difficult to keep a record of the business on paper or it is likely to be lost.

So, we should create a software solution to solve these problems. This will make the business relationship better and will speed up the business of every shopkeeper.

Related Solution

I've reviewed the market before to think about my solution, so let's talk a bit about the three mobile apps from the Play Store that're related to my project category. First of all, I would like to talk about Evaly's e-khata, called a financial diary. They are good but they don't add some features and have some problems such as: 1. There is no edit option in the product category, 2. No profile edit option, 3. Login and authentication problem, 4. App crash problem when adding data, 5. No Stock features.

Second, the TallyKhata. It just keeps track of customer credit and paid information. But some features are not available such as: 1. Stock cannot be calculated, 2. Invoice cannot be printed, 3. There is no feature of product management.

Third, the S-manager. This is a very beautiful application. But I think it also has some shortcomings. For example: 1. Invoices can't download or print, 2. There is no opportunity to add product category 3. No auto calculation system, 4. Customer information editing facility is not available, 5. To use it, you have to give important information like NID.

In my opinion, for a perfect solution in a store, features like product management, category management, stock management, customer management, invoice print is very important, which don't exist in the above applications. So, I will try, my project will have all these features so that the shopkeepers can work his business easily and perfectly.

1.2 Project Purpose

The main purpose of our 'Ekhata' project is to solve the problems of small and medium entrepreneurs/shopkeepers and make them easy to manage their business.

So that just one click they can manage easily their day to day business transactions, stock accounts and information, customer information and transactions, supplier information and transactions, balance and deposit accounts, monthly information statement, transaction analysis, report generate, invoice generate etc. Using the Solutions, they can make their business smart, fast and profitable.

1.2.1 Background

In the current Corona situation, we started a small business with a few friends. It was quite a hassle to record the information and transactions of our suppliers and customers. For this problem, we have seen various software solutions in the market which are not suitable and manageable. So, we should create this solution thinking of many new entrepreneurs/ variety shops.

1.2.2 Benefits & Beneficiaries

We have beneficial aspects of this solution. They are pointed out below:

- Customer & Suppliers information
- Products information
- Easy manage purchase process
- Create invoice and print
- See product stock easily
- Record all transaction
- Show Business Profit

1.2.3 Goals

At present in the age of technology, the people of Bangladesh are getting the opportunity to use internet connection with mobile, computer and at low cost. So, the use of technology in our daily work is making our work easier. So, I want to develop this solution.

1.3 Stakeholders

There are two types of Stakeholders in our Solutions. They are:

- Admin/Owner
- Manager

Admin/Owner: Admin can access all the features.

Manager: Manager can access all the features except Users Manage.

1.4 System Model (Block Diagram)

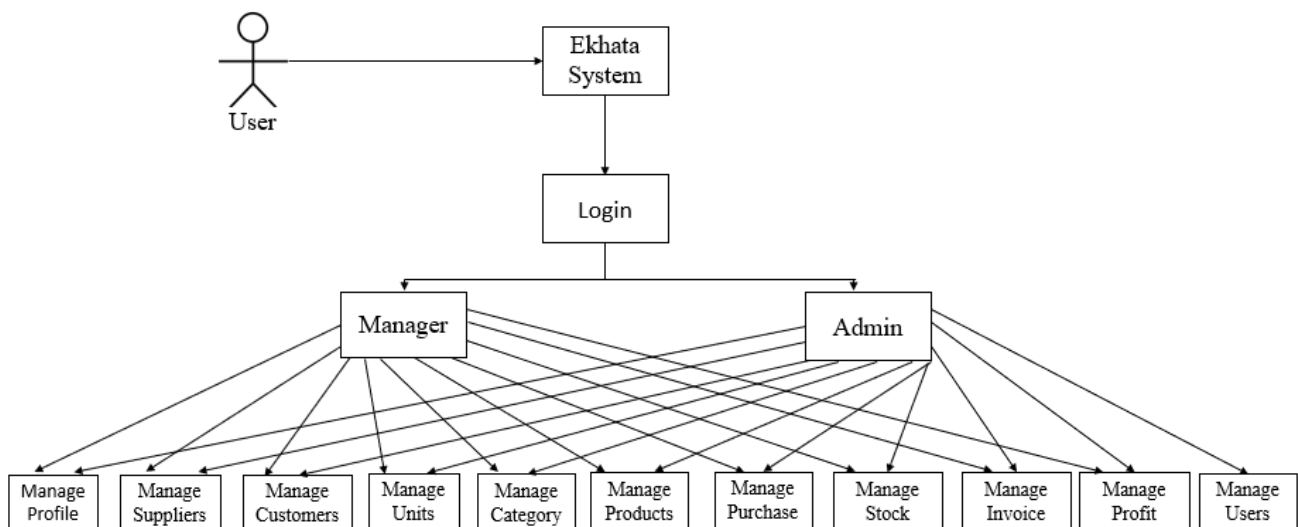


Figure 1.1: System Model for Ekhata

1.5 Project Schedule

Project Schedule is important for every project to complete on time.

1.5.1 Gantt Chart

It is a visual view of tasks scheduled over time. It's a very smart way to show what work is scheduled to be done on a certain day. It also helps to show the start and end times of my project.

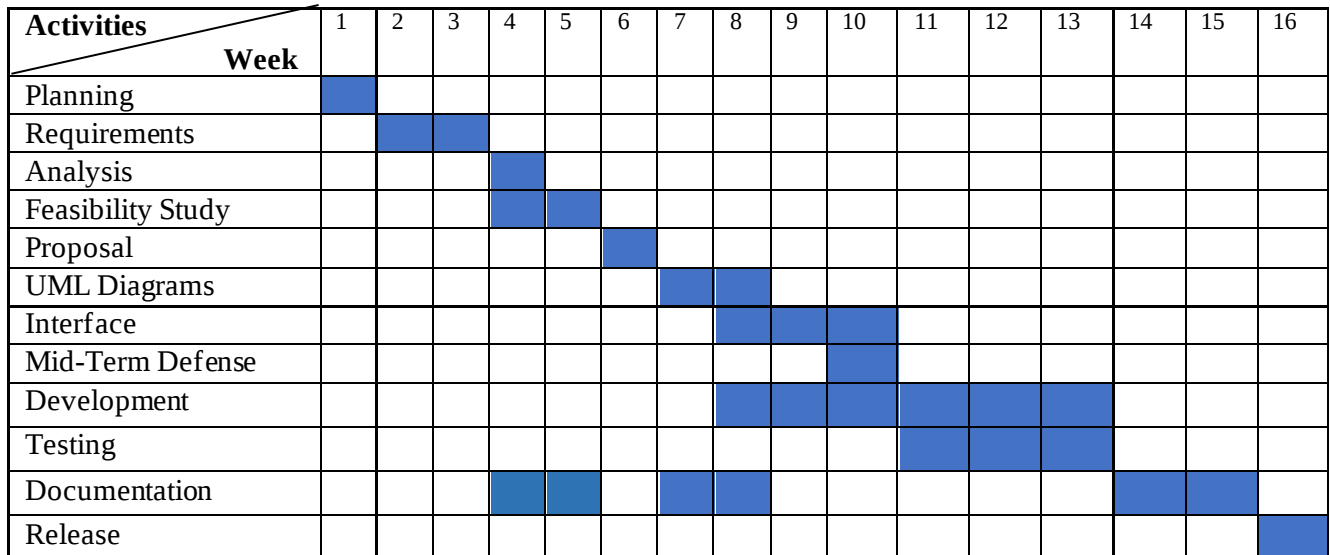


Figure 1.1: Gantt Chart

1.5.2 Project Timeline

The Project timeline is given below:

Activities	Date
Topic Selection Seminar	18/06/2020
Brainstorming Project Topic & Name Selection	20/06/2020 - 29/06/2020
Submit Project Proposal	30/06/2020
Requirement Specification	15/07/2020 - 29/07/2020
Mid Term Defense	04/11/2020
System Analysis & Design	10/08/2020 - 25/08/2020
Development System	07/09/2020 - 15/11/2020
System Testing	20/09/2020 - 15/12/2020
Complete Project	16/12/2020

Table 1.1: Project Timeline

CHAPTER 2

SOFTWARE REQUIREMENT SPECIFICATION

2.1 Requirement Specification

Through this system we will collaborate with any variety shop, small or medium business. This solution system will play an effective role for customer management, supplier management, product management, stock management, payment management and business analysis. The main advantage of this system is that through this the shopkeeper can easily analyse the account of purchase of products, account of sale of products, stock of products and print invoices and all transaction reports will also be able to view daily and monthly transaction accounts with loss/profit of business.

2.2 Functional Requirements

This section is those which are related to the technical functionality of the system. This section is described as a specific behaviour of every feature and role.

2.2.1 Login

FR 01	Log in
Description	Admin and user will log in the system using user name, password. System will verify user information from the database. If information doesn't match with the database, user can't log in this system.
Stakeholder	Owner/Admin, Manager

2.2.2 Manage Users

FR 02	Manage Users
Description	Admin can create role for user and update, delete any user
Stakeholder	Owner/Admin

2.2.2.1 View Users

FR 03	View Users
Description	Admin can view all type of users
Stakeholder	Owner/Admin

2.2.2.2 Add User

FR 04	Add User
Description	Admin can add any type of user with name, email, mobile number
Stakeholder	Owner/Admin

2.2.3 Manage Profile

FR 05	Manage Profile
Description	Admin and users can manage their profile. Ex. Profile picture, name, address update. Etc.
Stakeholder	Owner, Manager

2.2.3.1 View Profile

FR 06	View Profile
Description	Admin and user can view their own profile
Stakeholder	Owner, Manager

2.2.3.2 Password Change

FR 07	Password Change
Description	User can change their password
Stakeholder	Admin/Owner, Manager

2.2.4 Manage Supplier

FR 08	Manage Suppliers
Description	User can manage supplier information.
Stakeholder	Owner, Manager

2.2.4.1 View Suppliers

FR 09	View Suppliers
Description	User can view all supplier's information
Stakeholder	Owner, Manager

2.2.4.2 Add Suppliers

FR 10	Add Supplier
Description	User can add supplier
Stakeholder	Owner, Manager

2.2.5 Manage Customers

FR 11	Manage Customers
Description	User can manage customers
Stakeholder	Owner, Manager

2.2.5.1 View Customers

FR 12	View Customers
Description	User can view all customer's information
Stakeholder	Owner, Manager

2.2.5.2 Add Customer

FR 13	Add Customer
Description	User can add new customer
Stakeholder	Owner, Manager

2.2.5.3 Credit Customers

FR 14	Credit Customers
Description	User can view credit customer list and update payment
Stakeholder	Owner, Manager

2.2.5.4 Paid Customers

FR 15	Paid Customers
Description	User can view paid customer list
Stakeholder	Owner, Manager

2.2.5.5 Customer Wise Report

FR 16	Customer Wise Report
Description	User can print pdf any customer's report
Stakeholder	Owner, Manager

2.2.6 Manage Unit

FR 17	Manage Unit
Description	User can manage unit of products
Stakeholder	Owner, Manager

2.2.6.1 View Unit

FR 18	View Unit
Description	User can view all types of unit of products
Stakeholder	Owner, Manager

2.2.6.2 Add Unit

FR 19	Add Unit
Description	User can add new unit of product
Stakeholder	Owner, Manager

2.2.7 Manage Category

FR 20	Manage Category
Description	User can manage category of products
Stakeholder	Owner, Manager

2.2.7.1 View Category

FR 21	View Category
Description	User can view all category of products
Stakeholder	Owner, Manager

2.2.7.2 Add Category

FR 22	Add Category
Description	User can add new category of products
Stakeholder	Owner, Manager

2.2.8 Manage Products

FR 23	Manage Products
Description	User can manage all type of products
Stakeholder	Owner, Manager

2.2.8.1 View Products

FR 24	View Products
Description	User can view all products
Stakeholder	Owner, Manager

2.2.8.2 Add Products

FR 25	Add Products
Description	User can add new product
Stakeholder	Owner, Manager

2.2.9 Manage Purchase

FR 26	Manage Purchase
Description	User can manage purchase information
Stakeholder	Owner, Manager

2.2.9.1 View Purchase

FR 27	View Purchase
Description	User can view purchase information
Stakeholder	Owner, Manager

2.2.9.1.1 Add Purchase

FR 28	Add Purchase
Description	User can add new purchase information
Stakeholder	Owner, Manager

2.2.9.2 Approved Purchase

FR 29	Approved Purchase
Description	User can approve purchase information
Stakeholder	Owner, Manager

2.2.9.3 Daily Purchase

FR 30	Daily Purchase
Description	User can print daily purchase's information
Stakeholder	Owner, Manager

2.2.10 Manage Stock

FR 31	Manage Stock
Description	User can manage stock information.
Stakeholder	Owner, Manager

2.2.10.1 Manage Stock

FR 32	Manage Stock
Description	User can manage stock information.
Stakeholder	Owner, Manager

2.2.10.2 Stock Report

FR 33	Stock Report
Description	User can see how many products have in their stock
Stakeholder	Owner, Manager

2.2.10.3 Supplier/Purchase Report

FR 34	Supplier/Purchase Report
Description	User can print supplier/purchase report
Stakeholder	Owner, Manager

2.2.11 Manage Invoice

FR 35	Manage Invoice
Description	User can manage invoice information.
Stakeholder	Owner, Manager

2.2.11.1 View Invoice

FR 36	View Invoice
Description	User can view all invoice information.
Stakeholder	Owner, Manager

2.2.11.1.1 Add Invoice

FR 37	Add Invoice
Description	User can add new invoice with information
Stakeholder	Owner, Manager

2.2.11.2 Approved Invoice

FR 38	Approved Invoice
Description	User can approve invoice
Stakeholder	Owner, Manager

2.2.11.3 Print Invoice

FR 39	Print Invoice
Description	User can print pdf invoice
Stakeholder	Owner, Manager

2.2.12 Manage Profit

FR 40	Manage Profit
Description	User can view & download Profit Report
Stakeholder	Owner, Manager

2.2.12.1 Profit Report List

FR 41	Profit Report List
Description	User can view Profit Report
Stakeholder	Owner, Manager

2.2.12.2 Daily Profit Report

FR 42	Daily Profit Report
Description	User can view & download Profit Report
Stakeholder	Owner, Manager

2.3 Performance Requirements

Performance maintenance is very important for any software solution. There are some steps we need to keep maintain. Now, I will explain about my project.

2.3.1 Speed and Latency Requirements

Speed and latency requirements must be ensured while retrieving data from the server.

SLR-1	Search result must be faster
Description	When user search any entity then the search result must show within seconds
Stakeholder	Admin, Manager

2.3.2 Accuracy Requirements

All types of information Search results should be accurate. Wrong information might ruin the system solution process.

AR-1	Search result must be accurate
Description	When user search any entity then the search result must be accurate
Stakeholder	Admin, Manager

2.3.3 Capacity Requirements

The system must be capable of handling all types of user data.

CR-1	System will handle many data
Description	System need to handle many types of data
Stakeholder	Admin, Manager

2.4 Dependability Requirements

Dependability is measured by four dimensions. Such as: Availability, Reliability, Safety, Security.

So, our system should fulfil these four types of dimension.

2.4.1 Reliability Requirements

Reliability means the probability that the system will operate without failure

RR-1	System must be available 24/7
Description	System must be available all the time and updated and malware free
Stakeholder	N/A

2.4.2 Fault-Tolerance Requirements

To ensure fault-tolerance to the users, it is important to ensure 0% crash and must show accurate results.

FTR-1	System operate all the user access without system error
Description	Both users can access our system at a time, system must be handled request without any errors
Stakeholder	N/A

2.4.3 Safety-Critical Requirements

There is no safety-critical requirement in my project.

2.5 Maintainability and Supportability Requirements

It is very important to provide after support or service to the end users.

2.5.1 Maintenance Requirements

MR-1	System helps to add user and delete user
Description	It is very important to add user and delete user
Stakeholder	Admin

2.5.2 Supportability Requirements

There is some dimension of supportability requirements. They are:

- Maintainability
- Configurability
- Compatibility
- Serviceability

2.5.3 Adaptability Requirements

There are no adaptability requirements of my project.

2.6 Security Requirements

Security requirements for system solutions is very important. It should be functional requirements.

Software Security set on security of an application system. There are some security related requirements. They are:

- Signing in an admin or manager
- Get access according to logged in user
- Signing out as an admin or manager

2.6.1 Access Requirements

There is no access requirement in my project.

2.6.2 Integrity Requirements

There is no integrity requirement in my project.

2.6.3 Privacy Requirements

It is important to have privacy requirements in every system. To ensure privacy, every user will enter the system by verifying their information and they will use their accessibility features.

2.7 Usability and Human-Interaction Requirements

The main target of developing any system solution is to make it user friendly and easy for the users.

2.7.1. Ease of Use Requirements

Our Solution is easy to use and understandable

EUR-1	System must be usable & easy for the user
Description	This solution is easy for user to manage system
Stakeholder	Admin, Manager

2.7.2 Personalization Requirements

Our Solution is capable for personalized requirement

PR-1	Shopkeeper's shop name must have in the invoice & all report title
Description	This solution is capable to complete this requirement
Stakeholder	Admin, Manager

2.7.3 Accessibility Requirements

Here no specific accessibility requirements in my project.

2.7.4 User Documentation Requirements

No user documentation requirements in my project.

2.7.5 Training Requirements

Don't need any training requirements in my project.

CHAPTER 3

SYSTEM ANALYSIS & DESIGN

3.1 Use Case Diagram

There are two actors in our use case diagram. This diagram will refine my project in details

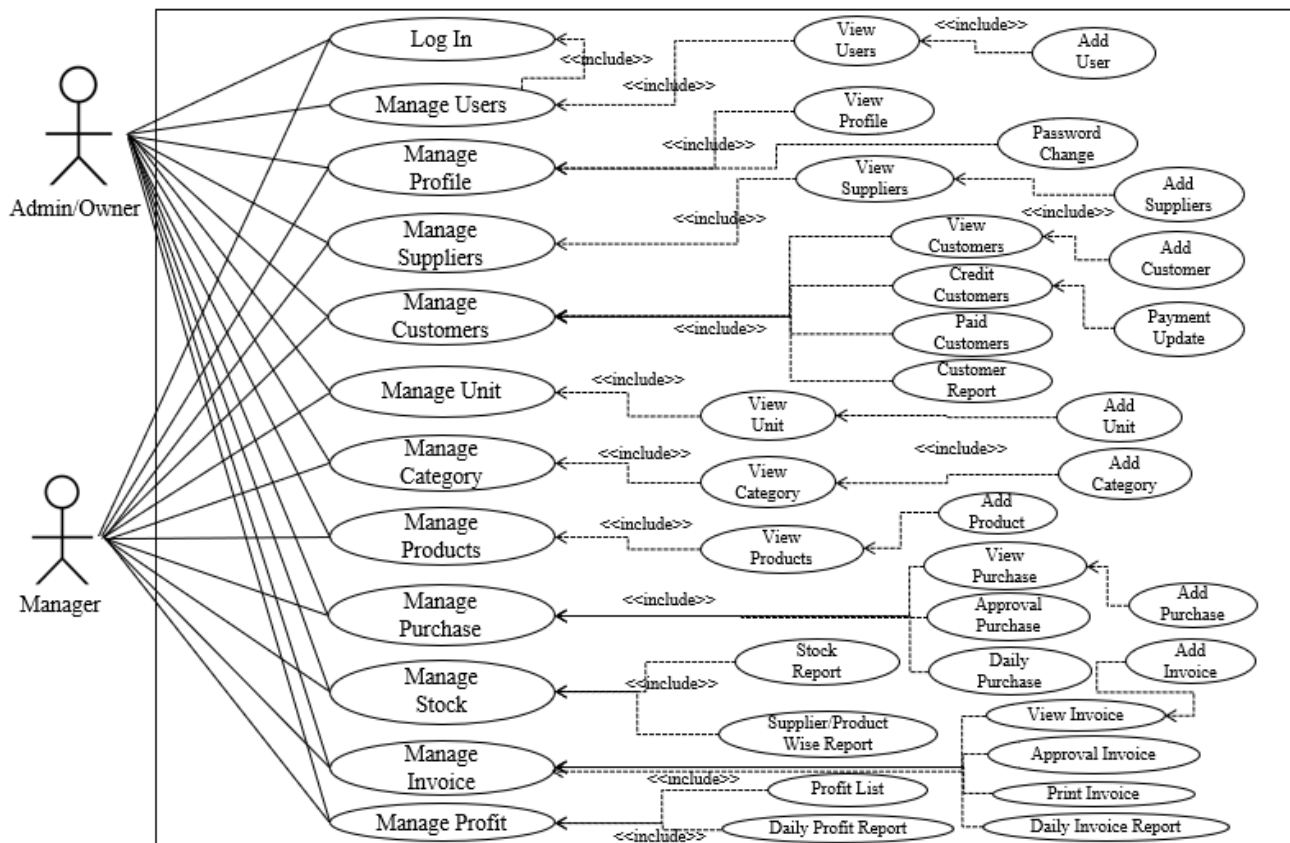


Figure 3. 1: Use case for Ekhata

3.2 Use Case Description

3.2.1 Log In

Use case	Log In
Use case no.	01
Goal	This will only be the selected person login for this system.
Pre-condition	Its fixed account for login There is no need to register
Primary actors Secondary actors	Manager Admin
Trigger	This will be text box and button in a card
Description/ Main success	Step Action 1. Enter the website

	2. Enter email & password 3. Logged In
Alternative flows	N/A
Quality requirement	N/A

3.2.2 Manage Users

Use case	Manage Users										
Use case no.	02										
Goal	Create new user with name, role, email, password & view users list, update, delete										
Pre-condition	Login with admin email & password										
Primary actors Secondary actors	Admin										
Trigger	This will be button and form										
Description/ Main success	<table border="1"> <thead> <tr> <th>Step</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Enter the website</td> </tr> <tr> <td>2.</td> <td>Enter admin email & password</td> </tr> <tr> <td>3.</td> <td>Click into “Manage Users” from sidebar in dashboard</td> </tr> <tr> <td>4.</td> <td>Click ‘View Users”</td> </tr> </tbody> </table>	Step	Action	1.	Enter the website	2.	Enter admin email & password	3.	Click into “Manage Users” from sidebar in dashboard	4.	Click ‘View Users”
Step	Action										
1.	Enter the website										
2.	Enter admin email & password										
3.	Click into “Manage Users” from sidebar in dashboard										
4.	Click ‘View Users”										
Alternative flows	N/a										
Quality requirement	N/a										

3.2.2.1 View Users

Use case	View Users								
Use case no.	03								
Goal	View all user list								
Pre-condition	Login with admin email & password								
Primary actors Secondary actors	Admin								
Trigger	This will be button								
Description/ Main success	<table border="1"> <thead> <tr> <th>Step</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Login the System with admin id</td> </tr> <tr> <td>2.</td> <td>Click into “Manage Users” from sidebar in dashboard</td> </tr> <tr> <td>3.</td> <td>Click ‘View Users”</td> </tr> </tbody> </table>	Step	Action	1.	Login the System with admin id	2.	Click into “Manage Users” from sidebar in dashboard	3.	Click ‘View Users”
Step	Action								
1.	Login the System with admin id								
2.	Click into “Manage Users” from sidebar in dashboard								
3.	Click ‘View Users”								
Alternative flows	N/a								
Quality requirement	N/a								

3.2.2.2 Add User

Use case	Add User
Use case no.	04
Goal	Admin can add new user
Pre-condition	Admin must have to login
Primary actors Secondary actors	Admin
Trigger	This will be adding user

Description/ Main success	Step Action 1. Login the System with admin id 2. Click into “Manage Users” from sidebar in dashboard 3. Click ‘View Users’ 4. Click ‘add user’ 5. Entry user name, role, email, password and click submit button
Alternative flows	N/a
Quality requirement	N/a

3.2.3 Manage Profile

Use case	Manage Profile
Use case no.	05
Goal	User can edit, update their profile info and password
Pre-condition	Must have to login
Primary actors Secondary actors	Manager Admin
Trigger	This will be button
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Profile” from sidebar
Alternative flows	N/a
Quality requirement	N/a

