Design and Development POS For Supershop Market

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A project (SE 431) submitted in fulfillment of the requirements for the degree of BSc in Software Engineering

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APPROVAL

This project titled on "**Design and Development POS For Supershop Market**", submitted by Sandip Sarker ID:181-35-2423 to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment 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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DECLARATION

It here by declares that this project has been done by **Sandip Sarker** under the supervision of **Mr. Khalid Been Badruzzaman Biplob, Senior Lecturer**, Department of Software Engineering, Daffodil International University. It also declares that neither this project nor any part of this has been submitted elsewhere for award of any degree.

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ACKNOWLEDGEMENT

Above all, we express our heartfelt gratitude to God for his flawless gift, which enables us to successfully complete this task.

We would like to express our gratitude to Mr. Khalid Badruzzaman Biplop, Senior lecturer, Department of SWE, Daffodil International University, for his unwavering patience, academic direction, nonstop consolation, consistent and enthusiastic supervision, useful analysis, significant guidance, and perusing numerous substandard drafts and adjusting them at all stages, which have enabled us to complete this project.

We would like to express our gratitude to Dr. Imran Mahmud, Associate Professor and Head InCharge, Department of Software Engineering, for his attentive assistance in completing our project, as well as to the numerous employees and staff members from our department. We should be grateful to our parents for their unwavering support and patience.

Finally, we'd want to express our gratitude to all of our Daffodil International University classmates who participated in this discussion while completing their course work.

ABSTRACT

This design can be found on a "Point of Sale." A considerable number of Supermarkets, Independent Company Associations, and individual stores are migrating to a paperless business arrangement as a result of the recent online common difficulty and widespread application of data creation. For a healthy and effective operation, the point of sale becomes critical. There are a plethora of other Points of Sale. Our trip is entirely focused on the perspective of Bangladeshi visitors, and the system is accessible over the internet. We attempted to establish such a Point of Trade for development in this system. The desire for a similar method was gathered from several Supermarkets, Small Business Associations, and specific stores. The planned solution was designed in response to stoner demand. The system as well as tools The system was put to the test for several purposes and found to be satisfactory. In future the system will be integrated for smart phone stoner.

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Introduction

1.1 Project Overview

My project's main goal is to provide an admin with a single-point dashboard for managing, controlling, and administering a shop's or business's accounts. However, there will be a compass for the dealer, who will be able to send defective products to the head office and view branch-specific stock reports, among other things. A dealer can also generate a deal report or a summary report. The system will also be compatible with any web cyber surfer platform and may be accessed from anywhere via the internet. The system will also be secure because it will effectively cover non-public data and sequestration.

1.2 Project Purpose

1.2.1 Background

The operation of a business to the produce dealer, such as adding products, dealing reports, summaries, and handling account-related tasks, is known as point of sale.

Before actually starting the event, the point of sale entails researching the brand's complexities, relating the target audience, devising the event concept, preparing the logistics, and coordinating the specialized aspects. After-event analysis and calculating a return on investment have become major motivators for event assiduity. The operation can no longer be ad hoc due to the recent rise of events as an assiduity around the world. Events like the Asian Games have a significant impact on local towns, and in certain cases, the entire country. The assiduity now extends to events of all sizes, from the Olympics to a little sporting event.For ten business professionals, a brunch meeting is scheduled. Several diligence, charitable organizations, and interest groups will conduct largescale events to promote themselves, create business connections, raise money, or celebrate.

1.2.2 Benefits & Beneficiaries

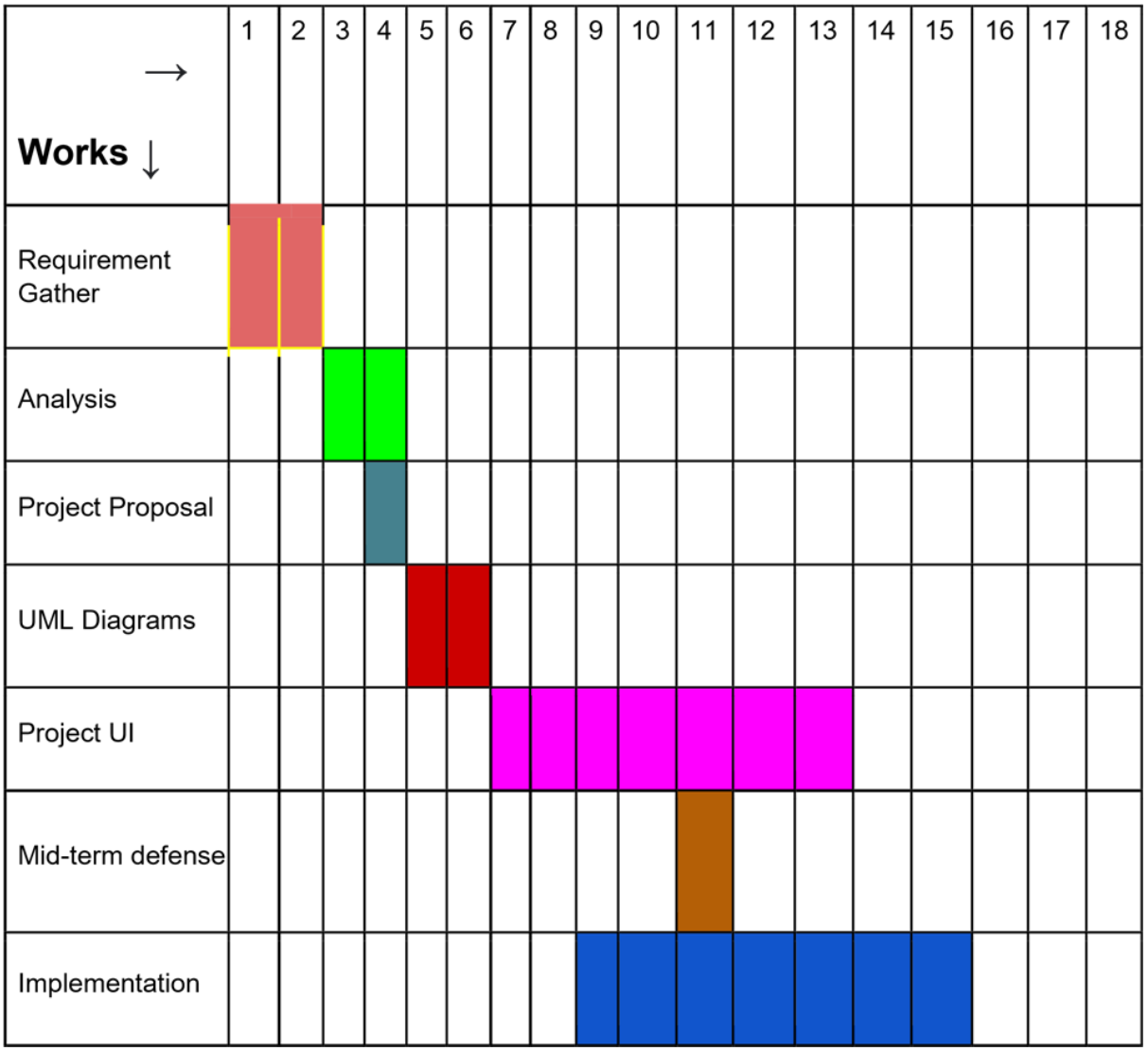
1. Improved Inventory Control
2. Invoicing Made Easy
3. Immediate Payments
4. Increased Client Service
5. Increased Client Orders
6. Improved procurement/supplier order management
7. Increased Customer Experience
8. Increased Client Satisfaction and Trust
9. Increased Security

1.2.3 Goals

- Providing an error-free event Point of Sale dashboard
- The admin/seller will have complete control over the sale and will be in charge of another component.
- The system can be fully managed by the administrator.
- Add a seller • Register and pay online • Reporting
- Take care of accounts and purchases.

1.5 Schedule

1.5.1 Gant Chart



Software Requirement Specification

2.1 Functional Requirements

This is what we require. I talk about my Pos for the supershop market.

Table No. 2

1st, there are the functional requirements.

1. Guests who have purchased damage are supported by the system.
2. The system can look for a product in the stock that meets the needs of the guests.
3. The system has the ability to add stock.
4. The system has the ability to modernize stock.
5. The system has the ability to cancel stock.
6. The stock report can be displayed by the system. 7. The system can display a trade report.
8. The system can register new employees.
9. The system has the ability to add a client service.
10. The system has the ability to modernize client service.
11. The system may access all service records based on the product's unique ID.
12. The system has the ability to modernize the written word.

2.2 Non-Functional Requirement

Here I talk about the non-functional criteria for my website. Non-Functional Requirements (Table 2.2)

1. The system can safely save stock to the database.
2. The system is capable of supporting all PCs (Personal Computer).
3. After each sale, the system can create a backup database train (deals, stock, service, update of authentication details).
4. Stock should be updated once each day's sales are completed.
5. Only the administrator can update the term on behalf of the personnel for security reasons.
6. Employees can only use this system to do business, provide service, and verify reports.

Performance Requirements

2.3.1 1 Requirements for Speed and Latency

1. Using java spring JPA JDBC, the database would be fitted into MySQL databases.

2. User interface design—the figure on the stoner satisfies the table data set and display.

We must use JPA JDBC for the database.

2.3. 2 Requirements for precision or accuracy

1. Every stoner should be able to present an accurate runner with offer details and status.

In addition, the Project Thesis Commission has access to all student and faculty lists.

2. A thesis design commission can modernize a student's offer.

3. Admin can update student details .2.3.3 Requirements for Capacity

1. This system can be used by several people at the same time.

2.4 Requirements for Dependability

2.4.1 Requirements for Reliability

1. Each administrator, customer, and cashier should log in to the system with a legitimate email address and password.

2. The administrator may easily update the product and add new users.

3. Admin can quickly check his or her information.

4. The customer can check the products on his or her wish list.

2.4.2 Accessibility Requirements

1. This system requires the use of an Apache server.

2. Commands must be learned in order to run effectively and efficiently.

3. Because this is an online application, it must be viewed in a web browser. (Chrome, Firefox, and Internet Explorer are the preferred browsers.)

