



Software Requirements Specification

SALES OPTIMISER SYSTEM (A.Y.A.M PROJECT)

Version 1.0

Completion Date

January 2020

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a. Current Version Document

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1. Specific Requirements

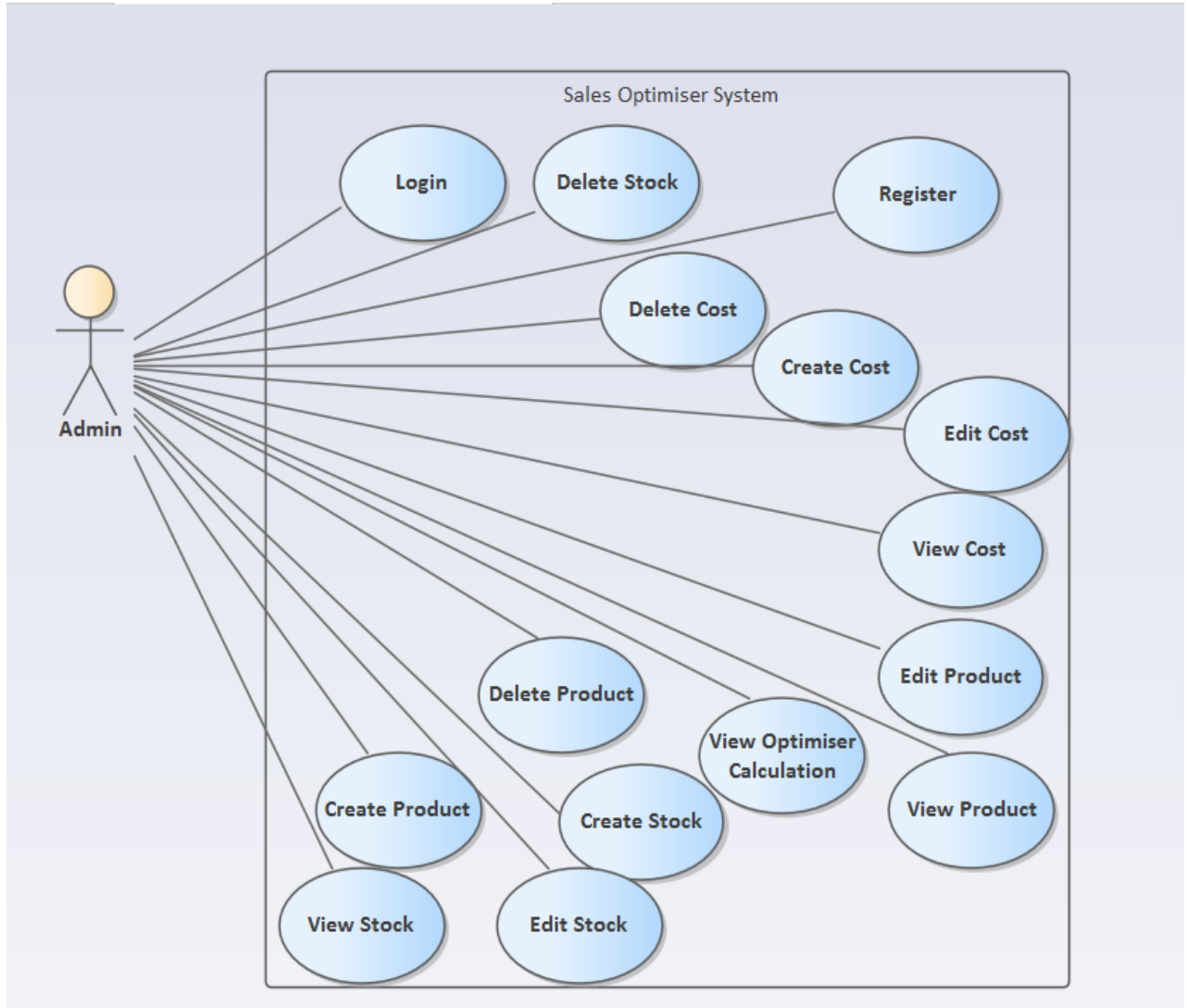


Figure 1.1: Use Case Diagram of Sales Optimizer System

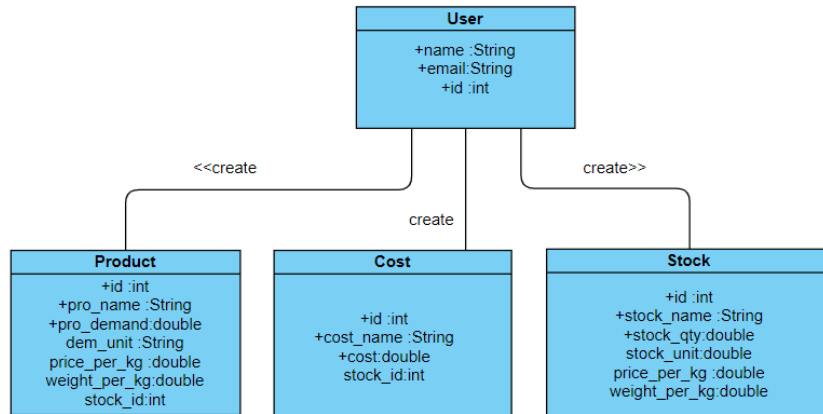


Figure 1.2: Class Diagram of Sales Optimizer System

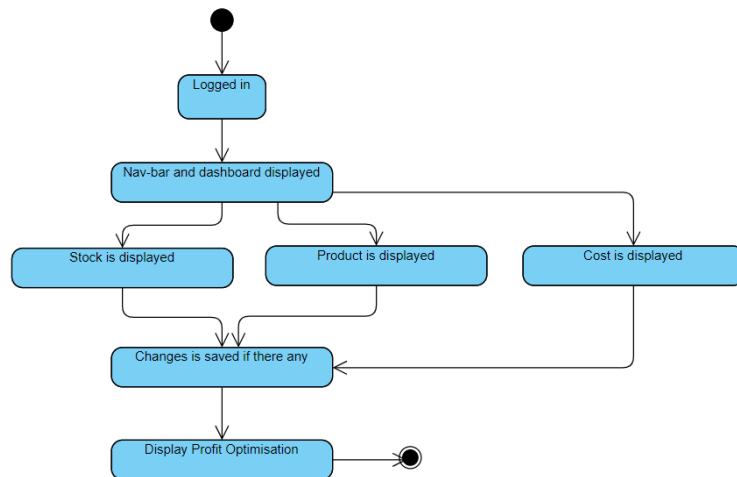


Figure 1.3: State Machine Diagram of Sales Optimizer System

1.1 External Interface Requirements

1.1.1 User Interfaces

The user interface of the system depends on the functions user can use. There is only one user interface for the user which is admin. The system is easy to use and easy to memorise. New users only need to watch a quick tutorial before accessing the system.

A.Y.A.M

LoginRegister

Login

E-Mail Address

jpriyanka@yahoo.com

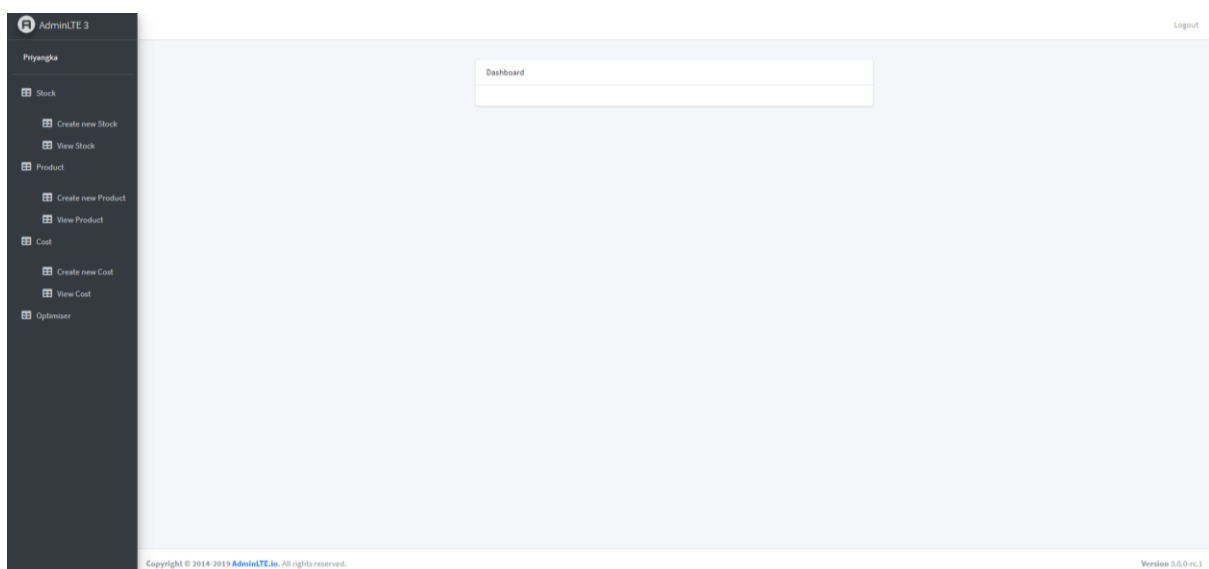
Password

☐ Remember Me

Login

[Forgot Your Password?](#)

This is how the interface of the log in feature look like. User will enter their email and password and proceed to click the “Login” button to enter the system.



After the user login, they will enter the homepage and the dashboard.

AdminLTE 3

Priyanka

Stock

Create new Stock

View Stock

Product

Create new Product

View Product

Cost

Create new Cost

View Cost

Optimiser

Logout

Stock

Show 10 entries

Search:

ID	Stock Name	Stock Quantity	Stock Unit	Stock Price per Kg	Stock Weight per Qty	Actions
1	Ayam	1	Kg	7	1.5	<div>View</div> <div>Edit</div> <div>Delete</div>

Showing 1 to 1 of 1 entries

Previous

1

Next

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Version 3.0.0-rc.1

This page is to display list of stock.

AdminLTE 3

Priyanka

Stock

Create new Stock

View Stock

Product

Create new Product

View Product

Cost

Create new Cost

View Cost

Optimiser

Logout

Product

Show 10 entries

Search:

ID	Product Name	Product Demand	Demand Unit	Price per Kg	Weight per Qty	Actions
1	Ayam Bulat	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>
2	Dada	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>
3	Kepak	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>
4	Drumstik	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>
5	Paha	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>
6	Paha Penuh	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>
7	Paha	1	Kg	1	1	<div>View</div> <div>Edit</div> <div>Delete</div>

Showing 1 to 7 of 7 entries

Previous

1

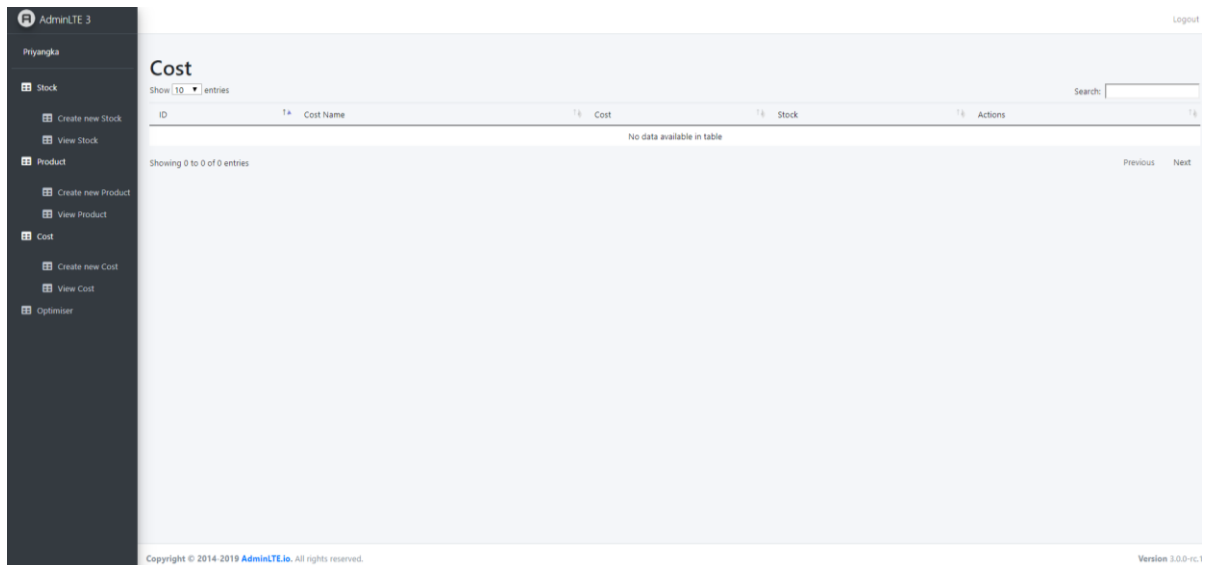
Next

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Version 3.0.0-rc.1

This is the page to display list of product.