3.2.3.1 View Profile

Use case	View Profile
Use case no.	06
Goal	User can edit, update their profile info
Pre-condition	Must have to login
Primary actors Secondary actors	Manager Admin
Trigger	This will be button
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Profile” from sidebar 3. Click ‘My Profile’
Alternative flows	1. Click ‘Edit Profile’; 2. Edit info and click submit
Quality requirement	N/a

3.2.3.2 Password Change

Use case	Password Change
Use case no.	07
Goal	User can change their password
Pre-condition	Must have to login

Primary actors	Manager
Secondary actors	Admin
Trigger	This will be button and form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Profile” from sidebar 3. Click ‘Password Change’ 4. Enter old & new password and click submit
Alternative flows	N/a
Quality requirement	N/a

3.2.4 Manage Supplier

Use case	Manage Supplier
Use case no.	08
Goal	User can add, update, delete supplier information
Pre-condition	Must have to login
Primary actors	Manager
Secondary actors	Admin
Trigger	This will be button and form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Supplier” from sidebar
Alternative flows	N/a
Quality requirement	N/a

3.2.4.1 View Suppliers

Use case	View Suppliers
Use case no.	09
Goal	User can view all supplier’s info list
Pre-condition	Must have to login
Primary actors	Manager
Secondary actors	Admin
Trigger	This will be button and form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Supplier” from sidebar 3. Click ‘View Supplier’
Alternative flows	N/a
Quality requirement	N/a

3.2.4.2 Add Suppliers

Use case	Add Suppliers
Use case no.	10
Goal	User can add new supplier with info

Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be button and form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Supplier” from sidebar 3. Click ‘View Supplier’ 4. Click ‘Add Supplier’ 5. Entry Supplier name, email, mobile, address 6. Click Submit button
Alternative flows	N/a
Quality requirement	N/a

3.2.5 Manage Customers

Use case	Manage Customers
Use case no.	11
Goal	User can add, update, delete Customer information, view credit & paid customer list, and customer wise report
Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be button
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Customer” from sidebar
Alternative flows	N/a
Quality requirement	N/a

3.2.5.1 View Customers

Use case	View Customers
Use case no.	12
Goal	User can view Customers info list
Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be button & form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Customer” from sidebar 3. Click ‘View Customers’
Alternative flows	N/a
Quality requirement	N/a

3.2.5.1.1 Add Customers

Use case	Add Customers
Use case no.	13
Goal	User can add new customer with info
Pre-condition	Must have to login

Actors	Manager & Admin
Trigger	This will be button & form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Customers” from sidebar 3. Click ‘View Customers’ 4. Click ‘Add Customer’ 5. Entry Customer name, email, mobile, address 6. Click Submit button
Alternative flows	N/a
Quality requirement	N/a

3.2.5.2 Credit Customers

Use case	Credit Customers
Use case no.	14
Goal	User can view credit customers details invoice, update payment status & download pdf
Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be button & form
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Customers” from sidebar 3. Click ‘Credit Customers’
Alternative flows	1. Click ‘Edit’ button 2. Update payment status, entry date 3. Click ‘Invoice Update’ button 1. Click ‘Download Pdf/Details Icon’
Quality requirement	N/a

3.2.5.3 Paid Customers

Use case	Paid Customers
Use case no.	15
Goal	User can view all paid customers details invoice & download pdf
Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be button
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Customers” from sidebar 3. Click ‘Paid Customers’
Alternative flows	1. Click ‘Download Pdf/Details Icon’
Quality requirement	N/a

3.2.5.4 Customer Wise Report

Use case	Customer Wise Report														
Use case no.	16														
Goal	User can view & download customer wise (Paid/Credit) report														
Pre-condition	Must have to login														
Actors	Manager & Admin														
Trigger	This will be radio button														
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Customers” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Customer wise Report’</td></tr><tr><td>4.</td><td>Select needed report radio button</td></tr><tr><td>5.</td><td>Select customer name from list</td></tr><tr><td>6.</td><td>Enter search button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Customers” from sidebar	3.	Click ‘Customer wise Report’	4.	Select needed report radio button	5.	Select customer name from list	6.	Enter search button
Step	Action														
1.	Login the System														
2.	Click into “Manage Customers” from sidebar														
3.	Click ‘Customer wise Report’														
4.	Select needed report radio button														
5.	Select customer name from list														
6.	Enter search button														
Alternative flows	N/a														
Quality requirement	N/a														

3.2.6 Manage Unit

Use case	Manage Unit						
Use case no.	17						
Goal	User can view unit list and add new unit						
Pre-condition	Must have to login						
Actors	Manager & Admin						
Trigger	This will be button						
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Unit” from sidebar</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Unit” from sidebar
Step	Action						
1.	Login the System						
2.	Click into “Manage Unit” from sidebar						
Alternative flows	N/a						
Quality requirement	N/a						

3.2.6.1 View Unit

Use case	View Unit								
Use case no.	18								
Goal	User can view, edit, delete unit								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be button								
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Unit” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Units’</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Unit” from sidebar	3.	Click ‘View Units’
Step	Action								
1.	Login the System								
2.	Click into “Manage Unit” from sidebar								
3.	Click ‘View Units’								
Alternative flows	<table><tbody><tr><td>1.</td><td>Click edit button</td></tr><tr><td>2.</td><td>Edit unit name and click update button</td></tr></tbody></table>	1.	Click edit button	2.	Edit unit name and click update button				
1.	Click edit button								
2.	Edit unit name and click update button								
Quality requirement	N/a								

3.2.6.2 Add Unit

Use case	Add Unit														
Use case no.	19														
Goal	User can add new unit														
Pre-condition	Must have to login														
Actors	Manager & Admin														
Trigger	This will be button and form														
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Units” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Units’</td></tr><tr><td>4.</td><td>Click ‘Add Unit’</td></tr><tr><td>5.</td><td>Enter Unit name</td></tr><tr><td>6.</td><td>Click Submit button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Units” from sidebar	3.	Click ‘View Units’	4.	Click ‘Add Unit’	5.	Enter Unit name	6.	Click Submit button
Step	Action														
1.	Login the System														
2.	Click into “Manage Units” from sidebar														
3.	Click ‘View Units’														
4.	Click ‘Add Unit’														
5.	Enter Unit name														
6.	Click Submit button														
Alternative flows	N/a														
Quality requirement	N/a														

3.2.7 Manage Category

Use case	Manage Category						
Use case no.	20						
Goal	User can view, edit, delete category						
Pre-condition	Must have to login						
Actors	Manager & Admin						
Trigger	This will be button and form						
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Category” from sidebar</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Category” from sidebar
Step	Action						
1.	Login the System						
2.	Click into “Manage Category” from sidebar						
Alternative flows	N/a						
Quality requirement	N/a						

3.2.7.1 View Category

Use case	View Category								
Use case no.	21								
Goal	User can view, edit, delete category								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be button and form								
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Category” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Category’</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Category” from sidebar	3.	Click ‘View Category’
Step	Action								
1.	Login the System								
2.	Click into “Manage Category” from sidebar								
3.	Click ‘View Category’								
Alternative flows	<table><tbody><tr><td>1.</td><td>Click edit button</td></tr><tr><td>2.</td><td>Edit category name and click update button</td></tr></tbody></table>	1.	Click edit button	2.	Edit category name and click update button				
1.	Click edit button								
2.	Edit category name and click update button								
Quality requirement	N/a								

3.2.7.2 Add Category

Use case	Add Category														
Use case no.	22														
Goal	User can add new category														
Pre-condition	Must have to login														
Actors	Manager & Admin														
Trigger	This will be button and form														
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Category” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Category’</td></tr><tr><td>4.</td><td>Click ‘Add Category’</td></tr><tr><td>5.</td><td>Enter Category name</td></tr><tr><td>6.</td><td>Click Submit button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Category” from sidebar	3.	Click ‘View Category’	4.	Click ‘Add Category’	5.	Enter Category name	6.	Click Submit button
Step	Action														
1.	Login the System														
2.	Click into “Manage Category” from sidebar														
3.	Click ‘View Category’														
4.	Click ‘Add Category’														
5.	Enter Category name														
6.	Click Submit button														
Alternative flows	N/a														
Quality requirement	N/a														

3.2.8 Manage Products

Use case	Manage Products						
Use case no.	23						
Goal	User can view products list, edit, delete and add new product						
Pre-condition	Must have to login						
Actors	Manager & Admin						
Trigger	This will be button and form						
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Product” from sidebar</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Product” from sidebar
Step	Action						
1.	Login the System						
2.	Click into “Manage Product” from sidebar						
Alternative flows	N/a						
Quality requirement	N/a						

3.2.8.1 View Products

Use case	View Products								
Use case no.	24								
Goal	User can view, edit, delete product								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be button								
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Product” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Product’</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Product” from sidebar	3.	Click ‘View Product’
Step	Action								
1.	Login the System								
2.	Click into “Manage Product” from sidebar								
3.	Click ‘View Product’								
Alternative flows	<table><tbody><tr><td>1.</td><td>Click edit button</td></tr><tr><td>2.</td><td>Edit Product name, update unit, supplier name</td></tr><tr><td>3.</td><td>Enter Update button</td></tr></tbody></table>	1.	Click edit button	2.	Edit Product name, update unit, supplier name	3.	Enter Update button		
1.	Click edit button								
2.	Edit Product name, update unit, supplier name								
3.	Enter Update button								
Quality requirement	N/a								

3.2.8.2 Add Product

Use case	Add Product														
Use case no.	25														
Goal	User can add new product														
Pre-condition	Must have to login & add Supplier, Unit, Category														
Actors	Manager & Admin														
Trigger	This will be button and form														
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Product” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Product’</td></tr><tr><td>4.</td><td>Click ‘Add product’</td></tr><tr><td>5.</td><td>Enter Supplier name, Unit, Category, Product Name</td></tr><tr><td>6.</td><td>Enter Submit Button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Product” from sidebar	3.	Click ‘View Product’	4.	Click ‘Add product’	5.	Enter Supplier name, Unit, Category, Product Name	6.	Enter Submit Button
Step	Action														
1.	Login the System														
2.	Click into “Manage Product” from sidebar														
3.	Click ‘View Product’														
4.	Click ‘Add product’														
5.	Enter Supplier name, Unit, Category, Product Name														
6.	Enter Submit Button														
Alternative flows	N/a														
Quality requirement	N/a														

3.2.9 Manage Purchase

Use case	Manage Purchase						
Use case no.	26						
Goal	User can view purchases list, add new purchases, approved purchases, view daily purchases report						
Pre-condition	Must have to login						
Actors	Manager & Admin						
Trigger	This will be button and form						
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login The System</td></tr><tr><td>2.</td><td>Click into “Manage Purchase” from sidebar</td></tr></tbody></table>	Step	Action	1.	Login The System	2.	Click into “Manage Purchase” from sidebar
Step	Action						
1.	Login The System						
2.	Click into “Manage Purchase” from sidebar						
Alternative flows	N/a						
Quality requirement	N/a						

3.2.9.1 View Purchase

Use case	View Purchase								
Use case no.	27								
Goal	User can view all approved Purchase								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be button								
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Purchase” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Purchase’</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Purchase” from sidebar	3.	Click ‘View Purchase’
Step	Action								
1.	Login the System								
2.	Click into “Manage Purchase” from sidebar								
3.	Click ‘View Purchase’								
Alternative flows	No Alternative Flows								
Quality requirement	No Quality requirements								

3.2.9.1.1 Add Purchase

Use case	Add Purchase														
Use case no.	28														
Goal	User can add new purchase														
Pre-condition	Add Supplier, Unit, Category, Product Name														
Actors	Manager & Admin														
Trigger	This will be form, drop down list & buttons														
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Purchase” from sidebar</td></tr><tr><td>3.</td><td>Click ‘View Purchase’</td></tr><tr><td>4.</td><td>Click ‘Add Purchase’</td></tr><tr><td>5.</td><td>Select Date, Enter Purchase no, Supplier name, Category, Product name, add items, unit, unit price</td></tr><tr><td>6.</td><td>Click ‘Purchase Store’</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Purchase” from sidebar	3.	Click ‘View Purchase’	4.	Click ‘Add Purchase’	5.	Select Date, Enter Purchase no, Supplier name, Category, Product name, add items, unit, unit price	6.	Click ‘Purchase Store’
Step	Action														
1.	Login the System														
2.	Click into “Manage Purchase” from sidebar														
3.	Click ‘View Purchase’														
4.	Click ‘Add Purchase’														
5.	Select Date, Enter Purchase no, Supplier name, Category, Product name, add items, unit, unit price														
6.	Click ‘Purchase Store’														
Alternative flows	No Alternative Flows														
Quality requirement	No Quality requirements														

3.2.9.2 Approval Purchase

Use case	Approval Purchase										
Use case no.	29										
Goal	User can check purchase details & can approved for stocks										
Pre-condition	Add new purchase										
Actors	Manager & Admin										
Trigger	This will be button										
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Purchase” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Approval Purchase’</td></tr><tr><td>4.</td><td>Click Action Button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Purchase” from sidebar	3.	Click ‘Approval Purchase’	4.	Click Action Button
Step	Action										
1.	Login the System										
2.	Click into “Manage Purchase” from sidebar										
3.	Click ‘Approval Purchase’										
4.	Click Action Button										
Alternative flows	No Alternative Flows										
Quality requirement	No Quality requirements										

3.2.9.3 Daily Purchase Report

Use case	Daily Purchase Report												
Use case no.	30												
Goal	User can see purchase report												
Pre-condition	Must have to login												
Actors	Manager & Admin												
Trigger	This will be buttons												
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Purchase” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Daily Purchase Report’</td></tr><tr><td>4.</td><td>Select criteria</td></tr><tr><td>5.</td><td>Enter Search button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Purchase” from sidebar	3.	Click ‘Daily Purchase Report’	4.	Select criteria	5.	Enter Search button
Step	Action												
1.	Login the System												
2.	Click into “Manage Purchase” from sidebar												
3.	Click ‘Daily Purchase Report’												
4.	Select criteria												
5.	Enter Search button												
Alternative flows	No Alternative Flows												

3.2.10 Manage Stock

Use case	Manage Stock						
Use case no.	31						
Goal	User can view all stocks report & download pdf						
Pre-condition	Must have to login						
Actors	Manager & Admin						
Trigger	This will be buttons						
Description/ Main success	<table><tr><td>Step</td><td>Action</td></tr><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Stock” from sidebar</td></tr></table>	Step	Action	1.	Login the System	2.	Click into “Manage Stock” from sidebar
Step	Action						
1.	Login the System						
2.	Click into “Manage Stock” from sidebar						
Alternative flows	No Alternative Flows						
Quality requirement	No Quality requirements						

3.2.10.1 Stock Report

Use case	Stock Report								
Use case no.	32								
Goal	User can view In, Out & total Stocks and download pdf								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be buttons								
Description/ Main success	<table><tr><td>Step</td><td>Action</td></tr><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Stock” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Stock Report’</td></tr></table>	Step	Action	1.	Login the System	2.	Click into “Manage Stock” from sidebar	3.	Click ‘Stock Report’
Step	Action								
1.	Login the System								
2.	Click into “Manage Stock” from sidebar								
3.	Click ‘Stock Report’								
Alternative flows	No Alternative Flows								
Quality requirement	No Quality requirements								

3.2.10.2 Supplier/Product Wise Report

Use case	Supplier/Product Wise Report								
Use case no.	33								
Goal	User can view Stock report Supplier/Product wise								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be buttons								
Description/ Main success	<table><tr><td>Step</td><td>Action</td></tr><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Stock” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Supplier/Product Wise’</td></tr></table>	Step	Action	1.	Login the System	2.	Click into “Manage Stock” from sidebar	3.	Click ‘Supplier/Product Wise’
Step	Action								
1.	Login the System								
2.	Click into “Manage Stock” from sidebar								
3.	Click ‘Supplier/Product Wise’								
Alternative flows	No Alternative Flows								
Quality requirement	No Quality requirements								

3.2.11 Manage Invoice

Use case	Manage Invoice
Use case no.	34
Goal	User can view all invoices, approved invoices, print invoices & download pdf
Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be buttons
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Invoice” from sidebar
Alternative flows	No Alternative Flows
Quality requirement	No Quality requirements

3.2.11.1 View Invoice

Use case	View Invoice
Use case no.	35
Goal	User can view all approved invoice
Pre-condition	Must have to login
Actors	Manager & Admin
Trigger	This will be buttons
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Invoice” from sidebar 3. Click ‘View Invoice’
Alternative flows	No Alternative Flows
Quality requirement	No Quality requirements

3.2.11.1.1 Add Invoice

Use case	Add Invoice
Use case no.	36
Goal	User can add new invoice
Pre-condition	Must have to login & Add Products
Actors	Manager & Admin
Trigger	This will be buttons & drop-down list
Description/ Main success	Step Action 1. Login the System 2. Click into “Manage Invoice” from sidebar 3. Click ‘View Invoice’ 4. Click ‘Add invoice’ 5. Select Category, Product, unit, unit price, paid status, customer name 6. Click ‘Invoice Store’
Alternative flows	No Alternative Flows
Quality requirement	No Quality requirements

3.2.11.2 Approval Invoice

Use case	Approval Invoice										
Use case no.	37										
Goal	User can approve invoice										
Pre-condition	Must have to login & add invoice										
Actors	Manager & Admin										
Trigger	This will be buttons										
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Invoice” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Approval invoice’</td></tr><tr><td>4.</td><td>Click Action button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Invoice” from sidebar	3.	Click ‘Approval invoice’	4.	Click Action button
Step	Action										
1.	Login the System										
2.	Click into “Manage Invoice” from sidebar										
3.	Click ‘Approval invoice’										
4.	Click Action button										
Alternative flows	No Alternative Flows										
Quality requirement	No Quality requirements										

3.2.11.3 Print Invoice

Use case	Print Invoice										
Use case no.	38										
Goal	User can print invoice										
Pre-condition	Must have to login & add invoice										
Actors	Manager & Admin										
Trigger	This will be button										
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Invoice” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Print Invoice’</td></tr><tr><td>4.</td><td>Click Print Icon button needed invoice</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Invoice” from sidebar	3.	Click ‘Print Invoice’	4.	Click Print Icon button needed invoice
Step	Action										
1.	Login the System										
2.	Click into “Manage Invoice” from sidebar										
3.	Click ‘Print Invoice’										
4.	Click Print Icon button needed invoice										
Alternative flows	No Alternative Flows										
Quality requirement	No Quality requirements										

3.2.11.4 Daily Invoice Report

Use case	Daily Invoice Report												
Use case no.	39												
Goal	User can view/ print daily, monthly reports												
Pre-condition	Must have to login approved invoice												
Actors	Manager & Admin												
Trigger	This will be button												
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Invoice” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Daily Invoice Report’</td></tr><tr><td>4.</td><td>Select criteria</td></tr><tr><td>5.</td><td>Enter Search button</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Invoice” from sidebar	3.	Click ‘Daily Invoice Report’	4.	Select criteria	5.	Enter Search button
Step	Action												
1.	Login the System												
2.	Click into “Manage Invoice” from sidebar												
3.	Click ‘Daily Invoice Report’												
4.	Select criteria												
5.	Enter Search button												
Alternative flows	No Alternative Flows												
Quality requirement	No Quality requirements												

3.2.12 Manage Profit

Use case	Manage Profit						
Use case no.	40						
Goal	User can view all profit reports & download pdf						
Pre-condition	Must have to login						
Actors	Manager & Admin						
Trigger	This will be buttons						
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Profit” from sidebar</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Profit” from sidebar
Step	Action						
1.	Login the System						
2.	Click into “Manage Profit” from sidebar						
Alternative flows	No Alternative Flows						
Quality requirement	No Quality requirements						

3.2.12.1 Profit Report List

Use case	Profit Report List								
Use case no.	41								
Goal	User can view all profit reports								
Pre-condition	Must have to login								
Actors	Manager & Admin								
Trigger	This will be buttons								
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Profit” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Profit Report List’</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Profit” from sidebar	3.	Click ‘Profit Report List’
Step	Action								
1.	Login the System								
2.	Click into “Manage Profit” from sidebar								
3.	Click ‘Profit Report List’								
Alternative flows	No Alternative Flows								
Quality requirement	No Quality requirements								

3.2.12.2 Daily Profit Report

Use case	Daily Profit Report												
Use case no.	42												
Goal	User can view daily profit reports & download pdf												
Pre-condition	Must have to login												
Actors	Manager & Admin												
Trigger	This will be buttons												
Description/ Main success	<table><thead><tr><th>Step</th><th>Action</th></tr></thead><tbody><tr><td>1.</td><td>Login the System</td></tr><tr><td>2.</td><td>Click into “Manage Profit” from sidebar</td></tr><tr><td>3.</td><td>Click ‘Daily Profit Report’</td></tr><tr><td>4.</td><td>Select Criteria</td></tr><tr><td>5.</td><td>Click Search</td></tr></tbody></table>	Step	Action	1.	Login the System	2.	Click into “Manage Profit” from sidebar	3.	Click ‘Daily Profit Report’	4.	Select Criteria	5.	Click Search
Step	Action												
1.	Login the System												
2.	Click into “Manage Profit” from sidebar												
3.	Click ‘Daily Profit Report’												
4.	Select Criteria												
5.	Click Search												
Alternative flows	No Alternative Flows												
Quality requirement	No Quality requirements												