2.5 Requirements for Maintainability and Supportability

2.5.1. Requirements for Maintenance

1. There was no modification or alteration to the web
2. If we need to recover or change data, we must use the command line.
3. We'll need to keep track of all security and other tasks.

2.5.2 Requirements for Sustainability

1. If the system isn't working properly, check the database and other systems.
2. Apply security patches and other system updates.

2.5.3 Requirements for Adaptability

- This is a crucial website.
- This website can assist all students and teachers, allowing them to quickly access all services.

2.5.4 Requirements for Scalability or Extensibility

1. This website is useful and trustworthy for everyone.
2. The website is a good source of information.

2.6 Requirements for Security

2.6.1 Requirements for Access

- This system is only accessible to registered users.
- Guests are not permitted to use this system.
- Any student can make a proposal, but he or she must first activate his or her portal account.

2.6.2 Requirements for Integrity

- This website is unable to access another user, such as a guest user.

2.6.3 Requirements for Privacy

1. We're using the activate account system here.
2. All teacher account portals have the ability to enable admin.

2.7 Requirements for usability and human interaction

This criterion specifies how we will meet the physical requirements of our website's intended users.

2.7.1 Ease of Use Requirements

The system is easy to use and can easily be understood.

UH-01	All associated stakeholders, including the admin, cashier, and customer, must be able to use the system.
Description	The system indicates the several possible that the users.
Stakeholders	System Admin, Customer,Cashier

2.7.2 Understand Ability and Politeness Requirements

This section describes more requirements.

UH-02	The characteristics of the POS design and development for the supermarket market
Description	More features can be added to the system to make it more efficient. Both users will be able to grasp the system. Any phrase not defined on this website is not used by the system.
Stakeholders	System Administrator

2.7.3 Requirements for Accessibility

There are no access requirements beside those that has been outline in the below:

Admin

User

User

Admin

User

To get access to this system or a specific module the system must provide a control. In order to

prevent anyone to exploit stolen all user's passwords must be encrypted in the hash process

2.7.4 User Documentation Requirements

UH-03	The documentation for system developers
Description	We have established requirements for user documentation as part of the development of this project. This project documentation is being worked on by the teams.
Stakeholders	Developer of computer systems

2.8 Requirements for Appearance and Feel

The desired attitude, mood, and style of the product's appearance are described by the look and feel requirements. The standards establish the appearance's intent rather than the particular design of an interface.

2.8.1 Requirements for Appearance

It should be apparent to the System Admin and Cashier which fields in this system need to be filled and which can be left blank.

LF-01	Mandatory field labels must be bold.
Description	Obligation fields must have a bold label to indicate that they are obligatory.
Stakeholders	System Administrator, Cashier, and Customer

2.8.2 Design Requirements

We will create a user interface for the website. This requirement specifies not only the requirement to use CSS, but also the content of CSS and the use of a CSS framework such as Bootstrap.

LF-02	Style sheets must be used to manage the look and feel.

Description	CSS, JS, and Bootstrap will be used to style the elements of the web application user interface.
Stakeholders	System Administrator

2.9 Requirements for Operations and the Environment

This criterion focuses on how users interact with the system, including interfaces and system interoperability. The requirement specified how well the system must perform and under what conditions it must do so.

2.9.1 Physical Requirements to Expect

There are no specific physical parameters that must be met.

2.9.2 Interfacing with Adjacent Systems Requirements

There is no specific interface with the requirements of adjacent systems.

2.9.3 Requirements

There is no requirement for a certain release, however it is included in the project timeline. It was only briefly described.

2.10 Requirements of the Law

These requirements take into account any violations of laws and regulations, as well as which rules should be followed by system maintainers.

2.10.1 Requirements for Compliance

There are no precise standards for compliance.

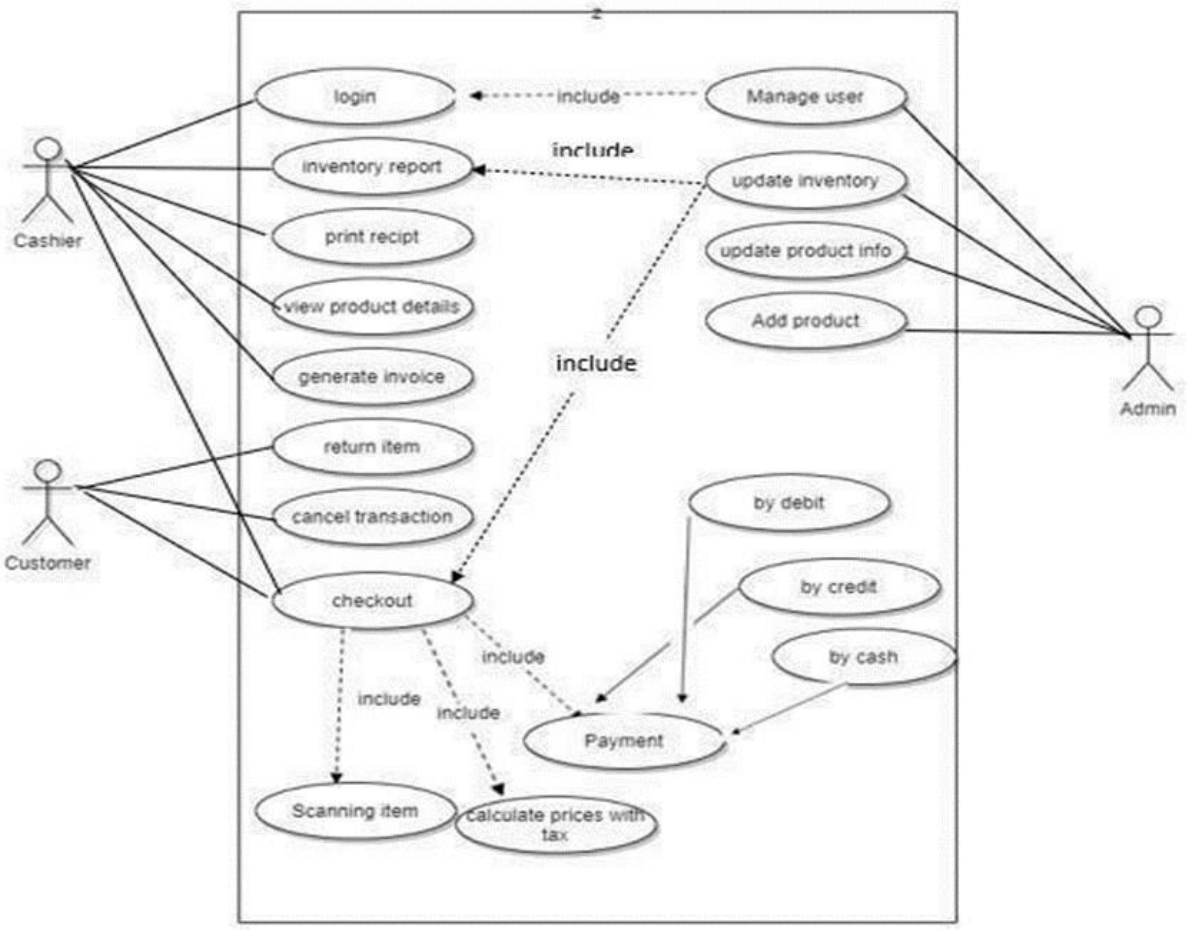
2.10.2 Standard Requirements

There are no formal requirements in place.

CHAPTER-03

SYSTEM ANALYSIS

3.1 Use case Diagram



3.2 Use Case Description

3.2.1 Login and Log out System

Use Case	Login and log out system

Goal	System Admin, user,Customer can access the system. And finally, Log out.
Preconditions	N/A
Success End Condition	System Admin, Customer,User can access this system
Failed End Condition	System Admin, Customer,User can access the system
Primary Actors:	Admin,customer,User
Secondary Actors	N/A
Trigger	Access This System

Description/main Success Scenario	**Step**	**Action**
	1	System Admin, Customer,User
	2	The user enters his or her email id and password in the returning user section of the sign in screen.
Flows in Different Directions	**Step**	**Branching Action**
	1a	The user enters his or her username and password
Requirements for Quality	**Step**	**Requirement**
	1	When user login then needs to correct email id for login and password.

3.2.2 Customer

Use Case	Checkout

Goal	Customer can check his or her list.
Preconditions	Must be logged in to the system.
Success End Condition	Successfully check list.
Failed End Condition	Cannot see list
Primary Actors:	Customer, Admin
Secondary Actors	N/A

Trigger	See the student list	
Description/main Success Scenario	**St ep**	**Action**
	1	Successfully can check list.
	2	Check list.
Flows in Different Directions	**St ep**	**Branching Action**

	1a	N/A
Requirements for Quality	**St ep**	**Requirement**
	1	Check list wise.

3.2.3 Product

Use Case	View Product profile
Goal	Customer can successfully view product profile.
Preconditions	Must be logged in to the system.