7



This is the page to display cost.

<div>AdminLTE 3</div> <div>Logout</div> <div>Priyanka</div> <div>Stock</div> <div>Create new Stock</div> <div>View Stock</div> <div>Product</div> <div>Create new Product</div> <div>View Product</div> <div>Cost</div> <div>Create new Cost</div> <div>View Cost</div> <div>Optimizer</div>						
<div>PPNJ</div> <div>PROFIL PRODUK AYAM CAMPURAN</div>						
Ketersediaan Ayam : 1 Unit						
Kaedah Potongan	Bahagian	Pengeluaran Dalam Unit	Anggaran Keuntungan/Unit	Anggaran Keuntungan		
A	1 Ayam Bulat	1.00	RM 1.00	RM 1.00		
B	2 Kepak + 2 Dada + 2 Drumstik + 2 Paha	0.00	RM 0.00	RM 0.00		
C	2 Kepak + 2 Dada + 2 Paha Penuh	0.00	RM 0.00	RM 0.00		
D	2 Kepak + 2 Dada + 1 Drumstik + 1 Paha + 1 Paha Penuh	0.00	RM 0.00	RM 0.00		
Jumlah		1.00	RM 1.00	RM 1.00		
Produk	Ayam Bulat	Dada Ayam	Kepak Ayam	Drumstik Ayam	Paha Ayam	Paha Penuh Ayam
Permintaan	1	0	0	0	0	0
Jumlah Pengeluaran	1	0	0	0	0	0
Jumlah Dijual	1	0	0	0	0	0
Jumlah Keuntungan	RM 1.00	RM 0.00	RM 0.00	RM 0.00	RM 0.00	RM 0.00
Jumlah Keseluruhan	RM 1.00					
Kekurangan	0	0	0	0	0	0
Penalti Kekurangan	RM 0.00	RM 0.00	RM 0.00	RM 0.00	RM 0.00	RM 0.00

This is the page that optimizer calculation for profit displayed.

1.1.2 Hardware Interfaces

Hardware that is involved in this system is printer. The printer will be available if user wants to print webpage of the system to get the calculation of profit. It is compatible with all types of printer.

1.1.3 Software Interfaces

Software interface that is involved in this system is database. The system requires DMBS software which is phpMyAdmin.

phpMyAdmin

- Version Number: 4.9.0.1
- PHP version: 7.3.8
- Reference link: <https://www.phpmyadmin.net/>

1.1.4 Communication Interfaces

The different parts in the system is dependent on each other but ways to achieve the communication is not important for the system and is handled by web server and database management system software.

1.2 System Features

1.2.1 UCS01: Register

Name:	Register
ID:	UCS 01
Description:	This use case describes how an actor registers in system
Actor:	Admin
Pre-Condition	-
Normal Flow:	<ol style="list-style-type: none">1. The user select button 'Register'2. The system retrieve the user's choice3. The system display the information form4. User filled in the form.5. User hit button 'submit'6. The system saves the details
Alternative Flow	-
Post conditions:	The system displays homepage
Other Requirements:	None

Table 1.0: Use Case Description for Register

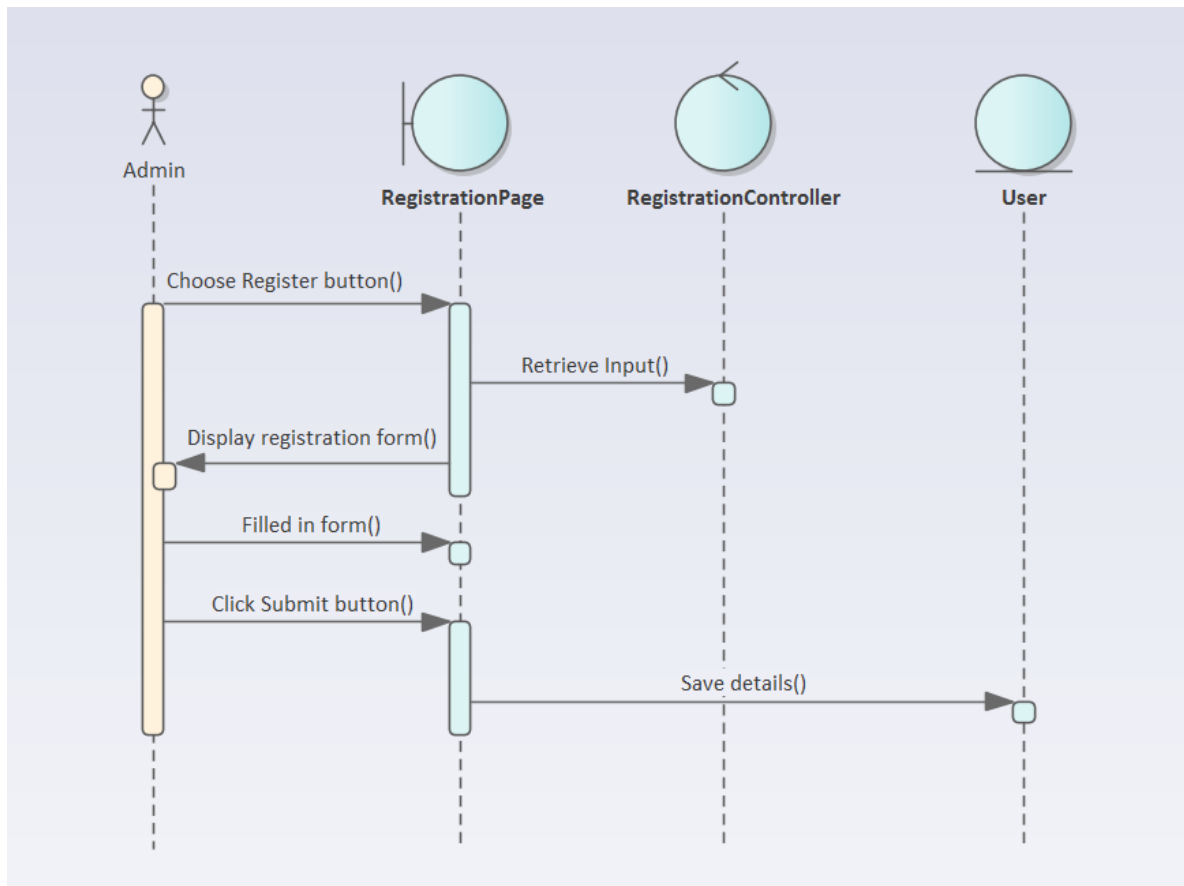


Figure 1.4: Sequence Diagram of Register

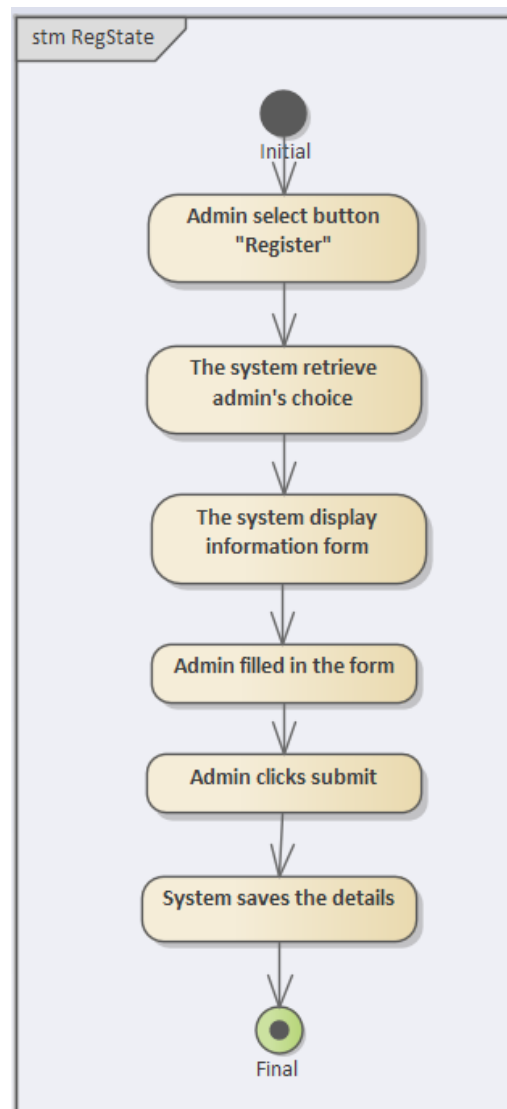


Figure 1.5: Activity Diagram of Register

1.2.2 UCS02: Log in

Name:	Log in
ID:	UCS02
Description:	This use case describes how an actor log in system
Actor:	Admin
Pre-Condition	-
Normal Flow:	<ol style="list-style-type: none">1. The admin enter the email and password.2. They hit the button “Log in”3. The system receive the email from the database4. The system match the email and password given.5. If the email and password are incorrect<ol style="list-style-type: none">5.1 The system displays the log in page5.2 The admin re-enter the email and password5.3 Repeat step 3 & 46. Else the email and password are correct7. The system allows the admin access the system
Alternative Flow	<ol style="list-style-type: none">1. Admin can go out from the homepage if they don’t want to proceed the log in
Post conditions:	The admin can redirected to the Menu Homepage
Other Requirements:	None