3.3 Activity Diagram

3.3.1 Log in Activity Diagram

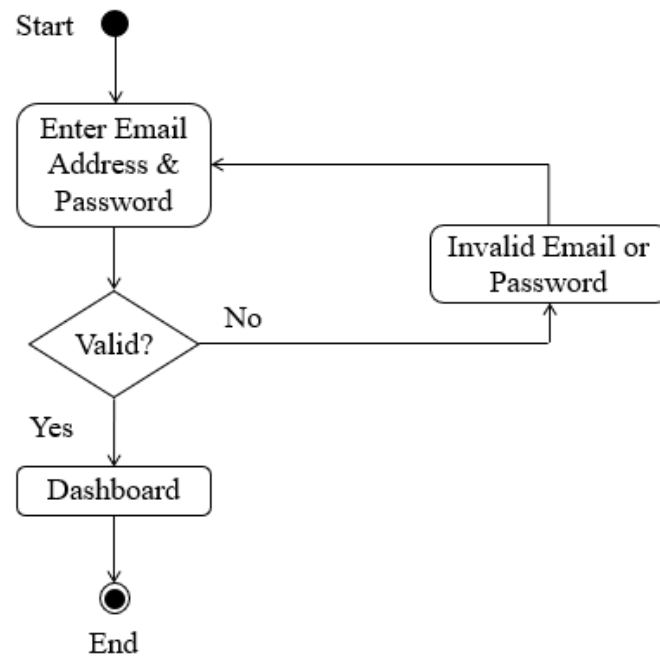


Figure 3. 2: Log in Activity Diagram

3.3.2 Manage Users Activity Diagram

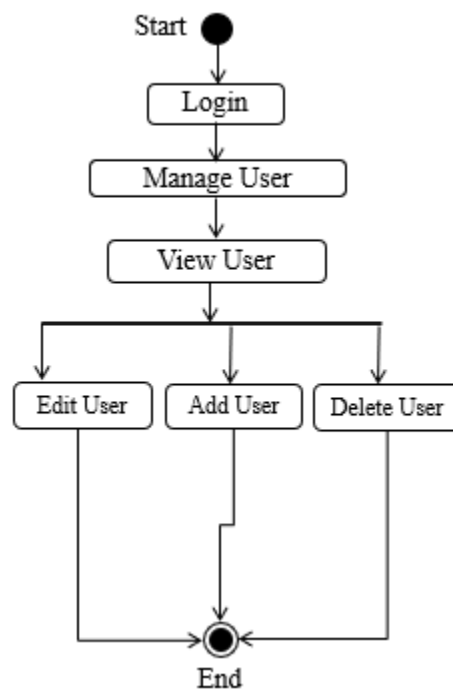


Figure 3. 3: Manage Users Activity Diagram

3.3.2.1 View Users Activity Diagram

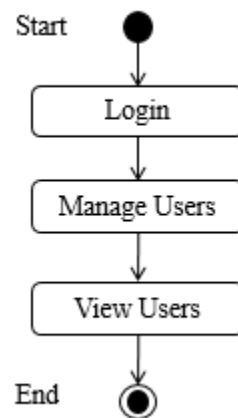


Figure 3. 4:View Users Activity Diagram

3.3.2.2 Add User Activity Diagram

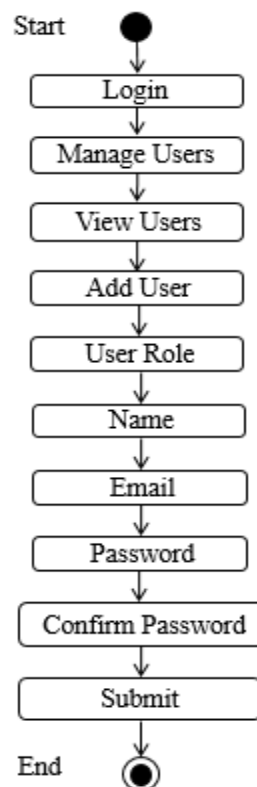


Figure 3. 5: Add User Activity Diagram

3.3.3 Manage Profile Activity Diagram

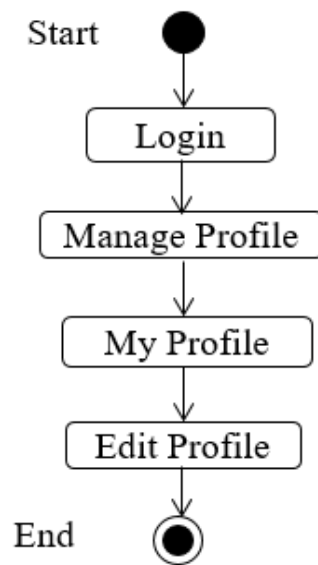


Figure 3.6: Manage Profile Activity Diagram

3.3.3.1 View Profile Activity Diagram

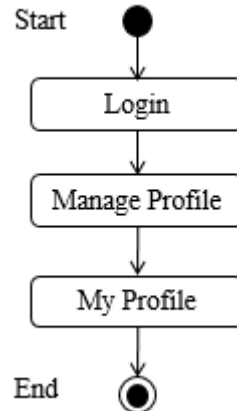


Figure 3.7: View Profile Activity Diagram

3.3.3.2 Password Change Activity Diagram

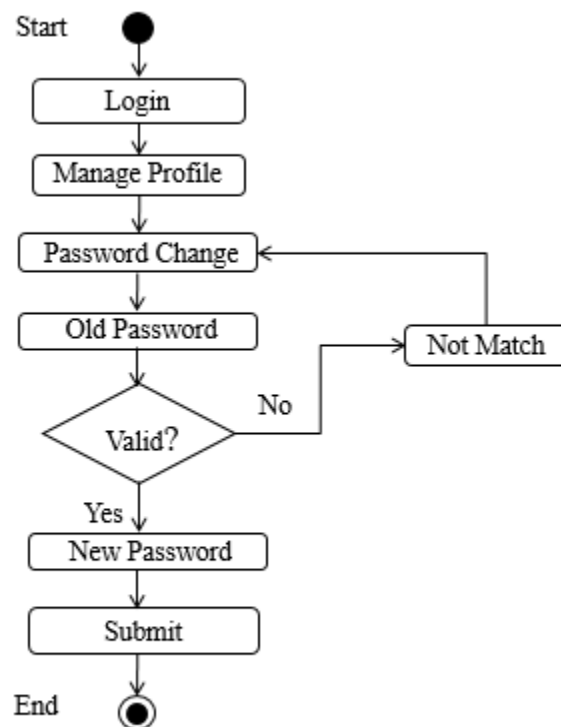


Figure 3. 8: Password Change Activity Diagram

3.3.4 Manage Suppliers Activity Diagram

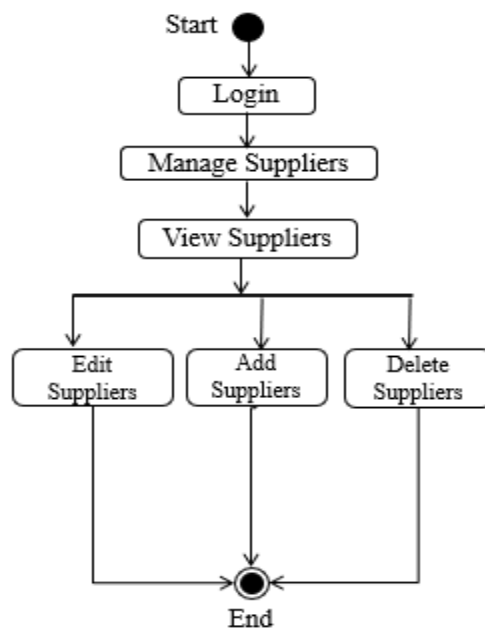


Figure 3.9: Manage Suppliers Activity Diagram

3.3.4.1 View Suppliers Activity Diagram

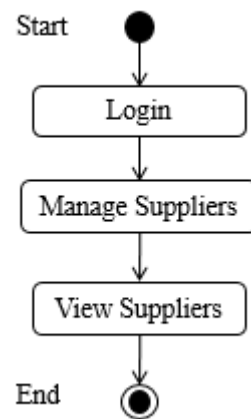


Figure 3.10: View Suppliers Activity Diagram

3.3.4.2 Add Supplier Activity Diagram

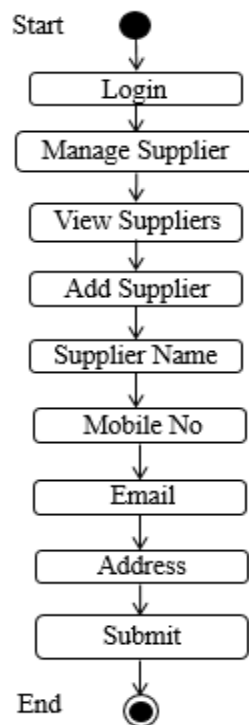


Figure 3.11: Add Supplier Activity Diagram

3.3.5 Manage Customers Activity Diagram

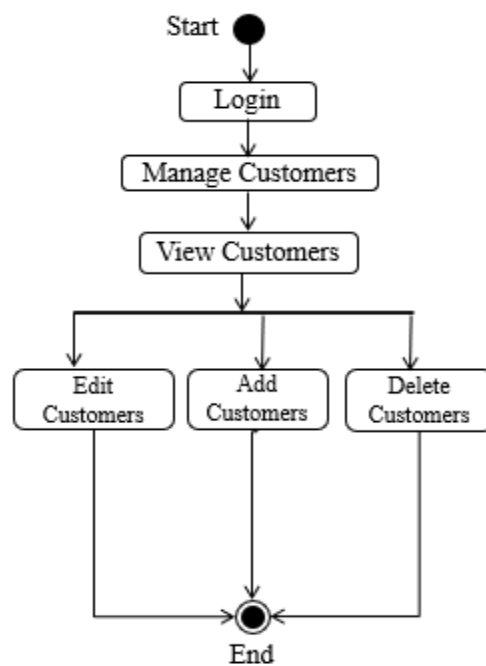


Figure 3.12: Manage Customers Activity Diagram

3.3.5.1 View Customers Activity Diagram

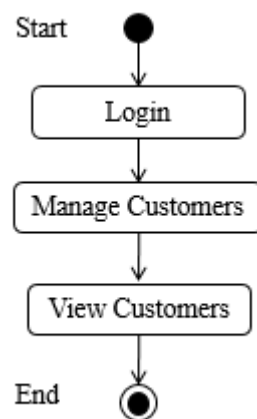


Figure 3.13: View Customers Activity Diagram

3.3.5.1.1 Add Customers Activity Diagram

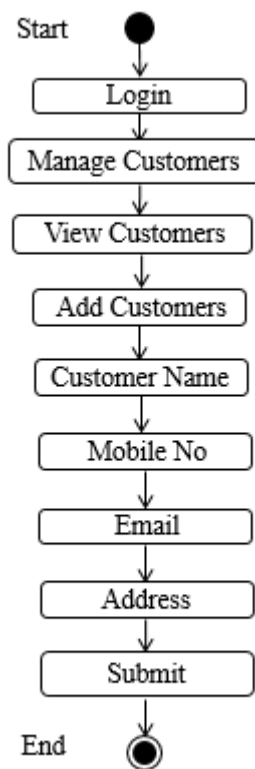


Figure 3.14: Add Customers Activity Diagram

3.3.5.2 Credit Customers Activity Diagram

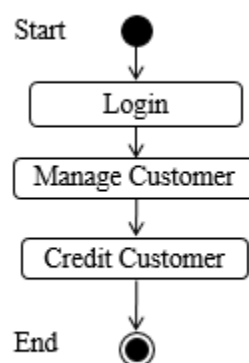


Figure 3.15: Credit Customers Activity Diagram

3.3.5.2.1 Edit Credit Customer Activity Diagram

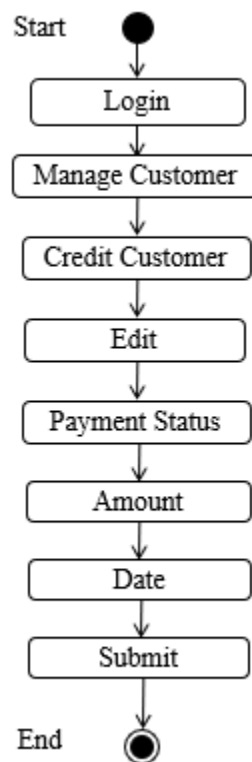


Figure 3.16: Credit Customers Activity Diagram

3.3.5.3 Paid Customers Activity Diagram

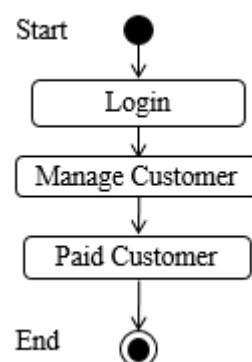


Figure 3.17: Paid Customers Activity Diagram

3.3.5.4 Customer Wise Report Activity Diagram

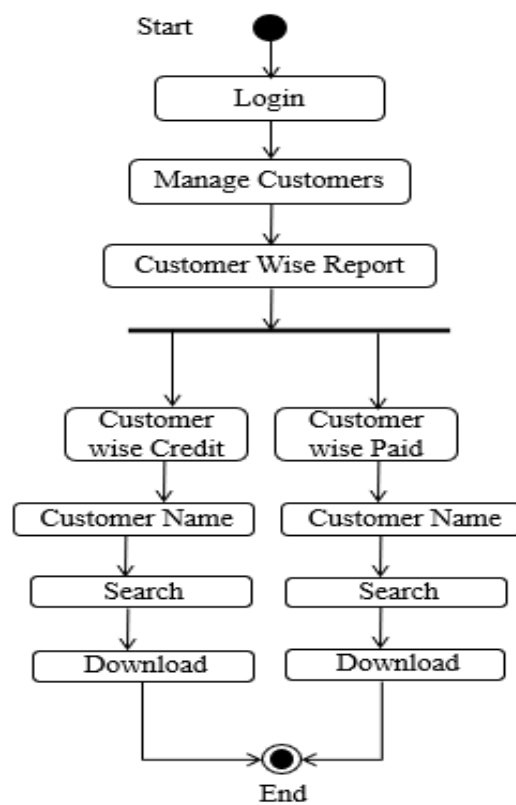


Figure 3.18: Customer Wise Report Activity Diagram

3.3.6 Manage Unit Activity Diagram

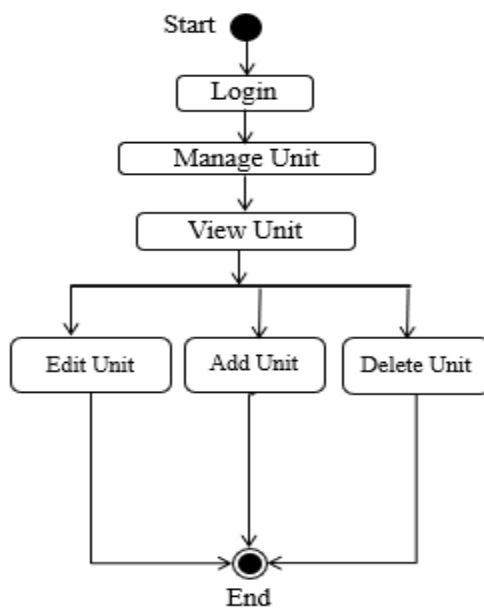


Figure 3.19: Manage Unit Activity Diagram

3.3.6.1 View Unit Activity Diagram

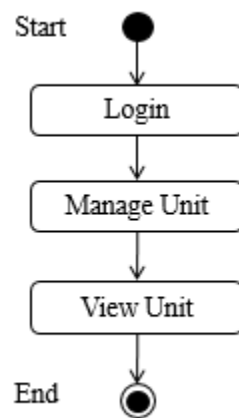


Figure 3.20: View Unit Activity Diagram

3.3.6.2 Add Unit Activity Diagram

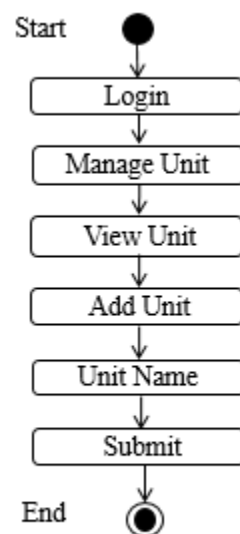


Figure 3.21: Add Unit Activity Diagram

3.3.7 Manage Category Activity Diagram

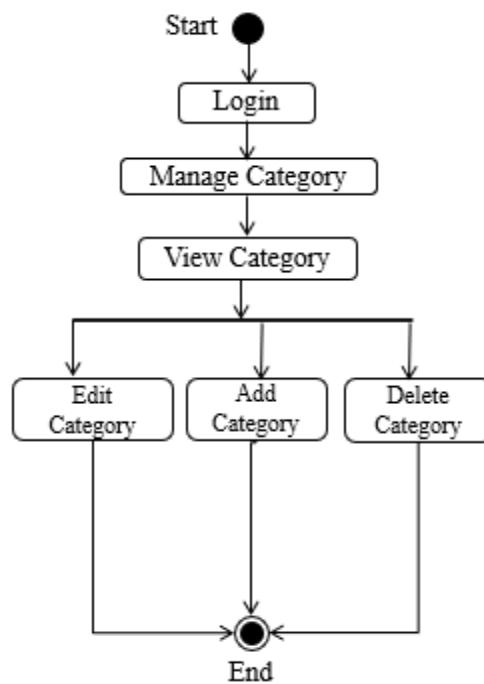


Figure 3.22: Manage Category Activity Diagram

3.3.7.1 View Category Activity Diagram

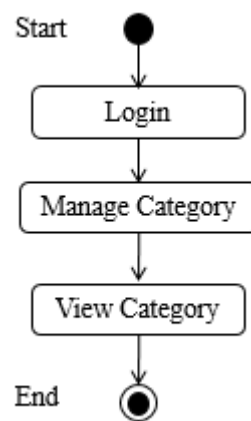


Figure 3.23:View Category Activity Diagram

3.3.7.2 Add Category Activity Diagram

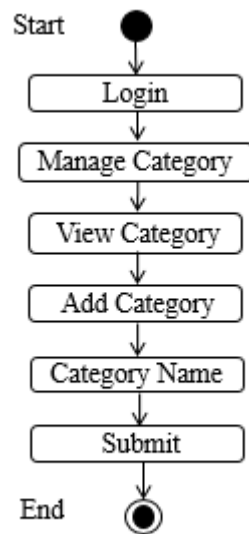


Figure 3.24: Add Category Activity Diagram

3.3.8 Manage Products Activity Diagram

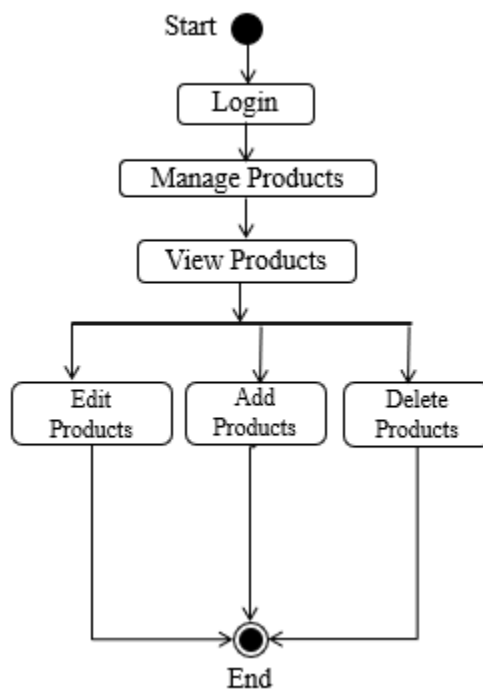


Figure 3.25: Manage Products Activity Diagram

3.3.8.1 View Products Activity Diagram

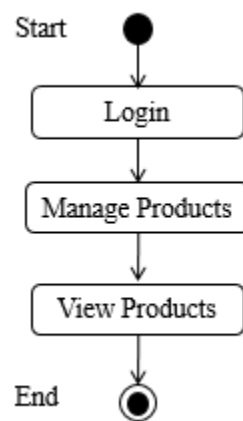


Figure 3.26: View Products Activity Diagram