Success End Condition	Customer can check update profile

Failed End Condition	Cannot update profile.
Primary Actors:	Customer,Admin
Secondary Actors	N/A
Trigger	See profile

Description/mai n Success Scenario	**St ep**	**Action**
	1	User can check his or her profile.
	2	Can check updated profile
Flows in Different Directions	**St ep**	**Branching Action**
	1a	N/A

Requirements for Quality	Step	Requirement
	1	Always update profile

3.2.4 invoice pos

Use Case	Invoice pos
Goal	Invoice pos check calculate value
Preconditions	Must be logged in the system.
Success End Condition	Perfectly calculate
Failed End Condition	Cannot calculate
Primary Actors:	Cashier

Secondary Actors	Admin	
Trigger	Invoice pos calculate	
Description/main Success Scenario	**Step**	**Action**
	1	Successfully
	2	Can check status
Flows in Different Directions	**Step**	**Branching Action**
	1a	N/A

Requirements for Quality	Step	Requirement
	1	

3.2.5Inventory report

Use Case	Inventory report
Goal	Inventory report result full product details
Preconditions	Must be logged in the system.
Success End Condition	Successfully add blog
Failed End Condition	Cannot create new inventory and update inventory
Primary Actors:	Customer

Secondary Actors	Cashier	
Trigger	Inventory report	
Description/main Success	**Ste p**	**Action**
Scenario	1	Must be create new blog and update all information

Flows in Different Directions	**Step**	**Branching Action**
	1a	N/A

Page 18

Requirements for Quality	**Step**	**Requirement**

	1	Must be create report

3.2.6update product

Use Case	Update product
Goal	Successfully update product list
Preconditions	Must be logged in to system.
Success End Condition	Update the product

Failed End Condition	Cannot update product
Primary Actors:	Customer,Cashier

Secondary Actors	Admin	
Trigger	Update product	
	Step	**Action**
Description/main Success Scenario	1	Successfully update the product
Flows in Different Directions	**Step**	**Branching Action**
	1a	N/A
Requirements for Quality	**Step**	**Requirement**

	1	Registered perfectly update the product

3.2.7print recipt

Use Case	Print recipt
Goal	Successfully print the recipt .
Preconditions	Must be logged in to system.
Success End Condition	Print the recipt
Failed End Condition	Cannot print recipt
Primary Actors:	Admin, Ciustomer
Secondary Actors	N/A

Trigger	Print recipt	
Scenario MainSuccess (description)	**Step**	**Action**
	1	Successfully print the recipt
	Step	**Branching Action**
	1a	N/A
Flows in Different Directions	**Step**	**Requirement**
	1	Successfully print.

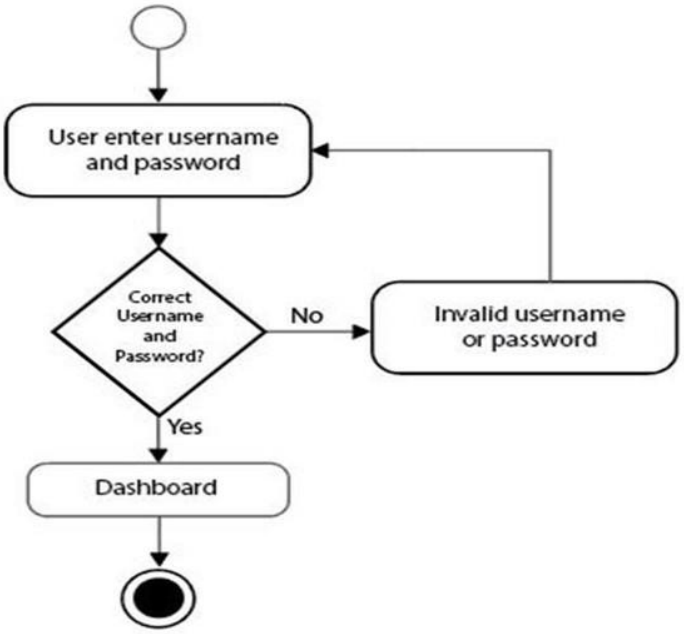
3.2.8 payment

Use Case	payment
Goal	Successfully payment the product
Preconditions	Must be logged in to system.
Success End Condition	Payment the product get successfully
Failed End Condition	Cannot payment the product
Primary Actors:	Admin
Actors in Supporting Roles	N/A
Trigger	paymen

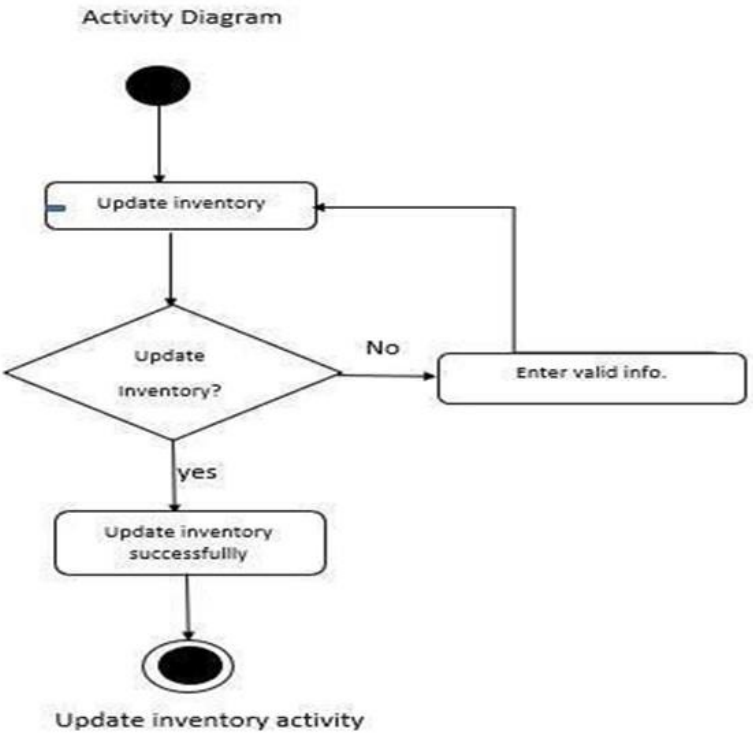
	Step	**Action**
Main Success Scenario (description)	1	Successfully payment the product
	Step	**Branching Action**
	1a	N/A
Flows in Different Directions	**Step**	**Requirement**
	1	payment the product for successfully