Table 1.1: Use Case Description for Log in

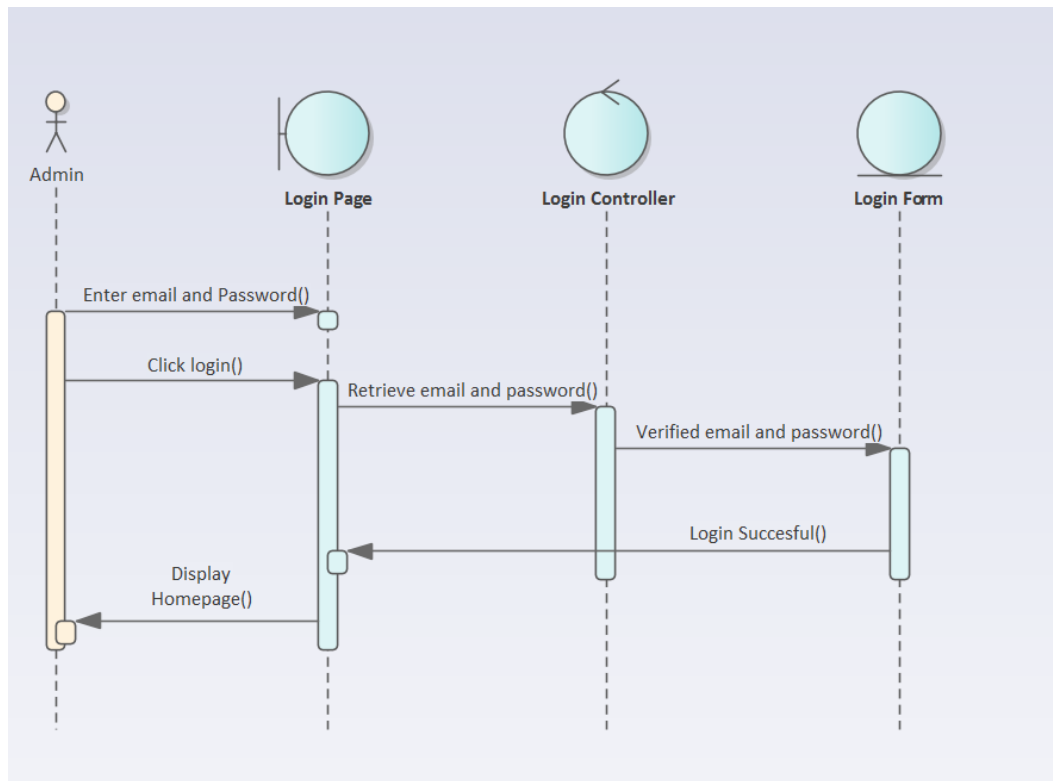


Figure 1.6: Sequence Diagram of Log in

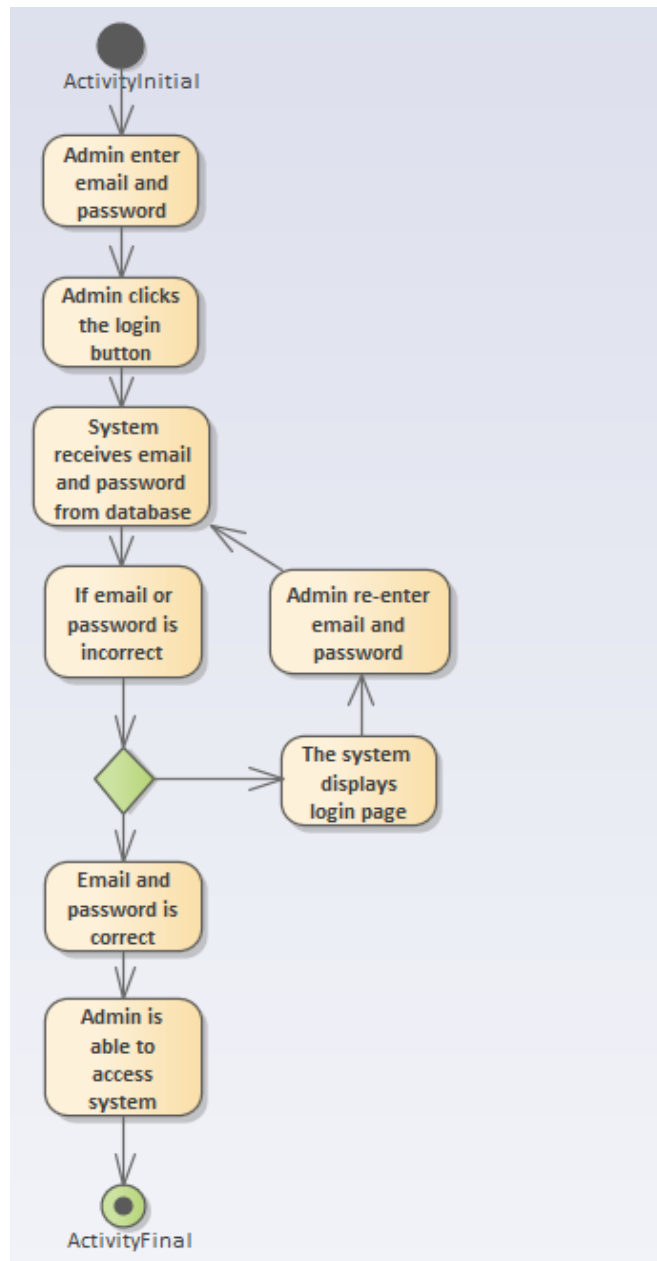


Figure 1.7: Activity Diagram of Log in

1.2.3 UCS03: Create Product

Name:	Create Product
ID:	UCS 03
Description:	This use case describes how an actor creates product in system
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	<ol style="list-style-type: none">1. Admin clicks on create new Product.2. The system displays create new product page.3. Admin choose the chicken part, demand amount, unit, price per kg, weight per quantity and stock.4. Admin clicks Add Product.
Alternative Flow	-
Post conditions:	The system shows notification that new product is added.
Other Requirements:	None

Table 1.2: Use Case Description for Create Product

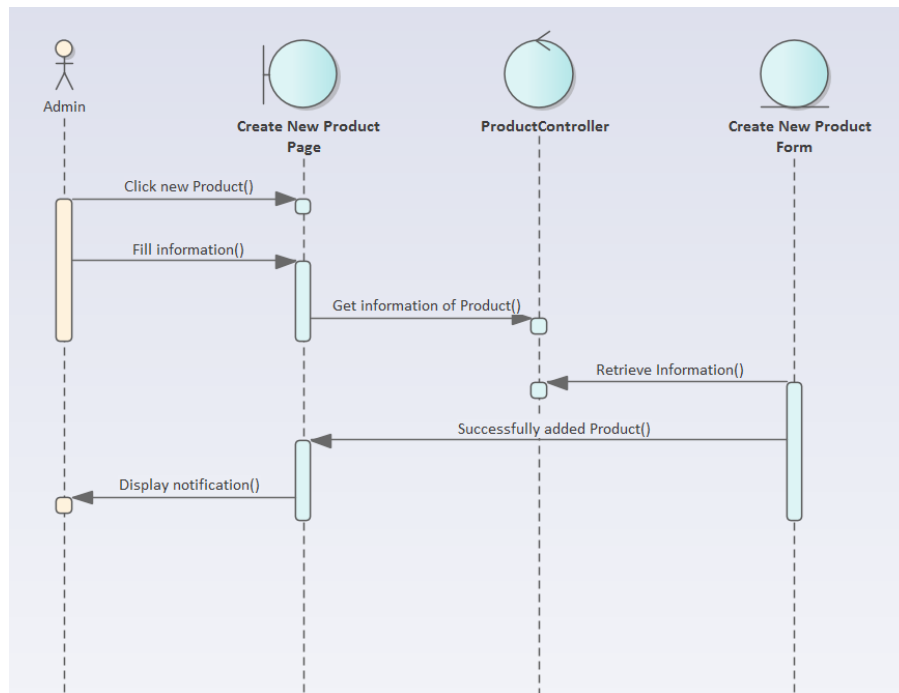


Figure 1.8: Sequence Diagram for Create Product

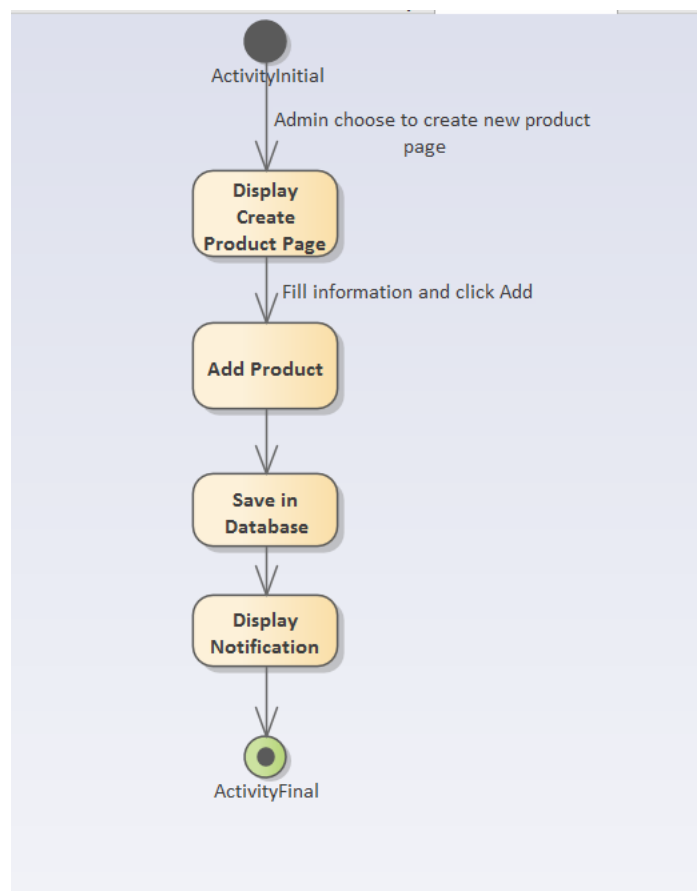


Figure 1.9: Activity Diagram for Create Product

1.2.4 UCS 04: Delete Product

Name:	Delete Product
ID:	UCS 04
Description:	This use case describes how an admin delete product in system.
Actor:	Admin
Pre-Condition	The admin must be logged in and clicked to view product.
Normal Flow:	<ol style="list-style-type: none">1. The system display list of products for stock.2. Admin clicks on Delete button on the product that would be deleted.3. The system deletes the product.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has deleted the product and there is notification.
Other Requirements:	None