3.3.8.2 Add Product Activity Diagram

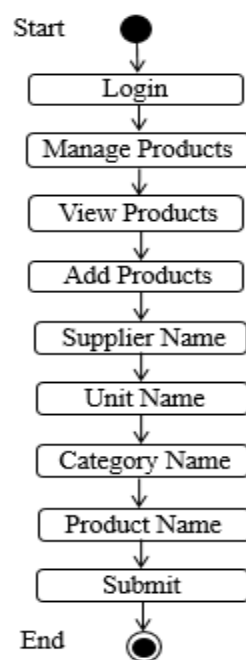


Figure 3.27: Add Product Activity Diagram

3.3.9 Manage Purchase Activity Diagram

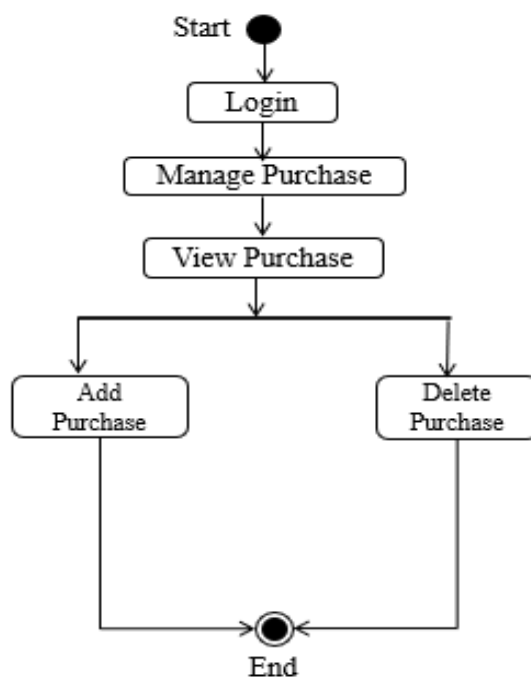


Figure 3.28: Manage Purchase Activity Diagram

3.3.9.1 View Purchase Activity Diagram

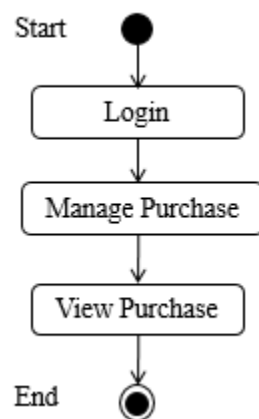


Figure 3.29: View Purchase Activity Diagram

3.3.9.1.1 Add Purchase Activity Diagram

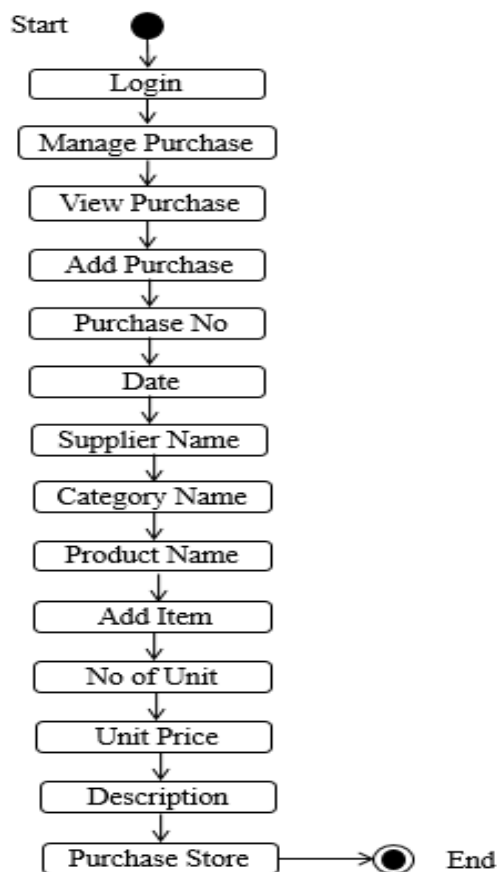


Figure 3.30: Add Purchase Activity Diagram

3.3.9.2 Approval Purchase Activity Diagram

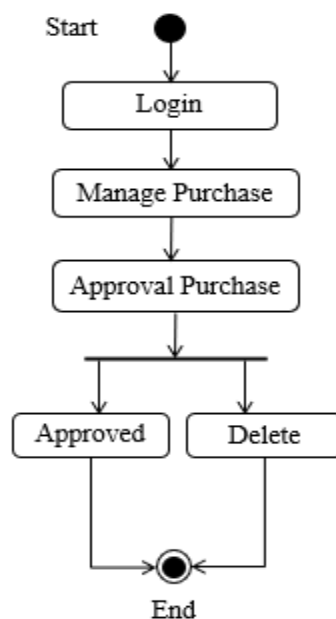


Figure 3.31: Approval Purchase Activity Diagram

3.3.9.3 Daily Purchase Report Activity Diagram



Figure 3.32: Daily Purchase Report Activity Diagram

3.3.10 Manage Stock Activity Diagram

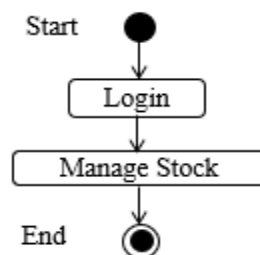


Figure 3.33: Manage Stock Activity Diagram

3.3.10.1 Stock Report Activity Diagram

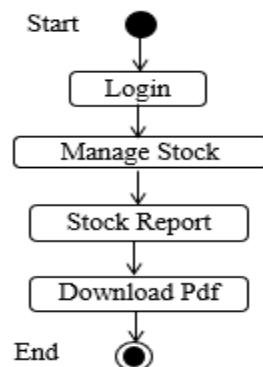


Figure 3.34: Stock Report Activity Diagram

3.3.10.2 Supplier/Product Wise Report Activity Diagram

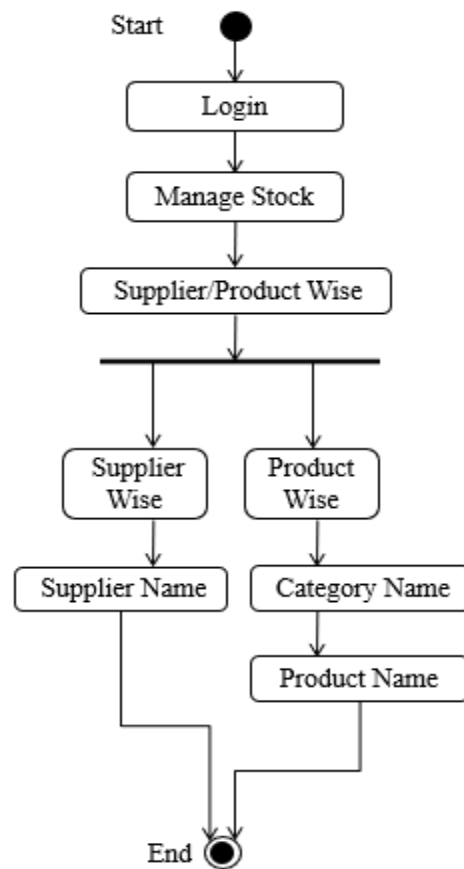


Figure 3.35: Supplier/Product Wise Report Activity Diagram

3.3.11 Manage Invoice Activity Diagram

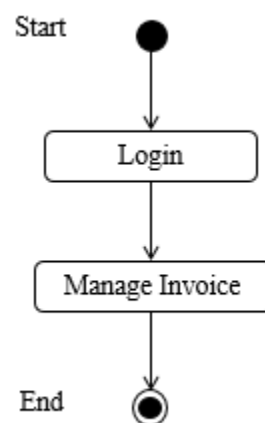


Figure 3.36: Manage Invoice Activity Diagram

3.3.11.1 View Invoice Activity Diagram

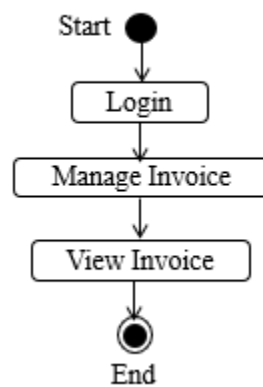


Figure 3.37: View Invoice Activity Diagram

3.3.11.1.1 Add Invoice Activity Diagram

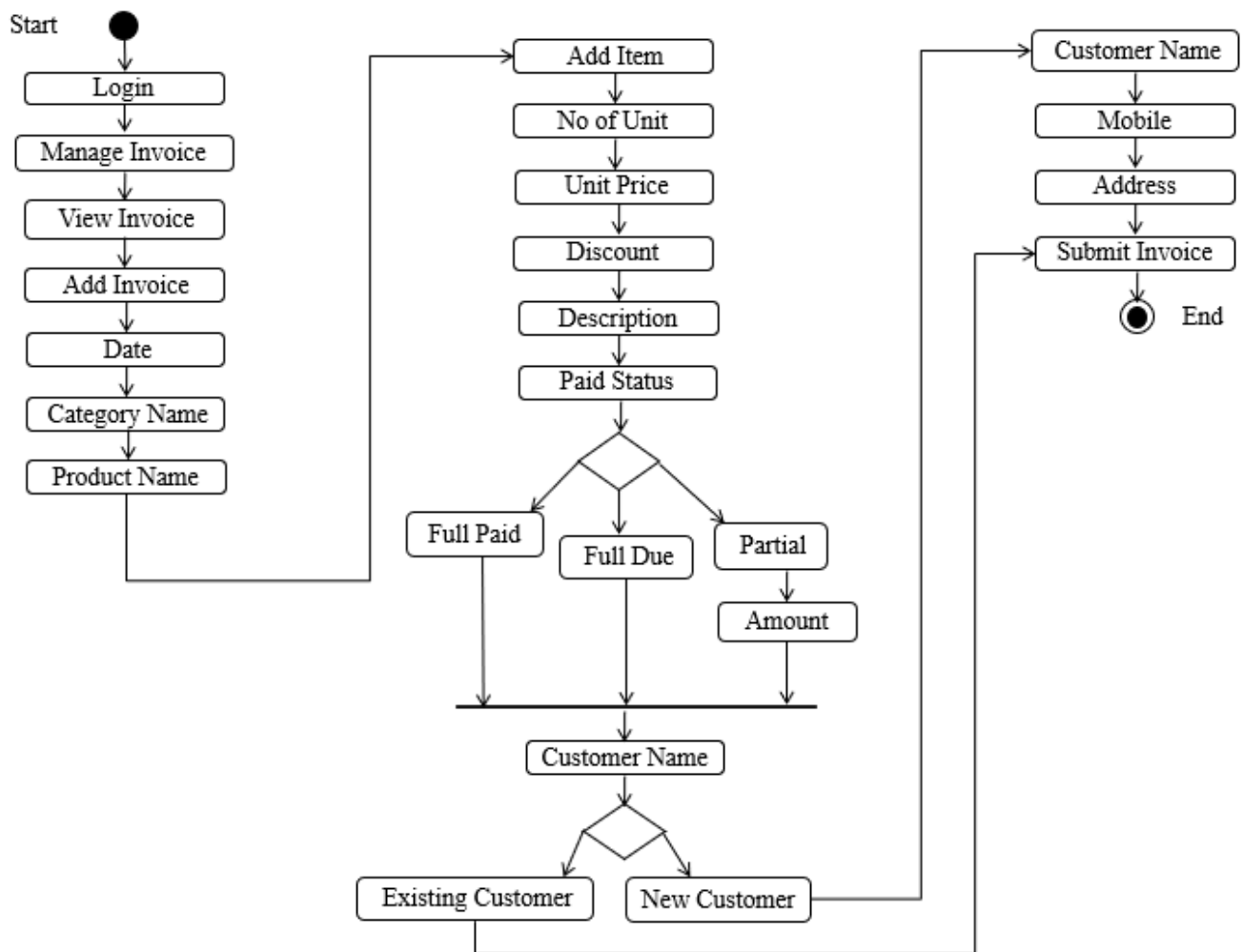


Figure 3.38: Add Invoice Activity Diagram

3.3.11.2 Approval Invoice Activity Diagram

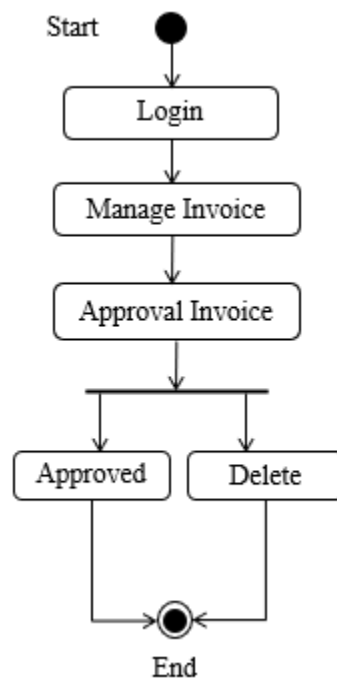


Figure 3.39: Approval Invoice Activity Diagram

3.3.11.3 Print Invoice Activity Diagram

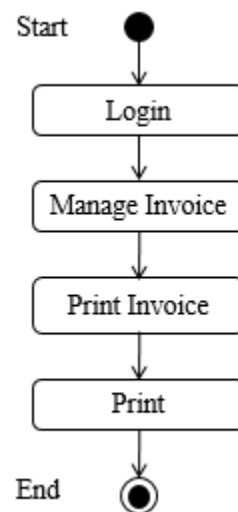


Figure 3.40: Print Invoice Activity Diagram

3.3.11.4 Daily Invoice Report Activity Diagram

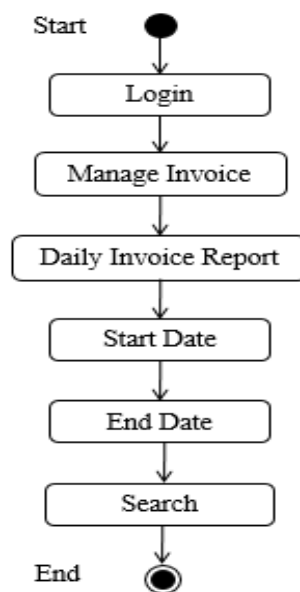


Figure 3.41: Daily Invoice Report Activity Diagram

3.3.12 Manage Profit Activity Diagram

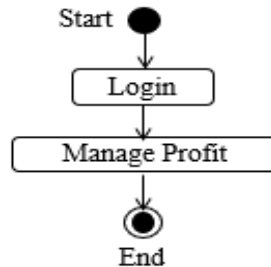


Figure 3.42: Manage Profit Activity Diagram

3.3.12.1 Profit Report List Activity Diagram

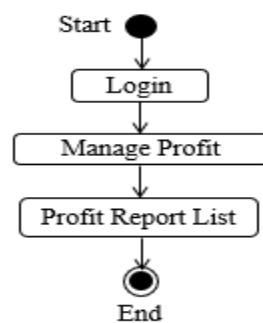


Figure 3.43: Profit Report List Activity Diagram

3.3.12.2 Daily Profit Report Activity Diagram



Figure 3.44: Daily Profit Report Activity Diagram

3.4 System Sequence Diagram

3.4.1 Login Sequence Diagram

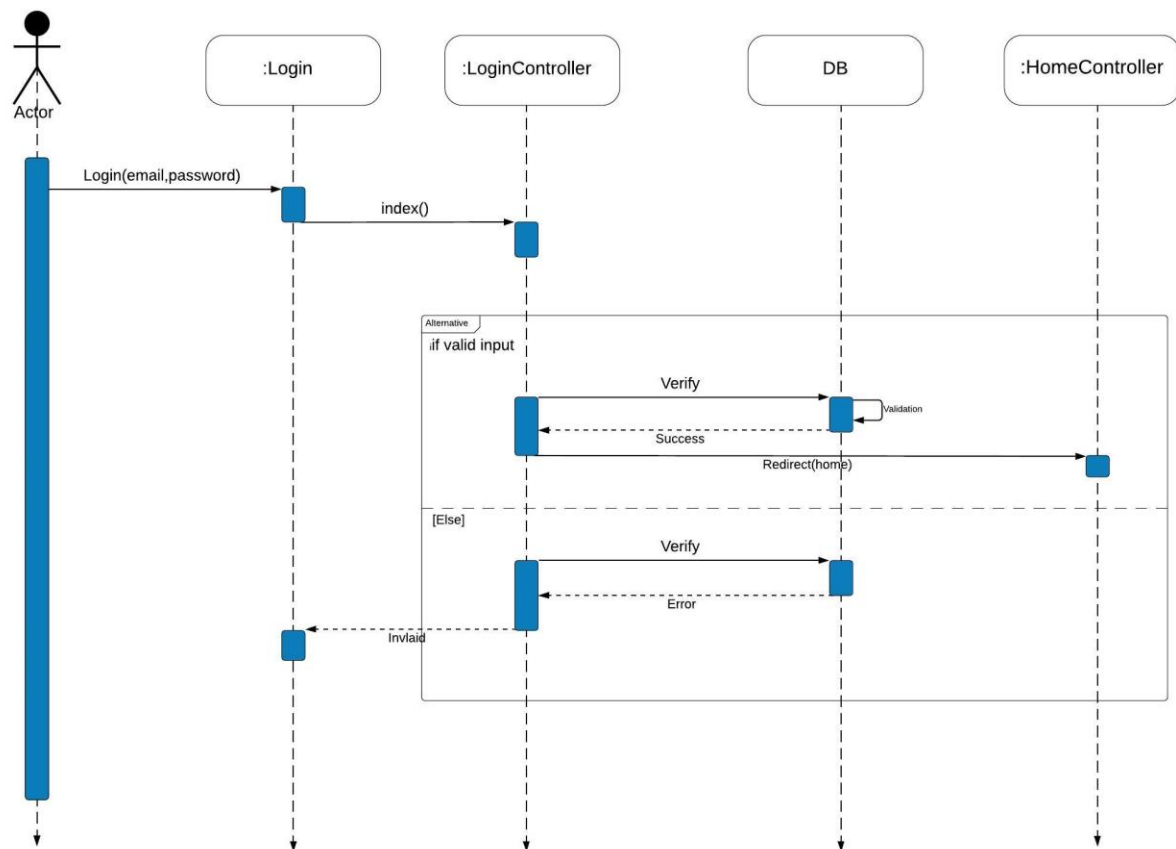


Figure 3.45: Sequence Diagram for Login

3.4.2 Manage Users Sequence Diagram

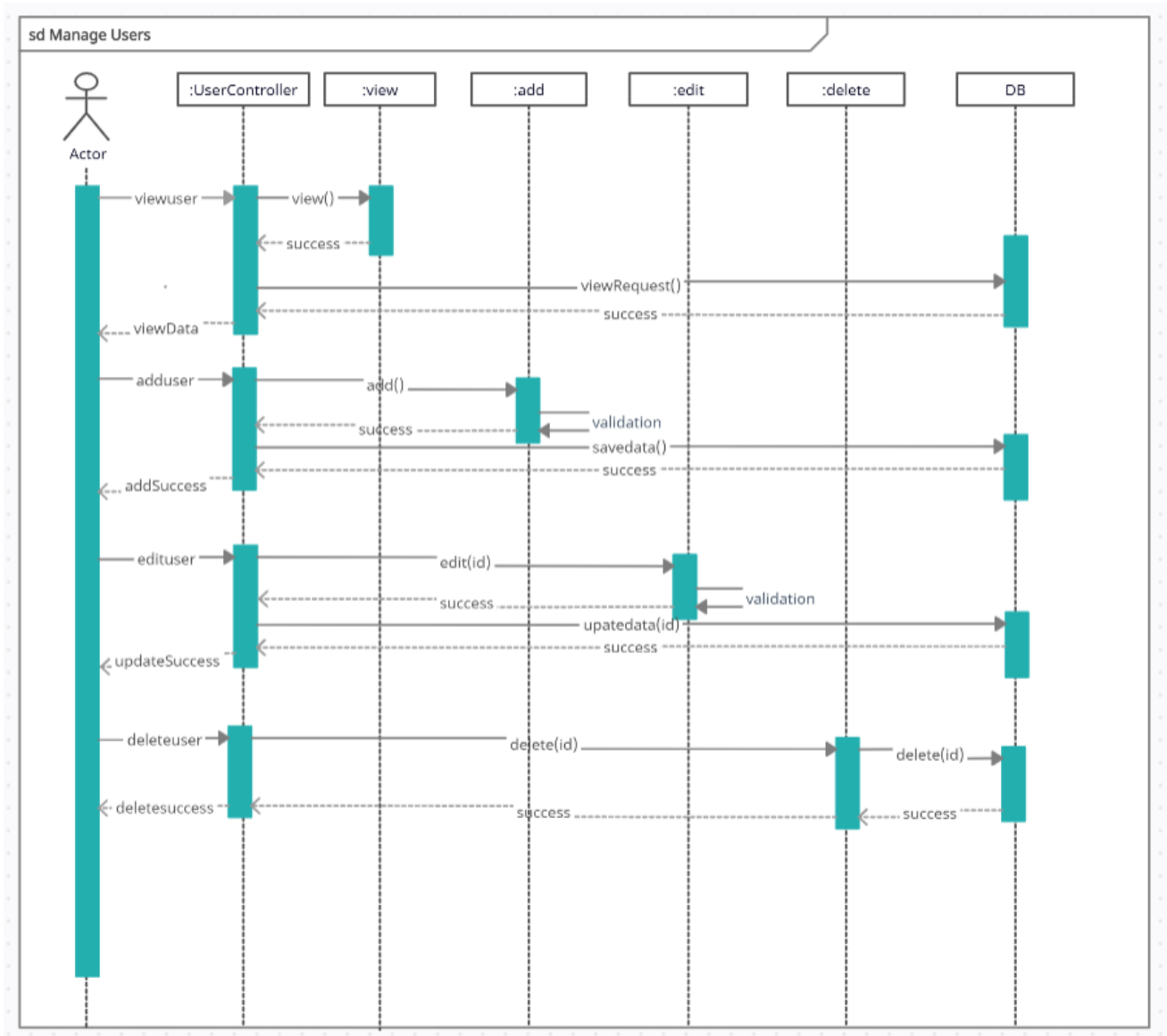


Figure 3.46: Sequence Diagram for Manage Users

3.4.3 Manage Profile Sequence Diagram

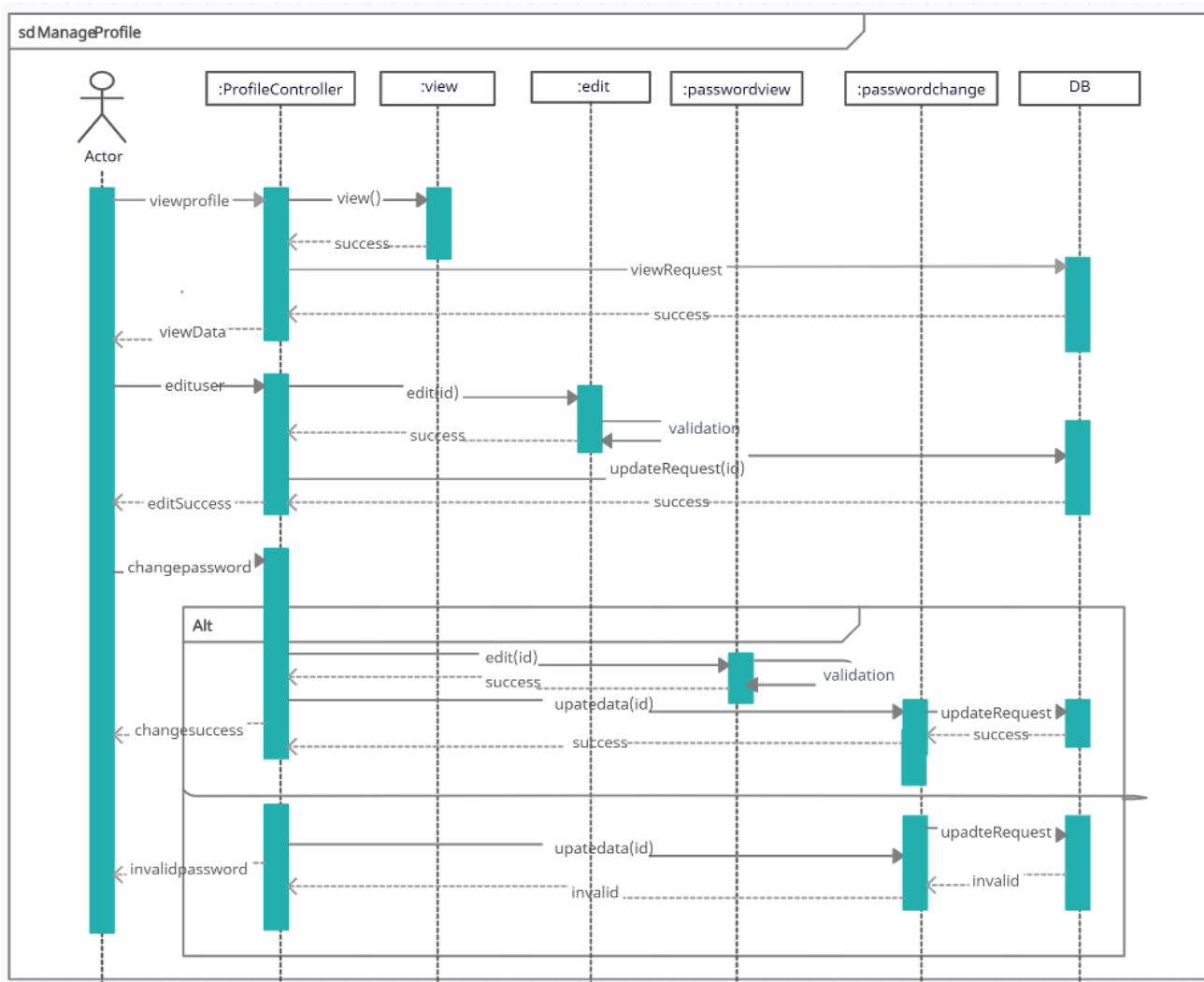


Figure 3.47: Sequence Diagram for Manage Profile

3.4.4 Manage Suppliers Sequence Diagram

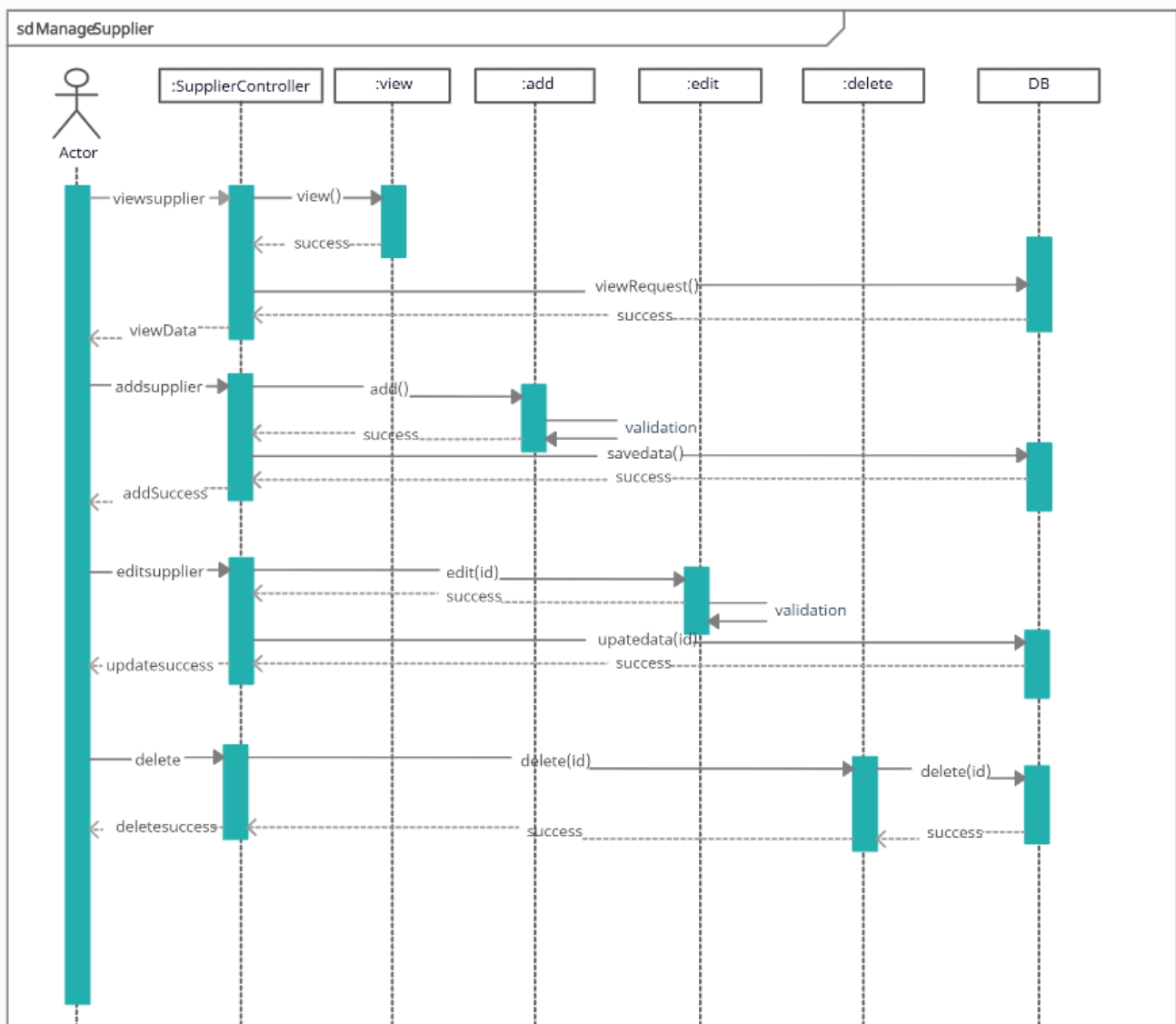


Figure 3.48: Sequence Diagram for Manage Supplier

3.4.5 Manage Customers Sequence Diagram

3.4.5.1 View Customers Sequence Diagram

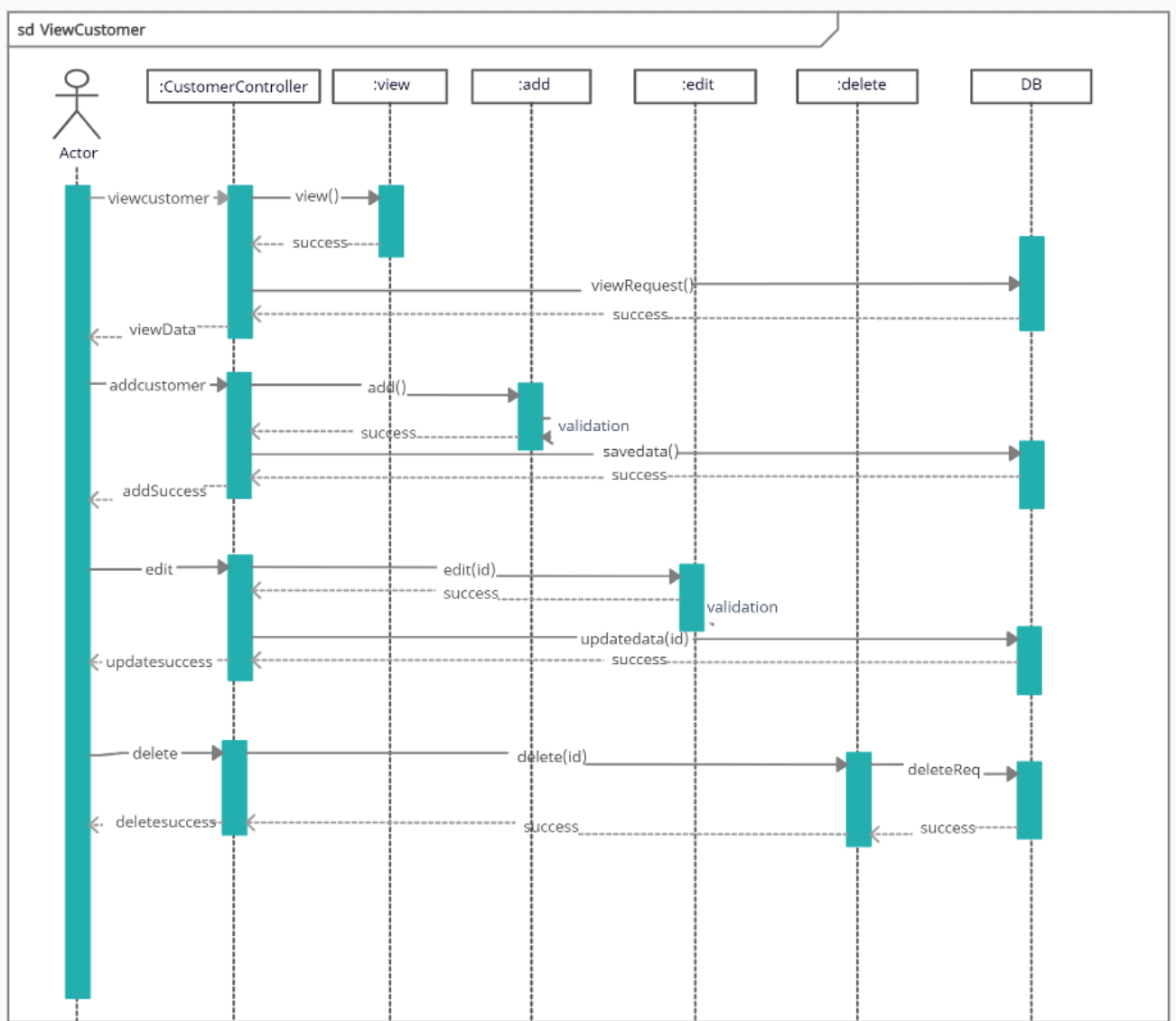


Figure 3.49: Sequence Diagram for View Customers

3.4.5.2 Credit & Paid Customer, Report Pdf Sequence Diagram

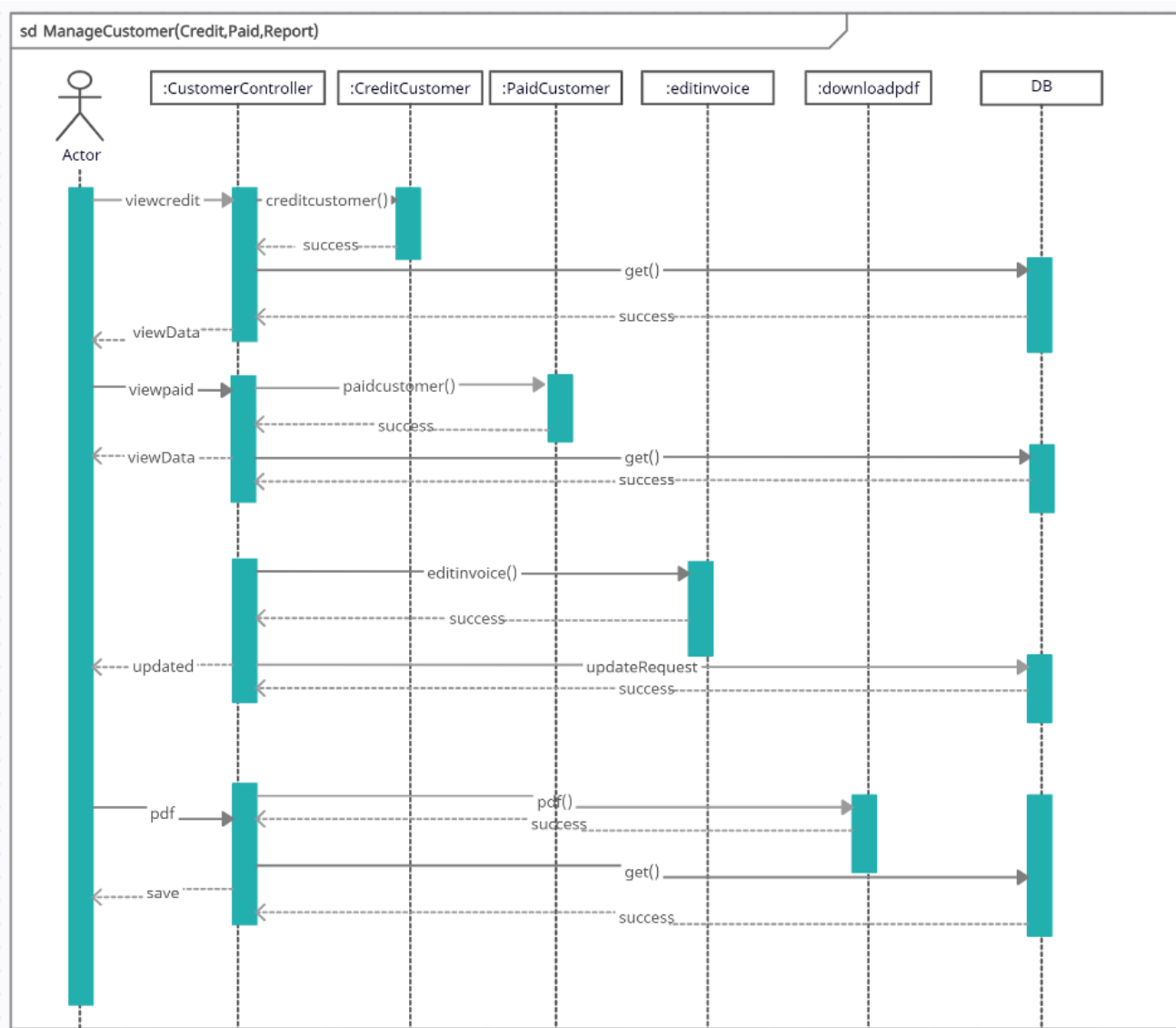


Figure 3.50: Credit, Paid Customer & Report Pdf **Sequence** Diagram