3.3 Activity Diagram

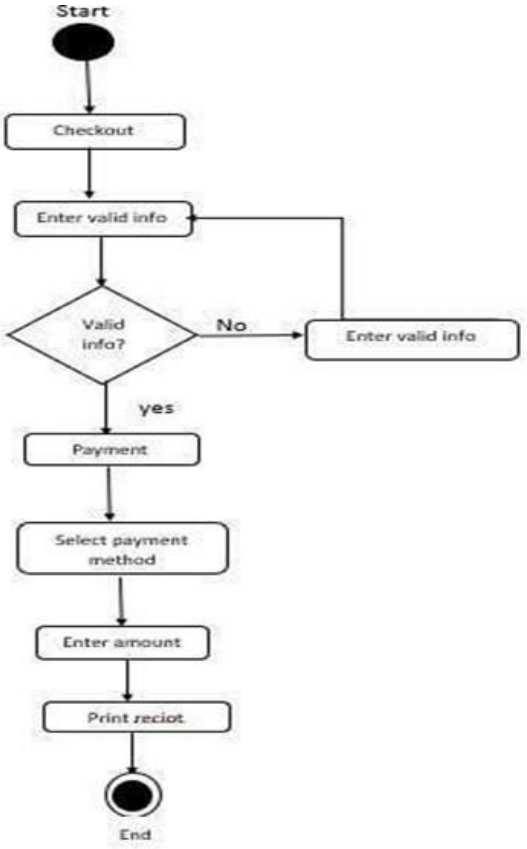
3.3.1 Registration



3.3.2 Update Inventory

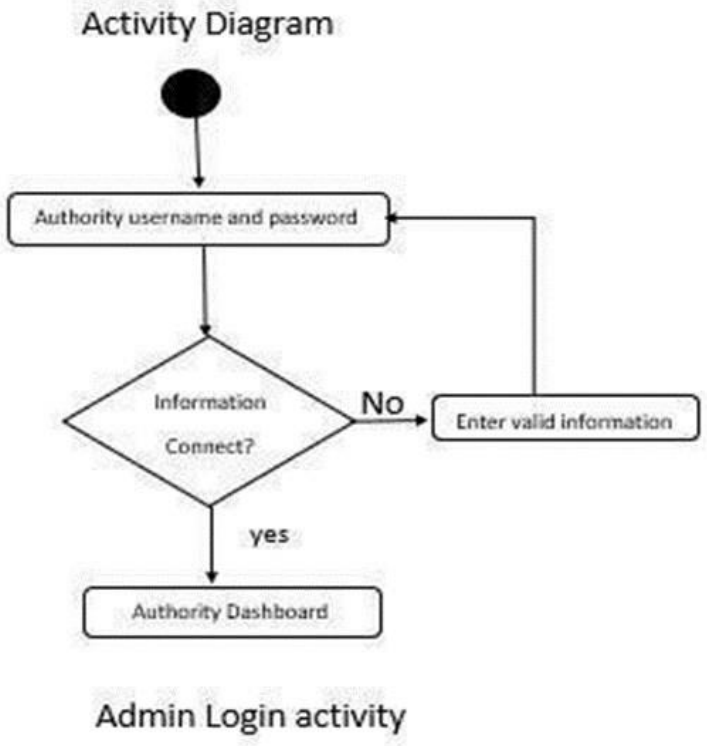


3.3.3 Check-Out



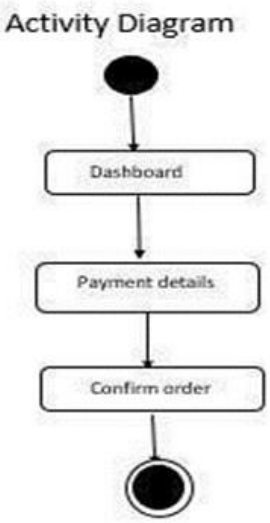
Checkout activity

3.3.4 Login



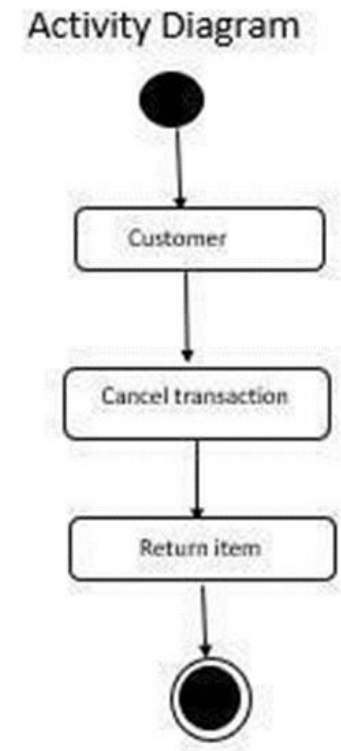
Admin Login activity

3.3.5 Payment Details



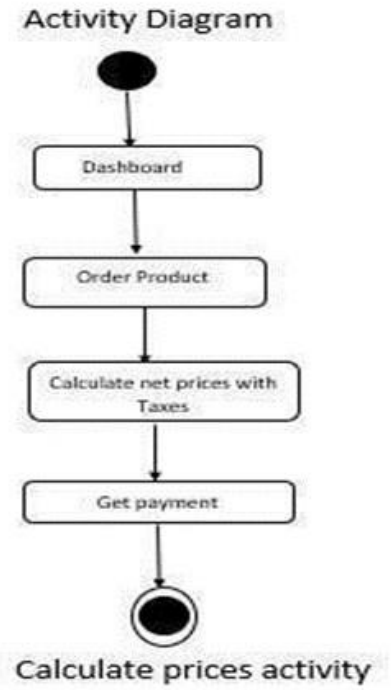
Payment details activity

3.3.6 Cancel Transaction

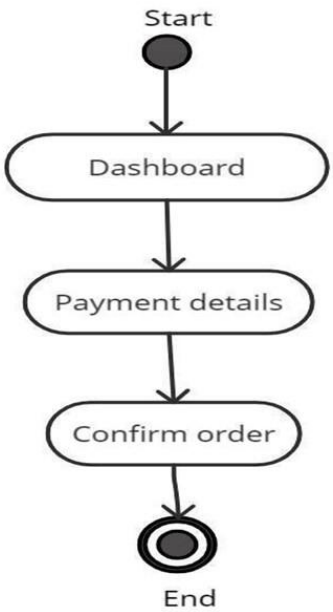


Cancel transaction activity

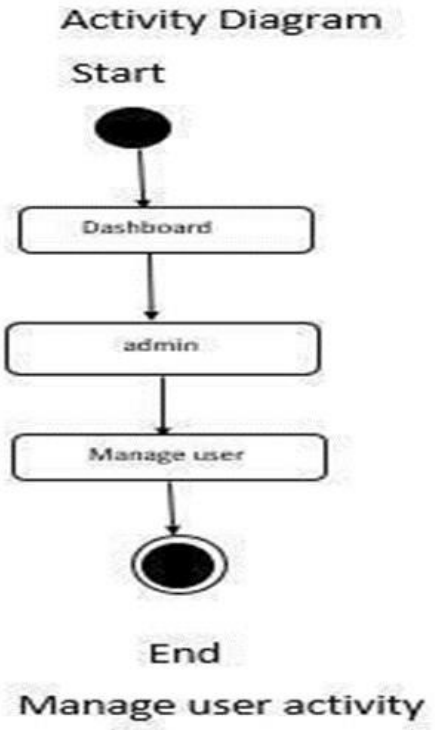
3.3.7 Calculate Price



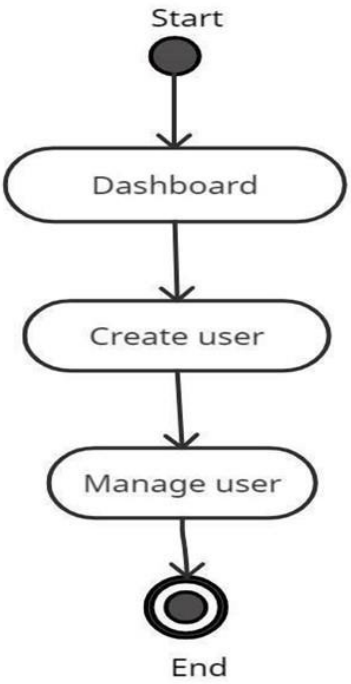
3.3.8 Payment Details



3.3.9 Manage User

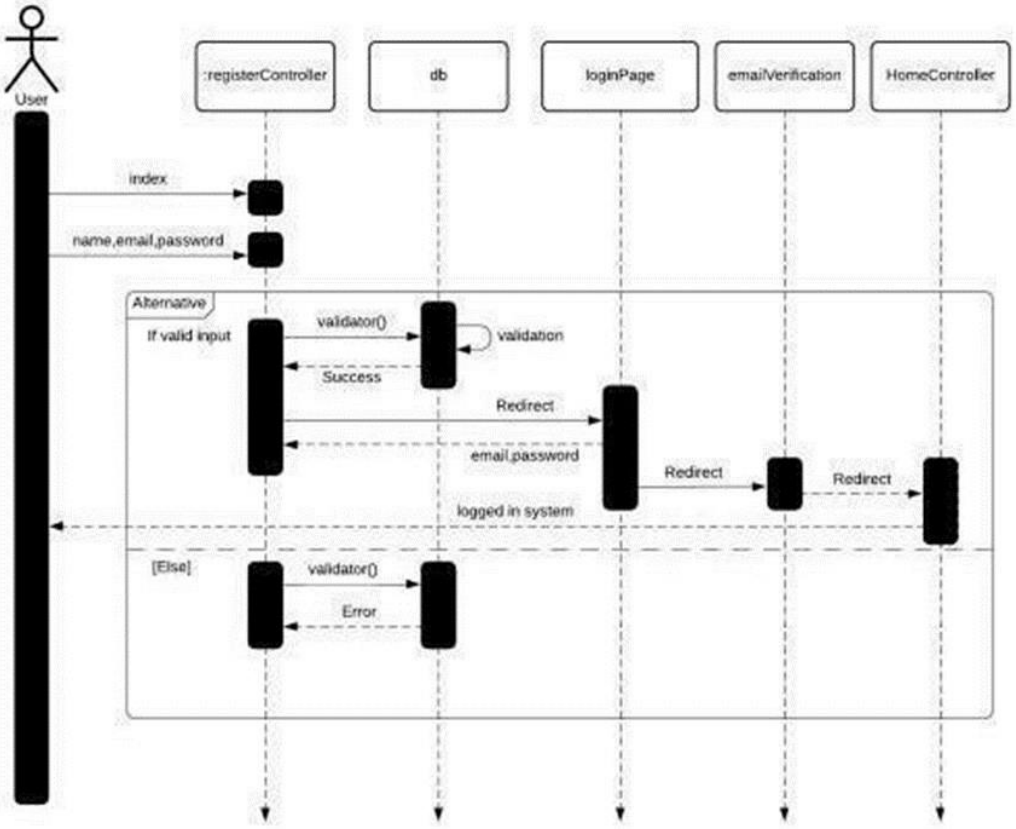


3.3.10 Create User

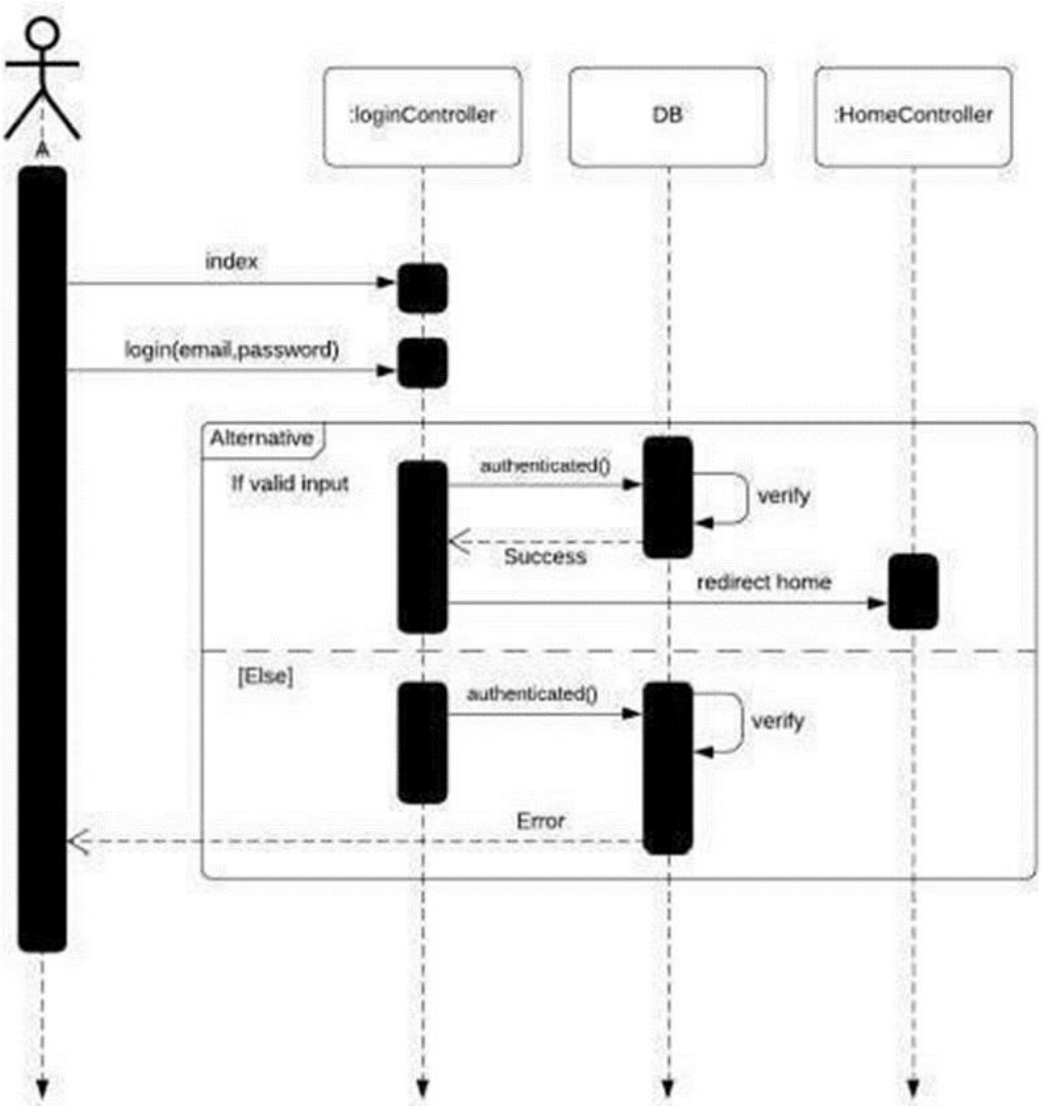


3.4 System Sequence Diagram

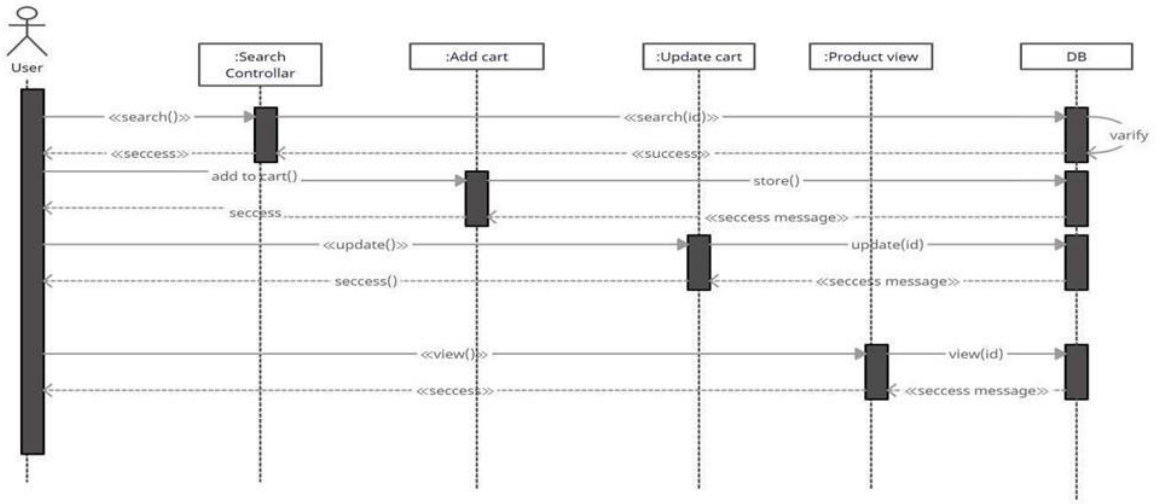
3.4.1 user registration



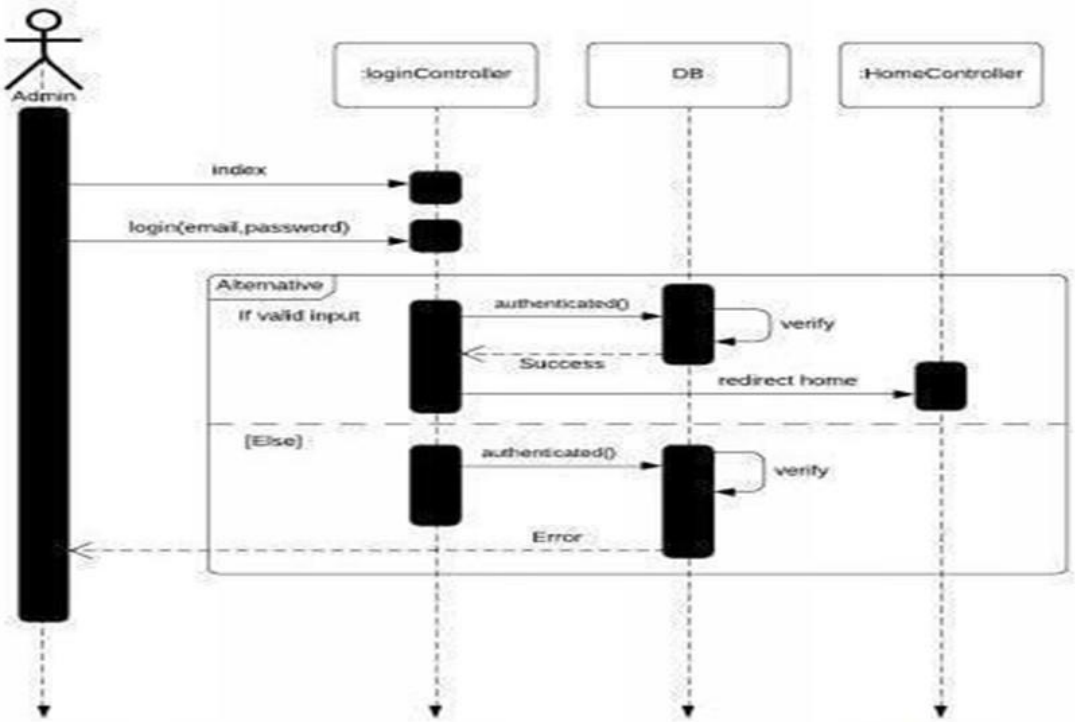
3.4.2 user login sequence



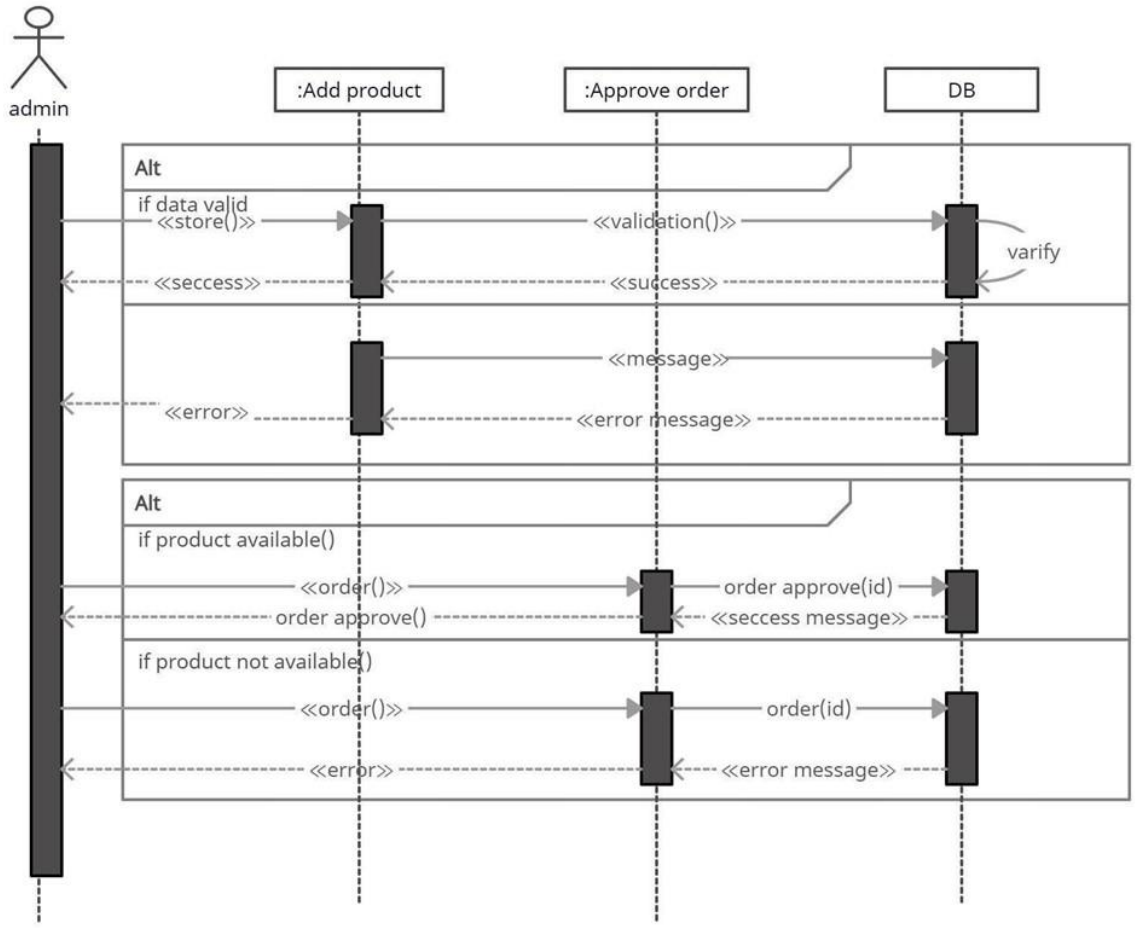
3.4.3 user sequence diagram



3.4.4 Admin login sequence



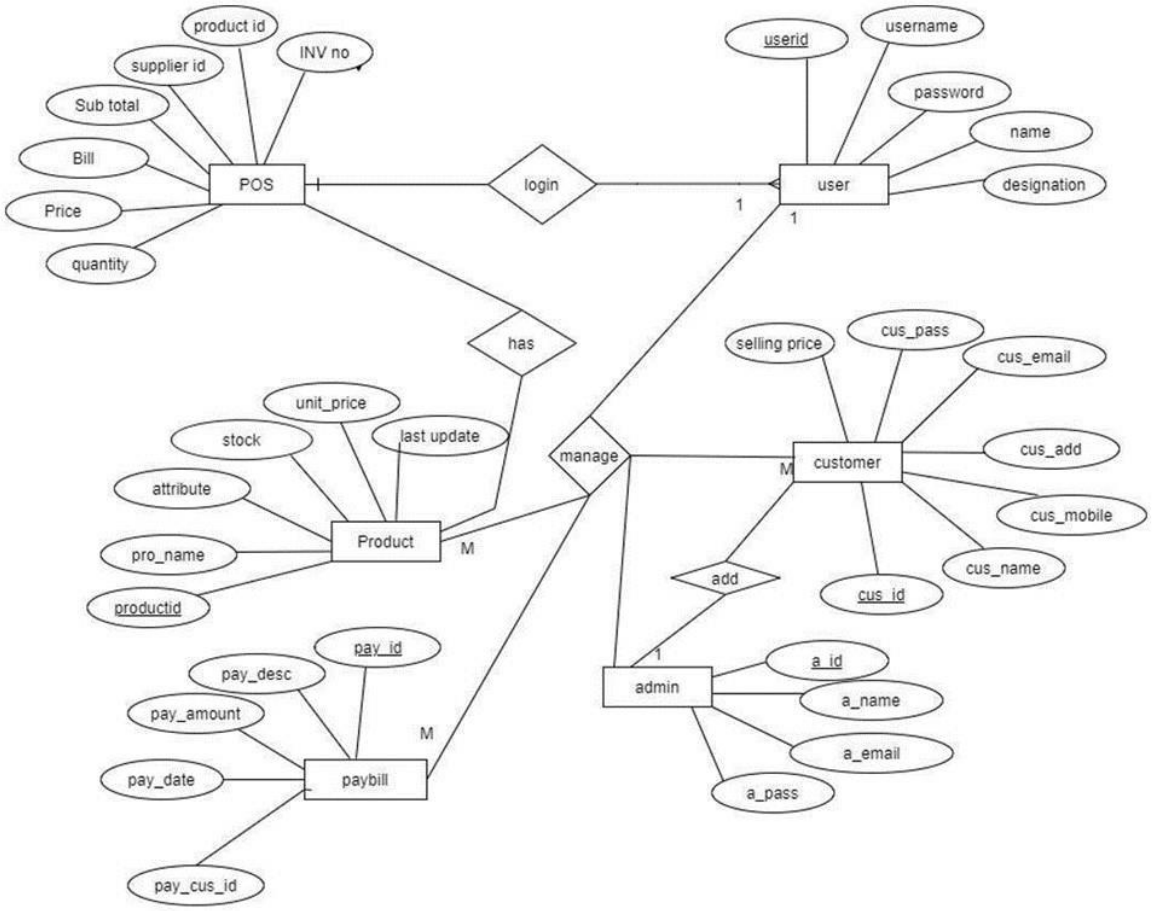
3.4.5 Admin sequence diagram



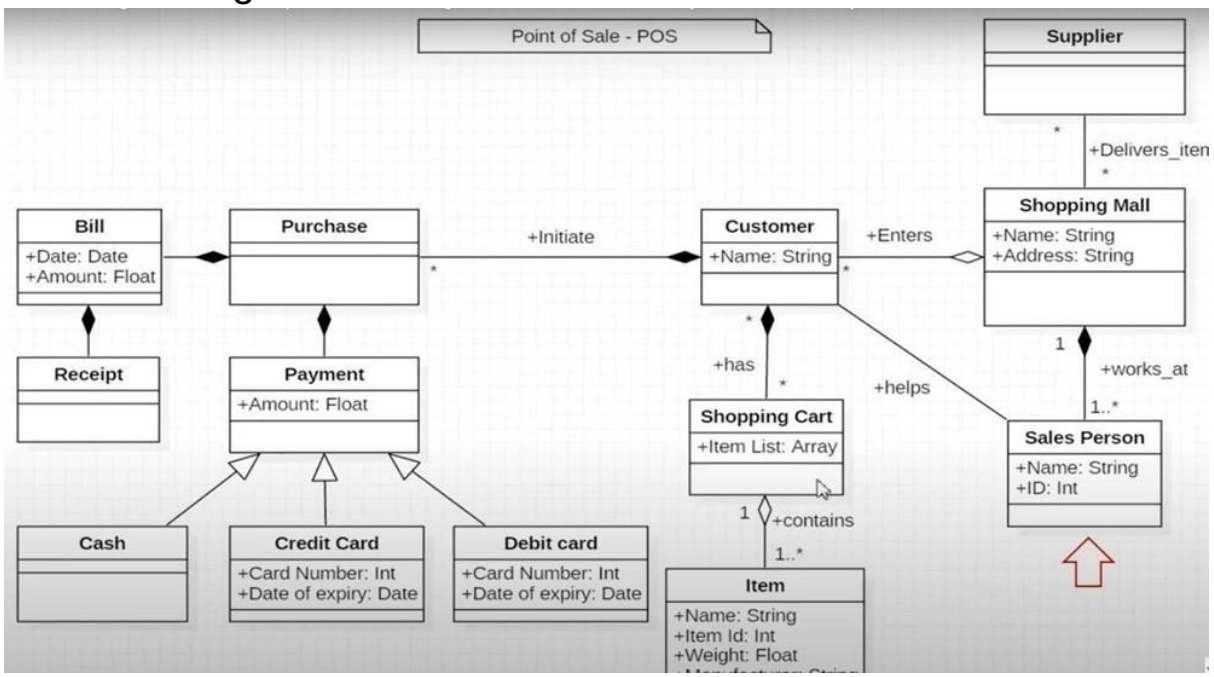
CHAPTER-04

System Design Specification 4.1

Entity Relationship Diagram (ERD):



4.2 Class Diagram



4.3 Development Tools and Technology

