SOFTWARE REQUIREMENT SPECIFICATION (SRS)

For

PETAKOM MART MANAGEMENT SYSTEM

Version : 1.0.0

Date : 17/3/2023

Prepared by:
MUHAMMAD NAFIZ BIN MANSOR CB20067
SITI ZULAIKHA BINTI ABDUL MANAP CB20097
NUR AINUL HAYATI BINTI MOHD SUKOR CB20090
SITI NAJIHAH BINTI DAUD CB20120

TABLE OF CONTENT

Title	Pages
TABLE OF CONTENT	i-iii
1. INTRODUCTION	1
1.1 PURPOSE	1
1.2 SYSTEM IDENTIFICATION	1
1.3 SYSTEM OVERVIEW	1-2
1.4 REFERENCES	2-3
2. OVERALL DESCRIPTION	4
2.1 USER STORY	4
2.2 PRODUCT FUNCTIONS	5
3. DETAIL REQUIREMENTS DESCRIPTION	6
3.1 MANAGE INVENTORY	7
3.1.1 DESCRIPTION AND PRIORITY	7
3.1.2 STIMULUS/RESPONSE SEQUENCES	7
3.1.3 FUNCTIONAL REQUIREMENTS	8-11
3.1.4 APPENDIX - SEQUENCE DIAGRAM	11-14
3.2 MANAGE PROFILE	15

3.2.1 DESCRIPTION AND PRIORITY 15

3.2.2 STIMULUS/RESPONSE SEQUENCES 15

3.2.3 FUNCTIONAL REQUIREMENTS 15-18

3.2.4 APPENDIX - SEQUENCE DIAGRAM 19-22

3.3 MANAGE REPORT 23

3.3.1 DESCRIPTION AND PRIORITY 23

3.3.2 STIMULUS/RESPONSE SEQUENCES 23

3.3.3 FUNCTIONAL REQUIREMENTS 23-26

3.3.4 APPENDIX - SEQUENCE DIAGRAM 27-29

3.4 MANAGE PAYMENT 30

3.4.1 DESCRIPTION AND PRIORITY 30

3.4.2 STIMULUS/RESPONSE SEQUENCES 30

3.4.3 FUNCTIONAL REQUIREMENTS 30-35

3.4.4 APPENDIX - SEQUENCE DIAGRAM 35-39

3.5 MANAGE DUTY ROSTER 40

3.5.1 DESCRIPTION AND PRIORITY 40

3.5.2 STIMULUS/RESPONSE SEQUENCES 40

3.5.3 FUNCTIONAL REQUIREMENTS 40-43

3.5.4 APPENDIX - SEQUENCE DIAGRAM 44-46

3.6 GUI/WIREFRAME 47-65

APPENDIX A: ACRONYMS AND ABBREVIATION 66

APPENDIX B: DAILY STANDUP/MEETING NOTES 67-68

APPENDIX C: TRACEABILITY MATRIX 69-71

1. INTRODUCTION

1.1 PURPOSE

The purpose of writing this document is to make the process of analysing requirement specifications more convenient as it is a comprehensive description of the system to be developed. All of the required specifications can be simply analysed, and we can spot some of the confusing requirements and try to re-elicit them from the relevant stakeholder by using the SRS (Software Requirement Specifications) formats. This document works as a guideline for the team before proceeding into the system design phase.

1.2 SYSTEM IDENTIFICATION

This Software Requirement Specification (SRS) belongs to the "PETAKOM Mart Management System" (PETAKOM MMS)

System Title: PETAKOM Mart Management System

System Abbreviation: PETAKOM-MMS

Requirement Identification ID: RQ-<Requirement Number> - <System Name> - <Year>

Example: RQ02-PETAKOM-MMS-2023

Use Case Identification ID: <UC><Use Case Number> - <System Name> - <Year>

Example: UC01-PETAKOM-MSS-2023

1.3 SYSTEM OVERVIEW

PETAKOM Mart Management System (PETAKOM MM) is an application that is made specifically for people at the Faculty of Computing in University Malaysia Pahang. This application can facilitate the purchase of customers consisting of students and staff. Nevertheless, this application aims to ease the management of PETAKOM MM System. The management of the system includes the payment of purchases made by the customer which need to be managed by the cashier, then the admin acts as a viewer of the payment list. While coordinator assigned to manage reports about the statistical product sales.

The PETAKOM MM System should:

1. Manage inventory. The actor involved in this module is the admin. This module is responsible for managing anything related to the product. Among that, which include the admin that can add new items to the PETAKOM MM in addition by being able to see the list and product details, which must be filled in by the admin.

2. Manage profile is the module that is designed for the admin to create a new profile for the PETAKOM MM members by adding the information. Among the information that needs to be filled in in order to create a new profile include first name, last name, role, course, email, and contact number. In addition, the admin can also edit profile information.
3. Manage report module is to generate reports for the sales of the product that is sorted by daily, weekly, monthly, and yearly. The report should be visualized by the motion graphics such as a graph statistic and table data which also displays the item's name, the quantity of the item sold, the total profit, the total investment, and the net price.

4. Manage payment module is the module that needs to be managed by admin and cashier when the user performs payment after they made purchases of the product in the system. The system will automatically add the list of the payments that need to be settled by the customer. In order to complete the payment, customers need to walk into the PETAKOM MM System as the payment is available via cash and QR Pay.

5. Manage duty roster is the module that manages the duty schedule. The system provides a calendar which the admin can play a role by noting the duty on the day that they wanted. Admin can add schedule time by adding the day and date for start and end time, and also the person in charge to be on duty that day. Besides, the admin is also able to update and delete the duty schedule.

1.4 REFERENCES

KALAM UMP. [Online]. *SRS Template*. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjXy87F9qX-AhVR-TgGHc66AHEQFnoECAoQAQ&url=https%3A%2F%2Fweb.cs.dal.ca%2F~hawkey%2F3130%2Fsrs_template-ieee.doc&usg=AOvVaw3m6N2fEEPiLkM7-nflitlv

Google. [Online]. *Graduation Outliner: Software Requirement Specification.* https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjx7vPv9qX-

AhXT7TgGHdXaAjQQFnoECAcQAQ&url=https%3A%2F%2Fdigitalcommons.calpoly.edu%2Fcgi%2Fviewcontent.cgi%3Ffilename%3D1%26article%3D1007%26context%3Dcscsp%26type%3Dadditional&usg=AOvVaw2Witbb5NO6HC60bo0raq8S

KALAM UMP. [Online]. *Lab 3 Session Online.* https://drive.google.com/file/d/1mBV_VP4-Ez47fwWRXIhpzYL886DJg4c0/view

2. OVERALL DESCRIPTION

2.1 USER STORY

The PETAKOM Mart Management System (PETAKOM MMS) is a standalone system which does not involve any third-party software. This action will give an overview of the whole system and explain in context to show how the system interacts with other systems and introduce the basic functionality. It will also describe what type of stakeholders will use the system and what functionality is available for each type.

There are 3 kinds of users, which are the admin, cashier and coordinator of the PETAKOM committee. These 3 users will use the system. The system should allow the admin to add, remove and modify specific information accurately.