3.4.6 Manage Unit Sequence Diagram

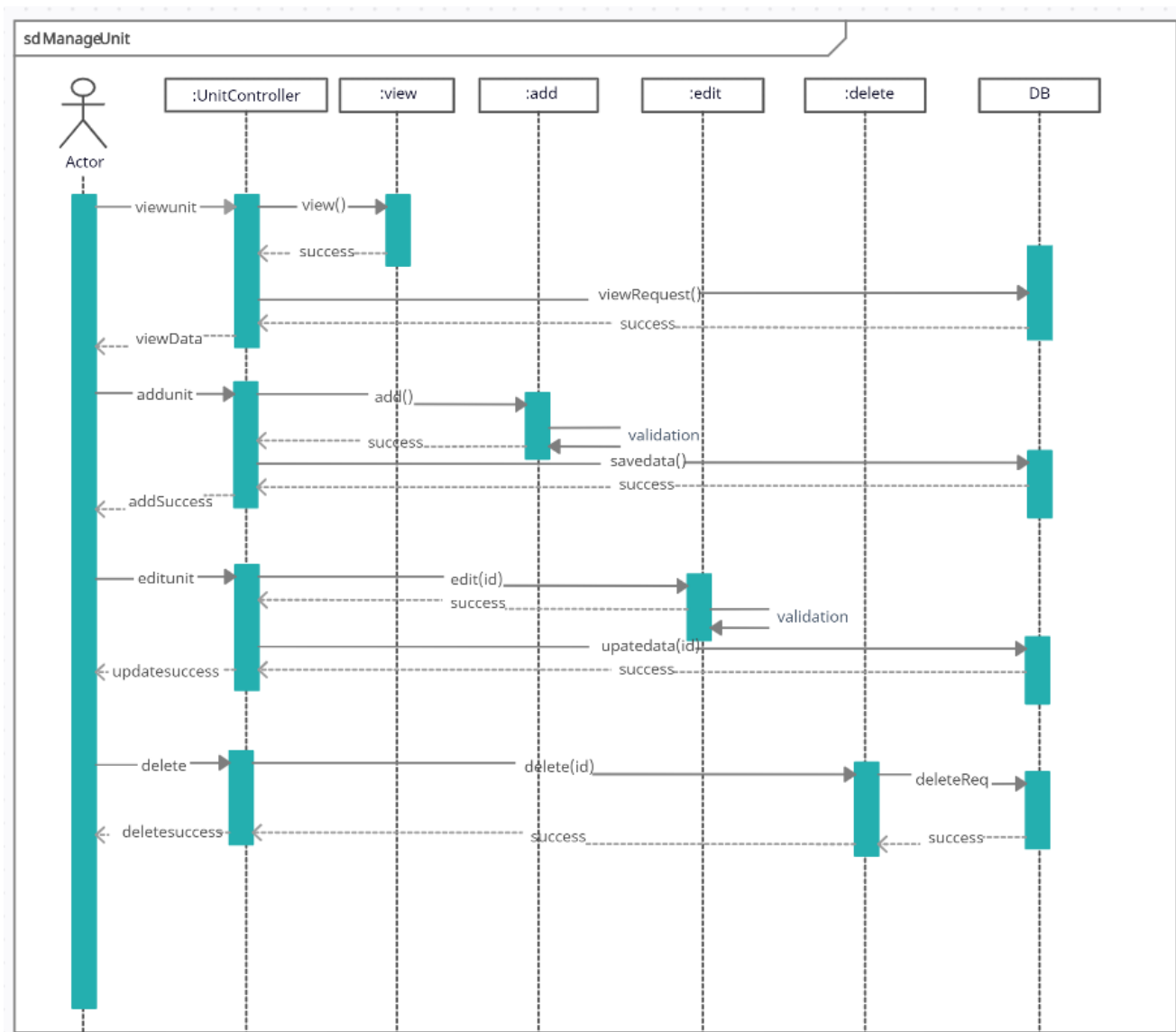


Figure 3.51: Sequence Diagram for Manage Unit

3.4.7 Manage Category Sequence Diagram

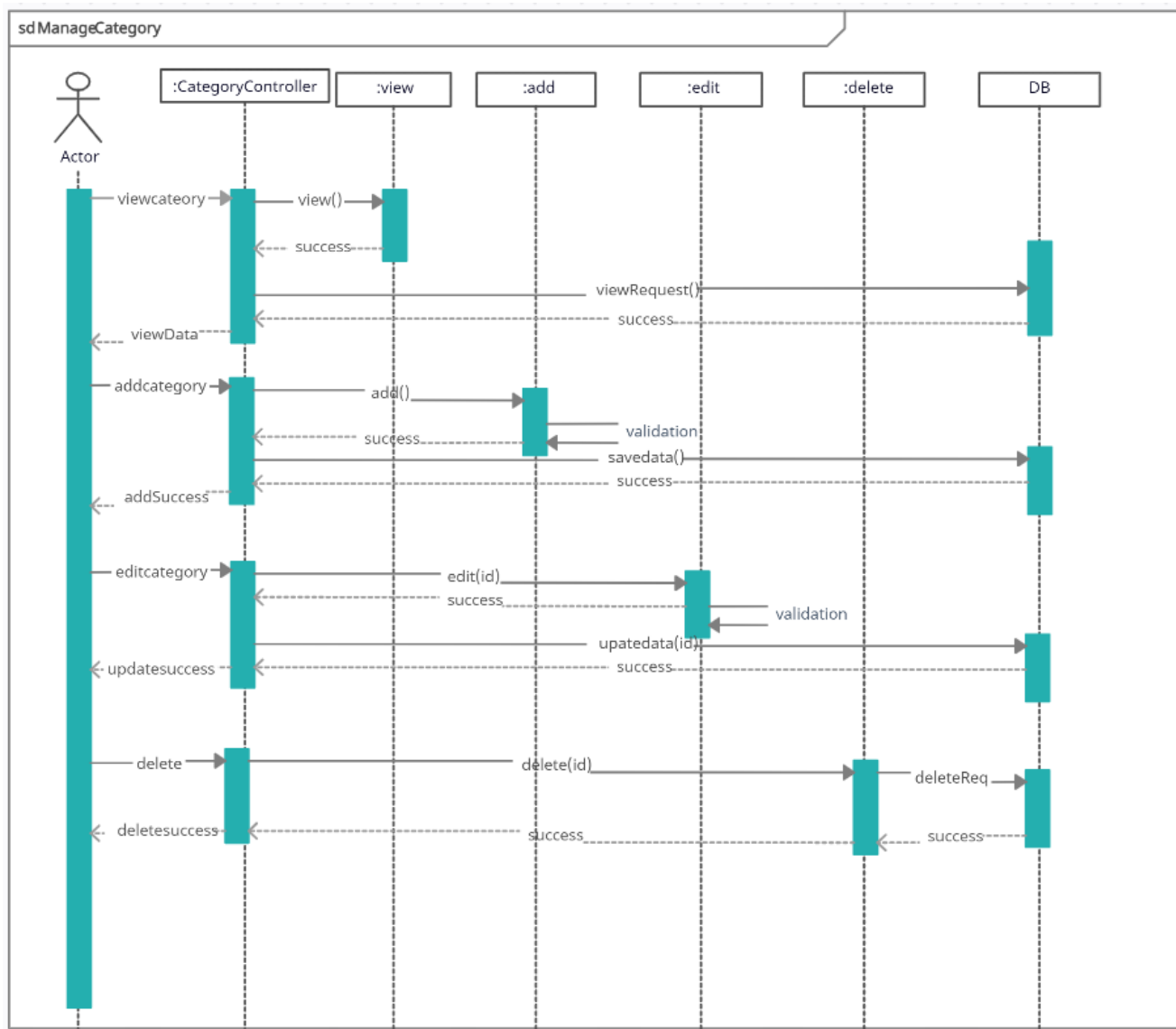


Figure 3.52: Sequence Diagram for Manage Category

3.4.8 Manage Products Sequence Diagram

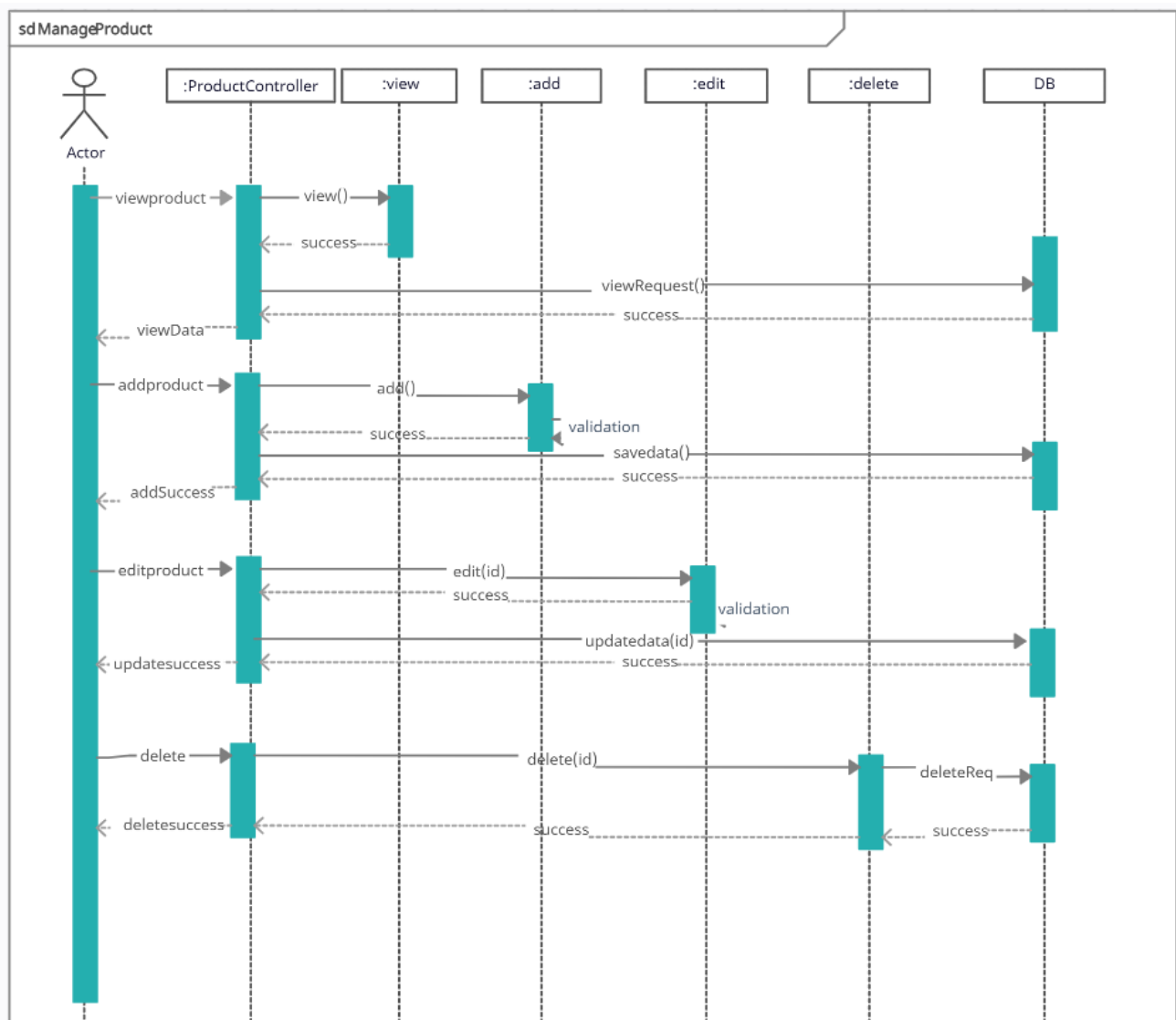


Figure 3.53: Sequence Diagram for Manage Products

3.4.9 Manage Purchase Sequence Diagram

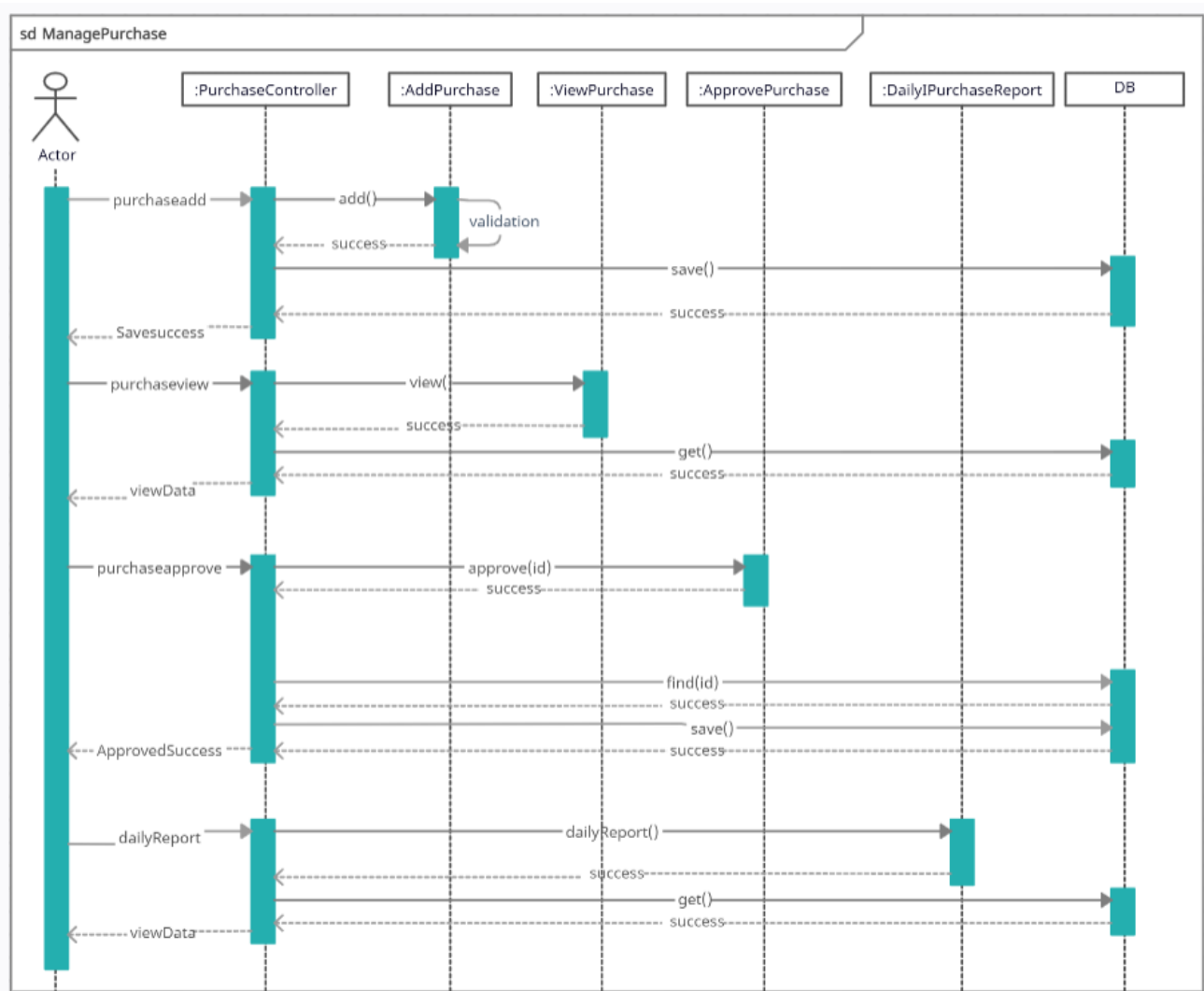


Figure 3.54: Sequence Diagram for Manage Purchase

3.4.10 Manage Stock Sequence Diagram

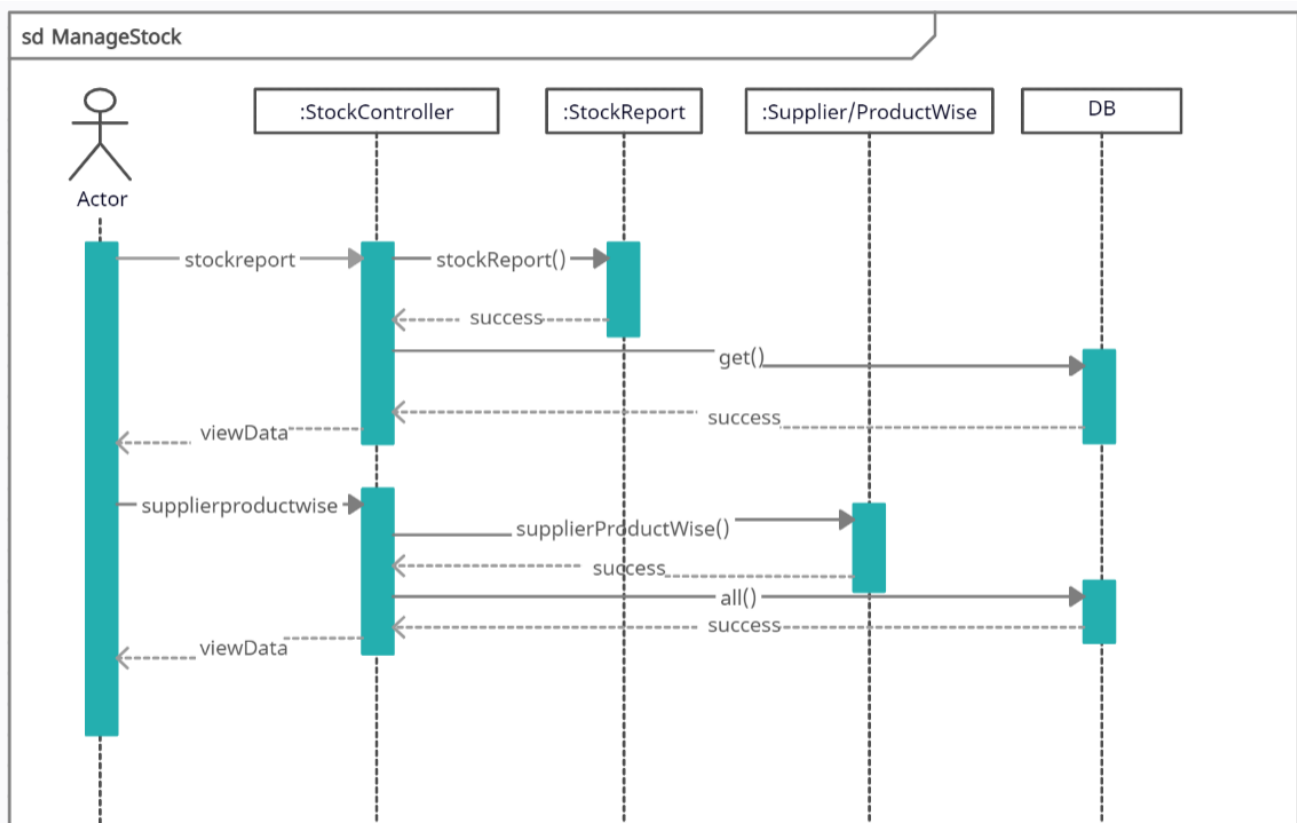


Figure 3.55: Sequence Diagram for Manage Stock

3.4.11 Manage Invoice Sequence Diagram

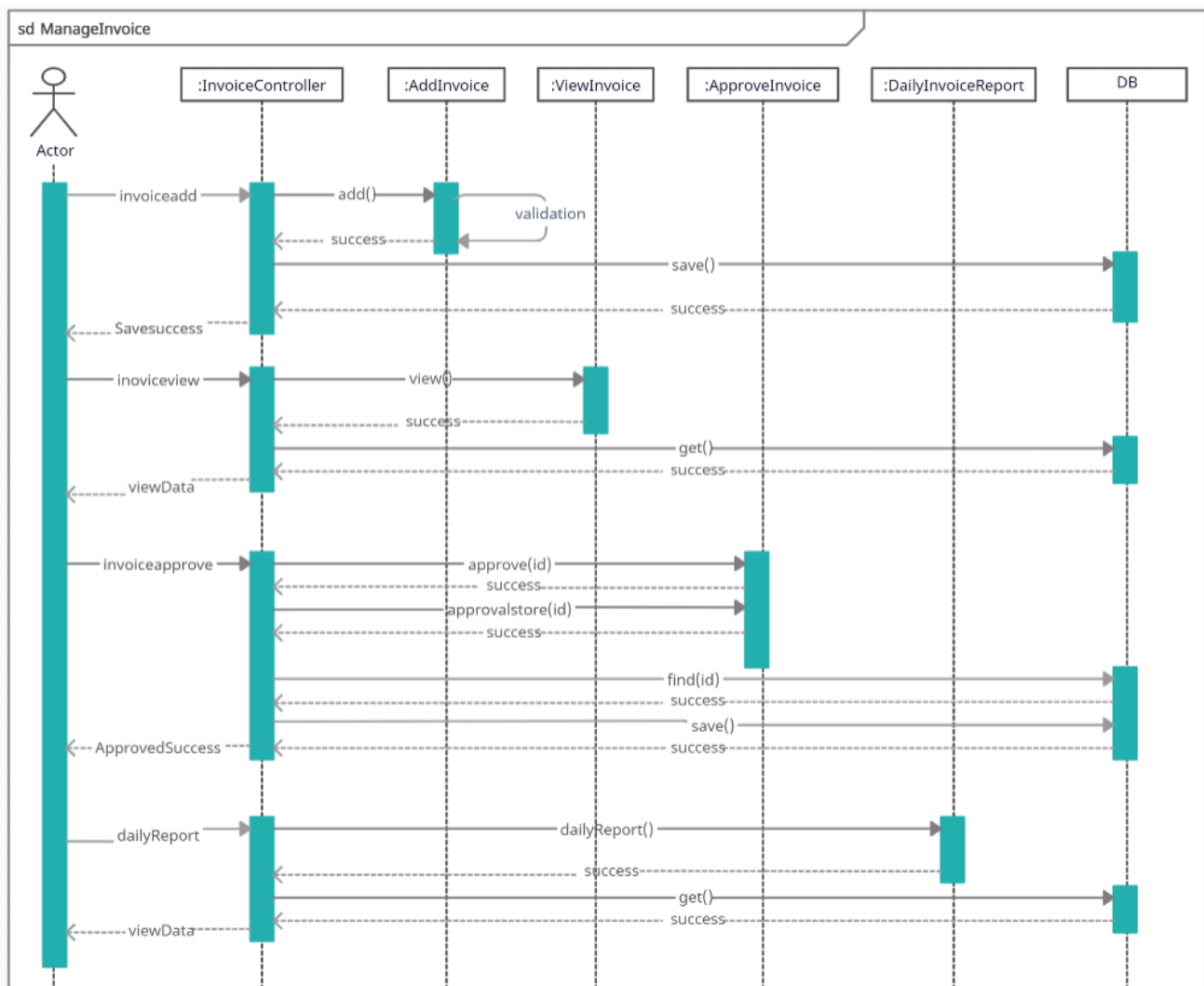


Figure 3.56: Sequence Diagram for Manage Invoice

3.4.12 Manage Profit Sequence Diagram

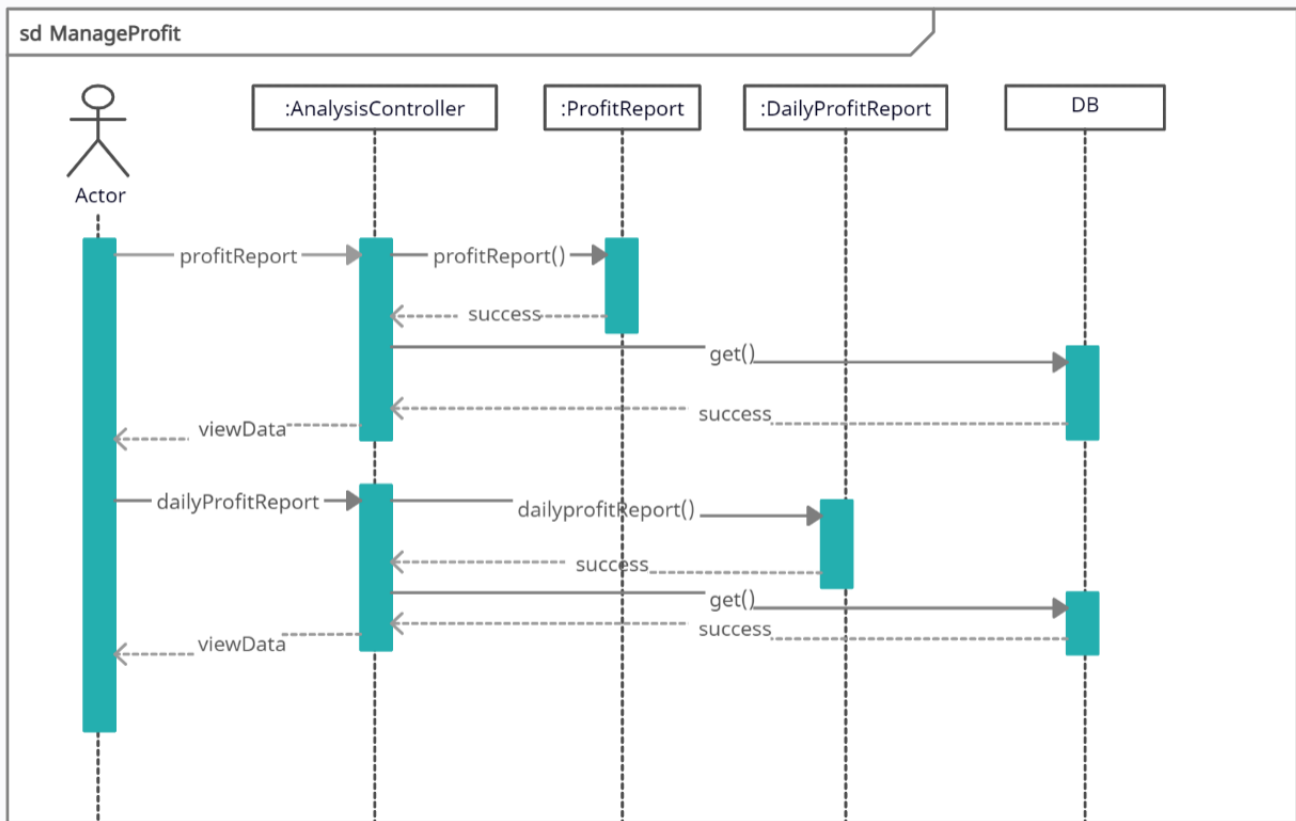


Figure 3.57: Sequence Diagram for Manage Profit

3.5 Entity Relationship Diagram

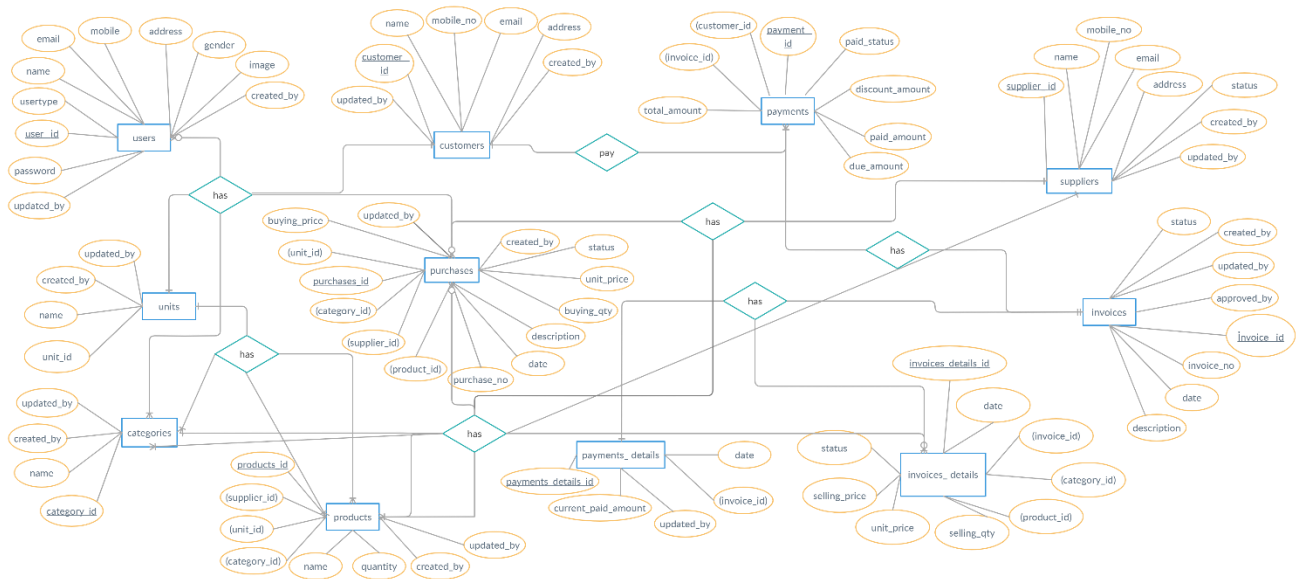


Figure 3.58: ER Diagram for Ekhata

3.6 Database Design Diagram

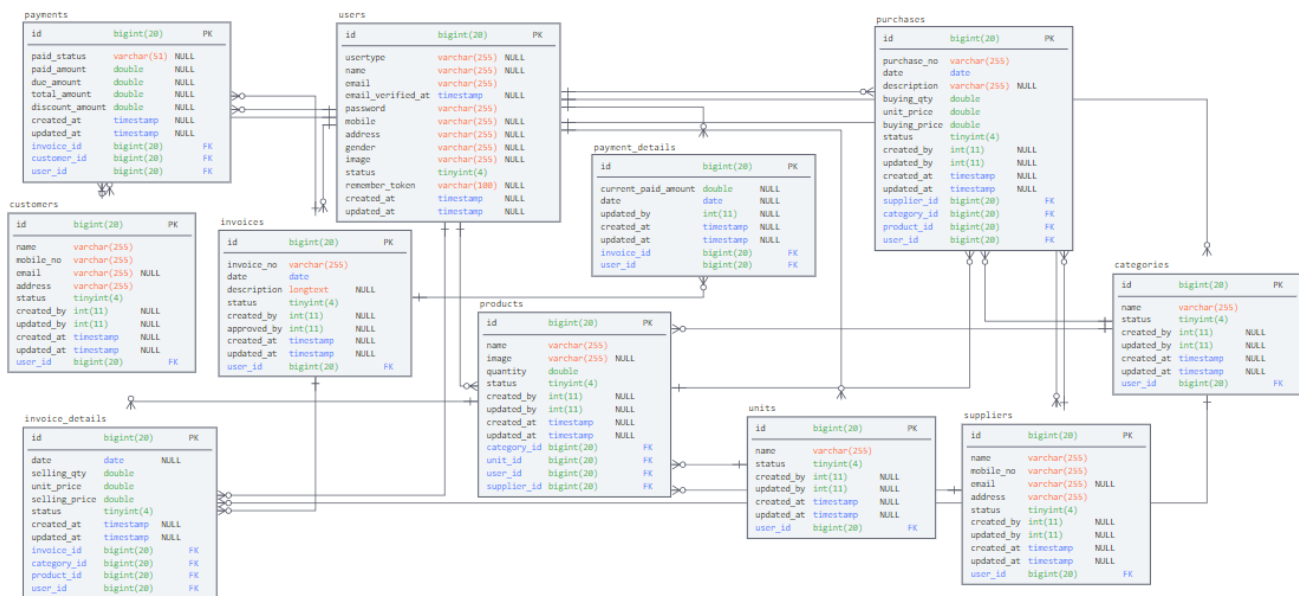


Figure 3.59: Database Design Diagram for Ekhta

3.7 System Model

System model is a simple presentation of a system process. The model represents a process from a specific perspective project management that defines the stages involved in the development of a system from the feasibility study of an initial system to the maintenance of the entire application.

In this project I used “**Waterfall Model**”.

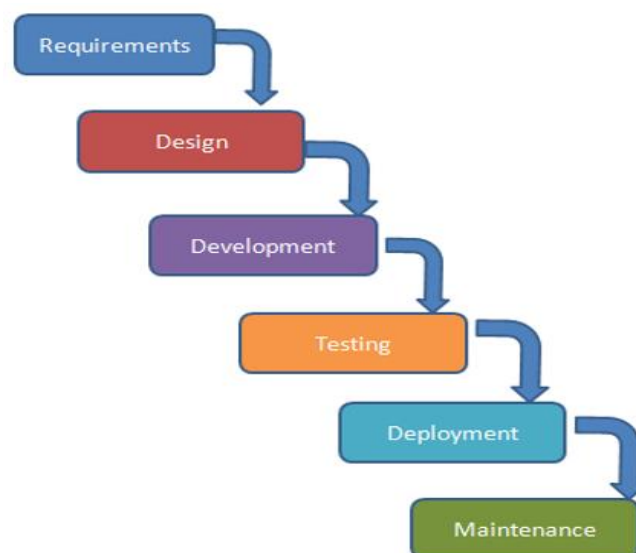


Figure 3.60: Waterfall Model

3.8 Design and Implementation Constraints

3.8.1 Framework or Software Language:

‘Ekhata Smart Shopkeeper’s Solution’ is written by PHP using Laravel framework with a bootstrap template for user interface and data stored in MySQL database.

3.9 Development Tools and Technology:

- IDE: Sublime Text
- Database: MySQL
- UI: Html, CSS, Bootstrap, JavaScript
- Framework: Laravel 6.18.26
- Language: PHP 7.3.6
- Web-Server: XAMPP Server

CHAPTER 4

SYSTEM TESTING

4.1 Testing Features

Testing is defined as an activity to check whether the actual results match the expected results and ensure that the system is defect free. Testing features can be considered as a modification to add new functionality or modify an existing project.

4.1.1 Features to be tested

There are some features below:

- Login
- Add User
- Add Invoice
- Logout

4.2. Testing Strategies

Testing strategies determine how each part of the application should be handled. It is a set of total guidelines about the design of the test and each step of the cases. It determines what kind of strategy should be followed and which module should be tested.

4.2.1 Testing Approach

Testing is one of the important things of any software project. It proves the software quality. It also helps to identify software bugs and errors. So that the software seems very easy and error free to the user. I have checked every feature one by one and verified without any automation tool.

4.2.2 Test Category

- Integration Testing.
- Module Testing.

4.2.3 Pass/Fail Criteria