Table 1.3: Use Case Description for Delete Product

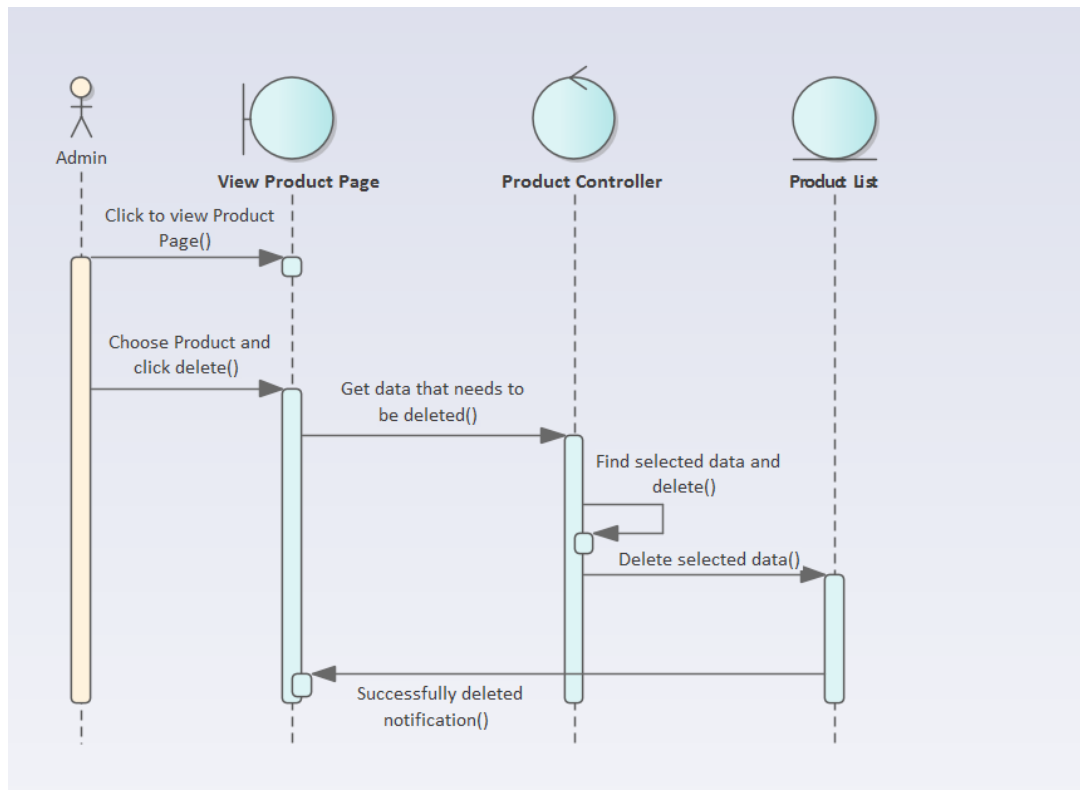


Figure 1.10: Sequence Diagram of Delete Product

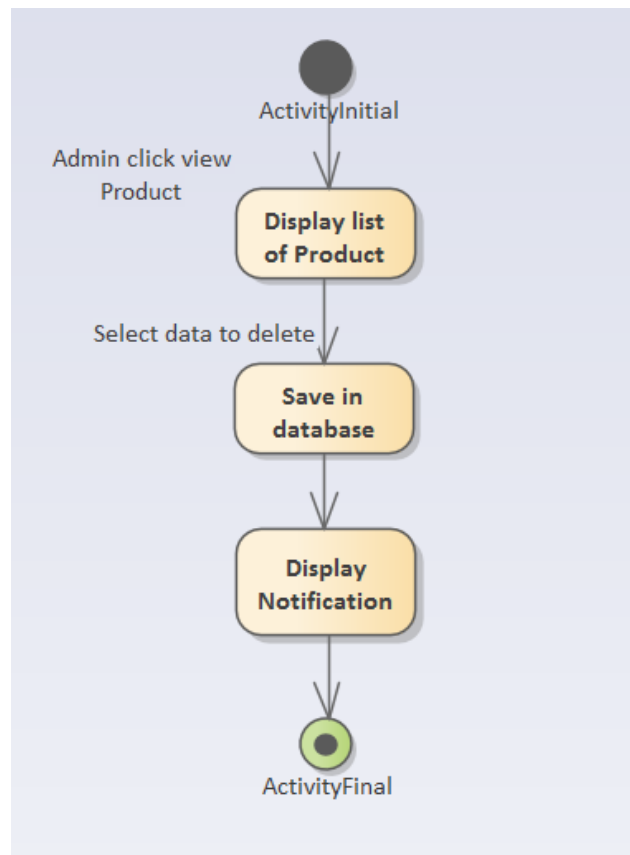


Figure 1.11: Activity Diagram of Delete Product

1.2.5 UCS05: Edit Product

Name:	Edit Product
ID:	UCS 05
Description:	This use case describes how admin can edit product in system.
Actor:	Admin
Pre-Condition	The admin must be logged in and clicks view products.
Normal Flow:	<ol style="list-style-type: none">1. The system will display list of products.2. Admin will choose one product to edit.3. The system will display current information of product.4. Admin will edit the information of products.5. The system saves the edited information.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has updated product.
Other Requirements:	None

Table 1.4: Use Case Description for Edit Product

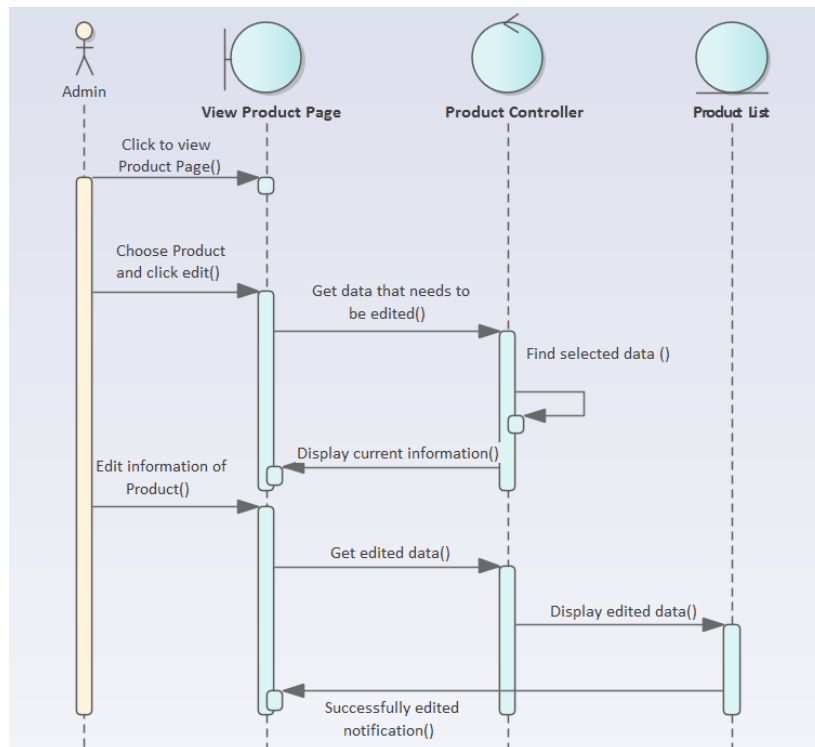


Figure 1.12: Sequence Diagram of Edit Product

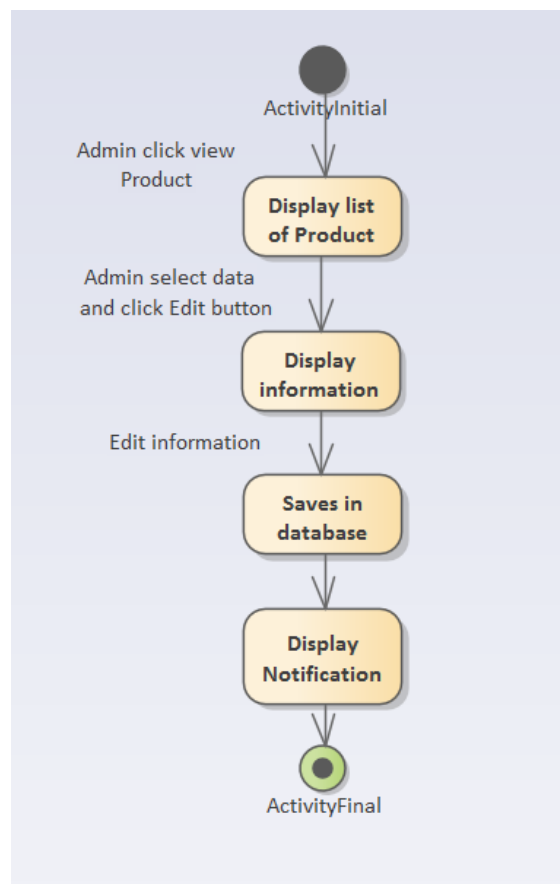


Figure 1.13: Activity Diagram of Edit Product

1.2.6 UCS06: View Product

Name:	View Product
ID:	UCS06
Description:	This use case describes how admin can view product in system.
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	<ol style="list-style-type: none">1. Admin click on View Product in side navigation bar.2. The system will display list of product.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has displayed list of product.
Other Requirements:	None

Table 1.6: Use Case Description for View Product

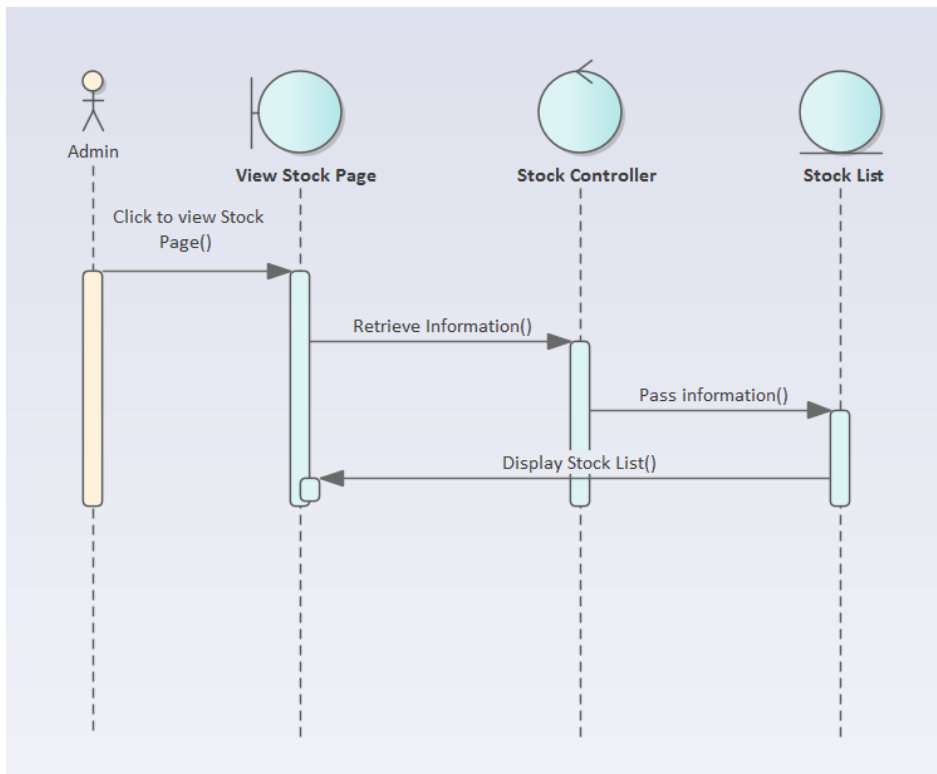


Figure 1.14: Sequence Diagram for View Product

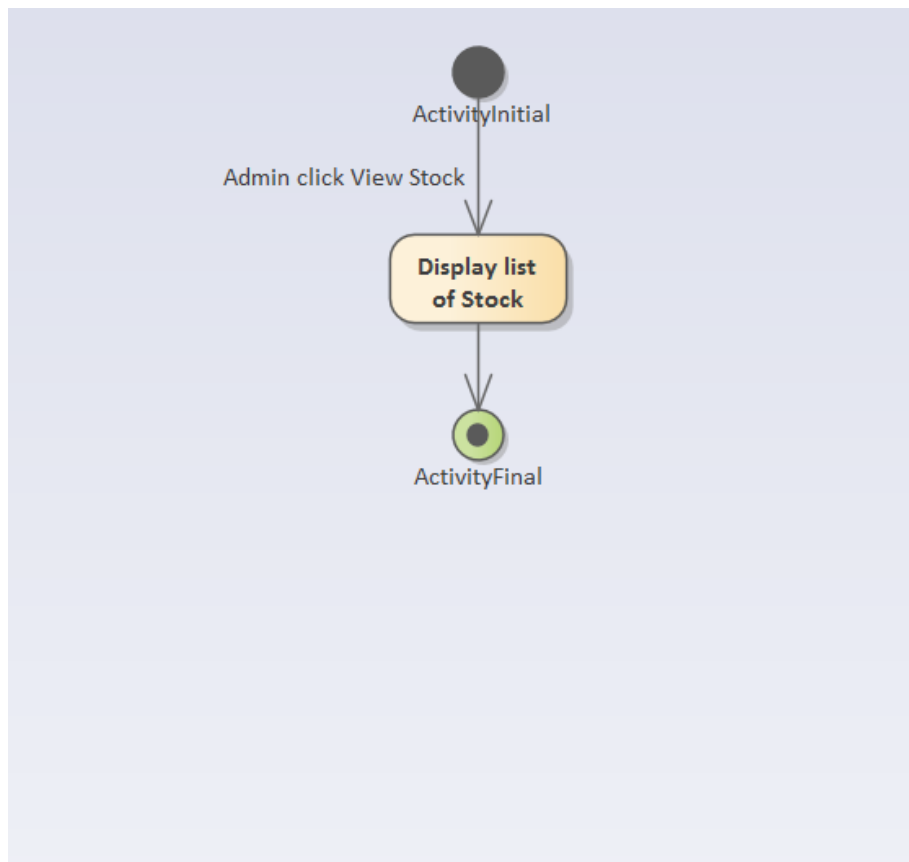


Figure 1.15: Activity Diagram for View Product

1.2.7 UCS07: Create Stock

Name:	Create Stock
ID:	UCS 07
Description:	This use case describes how an actor creates stock in system
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	<ol style="list-style-type: none">1. Admin clicks on create new Stock.2. The system displays create new product page.3. Admin choose the stock_name, stock_qty, stock_unit, price_per_kg and weight_per_qty.4. Admin clicks Add Stock.
Alternative Flow	-
Post conditions:	The system shows notification that new stock is added.
Other Requirements:	None