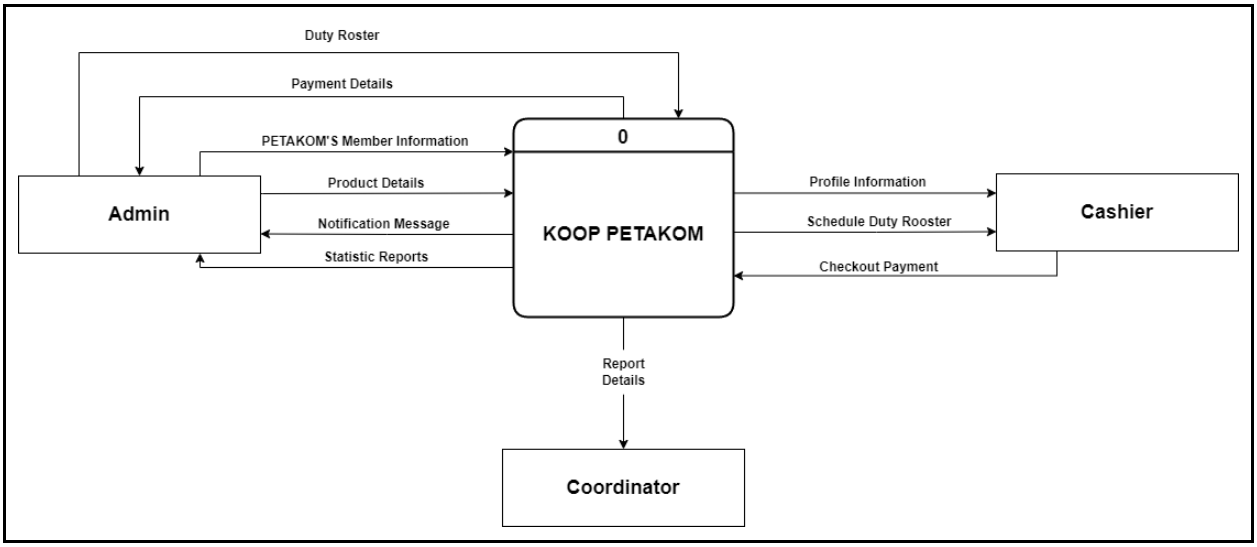


Figure 2.1 above shows the Context Diagram for PETAKOM Mart Management System

2.2 PRODUCT FUNCTIONS

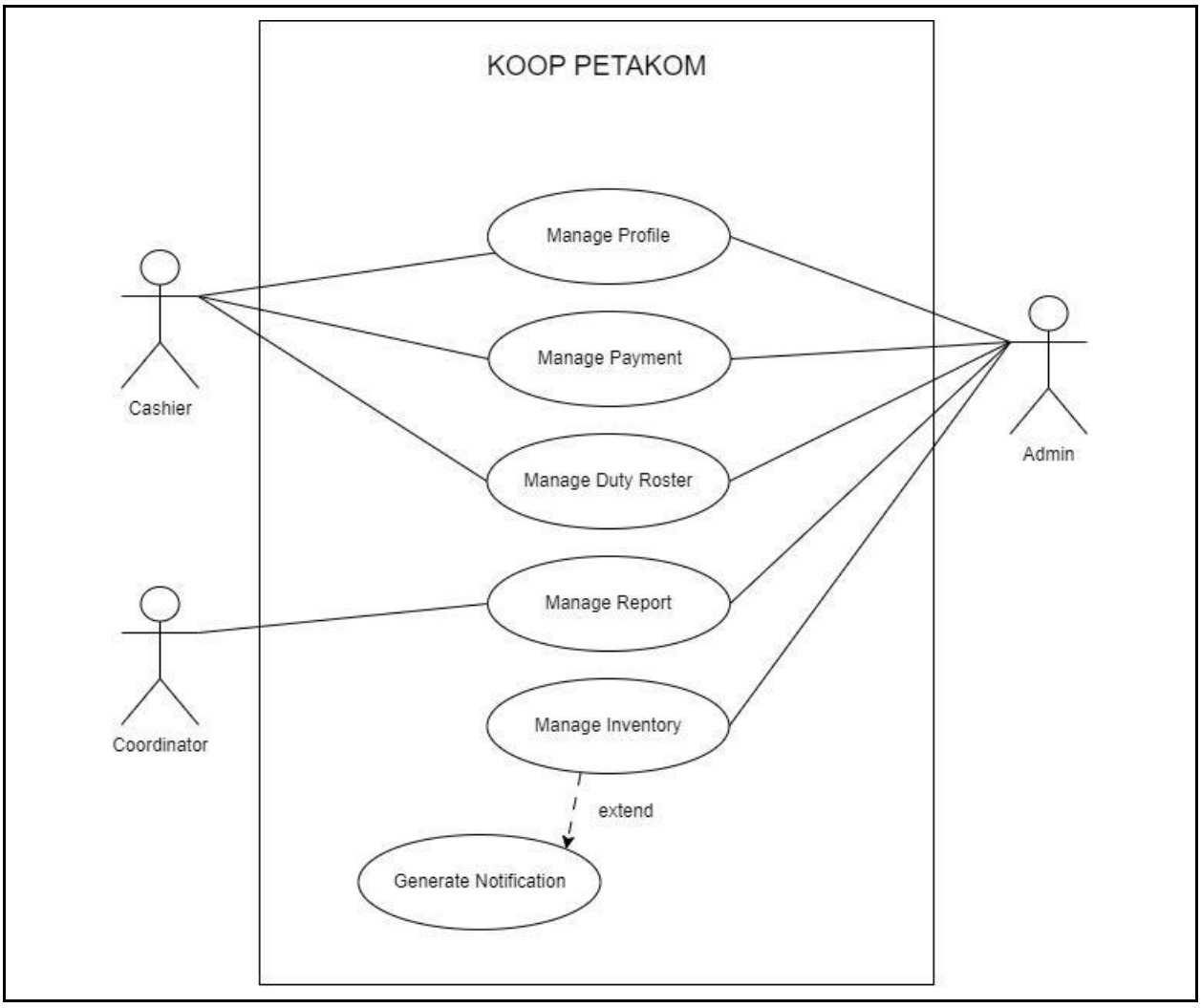


Figure 2.2 above shows the Use Case PETAKOM Mart Management System

Figure 2.2 shows the use case diagram of PETAKOM MMS. There are 5 use cases identified, which are:

1. Manage Inventory
2. Manage Profile
3. Manage Report
4. Manage Payment
5. Manage Duty Roster

Manage Inventory, Manage Profile, Manage Payment and Manage Duty Roster is invoked after the actor does log in. For Manage Report, only the Admin part will be invoked after the actor does log in, while for Coordinator doesn't need to log in to invoke.

3. DETAIL REQUIREMENTS DESCRIPTION

3.1 MANAGE INVENTORY (RQ01-PETAKOM-MMS-2023)

3.1.1 DESCRIPTION AND PRIORITY

System shall allow admin to manage inventory by adding new products for PETAKOM MM. Admin may view and update product details. Admin also may delete any of selected products. System shall allow the admin to view notification messages. Therefore, this requirement is a high priority.

3.1.2 STIMULUS/RESPONSE SEQUENCES

Stimulus:	Admin requests to add a new product.
Response:	System provides a product information form to allow the admin to fill in product details.
Stimulus:	Admin requests to update product details.
Response:	System provides a pre-populated form to allow the admin to update product details.
Stimulus:	Admin requests to view selected product details.
Response:	System displays all details of selected product.
Stimulus:	Admin requests to delete selected products.
Response:	System remove selected product from Store Management page.
Stimulus:	Admin requests to view notification messages.
Response:	System displays all notification messages.