The criteria for pass / fail test will be decided by the test engineers. It all depends on how well all the requirements are working. If a test results are good, it may be considered a pass or a failure. I have the 100% pass criteria in any case. If a feature does not work properly during the test, it will be considered a failure.

4.3 Testing Environment:

There is some key area to set up for testing

- Operating System
- Browser
- System
- Application
- Database server
- Test data
- Network

4.4 Test Cases

4.4.1 Integration Testing:

Testing Case No-1

Test Case ID.1	Module name: Login
Test Priority: High	Test Date:10.10.2020
Test Title: Login Verification with valid email & password	Test executed by: Md. Shariar Zaman
Description: Test Login Page	Test executed date: 10.10.2020
Pre-condition:	Users must have valid email and password.
Test steps:	1. Go to login page 2. Provide valid email 3. Provide valid password 4. Click login button
Test Data:	Email: Shariar@gmail.com Password:12345678
Expected Results:	User should able to login
Actual Result:	User logged in successfully
Status (Pass/Fail):	Pass
Post-condition:	Successfully Logged in.

Table 4.1:Testing Case (Login)



Figure 4.1: Blank Login Attempt

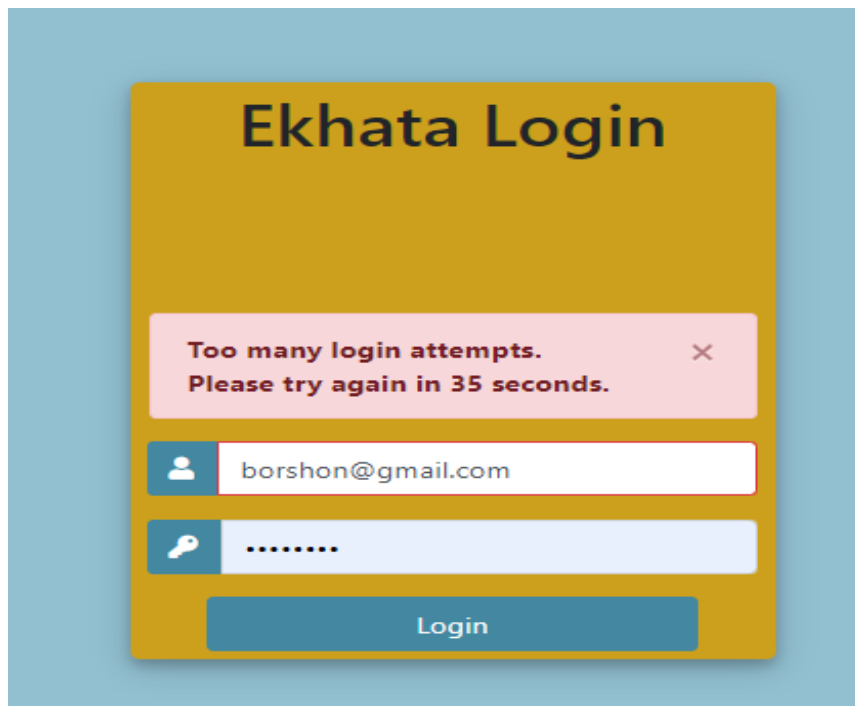


Figure 4.2: Too many wrong Login Attempt

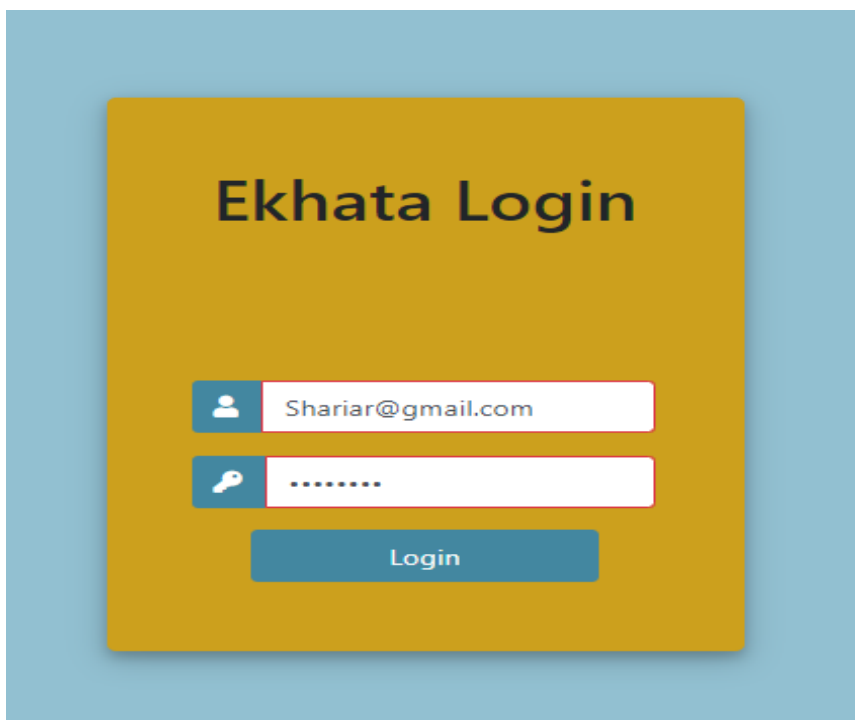


Figure 4 3: Login Attempt with Correct Data

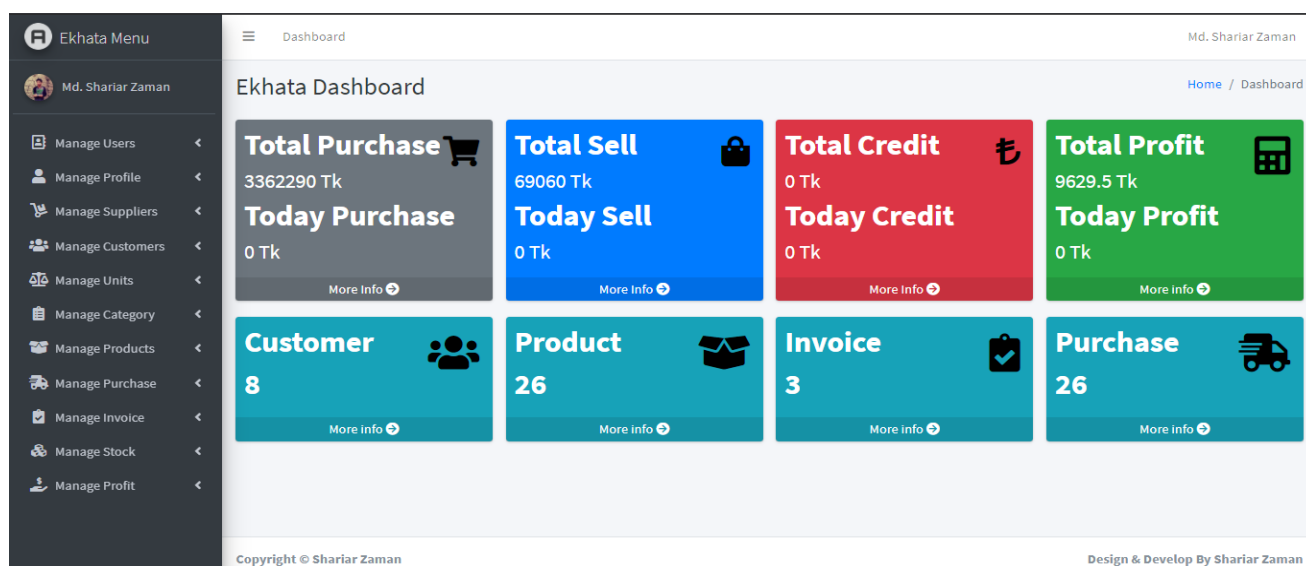


Figure 4.4: Login Successful with Authentication

4.4.2 Module Testing:

Testing Case No-2

Test Case ID.2	Module name: Add User
Test Priority: High	Test Date: 10/10/2020
Test Title: Add user with validation	Test executed by: Md. Shariar Zaman
Description: Only Admin can add user	Test executed date: 10/10/2020
Pre-condition:	Admin must login and insert valid data
Test steps:	1. After login go to manage users 2. Click add user 3. Insert data all the field 4. Click Submit button
Test Data:	User Role: Manager Name: Tahmid Email: Tahmid@gmail.com Password:12345678 Confirm Password:12345678
Expected Results:	User add Successfully
Actual Result:	User add Successfully
Status (Pass/Fail):	Pass

Table 4.2: Testing Case (Add User)

Figure 4.5: Blank filled submit

SL.	Role	Name	Email	Action
1	Admin	Md. Shariar Zaman	shariar@gmail.com	
2	Manager	Borshon	Borshon@gmail.com	
3	Admin	Zaman	zaman@gmail.com	
4	Manager	Salam	Salam@gmail.com	
5	Manager	Tahmid	Tahmid@gmail.com	

Figure 4.6: User Data Insert Successfully

4.4.3 Module Testing:

Testing Case no-3

Test Case ID.3	Module name: Add Invoice
Test Priority: High	Test Date: 10/11/2020
Test Title: User can add invoice with validation	Test executed by: Md. Shariar Zaman
Description: User can add invoice	Test executed date: 10/11/2020
Pre-condition:	User must login and insert valid data
Test steps:	1. After login go to manage invoice 2. Click add invoice 3. Insert and select data all the fields 4. Click Submit button

Test Data:	Category: Electronics Product: Walton Mobile Primo 9 Unit:1 Unit Price:15000 Payment Status: Full Paid Customer Name: Shariar Zaman
Expected Results:	Invoice Data Insert Successfully
Actual Result:	Invoice Data Insert Successfully
Status (Pass/Fail):	Pass
Post-condition:	User will Successfully add invoice.