Table 1.7: Use Case Description for Create Stock

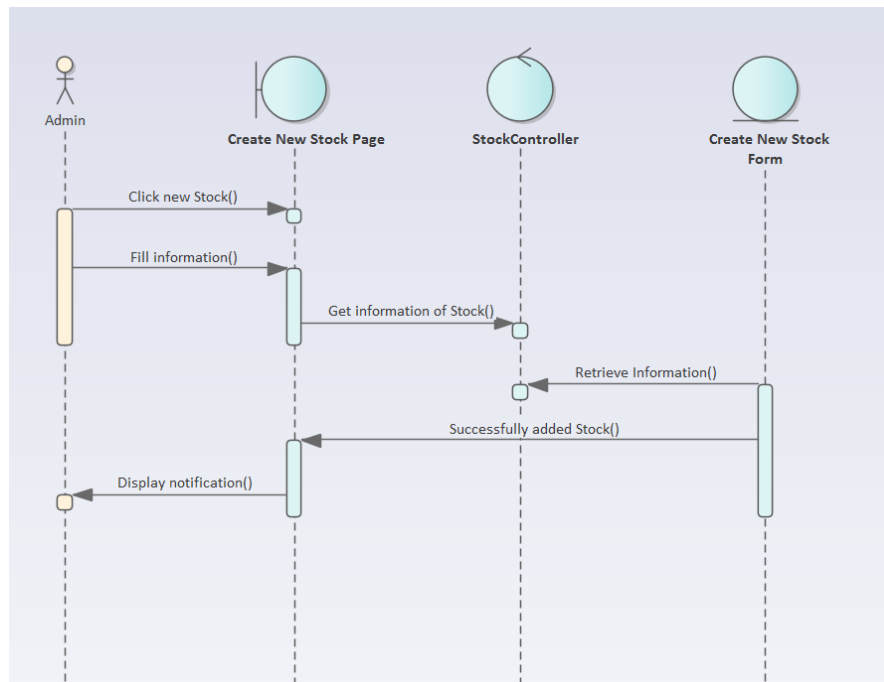


Figure 1.16: Sequence Diagram for Create Stock

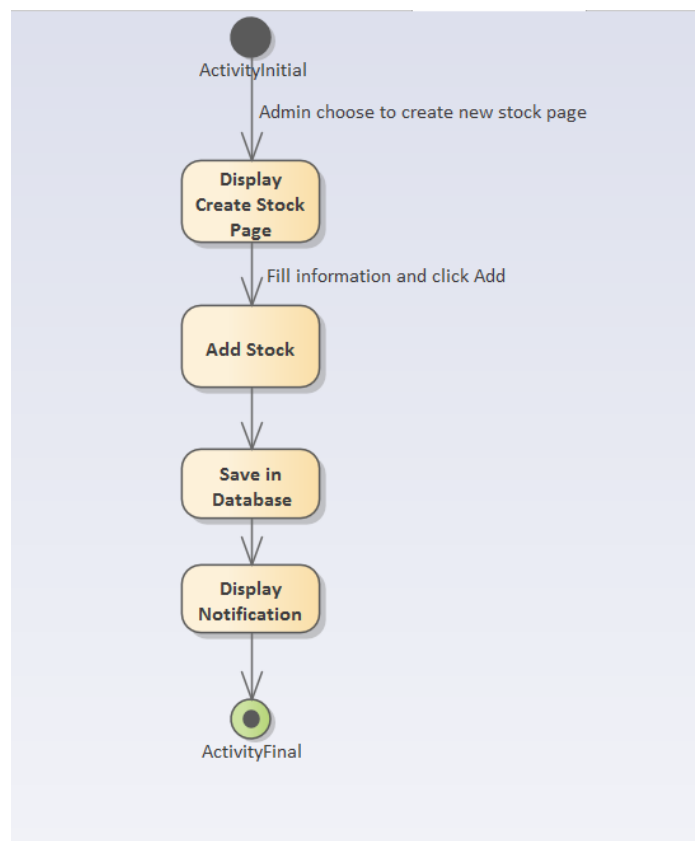


Figure 1.17: Activity Diagram for Create Stock

1.2.8 UCS08: Delete Stock

Name:	Delete Stock
ID:	UCS08
Description:	This use case describes how an admin delete stock in system.
Actor:	Admin
Pre-Condition	The admin must be logged in and clicked to view product.
Normal Flow:	<ol style="list-style-type: none">1. The system display list of stock.2. Admin clicks on Delete button on the stock that would be deleted.3. The system deletes the stock.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has deleted the stock and there is notification.
Other Requirements:	None

Table 1.8: Use Case Description for Delete Stock

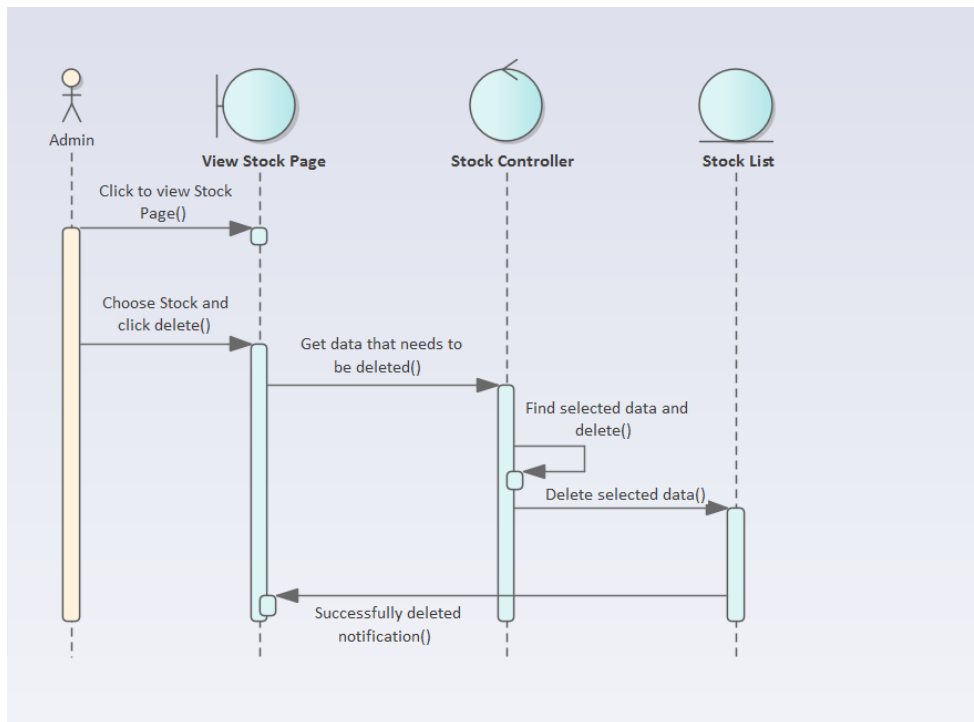


Figure 1.18: Sequence Diagram of Delete Stock

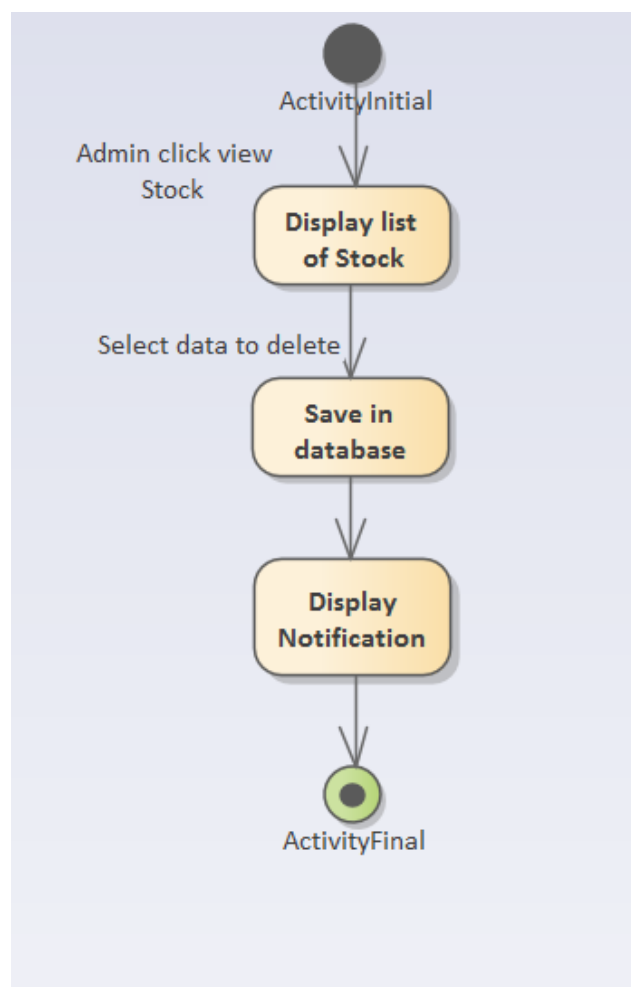


Figure 1.19: Activity Diagram of Delete Stock

1.2.9 UCS09: Edit Stock

Name:	Edit Stock
ID:	UCS09
Description:	This use case describes how admin can edit stock in system.
Actor:	Admin
Pre-Condition	The admin must be logged in and clicks view stock.
Normal Flow:	<ol style="list-style-type: none">1. The system will display list of stock.2. Admin will choose one stock to edit.3. The system will display current information of stock.4. Admin will edit the information of stock.5. The system saves the edited information.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has updated stock.
Other Requirements:	None

Table 1.9: Use Case Description for Edit Stock

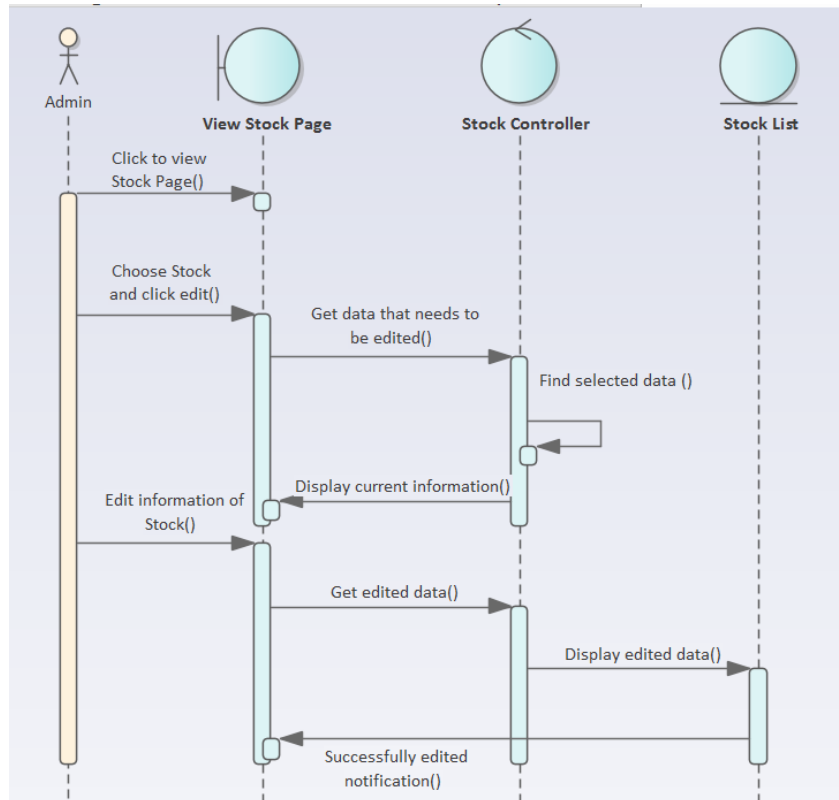


Figure 1.20: Sequence Diagram of Edit Stock

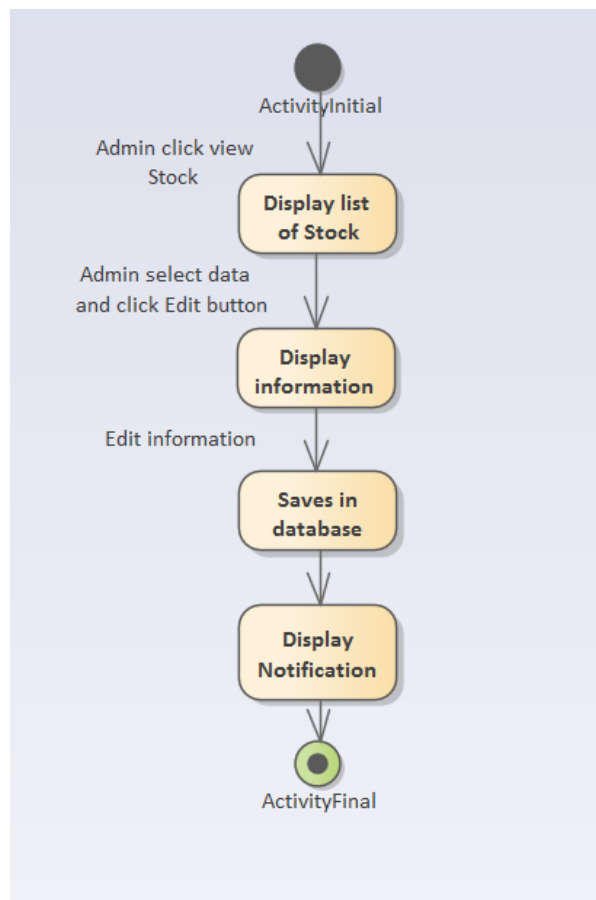


Figure 1.21: Activity Diagram of Edit Stock

1.2.10 UCS10: View Stock

Name:	View Stock
ID:	UCS10
Description:	This use case describes how admin can view stock in system.
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	3. Admin click on View Stock in side navigation bar. 4. The system will display list of stock.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has displayed list of stock.
Other Requirements:	None