3.1.3 FUNCTIONAL REQUIREMENTS

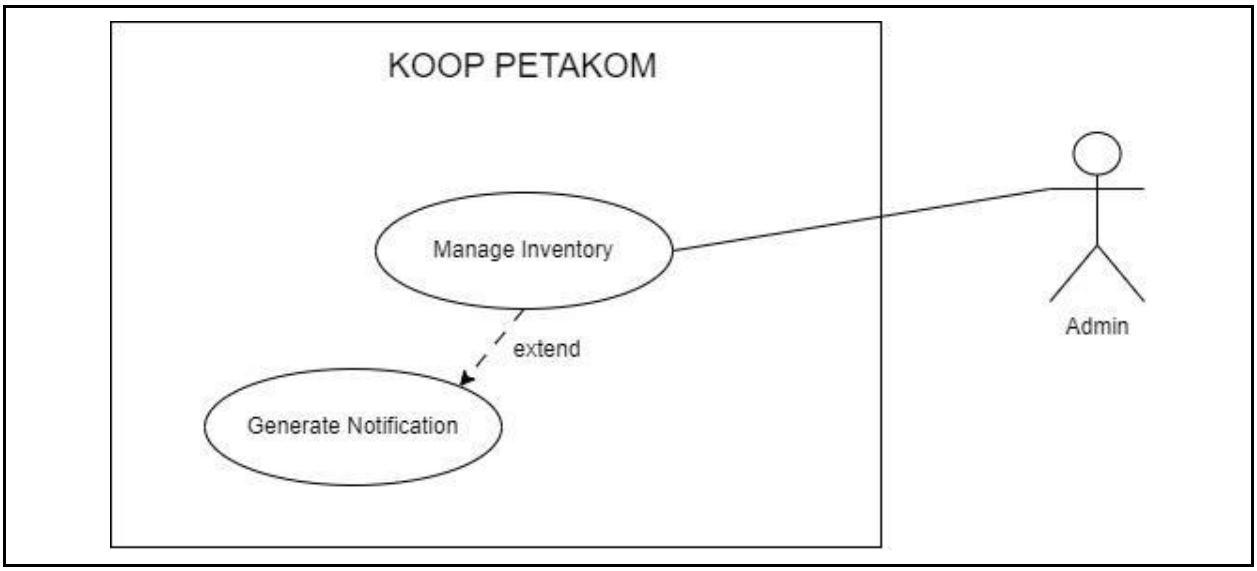


Figure above show the Use Case Diagram of Manage Inventory

Feature Requirements: Manage Inventory (FR-MI)

Feature ID	Feature Name	Description
FR-MI1	Add New Product	The system shall allow the admin to add a new product.
FR-MI2	Update Product Details	The system shall allow the admin to update selected product details.
FR-MI3	View Product Details	The system shall allow the admin to view selected product details.
FR-MI4	Delete Product	The system shall allow the admin to delete selected product
FR-MI5	View Notification Messages	The system shall allow the admin to view message notification messages.

The table above shows the Future Requirement Manage Inventory

Use Case ID	UC01-PETAKOM-MMS-2023	
Use Case Name	Manage Inventory	
Purpose	To allow admin to add, update, view and delete products. Admin also allow to view notification messages.	
Actor	Admin	
Trigger	User clicks on the <<Store Management>> button.	
Pre-condition	User must log in as Admin to access the PETAKOM Mart Management system.	
Scenario Name	**Step**	**Action**
Main Flow	1.	User click on the <<Store Management>> button in the system.
	2.	The system retrieves data from the DB and displays Store Management page.
	3.	The user is able to do the following options: [A1] Add product [A2] Update product details [A3] View product details [A4] Delete product [A5] View notification messages
	4.	The use case end.
Alternative Flow 1 - Add product	1.1.	User click on the <<Add Product>> button.
	1.2.	The system retrieves data from DB and displays blank product information form.
	1.3.	User fill in product details in the form and click on the <<Save>> button. [A6: Cancel during add product]
	1.4.	The system stores product details into DB and add new products to the Store Management page.

	1.5.	Back to Main Flow Step 4.
Alternative Flow 2 - Update Product Details	2.1.	User search any of the product to be updated
	2.2.	The system retrieve data from DB and display the list of products
	2.3.	User choose and click on any of the products to be updated.
	2.4.	The system retrieves data from DB and displays all details of the selected product.
	2.5.	User click on the <<Edit>> button.
	2.6.	The system retrieves data from DB and displays Edit Product form.
	2.7.	User edit the pre-populated product information form and click on the <<Update>> button. [A7: Cancel during edit product]
	2.8.	The system store updated product details into DB and updates product details on the Product page.
	2.9.	Back to Main Flow Step 4.
Alternative Flow 3 - View Product Details	3.1.	User search any of the product to be viewed
	3.2.	The system retrieve data from DB and display the list of products
	3.3.	User choose and click on any of the products to be viewed.
	3.4.	The system retrieves data from DB and displays all details of the selected product.
	3.5.	User view details of selected product.
	3.6.	Back to Main Flow Step 4.
Alternative Flow 4 -	4.1.	User search any of the product to be deleted

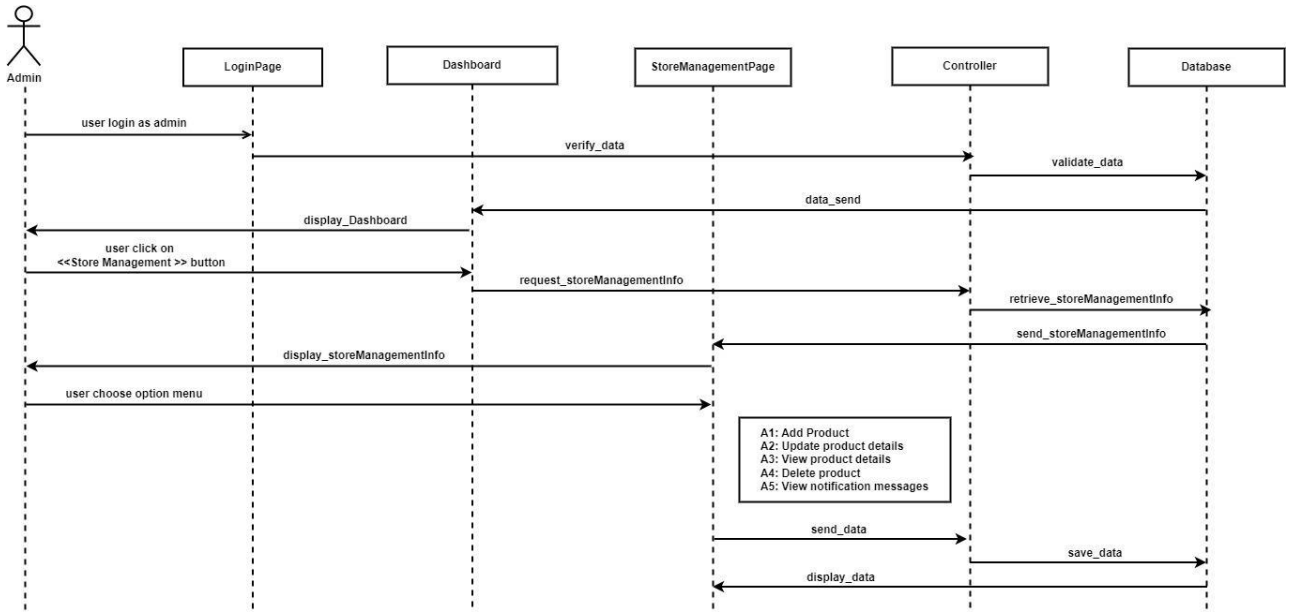
Delete product	4.2.	The system retrieve data from DB and display the list of products
	4.3.	User select any of the products to be deleted and click on the <<Delete Product>> button.
	4.4.	The system displays pop-up alert to get confirmation to delete the product.
	4.5.	User click on <<Yes>> button [A8: No button]
	4.6.	The system delete the selected product from the Store Management page and DB.
	4.7.	Back to Main Flow Step 4.
Alternative Flow 5 - View Notification Messages	5.1.	User click on the notification icon button.
	5.2.	The system retrieves data from DB and displays all notification messages.
	5.3.	User view notification messages.
	5.4.	Back to Main Flow Step 4.
Alternative Flow 6 - Cancel During Add Product	6.1.	User click on the <<Cancel>> button.
	6.2.	Back to Main Flow Step 4.
Alternative 7 - Cancel During Edit Product	7.1.	User click on the <<Cancel>> button.
	7.2.	Back to Main Flow Step 4.
Alternative 8 - No button	8.1.	User click on the <<No>> button.
	8.2.	Back to Main Flow Step 4.
Rules	The system connects to the internet.	
Sequence Diagram	Refer Appendix	