Table 4.3: Testing Case (Add Invoice)

The screenshot displays the 'Manage Invoice' section of a web application. On the left is a dark sidebar menu with options like 'Manage Users', 'Manage Profile', 'Manage Suppliers', 'Manage Customers', 'Manage Units', 'Manage Category', and 'Manage Products'. The top navigation bar shows 'Dashboard' and a user profile for 'Md. Shariar Zaman'. A green notification banner at the top right states 'Data Saved Successfully'. The main content area is titled 'Manage Invoice' and contains a 'Pending Invoice List'. Above the list, there's a 'Show 10 entries' dropdown and a search bar. The list itself has columns for SL, Customer Name, Invoice No, Date, Description, Amount(Tk), Status, and Action. One entry is visible: SL 1, Customer Name 'Shariar Zaman (0170000000-Joypurhat)', Invoice No 'Invoice No #4', Date '06-01-2021', Amount '15000', and Status 'Pending'. The Action column contains a green checkmark icon and a red trash can icon. At the bottom of the list, it says 'Showing 1 to 1 of 1 entries' and has pagination controls for 'Previous', '1', and 'Next'.

Figure 4.7: Invoice Data Insert Successfully

4.4.4 Module Testing:

Testing Case no-4

Test Case ID.4	Module name: Log Out
Test Priority: High	Test Date:09.11.2020
Test Title: System Log Out	Test executed by: Md. Shariar Zaman
Description: User can log out with end session	Test executed date: 09.11.2020
Pre-condition:	User must login

Test steps:	1. From Dashboard click User name right button 2. Then click logout
Test Data:	1. After logout hit any URL like: http://localhost/ekhata/home or http://localhost/ekhata/profiles/view
Expected Results:	Back to Login Page
Actual Result:	Back to Login Page
Status (Pass/Fail):	Pass
Post-condition:	User will Successfully logout

Table 4 4: Testing Case (Log Out)

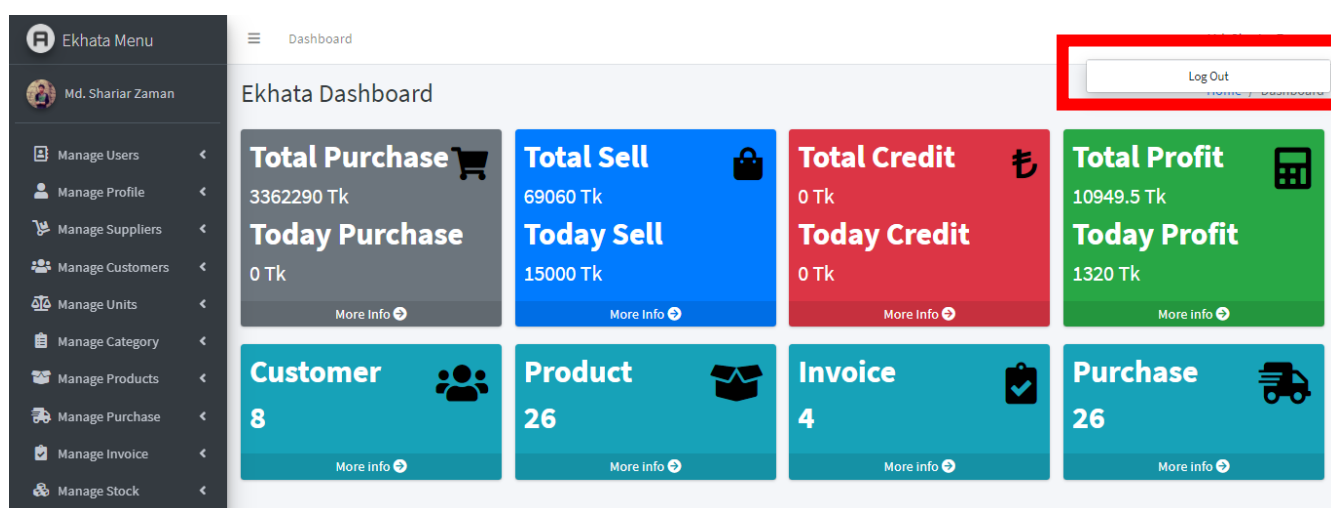


Figure 4.8: Log Out Button

CHAPTER 5

USER MANUAL

5.1 Login Page

In this page User (Admin/Owner/Manager) can login with their email & password

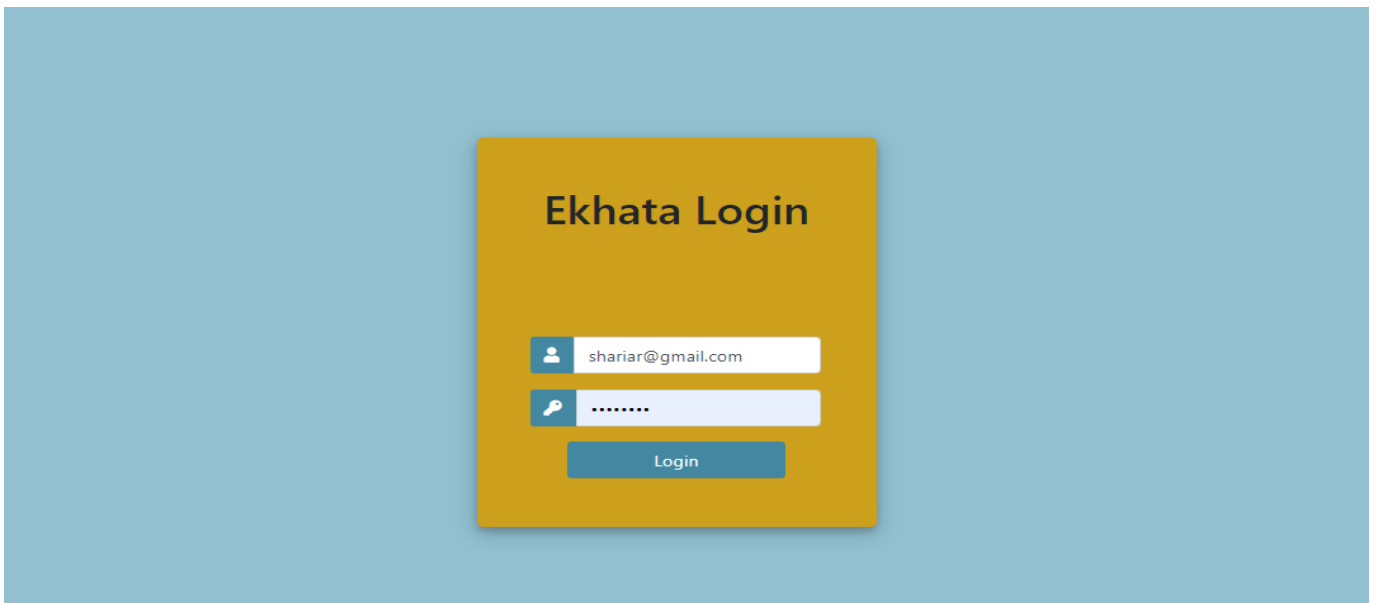


Figure 5.1: UI (Login Page)

5.2 Homepage \ Dashboard

User can view menu with all features & dashboard with information

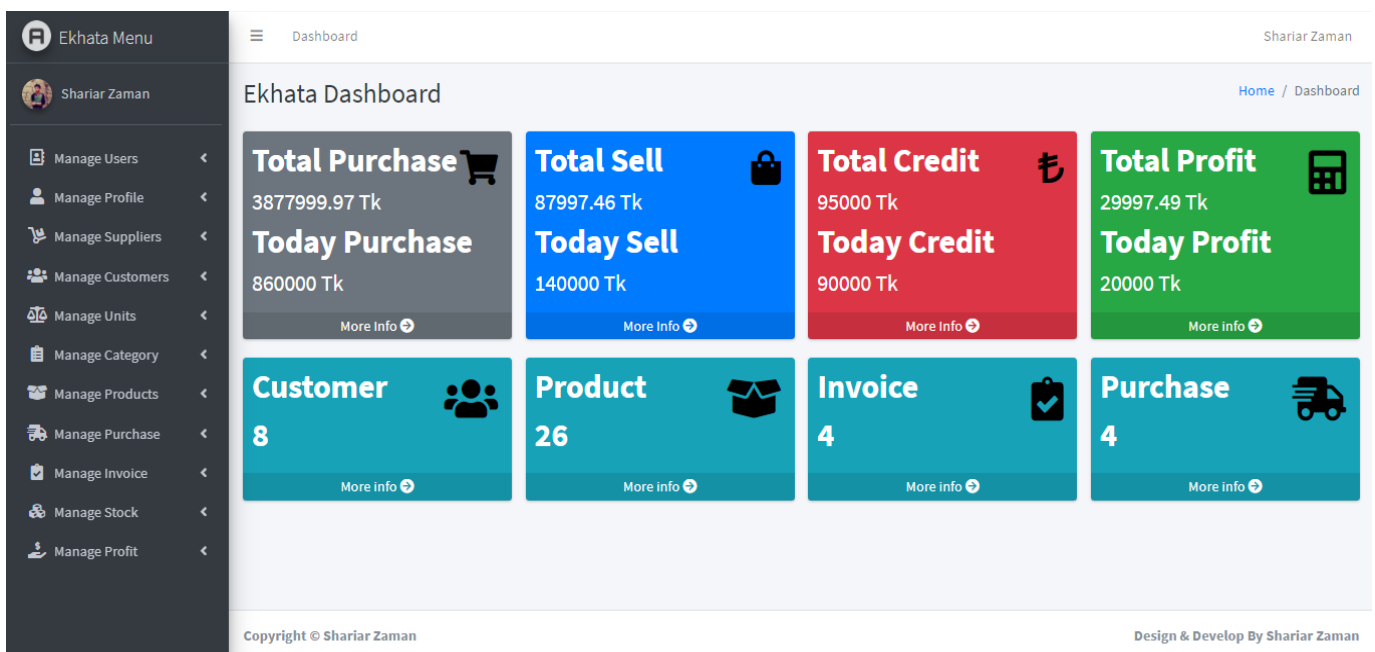


Figure 5.2: UI (Home Page)

5.3 Manage Users Page

Only Admin/owner can view users list, add new user, edit & delete users

The screenshot displays the 'Manage Users' interface. On the left is a dark sidebar with a menu including 'Ekhata Menu', 'Shariar Zaman', and various management options like 'Manage Users', 'Manage Profile', 'Manage Suppliers', etc. The main area has a top bar with 'Dashboard' and 'Shariar Zaman'. Below this, the 'Manage Users' section is active, showing a 'User List' table. The table contains three entries with columns for SL., Role, Name, Email, and Action. An 'Add User' button is in the top right. Pagination shows 'Showing 1 to 3 of 3 entries' with 'Previous', '1', and 'Next' buttons. The footer includes copyright and design credits.

SL.	Role	Name	Email	Action
1	Admin	Shariar Zaman	shariar@gmail.com	
2	User	Borshon	Borshon@gmail.com	
3	Admin	Zaman	zaman@gmail.com	

Figure 5.3: UI (Manage Users Page)

5.4 Add User Page

Only Admin can add new user

The screenshot shows the 'Add User' form within the 'Manage Users' section. The sidebar and top navigation are consistent with the previous figure. The form has five main fields: 'User Role' (a dropdown menu currently showing 'Admin'), 'Name' (text input with 'Shariar'), 'Email' (text input with 'shariar@gmail.com'), 'Password' (text input with masked characters), and 'Confirm Password' (text input with masked characters). A blue 'Submit' button is at the bottom left of the form. A green 'User List' button is in the top right corner. The footer contains the same copyright and design credits.

Figure 5.4: UI (Add User Page)

5.5 Manage Profile Page

User can view profile & edit info also

Ekhata Menu

Dashboard

Shariar Zaman

Manage Profile

Home / Profile

Shariar Zaman

Joypurhat 5900

Mobile Number	01705555500
Email	shariar@gmail.com
Gender	Male

Edit Profile

Copyright © Shariar Zaman

Design & Develop By Shariar Zaman

Figure 5.5: UI (Manage Profile Page)

5.6 Password Change Page

User can change their default password

Ekhata Menu

Dashboard

Shariar Zaman

Manage Password

Home / Password

Shariar Zaman

Edit Password

Current Password

New Password

Confirm New Password

Update

Copyright © Shariar Zaman

Design & Develop By Shariar Zaman

Figure 5.6: UI (Password Change Page)

5.7 View Supplier Page

User can view supplier's list

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

View Suppliers

Manage Customers

Manage Units

Manage Category

Manage Products

Manage Purchase

Manage Invoice

Manage Stock

Manage Profit

Dashboard

Shariar Zaman

Home / Supplier

Manage Suppliers

Supplier List

+ Add Supplier

Show 10 entries

Search:

SL	Name	Mobile No	Email	Address	Action
1	Walton Bangladesh	01734343434	Walton@gmail.com	Dhaka, Narayanganj	
2	Xioami Bangladesh	01700009098	Xioami@gmail.com	Dhaka, Bangladesh	
3	KSRM	01985858585	ksrm@gmail.com	Dhaka, Bangladesh	
4	Matador Bangladesh	01877777777	Matador@gmail.com	Dhaka, Bangladesh	
5	Unilever Bangladesh Limited	01784536278	Unilever@gmail.com	Dhaka, Bangladesh	
6	Dairy Milk Bangladesh	01789678958	DairyMilk@gmail.com	Dhaka, Bangladesh	

Figure 5.7: UI (View Supplier Page)

5.8 Add Supplier Page

User can add new supplier

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

View Suppliers

Manage Customers

Manage Units

Manage Category

Manage Products

Manage Purchase

Manage Invoice

Dashboard

Shariar Zaman

Home / Suppliers

Manage Suppliers

Add Supplier

Suppliers List

Supplier Name

Mobile No

Email

Address

Submit

Figure 5.8: UI (Add Supplier Page)

5.9 View Customer Page

User can view customers information

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

View Customers

Credit Customers

Paid Customers

Customer Wise Report

Manage Units

Manage Category

Manage Products

Manage Purchase

Manage Invoice

Dashboard

Shariar Zaman

Manage Customers

Home / Customer

Customer List

+ Add Customer

Show 10 entries

Search:

SL.	Name	Mobile No	Email	Address	Action
1	Shariar Zaman	0170000000	Shariarzaman@gmail.com	Joypurhat	
2	Tahmid	01987878766	Tahmid@gmail.com	Rajshahi	
3	Bokul	019000-00000	Bokul@gmail.com	Joypurhat	
4	Tonmoy	01763526357	tonmoy@gmail.com	Joypurhat	
5	Pallab	01674536728	pallab@gmail.com	Dhaka	
6	Bondhon	01763532427		Joypurhat Sadar	
7	Shihab	01397854367	Shihab@gmail.com	Joypurhat Sadar	

Figure 5.9: UI (View Customer Page)

5.10 Add Customer Page

User can add new customer

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

View Customers

Credit Customers

Paid Customers

Customer Wise Report

Manage Units

Dashboard

Shariar Zaman

Manage Customers

Home / Customers

Add Customer

Customers List

Customer Name

Mobile No

Email

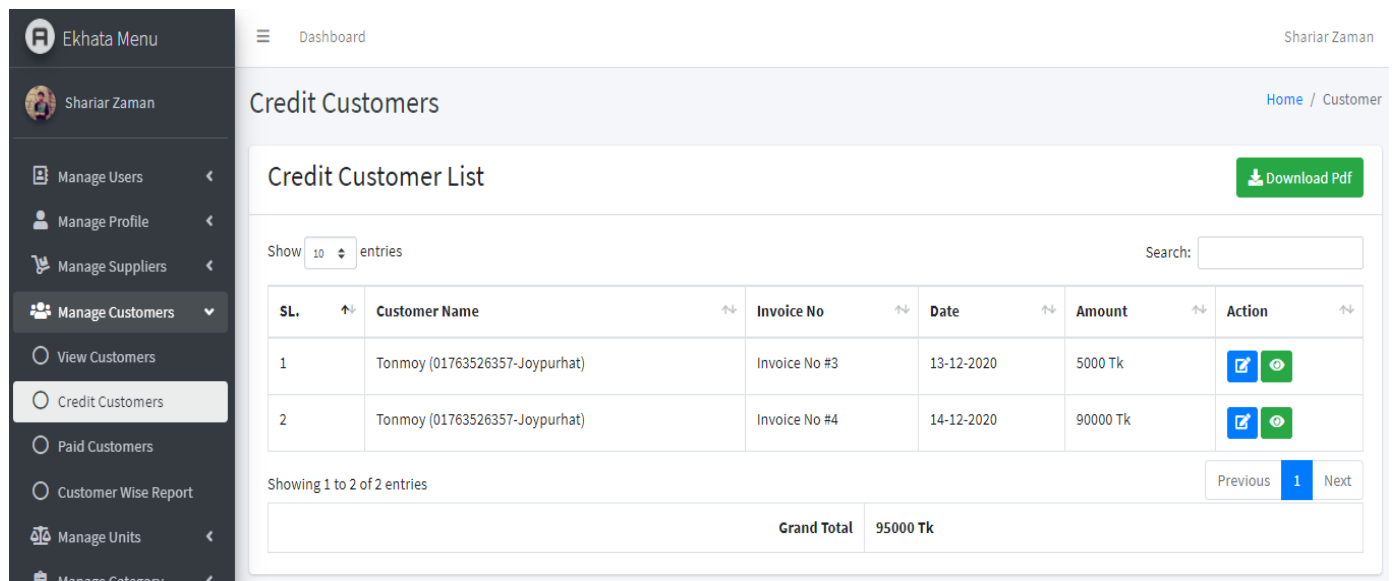
Address

Submit

Figure 5.10: UI (Add Customer Page)

5.11 Credit Customer Page

User can view Credit Customer's information and total credit amount



Credit Customers

Credit Customer List [Download Pdf](#)

Show 10 entries Search:

SL.	Customer Name	Invoice No	Date	Amount	Action
1	Tonmoy (01763526357-Joypurhat)	Invoice No #3	13-12-2020	5000 Tk	Edit View
2	Tonmoy (01763526357-Joypurhat)	Invoice No #4	14-12-2020	90000 Tk	Edit View

Showing 1 to 2 of 2 entries

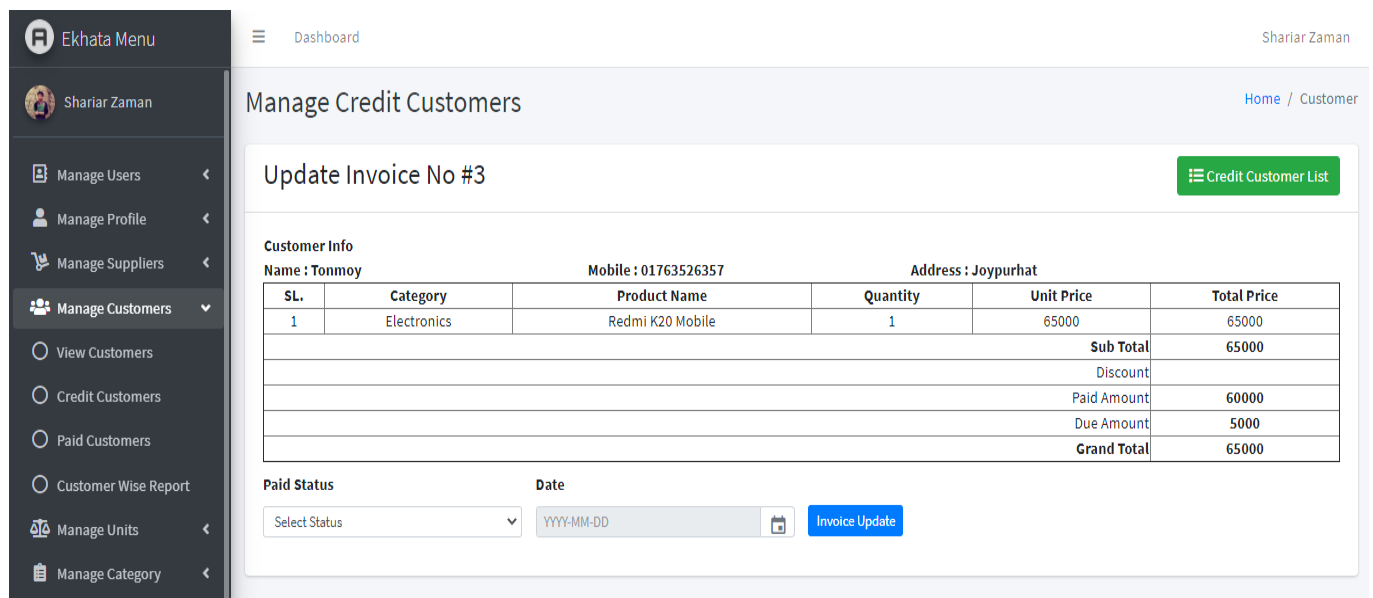
Previous **1** Next

Grand Total 95000 Tk

Figure 5.11: UI (Credit Customer Page)

5.12 Update Invoice Page

User can update credit customer's payment



Manage Credit Customers [Credit Customer List](#)

Update Invoice No #3

Customer Info
 Name : Tonmoy Mobile : 01763526357 Address : Joypurhat

SL.	Category	Product Name	Quantity	Unit Price	Total Price
1	Electronics	Redmi K20 Mobile	1	65000	65000
Sub Total					65000
Discount					
Paid Amount					60000
Due Amount					5000
Grand Total					65000

Paid Status **Date**

Select Status YYYY-MM-DD

Figure 5.12: UI (Update Invoice Page)

5.13 Credit Customer Pdf Page

User can view & download credit customer invoice with paid summary info

Invoice Details PDF

1 / 1

Invoice No: #3

Pallab Biponi
Station Road, Joypurhat

Phone: +09875233
Mobile: 01934534567

Customer Invoice Details
Customer Info
Name : Tonmoy Mobile : 01763526357 Address : Joypurhat

SL.	Category	Product Name	Quantity	Unit Price	Total Price
1	Electronics	Redmi K20 Mobile	1	65000	65000
Sub Total					65000
Discount					
Paid Amount					60000
Due Amount					5000
Grand Total					65000
Paid Summary					
Date					Amount
13-12-2020					60000

Printing Time: December 14, 2020, 3:09 pm

Customer Signature Seller Signature

+

+

-

Figure 5.13: UI (Credit Customer Pdf Page)