Table 1.10: Use Case Description for View Stock

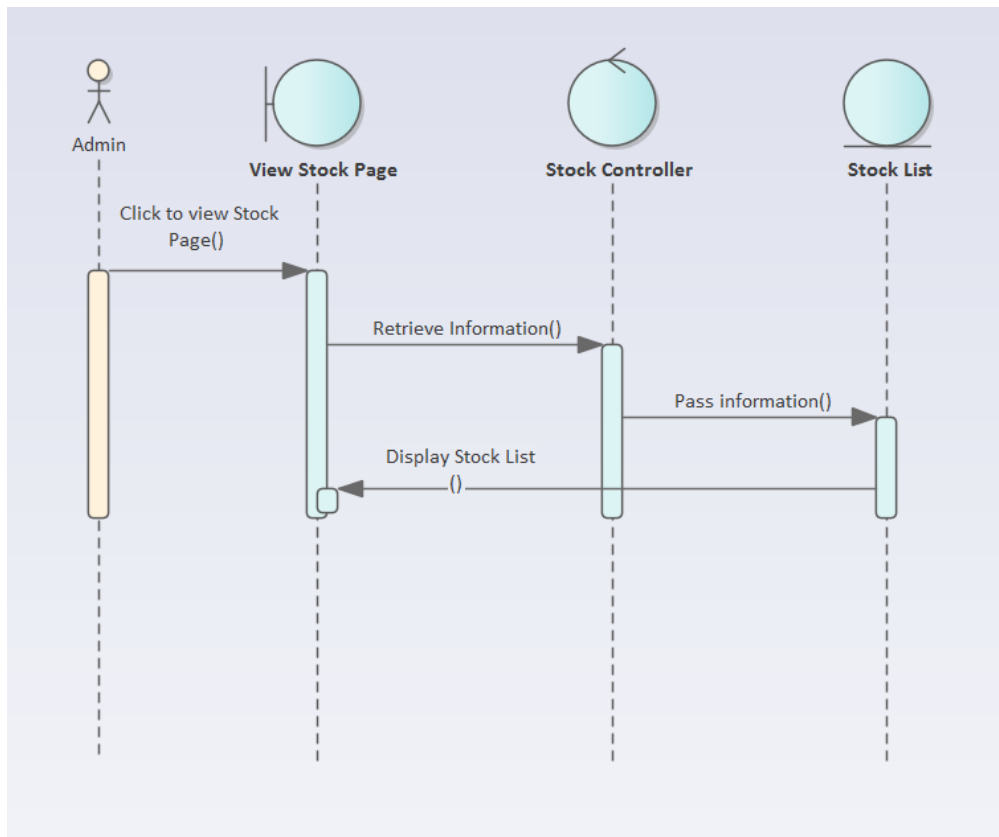


Figure 1.22: Sequence Diagram for View Stock

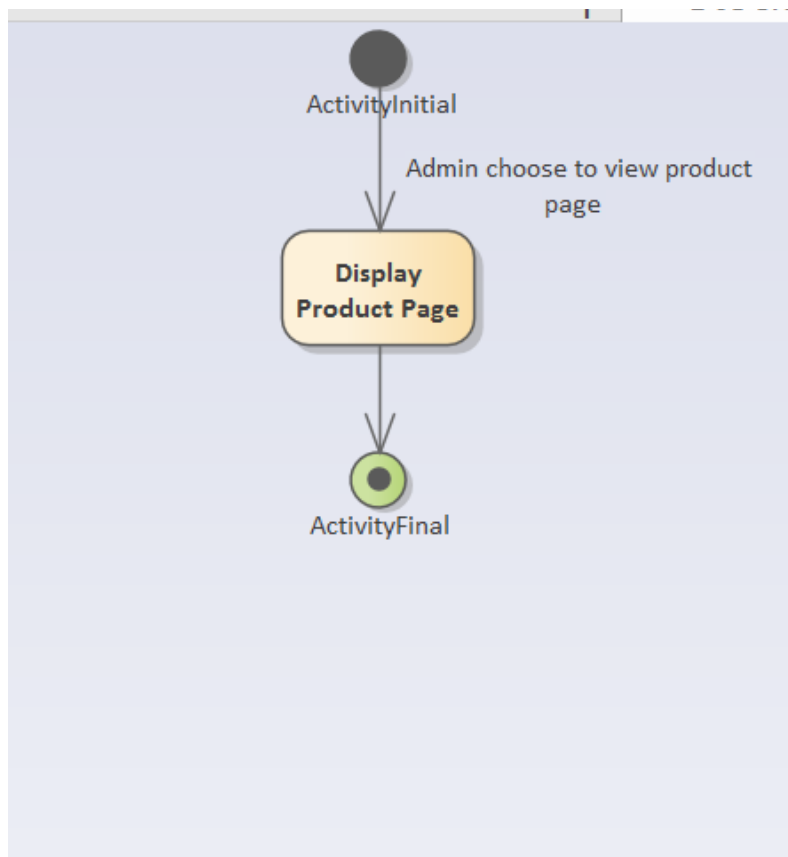


Figure 1.23: Activity Diagram for View Product

1.2.11 UCS11: Create Cost

Name:	Create Cost
ID:	UCS 11
Description:	This use case describes how an actor creates cost in system
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	<ol style="list-style-type: none">1. Admin clicks on create new Cost.2. The system displays create new product page.3. Admin choose the id,cost_name, stock_id and cost.4. Admin clicks Add Cost.
Alternative Flow	-
Post conditions:	The system shows notification that new cost is added.
Other Requirements:	None

Table 1.11: Use Case Description for Create New Cost

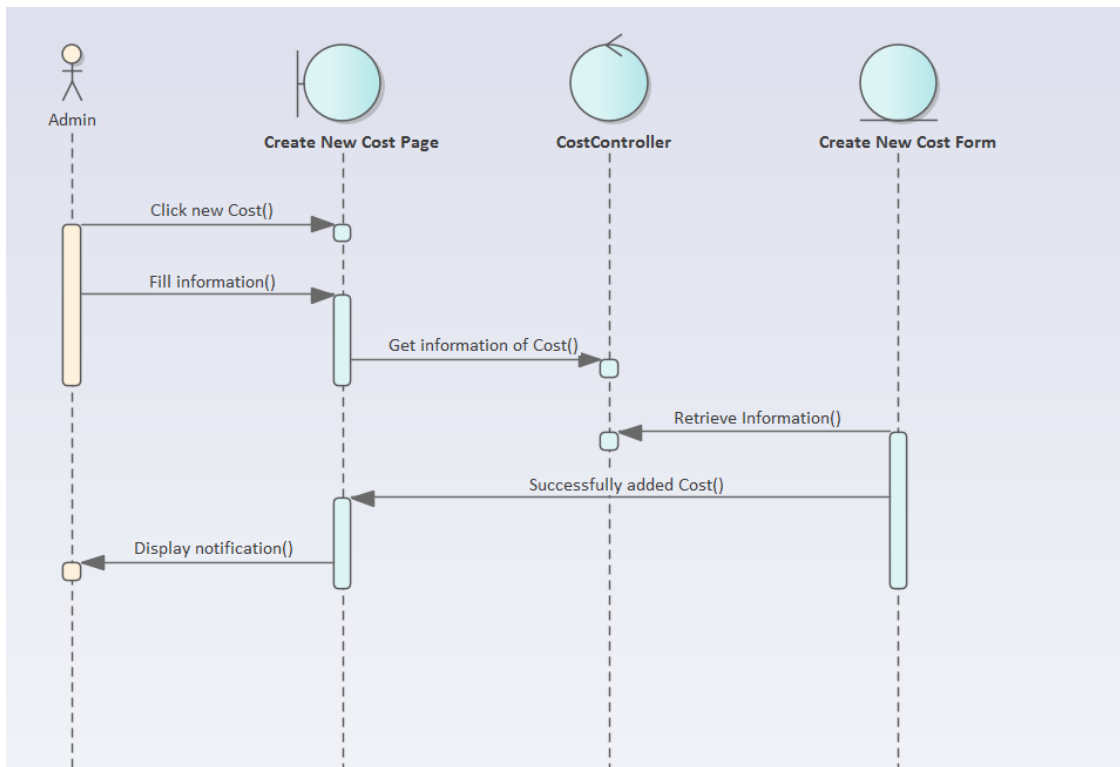


Figure 1.24: Sequence Diagram for Create New Cost

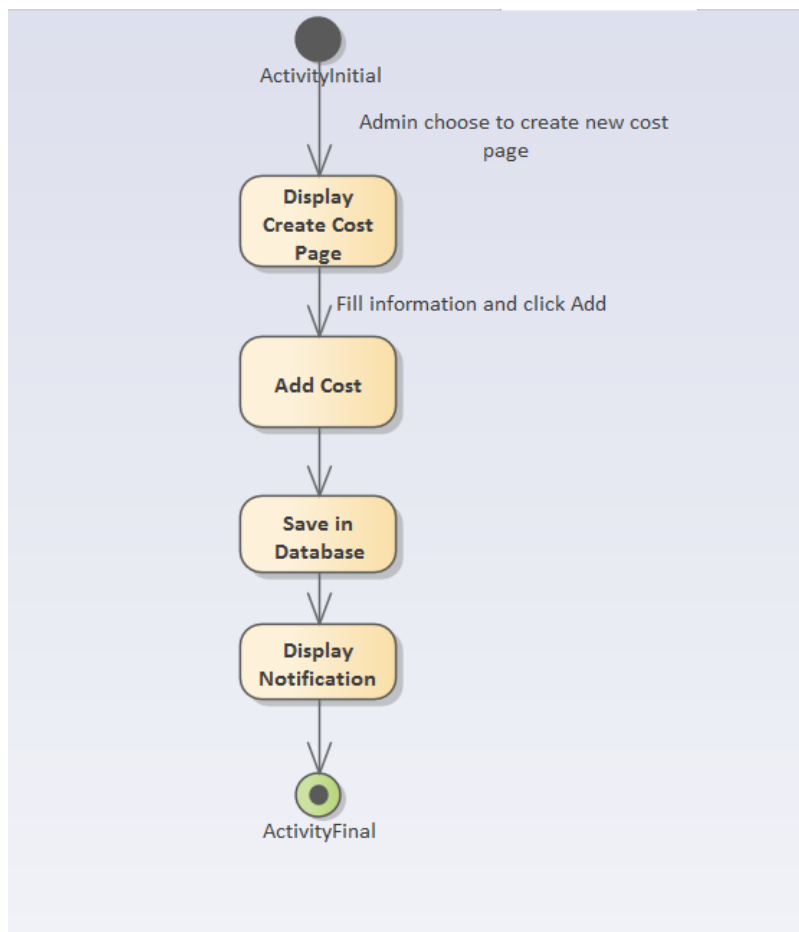


Figure 1.25: Activity Diagram for Create New Cost

1.2.12 UCS12: Delete Cost

Name:	Delete Cost
ID:	UCS 12
Description:	This use case describes how an admin delete cost in system.
Actor:	Admin
Pre-Condition	The admin must be logged in and clicked to view product.
Normal Flow:	<ol style="list-style-type: none">1. The system display list of cost.2. Admin clicks on Delete button on the cost that would be deleted.3. The system deletes the cost.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has deleted the cost and there is notification.
Other Requirements:	None