4.3.1 User Interface Technology

4.3.1.1: HTML, HTML5

4.3.1.2: CSS3, CSS

4.3.1.3: Bootstraps-4

4.3.1.3: Laravel,Mysql Database

4.3.2 Implementation Tools and Platforms

- Laravel
- Apace
- Visual studio Code

CHAPTER-05

5.1 Testing Features

5.1.1 Feature to be tested

1. Home page
2. login
3. User(Create new user)
4. Customer
5. Edit Customer
6. Cetagories
7. Create new cetagories
8. Product
9. New product

5.2 Feature not to be tested

1. Point of sell 2. Report
3. View report

5.3 Testing Methodologies

5.3.1 Test Methodology

1. The entire system was manually tested.
2. Admin and Teacher-based system testing.
3. This system evaluates student and administrative activities.

5.3.2 Criteria for Passing or Failing

1. Passing/Failing Criteria for Components: -

The test will pass if the cases fulfill the object design requirements.

2. Integration Pass/Fail Criteria: -

The test will pass if the object architecture criterion is met, or it will fail if it is not**.**

5.3.3 Suspension and Resumption

1. Regression Testing:

    1. After each update to the system, the system must function properly.
    2. Database Name Change:

If the database name is changed, the system will not function properly.

3.System Design Changes: -