	A-1.1: Sequence Diagram - Main Flow A-1.2: Sequence Diagram - Alternative Flow A1 A-1.3: Sequence Diagram - Alternative Flow A2 A-1.4: Sequence Diagram - Alternative Flow A3 A-1.5: Sequence Diagram - Alternative Flow A4 A-1.6: Sequence Diagram - Alternative Flow A5

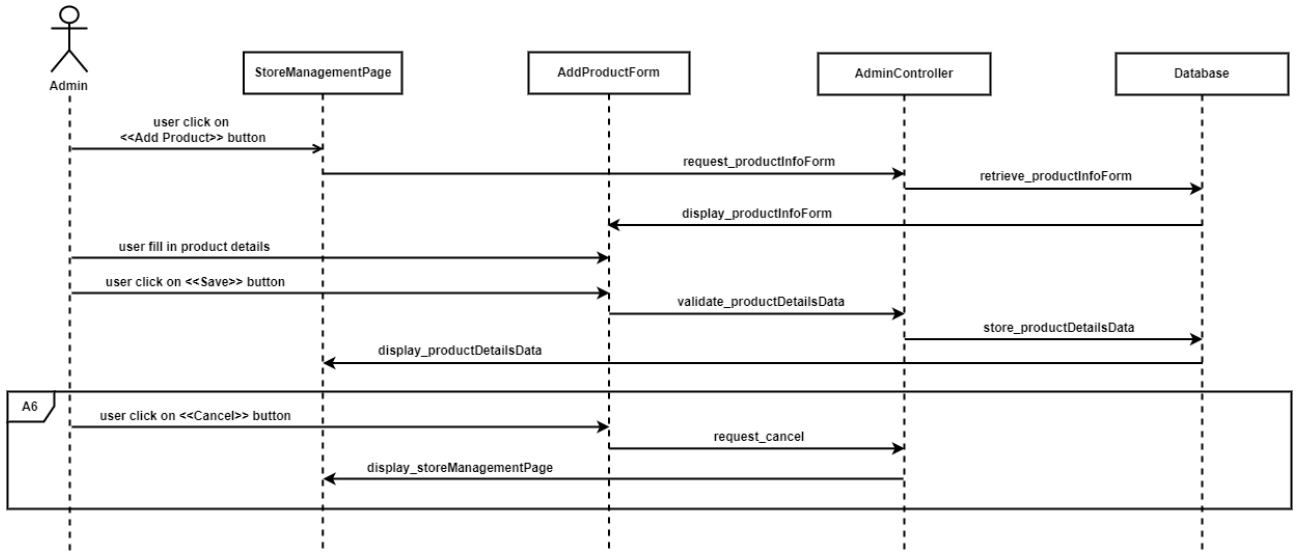
The table above shows the Use Case Description Manage Inventory