5.14 Paid Customer Page

User can view paid customer's list, view invoice details and download pdf

Ekhata Menu

Sharlar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

View Customers

Credit Customers

Paid Customers

Customer Wise Report

Manage Units

Manage Category

Manage Products

Manage Purchase

Dashboard

Sharlar Zaman

Home / Customer

Paid Customers

Paid Customer List

Download Pdf

Show 10 entries

Search:

SL.	Customer Name	Invoice No	Date	Amount	Action
1	Bokul (019000-00000-Joypurhat)	Invoice No #1	09-12-2020	15997.46 Tk	
2	Bokul (019000-00000-Joypurhat)	Invoice No #2	11-12-2020	7000 Tk	
3	Tonmoy (01763526357-Joypurhat)	Invoice No #3	13-12-2020	60000 Tk	
4	Tonmoy (01763526357-Joypurhat)	Invoice No #4	14-12-2020	50000 Tk	

Showing 1 to 4 of 4 entries

Previous 1 Next

Grand Total 132997.46 Tk

Figure 5. 14.: UI (Paid Customer Page)

5.15 Customer Wise Report Page

User can view customer wise report & download pdf

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

View Customers

Credit Customers

Paid Customers

Customer Wise Report

Manage Units

Manage Category

Dashboard

Shariar Zaman

Home / Customer

Customer Wise Report

Select Criteria

Customer Wise Credit Report ☒ Customer Wise Paid Report ☐

Customer Name

Select Customer

Search

Select Customer

Shariar Zaman (0170000000 - Joypurhat)

Tahmid (01987878766 - Rajshahi)

Bokul (019000-00000 - Joypurhat)

Tonmoy (01763526357 - Joypurhat)

Pallab (01674536728 - Dhaka)

Figure 5.15: UI (Customer Wise Report Page)

5.16 View Unit Page

User can view unit's name, edit & delete unit

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

Manage Units

View Units

Manage Category

Manage Products

Manage Purchase

Manage Invoice

Dashboard

Shariar Zaman

Home / Unit

Manage Units

Unit List

+ Add Unit

Show 10 entries

Search:

SL.	Unit Name	Action
1	Pcs	
2	Kg	
3	Box	

Showing 1 to 3 of 3 entries

Previous 1 Next

Figure 5.16: UI (View Unit Page)

5.17 Add Unit Page

User can add new unit name

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

Manage Units

View Units

Manage Category

Dashboard

Shariar Zaman

Manage Units

Home / Unit

Add Unit

Unit List

Unit Name

Box

Submit

Figure 5.17: UI (Add Unit Page)

5.18 View Category Page

User can view category list

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

Manage Units

Manage Category

View Category

Manage Products

Manage Purchase

Manage Invoice

Manage Stock

Manage Profit

Dashboard

Shariar Zaman

Manage Category

Home / Category

Category List

Add Category

Show 10 entries

Search:

SL.	Category Name	Action
1	Electronics	
2	Stationary	
3	Cosmetic	
4	Construction	
5	Chocolates & Candies	
6	Bread, Biscuits & Cakes	

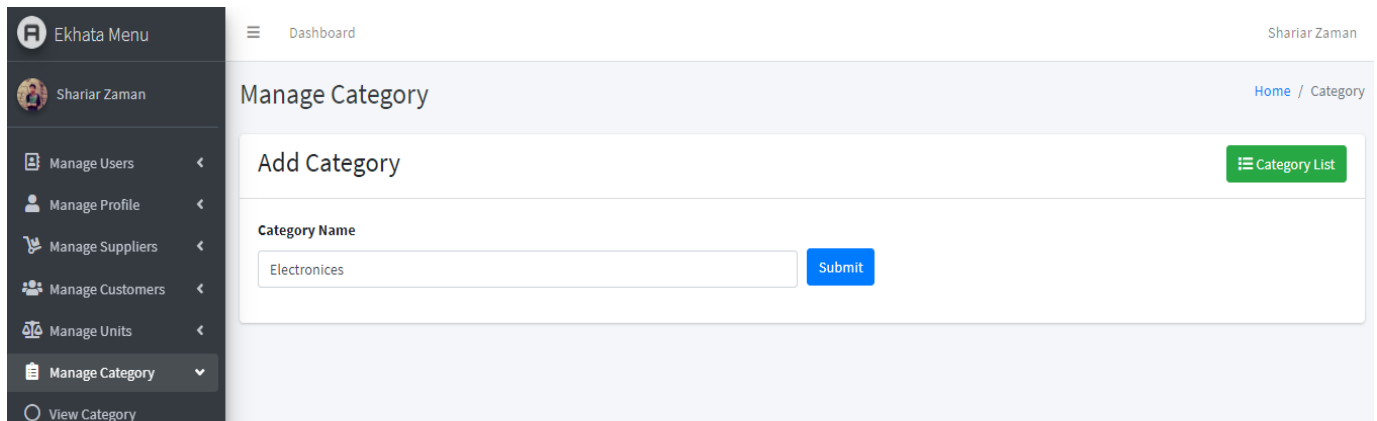
Showing 1 to 6 of 6 entries

Previous 1 Next

Figure 5.18: UI (View Category Page)

5.19 Add Category Page

User can add new category



Ekhata Menu

Dashboard

Shariar Zaman

Manage Category

Home / Category

Add Category

Category List

Category Name

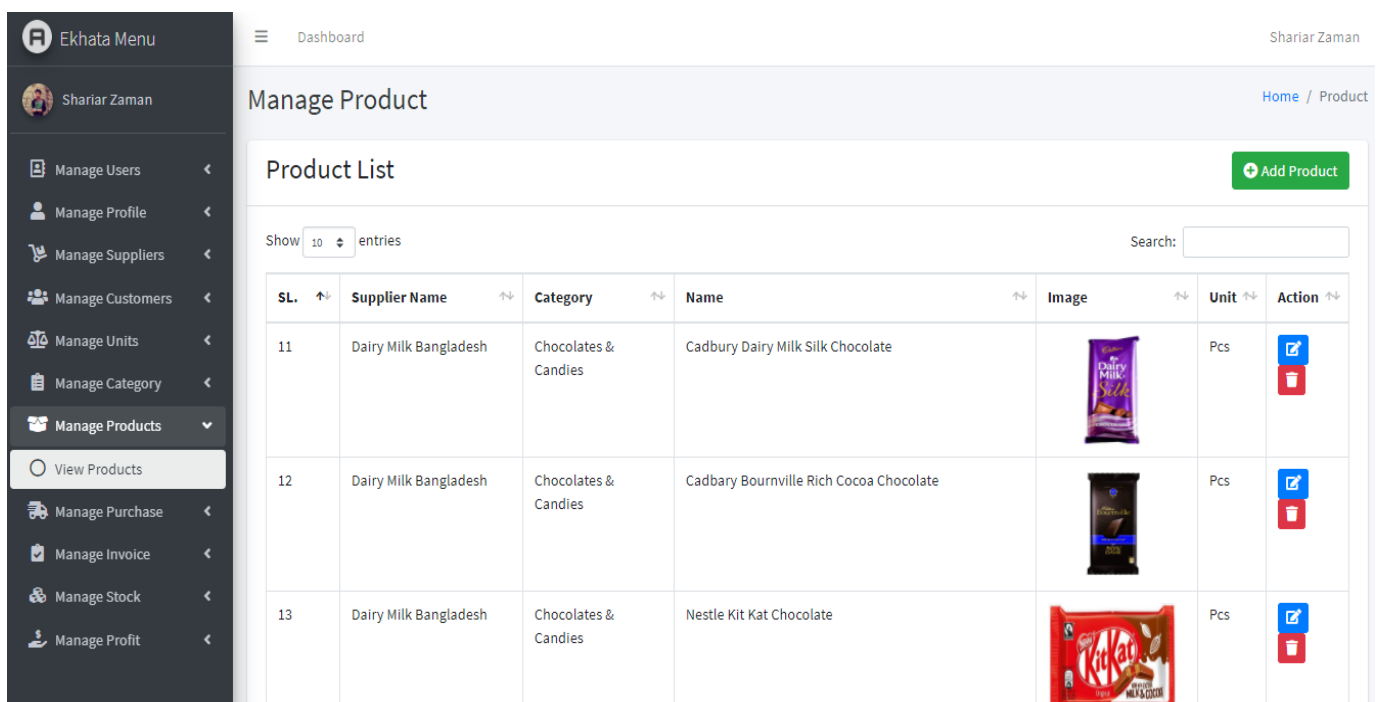
Electronics

Submit

Figure 5.19: UI (Add Category Page)

5.20 View Product Page

User can view product's list with information



Ekhata Menu

Dashboard

Shariar Zaman

Manage Product

Home / Product

Product List

Add Product

Show 10 entries

Search:

SL.	Supplier Name	Category	Name	Image	Unit	Action
11	Dairy Milk Bangladesh	Chocolates & Candies	Cadbury Dairy Milk Silk Chocolate		Pcs	 
12	Dairy Milk Bangladesh	Chocolates & Candies	Cadbury Bournville Rich Cocoa Chocolate		Pcs	 
13	Dairy Milk Bangladesh	Chocolates & Candies	Nestle Kit Kat Chocolate		Pcs	 

Figure 5.20: UI (View Product Page)

5.21 Add Product Page

User can add new product

Add Product

Supplier Name: Walton Bangladesh

Unit: Pcs

Category Name: Electronics

Product Name: Mobile

Image: Choose file (No file chosen)

Submit

Product List

Figure 5.21: UI (Add Product Page)

5.22 View Purchase Page

User can view purchase's list

Purchase List

Show 10 entries

Search:

SL	Purchase No	Date	Supplier Name	Category	Product Name	Description	Quantity	Unit Price(Tk)	Buying Price(Tk)	Status	Action
1	ABC-900	14-12-2020	Walton Bangladesh	Electronics	Poco Phone		40 Pcs	9000	360000	Pending	
2	ABC-900	14-12-2020	Walton Bangladesh	Electronics	LCD TV		50 Pcs	10000	500000	Pending	
3	ABC-500	13-12-2020	Walton Bangladesh	Electronics	Redmi K20 Mobile		50 Pcs	60000	3000000	Approved	
4	ABC-100	09-12-2020	Walton Bangladesh	Electronics	Walton Mobile Primo H9		3 Pcs	5999.99	17999.97	Approved	

Showing 1 to 4 of 4 entries

Previous 1 Next

Figure 5.22: UI (View Purchase Page)

5.23 Add Purchase Page

User can create new purchase

Ekhata Menu | Dashboard | Shariar Zaman

Manage Purchase

Home / Purchase

Add Purchase

Date: 2020-12-14 **Purchase No:** ABC-100 **Supplier Name:** Dairy Milk Bangladesh

Category Name: Chocolates & Candies **Product Name:** Cadbury Dairy Milk Roast Almond Chocolate **Add Item**

Category	Product Name	Unit(Pcs/Kg)	Unit Price	Description	Total Price	Action
Chocolates & Candies	Cadbury Dairy Milk Roast Almond Chocolate	2	100	Roast Almond	200	
Bread, Biscuits & Cakes	Cadbury Choco Creme Oreo Biscuit	4	200	Best	800	
Chocolates & Candies	Cadbury Dairy Milk Roast Almond Chocolate	6	200	Good	1200	
Grand Total					2200	

Purchase Store

Figure 5.23: UI (Add Purchase Page)

5.24 Approval Purchase Page

User can approve purchase

Ekhata Menu | Dashboard | Shariar Zaman

Manage Purchase

Home / Purchase

Pending Purchase List

Show 10 entries Search:

SL.	Purchase No	Date	Supplier Name	Category	Product Name	Description	Quantity	Unit Price(Tk)	Buying Price(Tk)	Status	Action
1	ABC-900	14-12-2020	Walton Bangladesh	Electronics	Poco Phone		40 Pcs	9000	360000	Pending	
2	ABC-900	14-12-2020	Walton Bangladesh	Electronics	LCD TV		50 Pcs	10000	500000	Pending	

Showing 1 to 2 of 2 entries

Previous 1 Next

Figure 5.24: UI (Approval Purchase Page)

5.25 Daily Purchase Report Page

User can view & download purchase report

The screenshot shows the 'Daily Purchase Report' page. On the left is a dark sidebar menu with 'Ekhta Menu' at the top, followed by the user 'Shariar Zaman'. Below are various management options: Manage Users, Manage Profile, Manage Suppliers, Manage Customers, Manage Units, Manage Category, Manage Products, and 'Manage Purchase' (which is expanded). Under 'Manage Purchase' are 'View Purchase', 'Approval Purchase', and 'Daily Purchase Report'. The main content area has a header 'Purchase Report' and a breadcrumb 'Home / Purchase'. Below the header is a 'Select Criteria' form with 'Start Date' and 'End Date' fields (both showing 'YYYY-MM-DD' and a calendar icon) and a 'Search' button.

Figure 5.25: UI (Daily Purchase Report Page)

5.26 View Invoice Page

User can view invoice list

The screenshot shows the 'View Invoice' page. The sidebar menu is similar to the previous page, but 'Manage Invoice' is expanded, showing 'View Invoice' and 'Approval Invoice'. The main content area has a header 'Manage Invoice' and a breadcrumb 'Home / Invoice'. Below the header is an 'Invoice List' section with a green '+ Add Invoice' button. It includes a 'Show 10 entries' dropdown and a 'Search:' input field. A table lists three invoices with columns: SL., Customer Name, Invoice No, Date, Description, and Amount(Tk). At the bottom, it shows 'Showing 1 to 3 of 3 entries', a 'Previous 1 Next' pagination, and a 'Grand Total' of 87997.46 Tk.

SL.	Customer Name	Invoice No	Date	Description	Amount(Tk)
1	Tonmoy (01763526357-Joypurhat)	Invoice No #3	13-12-2020		65000
2	Bokul (019000-00000-Joypurhat)	Invoice No #2	11-12-2020		7000
3	Bokul (019000-00000-Joypurhat)	Invoice No #1	09-12-2020		15997.46

Showing 1 to 3 of 3 entries

Previous 1 Next

Grand Total 87997.46 Tk

Figure 5.26: UI (View Invoice Page)

5.27 Add Invoice Page

User can create new invoice

Manage Invoice

Add Invoice

Invoice No: 5 | Date: 2020-12-14 | Category Name: Electronics | Product Name: Redmi K20 Mobile | Stock: 49 | Unit Price: 60000

Category	Product Name	Unit(Pcs/Kg)	Unit Price	Total Price	Action
Electronics	Redmi K20 Mobile	1	70000	70000	
Electronics	Walton Mobile Primo H9	1	7000	7000	
Discount				100	
Grand Total				76900	

Paid Status: Full Paid | Customer Name: Shariar Zaman (0170000000 - Joypurhat)

Invoice Store

Figure 5.27: UI (Add Invoice Page)

5.28 Approval Invoice Page

User can approve invoice

Manage Invoice

Pending Invoice List

Show 10 entries | Search:

SL	Customer Name	Invoice No	Date	Description	Amount(Tk)	Status	Action
1	Tonmoy (01763526357-Joypurhat)	Invoice No #4	14-12-2020		140000	Pending	

Showing 1 to 1 of 1 entries

Previous 1 Next

Figure 5.28: UI (Approval Invoice Page)

5.29 Print Invoice Page

User can print invoice individually

Ekhata Menu

Shariar Zaman

Manage Users

Manage Profile

Manage Suppliers

Manage Customers

Manage Units

Manage Category

Manage Products

Manage Purchase

Manage Invoice

View Invoice

Approval Invoice

Print Invoice

Dashboard

Manage Invoice

Home / Invoice

Invoice List

Show 10 entries

Search:

SL.	Customer Name	Invoice No	Date	Description	Amount(Tk)	Action
1	Tonmoy (01763526357-Joypurhat)	Invoice No #3	13-12-2020		65000	
2	Bokul (019000-00000-Joypurhat)	Invoice No #2	11-12-2020		7000	
3	Bokul (019000-00000-Joypurhat)	Invoice No #1	09-12-2020		15997.46	

Showing 1 to 3 of 3 entries

Previous 1 Next

Figure 5.29: UI (Print Invoice Page)

5.30 Daily Invoice Report Page

User can view & download pdf invoice report

Daily Invoice Report

1 / 1

Pallab Biponi

Station Road, Joypurhat

Phone: +09875233

Mobile: 01934534567

Daily Invoice Report (04-11-2020 - 14-12-2020)

SL.	Customer Name	Invoice No	Date	Description	Amount
1	Bokul (019000-00000-Joypurhat)	Invoice No #1	09-12-2020		15997.46
2	Bokul (019000-00000-Joypurhat)	Invoice No #2	11-12-2020		7000
3	Tonmoy (01763526357-Joypurhat)	Invoice No #3	13-12-2020		65000
Grand Total					87997.46

Owner Signature

Figure 5.30: UI (Daily Invoice Report Page)

5.31 Stock Report Page

User can view product stock, product In-Out report

Ekhata Menu

Shariar Zaman

Dashboard

Shariar Zaman

Manage Stock

Home / Stock

Product Stock List

Download PDF

Show 10 entries

Search:

SL	Supplier Name	Category	Product Name	In.Qty	Out.Qty	Stock	Unit
1	Walton Bangladesh	Electronics	Walton Mobile Primo H9	43	3	40	Pcs
2	Walton Bangladesh	Electronics	LCD TV	20	0	20	Pcs
3	Xioami Bangladesh	Electronics	Redmi K20 Mobile	50	1	49	Pcs
4	Xioami Bangladesh	Electronics	Poco Phone	50	0	50	Pcs
5	KSRM	Construction	Iron Rod	10000	0	10000	Kg
6	KSRM	Construction	Cement	500	0	500	Pcs
7	Matador Bangladesh	Stationary	Matador Pencil	50	0	50	Pcs
8	Matador Bangladesh	Stationary	Oil Pastel 18 Colors	40	0	40	Pcs

Figure 5.31: UI (Stock Report Page)

5.32 Supplier/Product Wise Report Page

User can view supplier/product wise product report

Ekhata Menu

Shariar Zaman

Dashboard

Shariar Zaman

Supplier/Product Wise Stock Report

Home / Stock Report

Select Criteria

Supplier Wise Report ☐ Product Wise Report ☒

Category Name

Product Name

Select Category

Select Product

Search

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Design & Develop By Shariar Zaman

Figure 5.32: UI (Supplier/Product Wise Report Page)

5.33 Profit Report List Page

User can view profit report

Profit Report

Profit list

Show 10 entries Search:

SL.	Date	Category	Product Name	Buy Rate(Tk)	Sell Rate(Tk)	Qty	Profit(Tk)	Profit(%)
1	14-12-2020	Electronics	Redmi K20 Mobile	60000.00	70000	2	20000.00	33.3333
2	13-12-2020	Electronics	Redmi K20 Mobile	60000.00	65000	1	5000.00	8.3333
3	11-12-2020	Electronics	Walton Mobile Primo H9	5999.99	7000	1	1000.01	16.6669
4	09-12-2020	Electronics	Walton Mobile Primo H9	5999.99	7999	2	3997.48	66.6248

Showing 1 to 4 of 4 entries

Previous 1 Next

Grand Total 29997.49 Tk

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Figure 5.33: UI (Profit Report List Page)

5.34 Daily Profit Report Page

User can view & download daily profit report

Daily Profit Report 1 / 1

Pallab Biponi
Station Road, Joypurhat
Phone: +09875233
Mobile: 01934534567

Daily Profit Report (01-10-2020 - 17-12-2020)

SL.	Date	Category	Product Name	Buy Rate	Sell Rate	Qty	Profit
1	09-12-2020	Electronics	Walton Mobile Primo H9	5999.99	7999	2	3997.48
2	11-12-2020	Electronics	Walton Mobile Primo H9	5999.99	7000	1	1000.01
3	13-12-2020	Electronics	Redmi K20 Mobile	60000	65000	1	5000
4	14-12-2020	Electronics	Redmi K20 Mobile	60000	70000	2	20000
Grand Total							29997.49 Tk

Printing Time: December 15, 2020, 12:35 am

Owner Signature

Figure 5.34: UI (Daily Profit Report Page)

CHAPTER 6

PROJECT SUMMARY

6.1 GitHub Link

<https://github.com/ShariarZaman/Ekhata>

6.2 Limitations

Nowadays, Products information data scan by scanner for time consuming, input data typing is difficult sometimes. Credit customers need SMS notification to their mobile. Suppliers are seeking for more ways to request product delivery.

Web version only: This system is available in web version only. But we all know now people want an application for any kind of internet work. I did not create any Android ISO version of this project.

6.3 Obstacles & Achievements

In the time of developing this project, I had several obstacles. After some development I got confused. I had no idea what I was going to do. There is also one thing in my head, is whether this project will help the shopkeepers. Also, how much they will benefit from my system. That means the system was like many previous systems. Then I develop the project.

I didn't know much about PHP before. Also, I knew how to develop a project. Through this project, I learned a lot.

6.4 Future Scope

I worked hard to make this project more satisfying and there are many more areas to make it more flexible like: security issues, payment system method, SMS notification etc. Some new features should be added to make it a complete package for smart shopkeepers. I will do this project for Android OS and for IOS. So that this project can reach more people.

6.5 References

I will add a few references from where I got some help:

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6.6 Plagiarism Report

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<https://www.slideshare.net/AnujBurnwal/major-project-report-format-saloon-application>

Ekhata Smart Shopkeeper's Solution By Md. Shariar Zaman Student ID: 171-35-1827 This Report Presented in Partial Fulfilment of the Requirements for the Degree of Bachelor of Science in Software Engineering, Supervised By Tapushe Rabaya Toma Senior Lecturer Department of Software Engineering Daffodil International University DAFFODIL INTERNATIONAL UNIVERSITY Dhaka, Bangladesh Summer 2020 APPROVAL This project titled on "Ekhata", submitted by Md. Shariar Zaman (ID: 171 -35- 1827) to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents. Board of Examiners (Name) Designation Department of SWE Faculty of Science & Information Technology Daffodil International University Chairman (Name) Designation Department of SWE Faculty of Science & Information Technology Daffodil International University Internal Examiner 1 (Name) Designation Department of SWE Faculty of Science & Information Technology Daffodil International University Internal Examiner 2 (Name) Designation Department of ----- University External Examiner ii DECLARATION I hereby declare that project titled "Ekhata" has been completed by me under the supervisor of Tapushe Rabaya Toma, Senior Lecturer, Department of Software Engineering, Daffodil International University for the purpose of achieving degree of Bachelor of Science from Daffodil International University. This is also declared by me that neither this project nor any part of this project has been used or submitted elsewhere for any kind of degree or awards. Md. Shariar Zaman ID: 171-35-1827 Department of SWE Daffodil International University Supervised by: Tapushe Rabaya Toma Senior Lecturer Department of SWE Daffodil International University iii ACKNOWLEDGEMENT First and foremost, all the praise and thanks go to the Almighty Allah for all the blessings for all my project work, giving me patience and enabling me to complete this project on time. I would like to express my special thanks to my respected supervisor Tapushe Rabaya Toma for giving me her proper direction and for helping me to finish all the work in the end. I am especially grateful to my supervisor for her assistance throughout the project. Her excellent guidance, advice, valuable constructive advice, has made it possible for me to complete this project with confidence. I am very blessed to have the opportunity to study at Daffodil International University. I would like to express my deep gratitude to our honourable department Head of SWE, for encouraging me and giving me such an opportunity. I want to thank all my respected teachers who teach us in a great, interesting and understandable way. I am grateful to them for making my journey the easiest and most enjoyable. I am grateful to my parents as well as all the members of the family. My whole study journey would not have been so easy without their endless support and co-operation. I am grateful to all my department staff members, lab technicians and non-teaching staff members for their ultimate support throughout my journey. Finally, I would like to express my love to my batch mates, to the DIU members for their kind co - operation and comfort that helped me finish all the work. iv ABSTRACT This project aims to develop Ekhata. The project titled "Ekhata" is a web-based application. It was created using PHP and MySQL. This project has tried to incorporate all the advanced features of PHP such as to meet the project goals. A necessary platform for ordinary shopkeepers or small traders. This solution helps shopkeepers or vendors to keep all records of product price, sales, purchases information, customer information & payment information and also show daily or monthly profit. This software solution helps increase business growth and smart business management. v TABLE OF CONTENTS Contents Page

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CHAPTER 1

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1.2.2 Objectives

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