Table 1.12: Use Case Description for Delete Cost

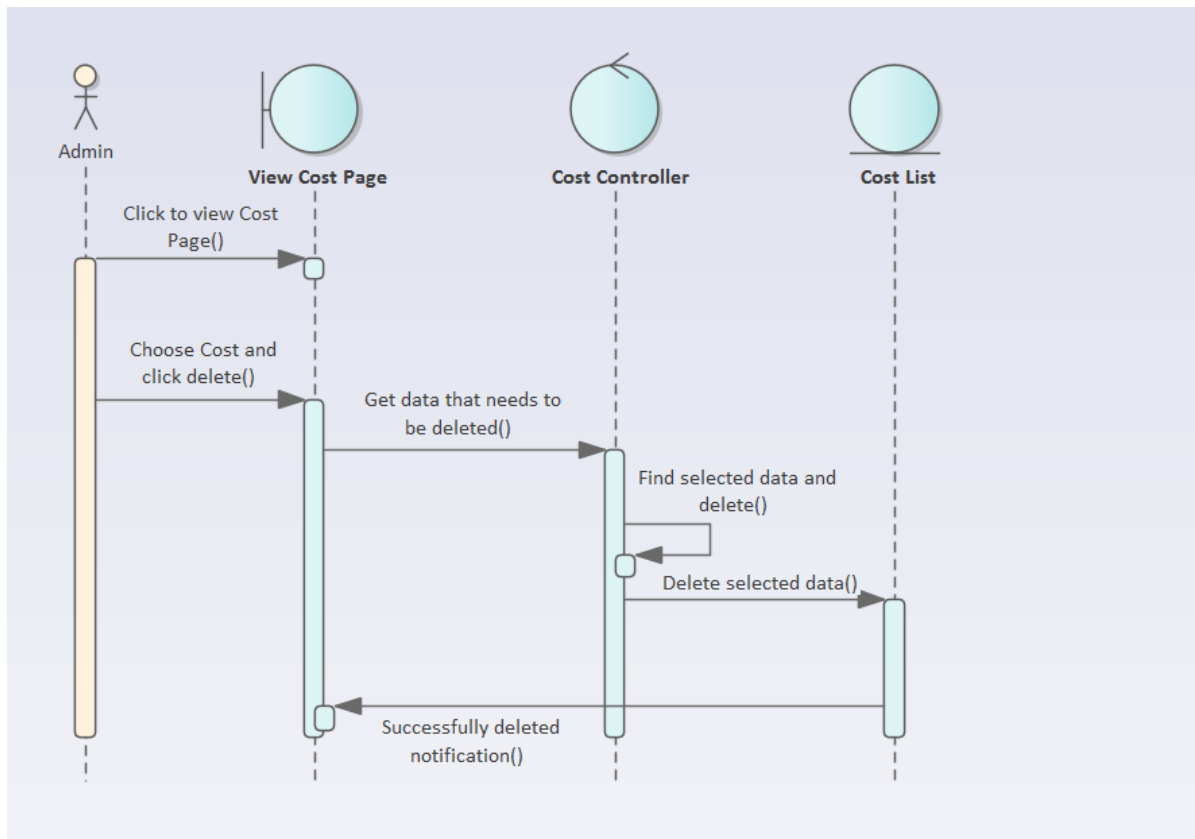


Figure 1.26: Sequence Diagram of Delete Cost

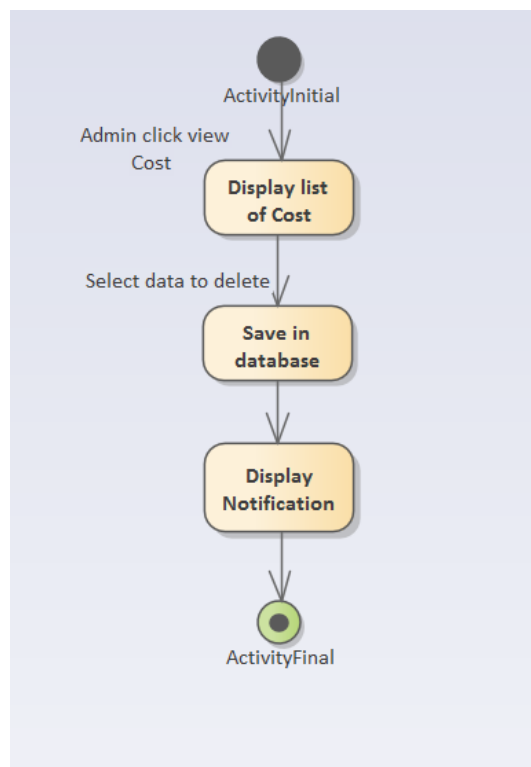


Figure 1.27: Activity Diagram of Delete Cost

1.2.13 UCS13: Edit Cost

Name:	Edit Cost
ID:	UCS13
Description:	This use case describes how admin can edit cost in system.
Actor:	Admin
Pre-Condition	The admin must be logged in and clicks view cost.
Normal Flow:	<ol style="list-style-type: none">1. The system will display list of cost.2. Admin will choose one cost to edit.3. The system will display current information of cost.4. Admin will edit the information of cost.5. The system saves the edited information.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has updated cost.
Other Requirements:	None

Table 1.13: Use Case Description for Edit Cost

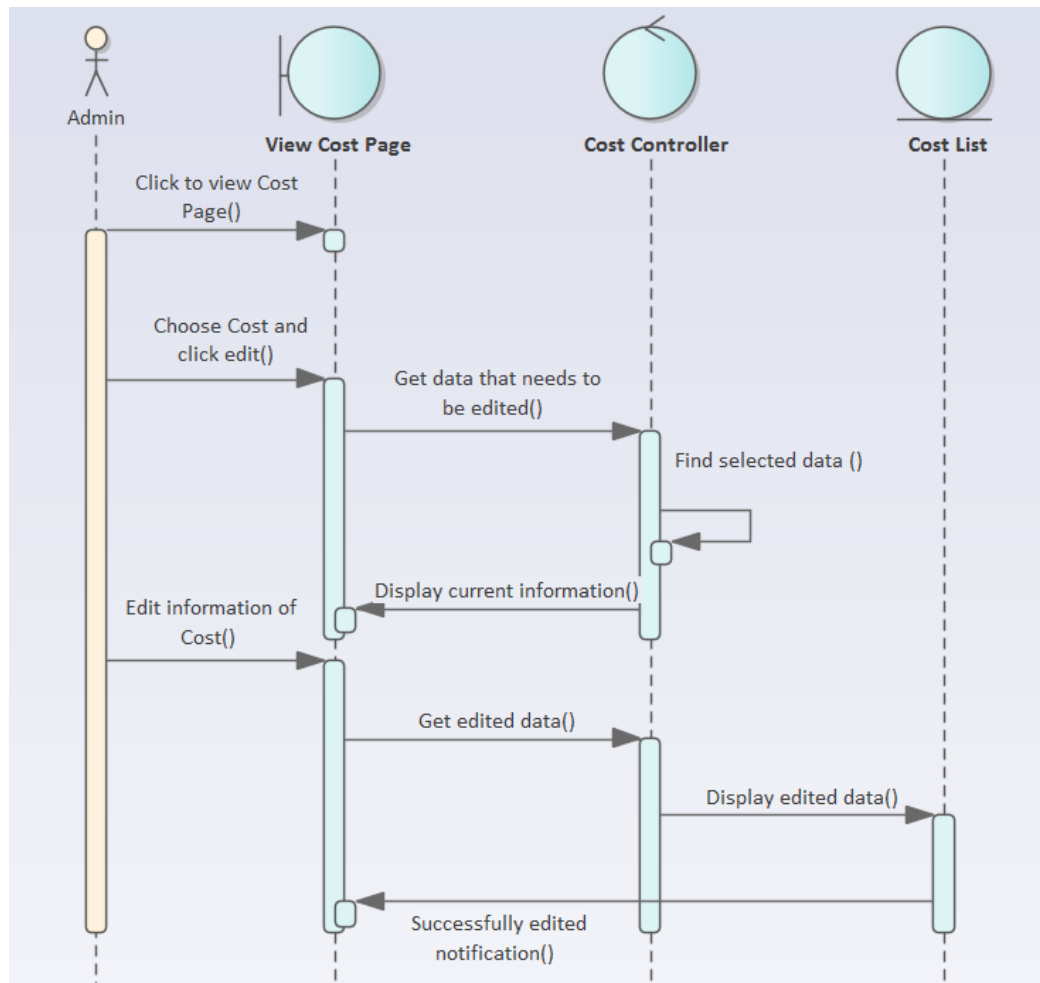


Figure 1.28: Sequence Diagram of Edit Cost

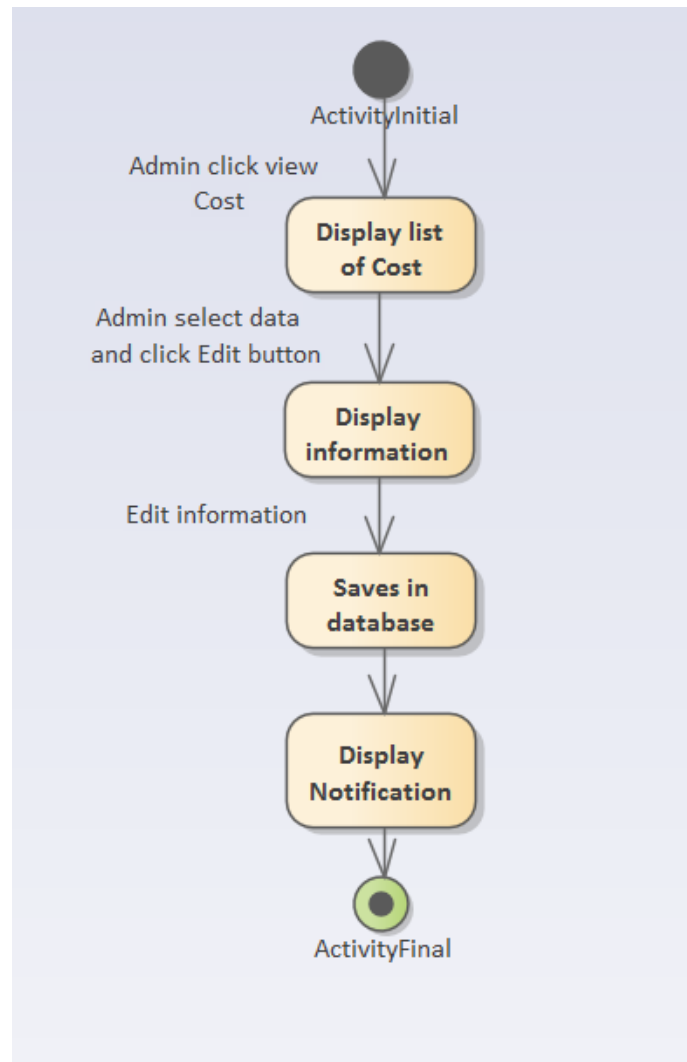


Figure 1.29: Activity Diagram of Edit Cost

1.2.14 UCS14: View Cost

Name:	View Cost
ID:	UCS14
Description:	This use case describes how admin can view cost in system.
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	5. Admin click on View Cost in side navigation bar. 6. The system will display list of cost.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has displayed list of cost.
Other Requirements:	None