3.1.4 APPENDIX - SEQUENCE DIAGRAM

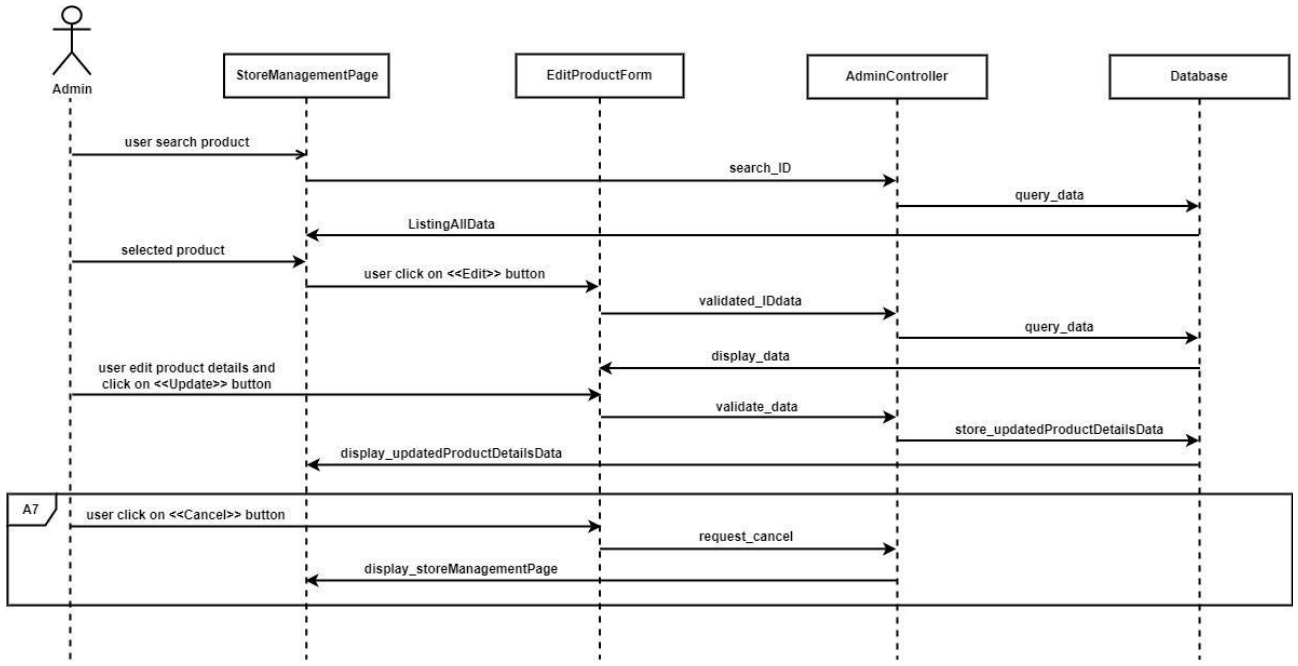
A-1.1: Sequence Diagram - Main Flow



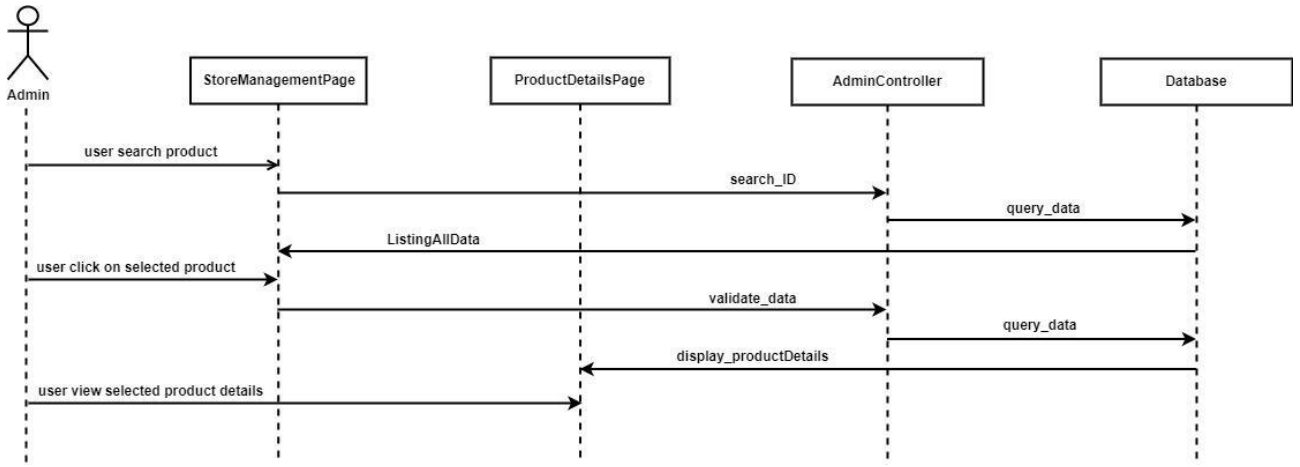
A-1.2: Sequence Diagram - Alternative Flow A1



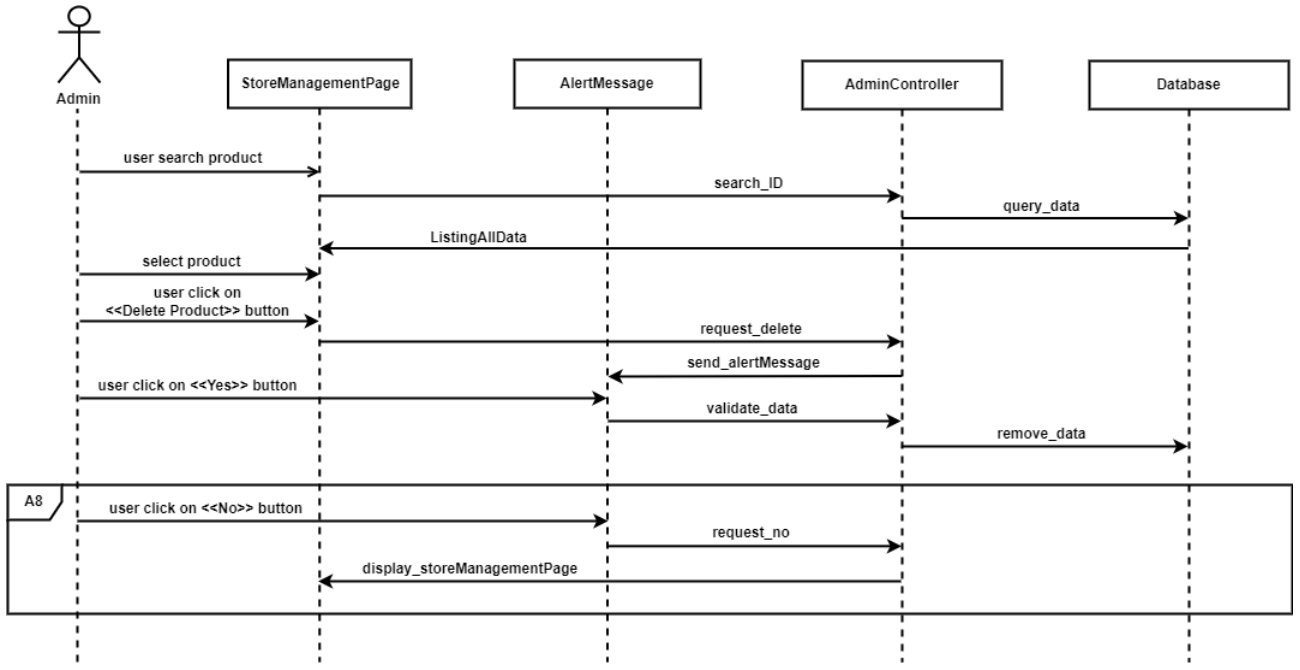
A-1.3: Sequence Diagram - Alternative Flow A2



A-1.4: Sequence Diagram - Alternative Flow A3



A-1.5: Sequence Diagram - Alternative Flow A4



A-1.6: Sequence Diagram - Alternative Flow A5

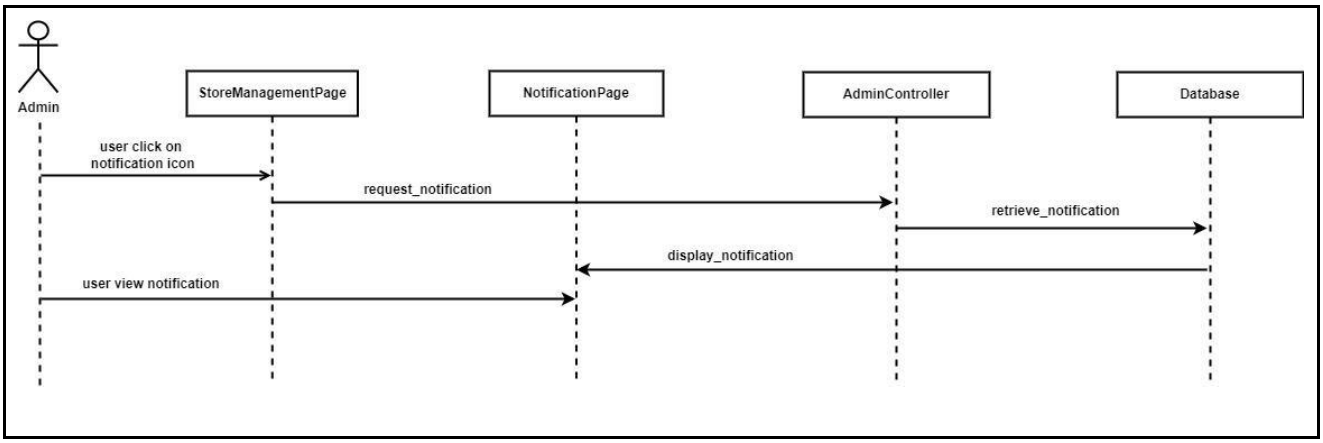


Figure above shows the Sequence Diagram of Manage Inventory

3.2 MANAGE PROFILE (RQ02-PETAKOM-MMS-2023)

3.2.1 DESCRIPTION AND PRIORITY

System shall allow the admin to manage the profile for the PETAKOM MM System .

3.2.2 STIMULUS/RESPONSE SEQUENCES

Stimulus:	Admin requests to create a new profile for the PETAKOM members.
Response:	System provides a form for the admin to enter the PETAKOM member's information.
Stimulus:	Admin clicks on the <<Edit Profile>> button.
Response:	System displays the profile editing interface.
Stimulus:	Admin enters the new information in the profile interface.
Response:	System saves changes and displays the success message.
Stimulus:	Admin clicks on the <<Delete Account>> button.
Response:	System will display the confirmation message.
Stimulus:	Admin clicks on the <<Yes>> button for confirmation to delete the profile.
Response:	System deletes the selected profile and displays a success message.