After each design modification, the system should continue to function properly.

5.3.4 Testing Schedule

5. 3 Test Case

5.3.1 Test Case 1 (User Login)

Table 5.2: Test Case 1 (User Login)

Test Case: - 01	Test Case Name: Login
System: User Login	Subsystem: N/A
Designed By: - Sandip Sarker (181-35-2423)	Design Date: 05-04-2021
Execute By: - Sandip sarker	Execution date: - 15-04-2021

Table 5.3: User Login

Step	Action	System Expected response	Pass/Fail	Comment
1	When system user fills up the user login field and click login button	If user don't enter email id then show required email id.	Pass	EmailField are required
2	When user enters emails like xyz@gmail.com	The system shows this field is email required.	Pass	The valid email needs to login

5.3.2 Test Case 2 (Check out)

Table 5.2: Test Case 1 (Checkout)

Test Case: - 02	Test Case Name: checkout
System: checkout	Subsystem: N/A
Designed By: - Sandip Sarker (181-35-2423)	Design Date: 15-03-2021
Execute By: - Sandip Sarker	Execution date: - 25-04-2021

Table 5.3: Check out

Step	Action	Expected System response	Pass/Fail	Comment
1	When student fills up the question field and click submit button	If student missing any field then this system shows required field.	Pass	All field are required