Table 1.14: Use Case Description for View Cost

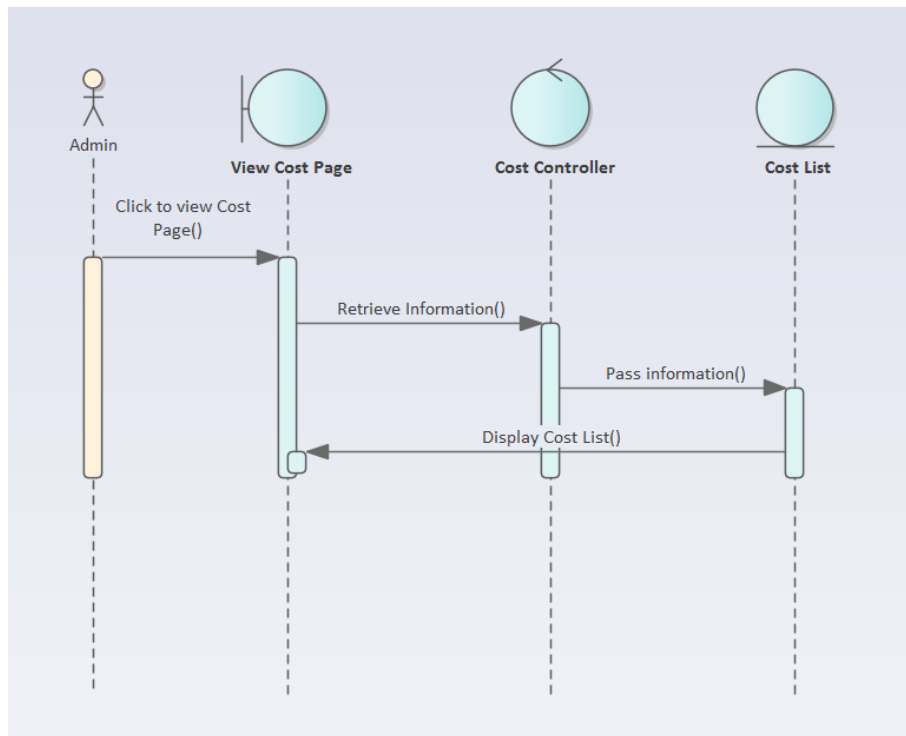


Figure 1.30: Sequence Diagram for View Cost

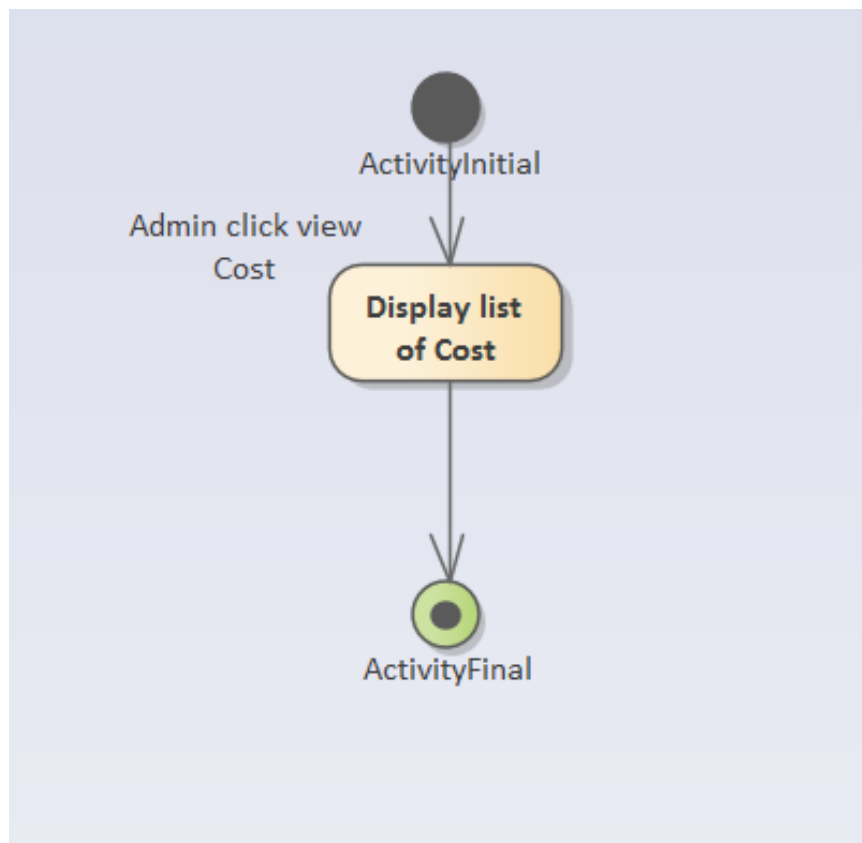


Figure 1.31: Activity Diagram for View Cost

1.2.14 UCS15: View Optimizer

Name:	View Optimizer
ID:	UCS15
Description:	This use case describes how admin can view profit in system.
Actor:	Admin
Pre-Condition	The admin must be logged in.
Normal Flow:	1. Admin click on Optimiser in side navigation bar. 2. The system will display profit optimization.
Alternative Flow	-
Post conditions:	If the use case was successful, the system has displayed profit optimization.
Other Requirements:	None

Table 1.15: Use Case Description for View Optimizer

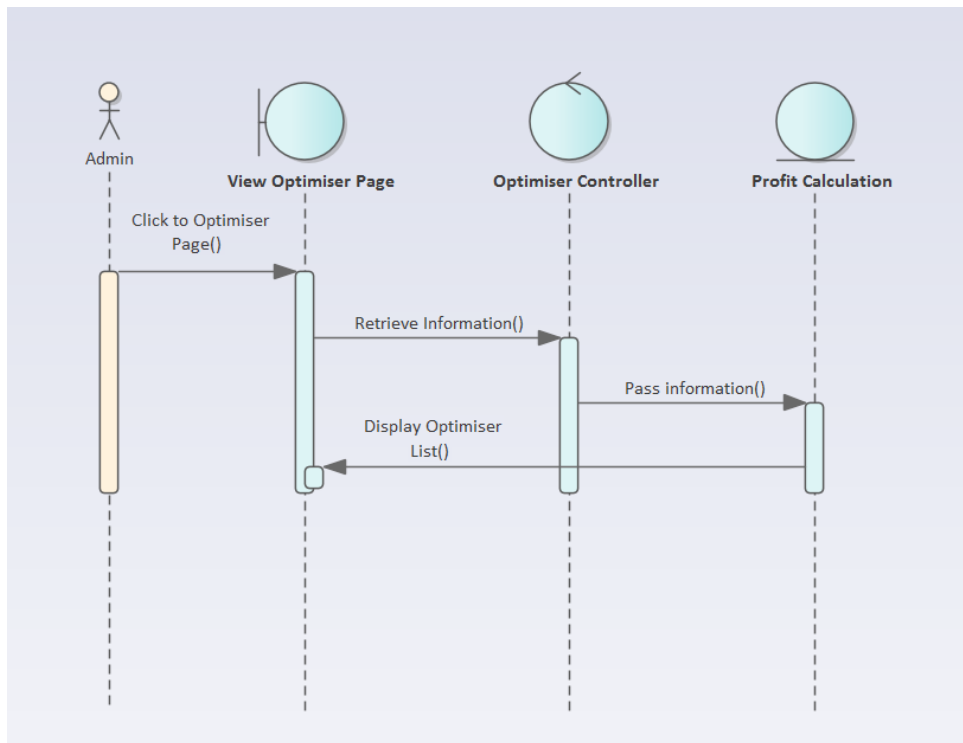


Figure 1.32: Sequence Diagram for View Optimizer

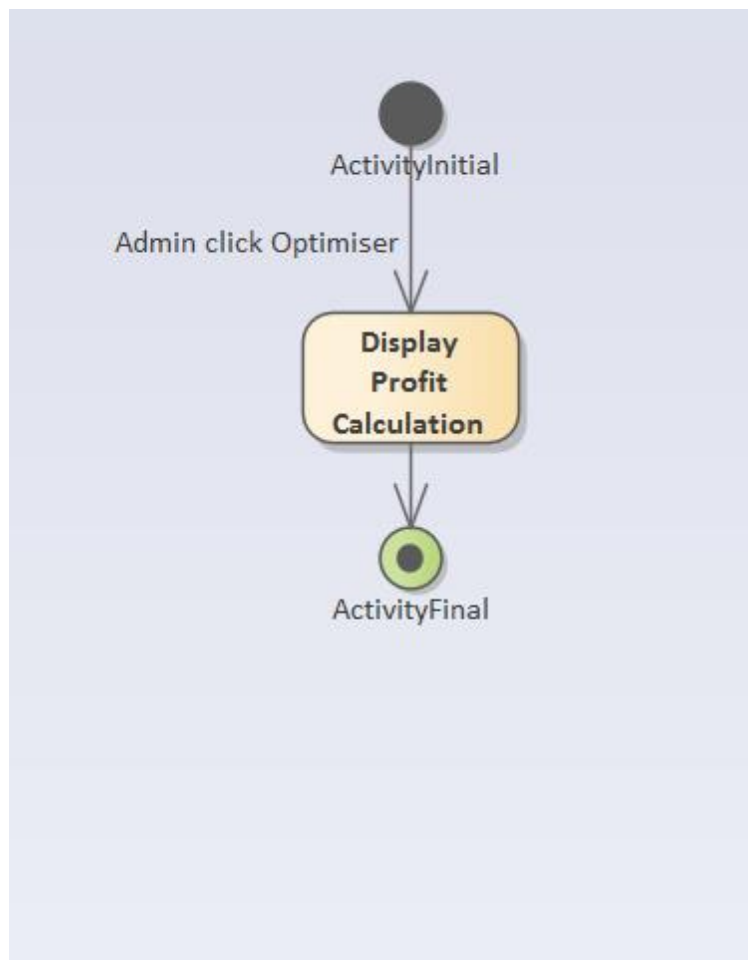


Figure 1.33: Activity Diagram for View Optimizer

1.3 Performance Requirements

1.3.1 Capacity

The system shall be able to handle huge amount of stock and product. Admin should be able to access the system at the same without having difficulties.

1.3.2 Reliability

The system should not crash often. The system should be able to handle errors accordingly. If error occurs, the admin should be informed of the errors. If the system crash, it should be able to work again immediately after repairing.

1.3.3 Response time

The system should be responsive to the user input. The response time of the system should be no more than 5 seconds 90% of the time. While performing functions such as opening link, or saving input, the delay must be below 5 seconds.

1.4 Design Constraints

1.4.1 Hard drive space

The system requires no hard drive space as it is website based system.

1.4.2 Accessibility

The system should be use through the internet browser. User can access the system through internet browser such as Google Chrome, Mozilla Firefox and others. The system is accessible through mobile application but not does not have mobile-friendly view.

1.5 Software System Attributes

1.5.1 Reliability

The system should be able to give the correct output to user input 98% of the time.

1.5.2 Availability

The system should be available at all times except for maintenance and network failure.

1.5.3 Security

The system should protect users' information. It should provide secured communication with the server. 100% of the time when user login using login ID and password, the information

between client and server should be encrypted. When user enter wrong password and login ID, system should invalidate the user and deny access.

1.5.4 Portability

The system should be portable with operating system such as Linux, Windows '95 up to the latest version and Mac OS.

1.6 Other Requirements

1.6.1 Maintainability

The system should be easy to maintain. The maintenance of the system should be low cost.

1.6.2 Portability

The system shall be easily accessed on a new platform without any additional cost of implementation.

1.6.3 Inter-operability

The system should provide interfaces that are understood by the admin. It should be able to operate with other systems at any time without implementation or any restrictions in access.