3.2.3 FUNCTIONAL REQUIREMENTS

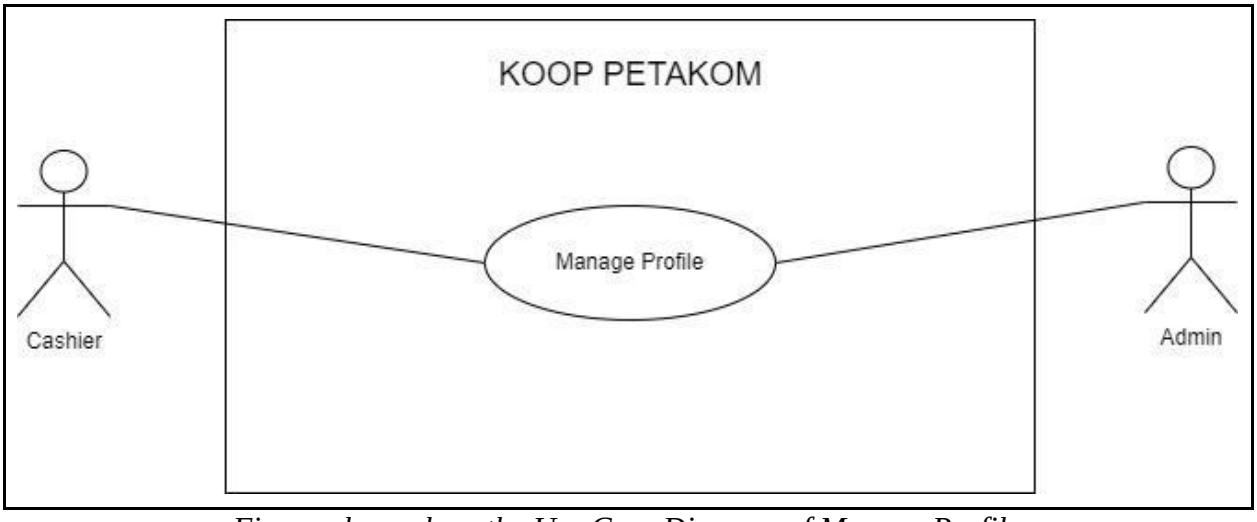


Figure above show the Use Case Diagram of Manage Profile

Feature Requirements: Manage Profile (FR-MPF)

Feature ID	Feature Name	Description
FR-MPF1	Create Profile	The system shall allow admin to create a new profile for the PETAKOM.
FR-MPF2	Edit Profile	The system shall allow admin to edit existing profiles.
FR-MPF3	Delete Profile	The system shall allow admin to delete any profiles.
FR-MPF4	View Profile	The system shall allow admin and cashier to view all profiles of the PETAKOM.

The table above shows the Future Requirement Manage Profile

Use Case ID	UC02-PETAKOM-MMS-2023	
Use Case Name	Manage Profile	
Purpose	To allow admin to manage profiles for the PETAKOM MM System.	
Actor	Admin, Cashier	
Trigger	Admin clicks on the <<Staff>> button. Cashier clicks on the person icon.	
Pre-condition	Admin must log in to the Admin PETAKOM MM. Cashier must log in to the Cashier PETAKOM MM.	
Scenario Name	**Step**	**Action**
Main Flow	1.	Admin or cashier clicks on the <<Staff>> section.
	2.	The system redirect to Staff page which admin and cashier can: **[A1]: View Profile** Only admin can do as following: **[A2]: Add Profile** **[A3]: Edit Profile** **[A4]: Delete Profile**

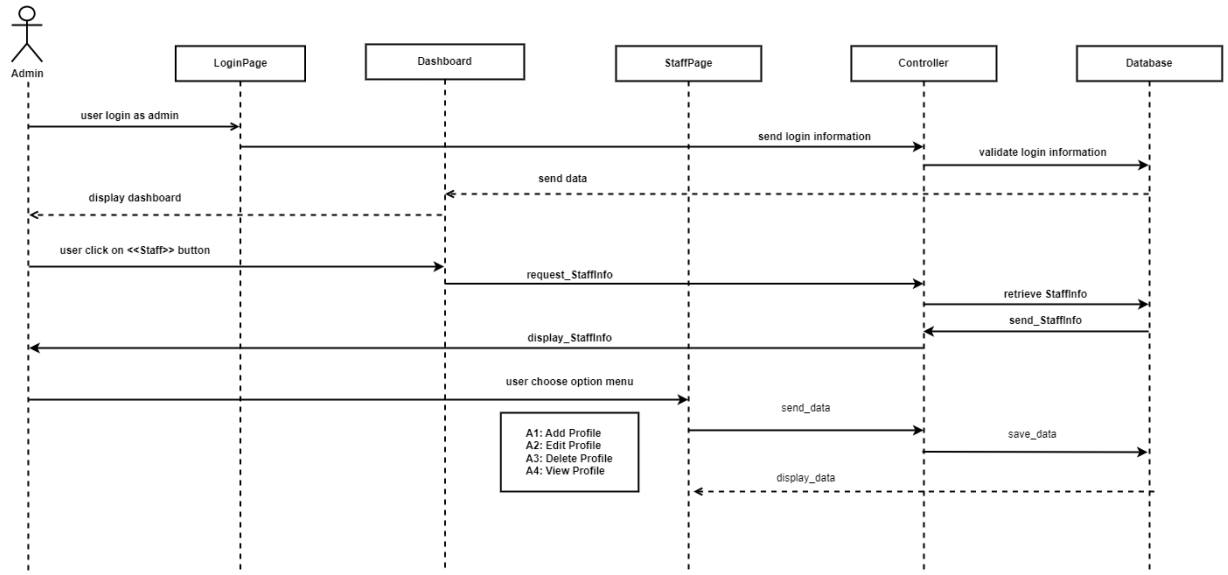
	3.	The use case ends.
Alternative Flow 1 - View Profile	1.1.	User clicks on the <<Staff>> button.
	1.2.	The system will retrieve data from the database and display the list of staff on the dashboard.
	1.3.	Back to Main Flow step 3.
Alternative Flow 2 - Add Profile	2.1.	Admin clicks on the <<Add New Staff>> button.
	2.2.	The system will display the registration form.
	2.3.	Admin fill the staff details and click on the <<Save>> button. **[A5: Cancel add new staff]**
	2.4.	The system will save the staff information into a database and update the staff list on the staff dashboard page.
	2.5	Back to Main Flow step 3.
Alternative Flow 3 - Edit Profile	3.1.	User clicks on the pen icon at the staff list dashboard page.
	3.2.	The system will display the staff information.
	3.3.	User changes the staff information such as email and clicks on the <<Save>> button. **[A6: Cancel edit staff information]**
	3.4.	The system will update the staff information in the database.
	3.5.	Back to Main Flow step 3.
Alternative Flow 4 - Delete Profile	4.1.	Admin clicks on the <<Delete Staff>> button.
	4.2.	The system will display a confirmation message to confirm the action made.
	4.3.	Admin clicks on the <<Yes>> button. **[A7: Cancel delete staff information]**