5.4 Testing Environment (hardware/software requirements)

1. Browser: - Firefox, Google Chrome

CoreI3, Ram# 8GB, SSD#120GB, HDD#1TB

CHAPTER – 06

User Manual

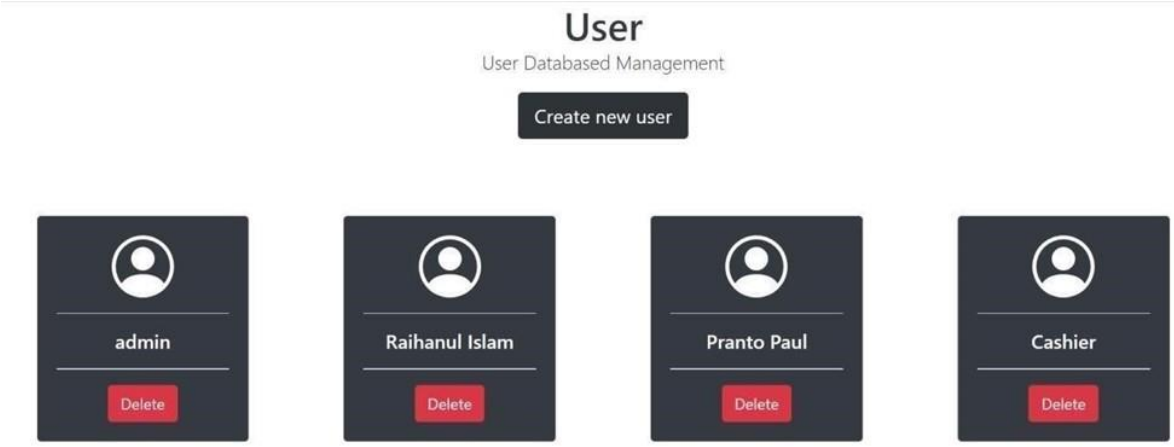
6.1 User Manual

1. Home Page

2.Complete Registration

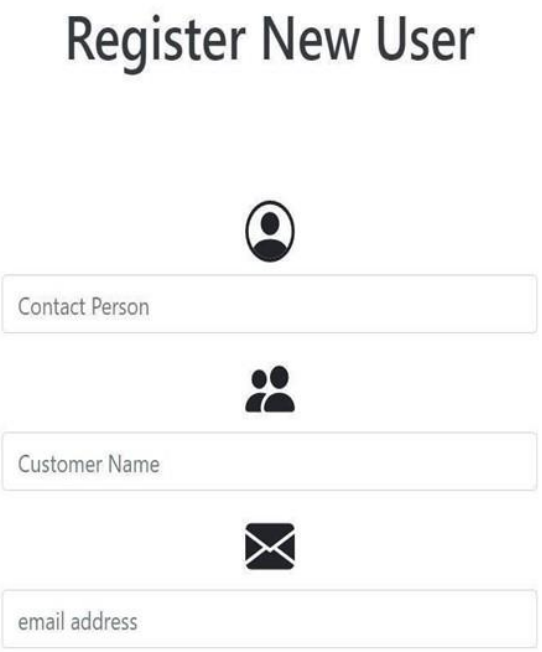
3 Login Page

4 User

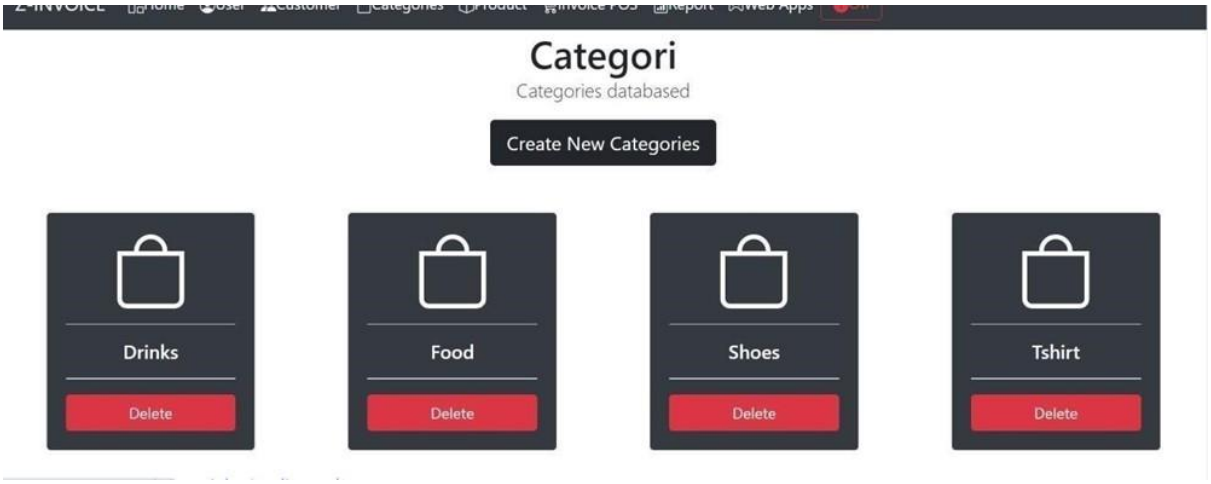


5 **Customer**

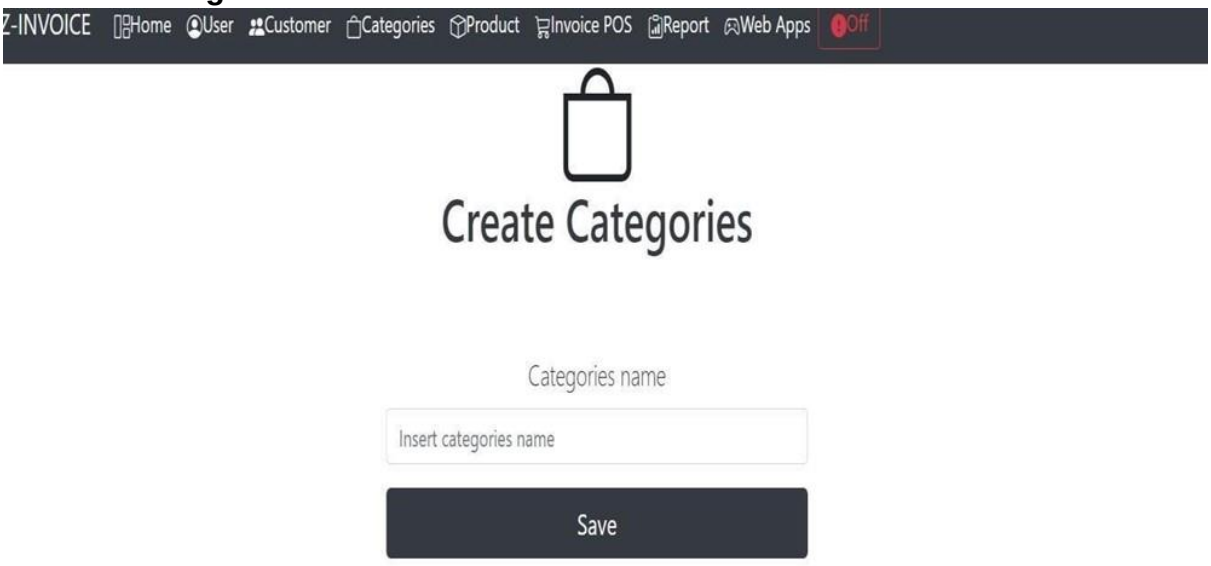
6. **Customer register new user**



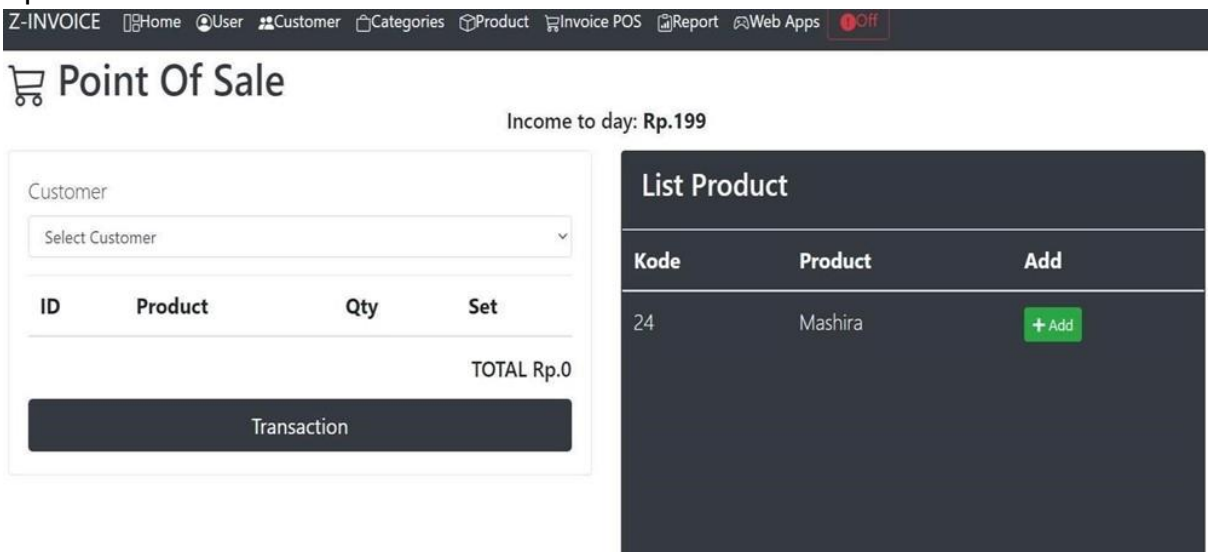
7. **Categories**



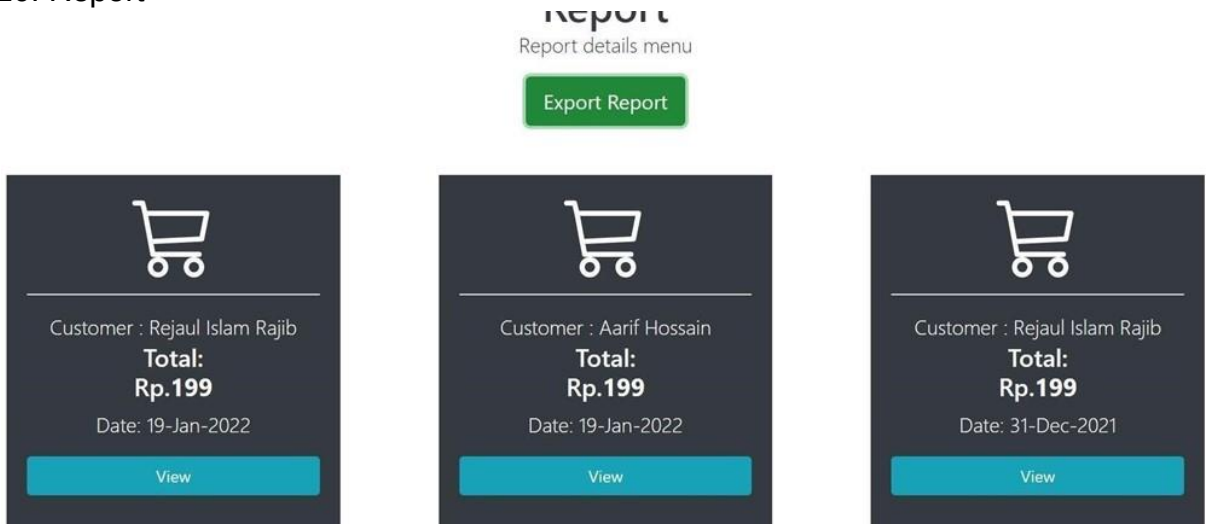
8 .Create categories



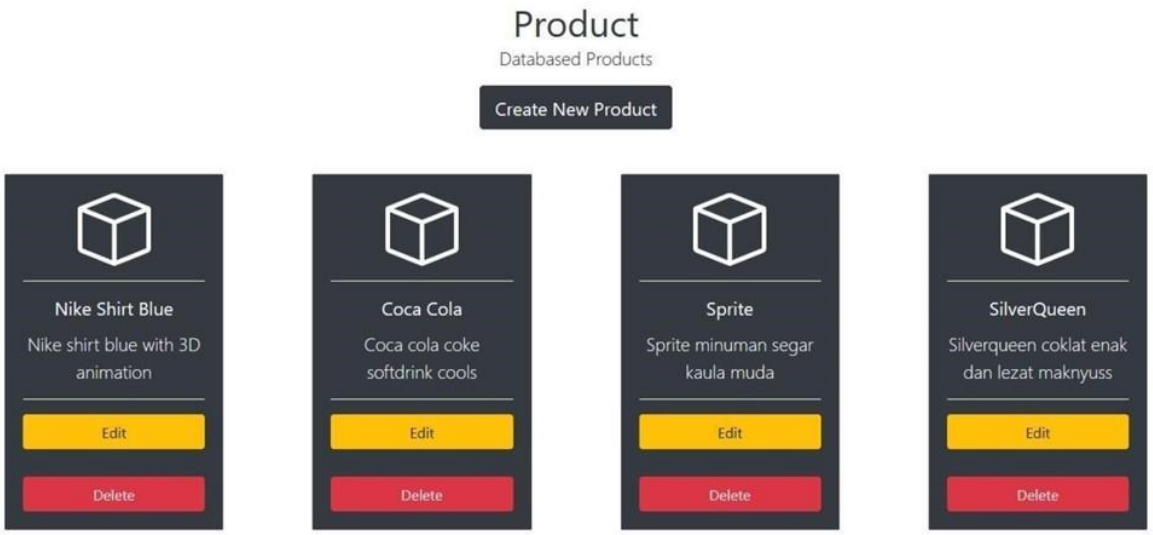
9.point of sale



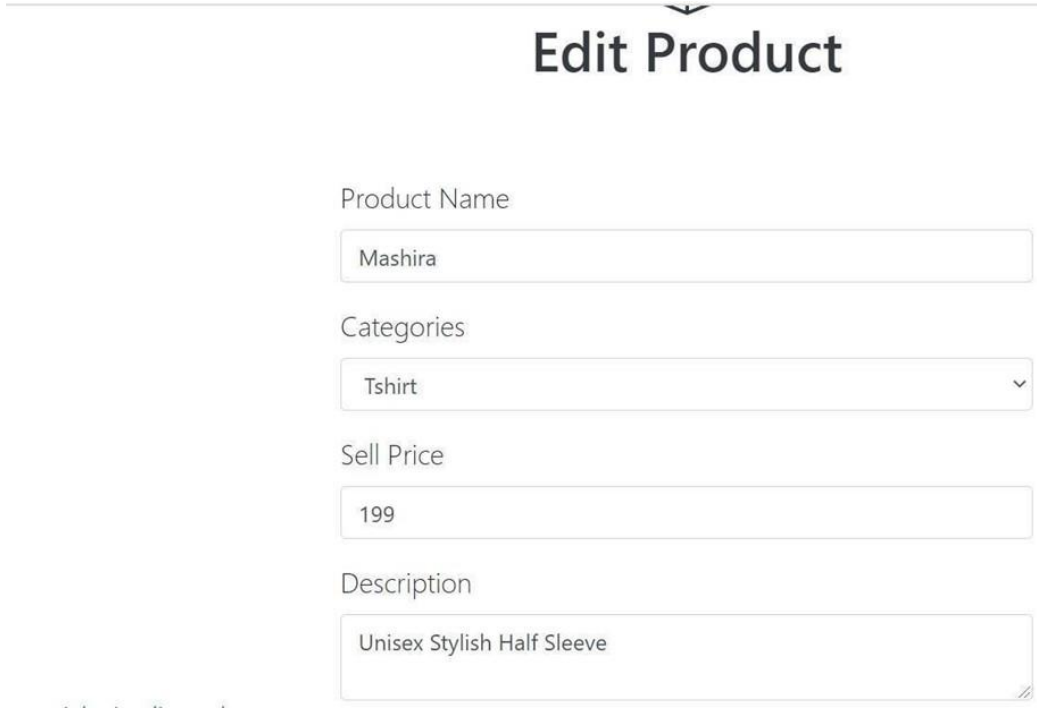
10. Report



11. product


Product
Databased Products
Create New Product
Nike Shirt Blue
Nike shirt blue with 3D animation
Edit
Delete
Coca Cola
Coca cola coke softdrink cools
Edit
Delete
Sprite