	4.4.	The system will remove the selected staff information from the database.
	4.5.	Back to Main Flow step 3.
Alternative Flow 5 - Cancel add new staff	5.1	Admin clicks on the <<Cancel>> button.
	5.2	Back to Main Flow step 3.
Alternative Flow 6 - Cancel edit staff information	6.1	User clicks on the <<Cancel>> button.
	6.2	Back to Main Flow step 3.
Alternative Flow 7 - Cancel delete staff information	7.1	Admin clicks on the <<Cancel>> button.
	7.2	Back to Main Flow step 3.
Exception Flow	Not Applicable	
Rules	The system connected to the internet.	
Sequence Diagram	Refer Appendix: A-2.1: Sequence Diagram - Main Flow A-2.2: Sequence Diagram - Alternative Flow - A1 A-2.3: Sequence Diagram - Alternative Flow - A2 A-2.4: Sequence Diagram - Alternative Flow - A3 A-2.5: Sequence Diagram - Alternative Flow - A4 A-2.6: Sequence Diagram - Alternative Flow - A5 A-2.7: Sequence Diagram - Alternative Flow - A6 A-2.8: Sequence Diagram - Alternative Flow - A7	

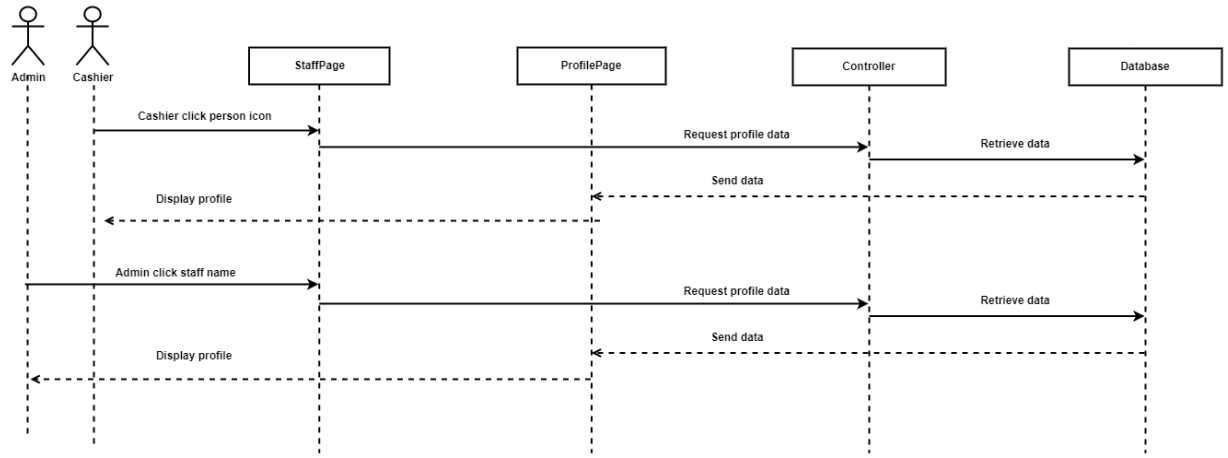
The table above shows the Use Case Description Manage Profile

3.2.4 APPENDIX - SEQUENCE DIAGRAM

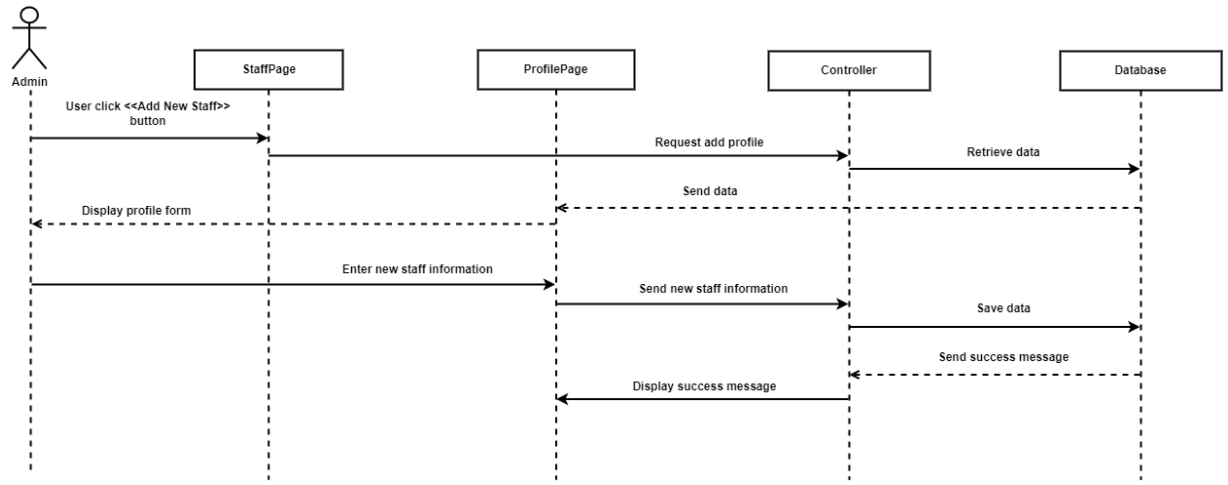
A-2.1: Sequence Diagram - Main Flow



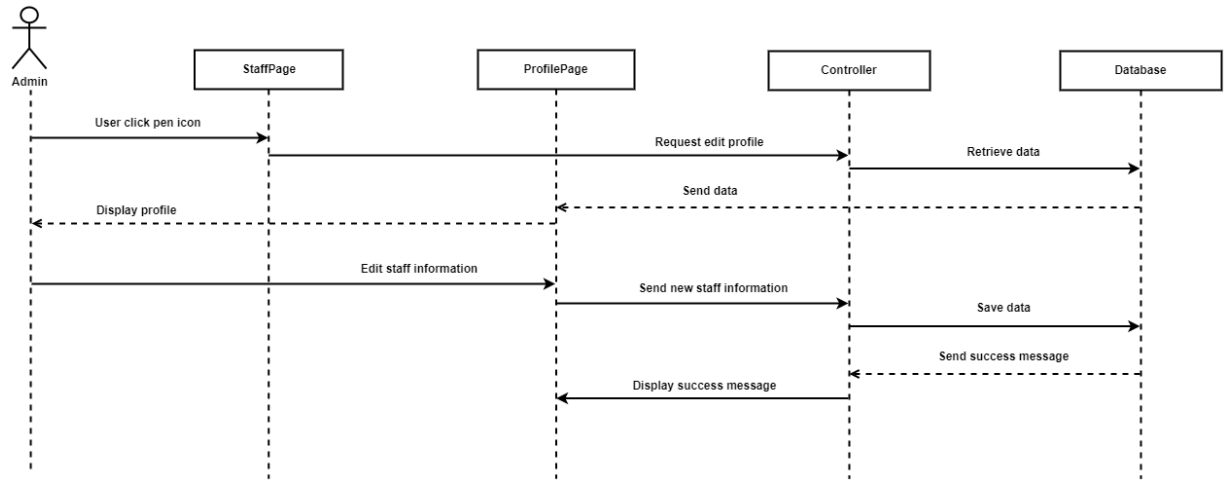
A-2.2: Sequence Diagram - Alternative Flow - A1 (View Profile)