Sprite minuman segar kaula muda
Edit
Delete
SilverQueen
Silverqueen coklat enak dan lezat maknyuss
Edit
Delete

12.Edit product



CHAPTER-07

Project Summary

7.2 Limitations: Cannot send email at a time all student.

7.3 Obstacles and Achievements:

Everyday technologies are updated so the Spring framework is updated every day. So, I feature there are some technologic can be eliminating and the project can be implemented with new technology. There are too more errors while I am developed this system.

7.4 Future Work:

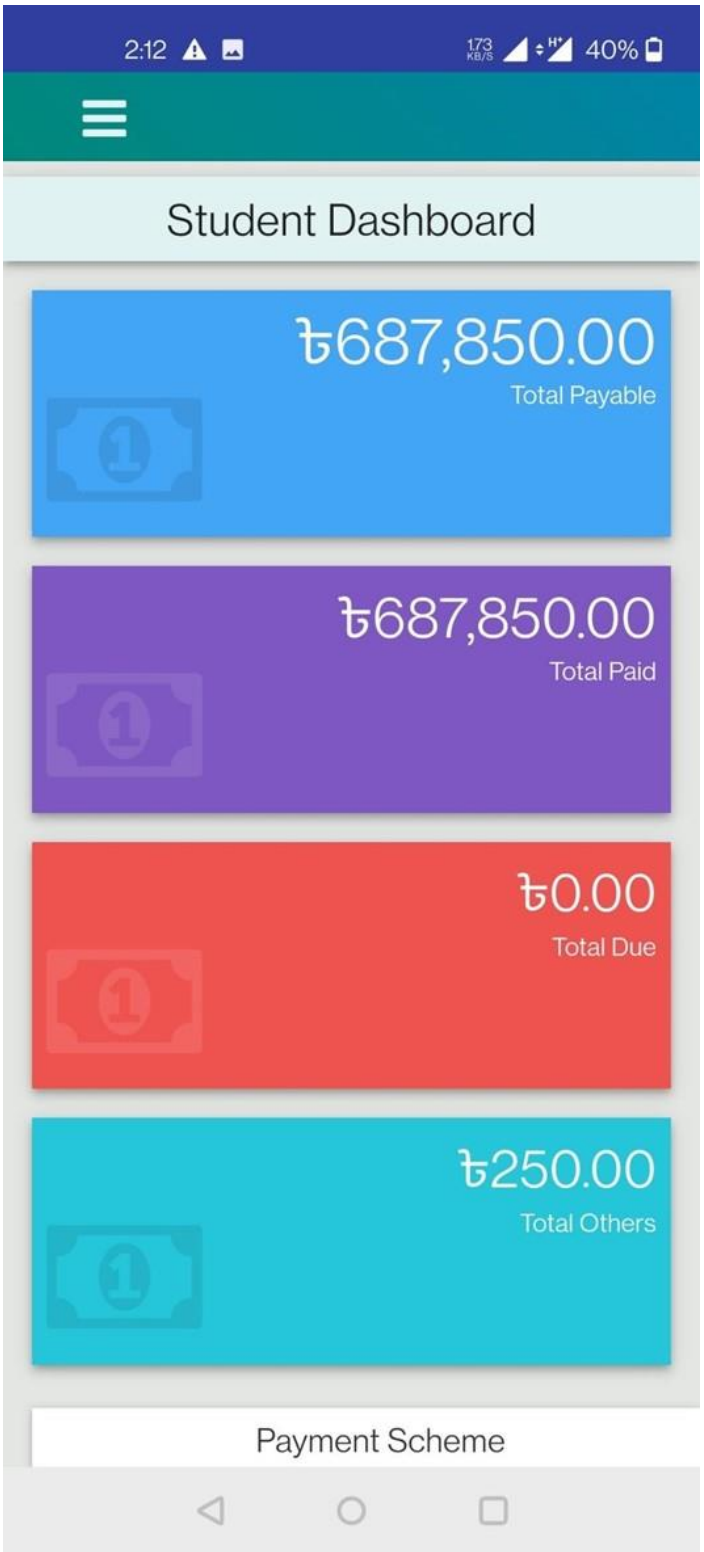
Every Project have some future scope so that in features the application adds some new feature

REFERENCE

1. https://www.w3schools.com/

2. https://laravel.com/docs/7.x

Account Clearance:



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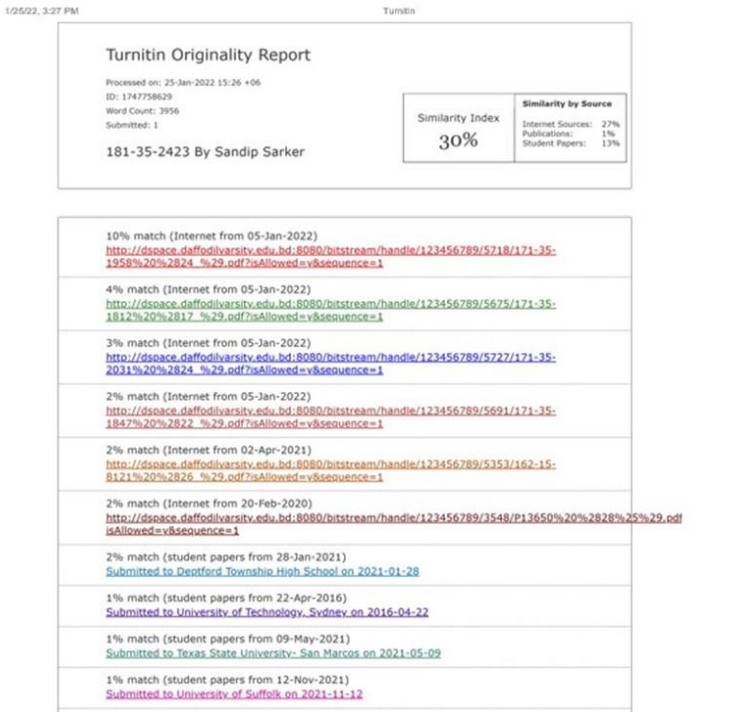

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