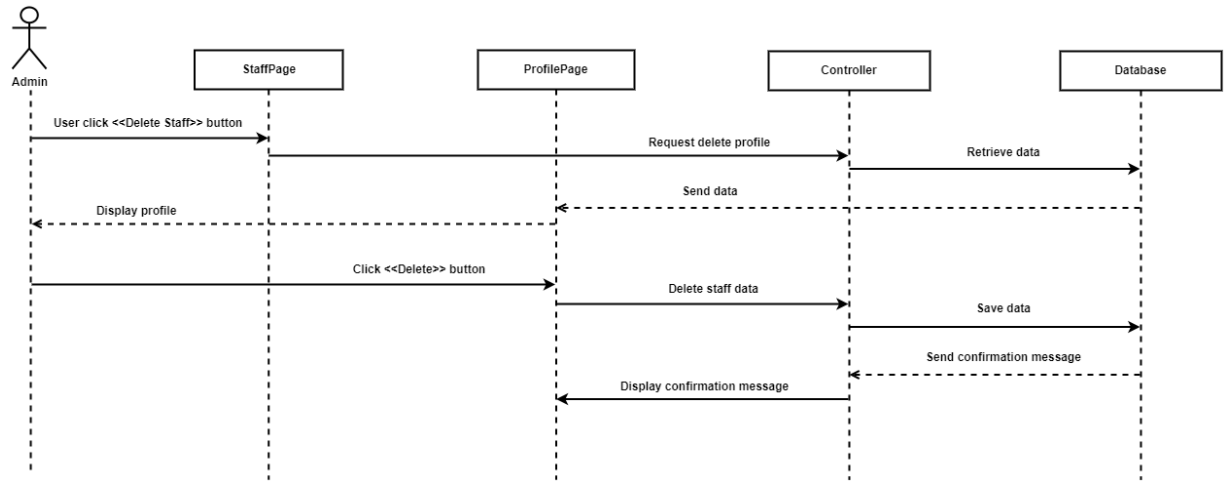
A-2.3: Sequence Diagram - Alternative Flow - A2 (Add Profile)



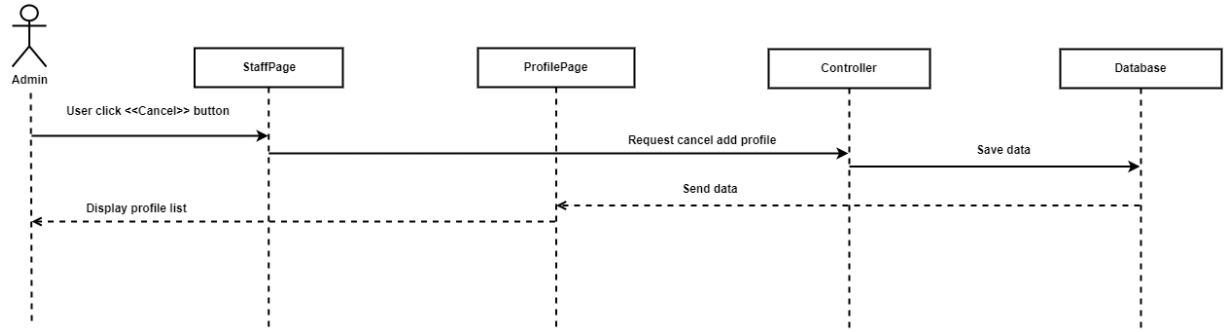
A-2.4: Sequence Diagram - Alternative Flow - A3 (Edit Profile)



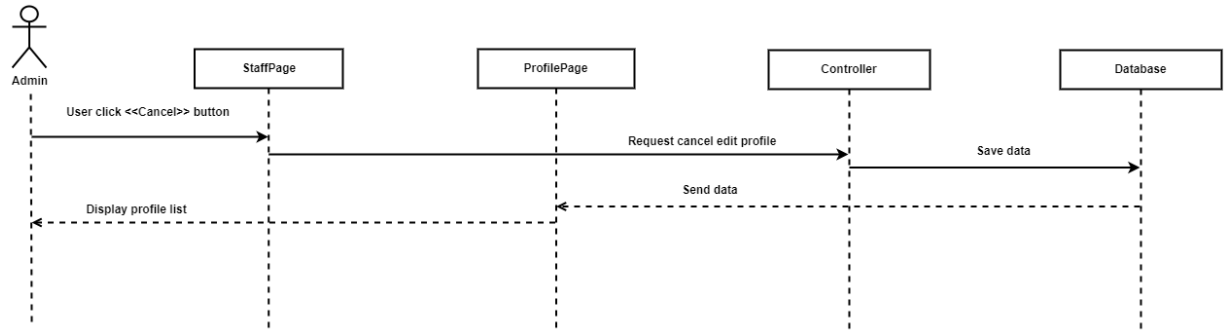
A-2.5: Sequence Diagram - Alternative Flow - A4 (Delete Profile)



A-2.6: Sequence Diagram - Alternative Flow - A5 (Cancel Add Profile)



A-2.7: Sequence Diagram - Alternative Flow - A6 (Cancel Edit Profile)



A-2.8: Sequence Diagram - Alternative Flow - A7 (Cancel Delete Profile)

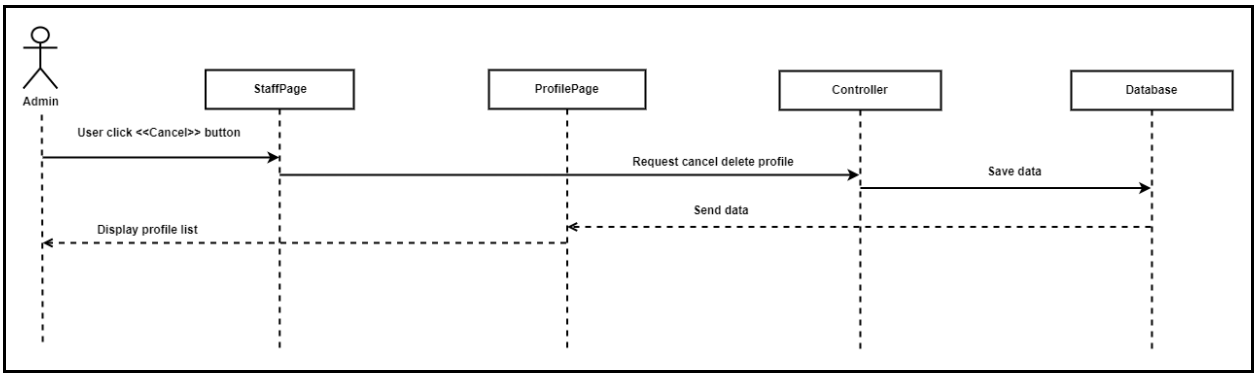


Figure above shows the Sequence Diagram of Manage Profile

3.3 MANAGE REPORT (RQ03-PETAKOM-MMS-2023)

3.3.1 DESCRIPTION AND PRIORITY

System shall allow the admin to manage the report by generating the statistic product sales sorted by daily, weekly, monthly and yearly. Also, the system shall allow the coordinator to view all the reports that have been recorded by the system. The system report shall display the item's name, the quantity of the item sold, the total profit, the total investment, and the net price.

3.3.2 STIMULUS/RESPONSE SEQUENCES

Stimulus:	User requests to download the report of the product that has been sorted by daily, weekly, monthly or yearly in a PDF file.
Response:	System generates the statistic product and downloads the record of the product in a PDF file.
Stimulus:	User requests to view the report of the sales product detail.
Response:	System displays the sales product detail which contains the graph statistics and table data.

3.3.3 FUNCTIONAL REQUIREMENTS

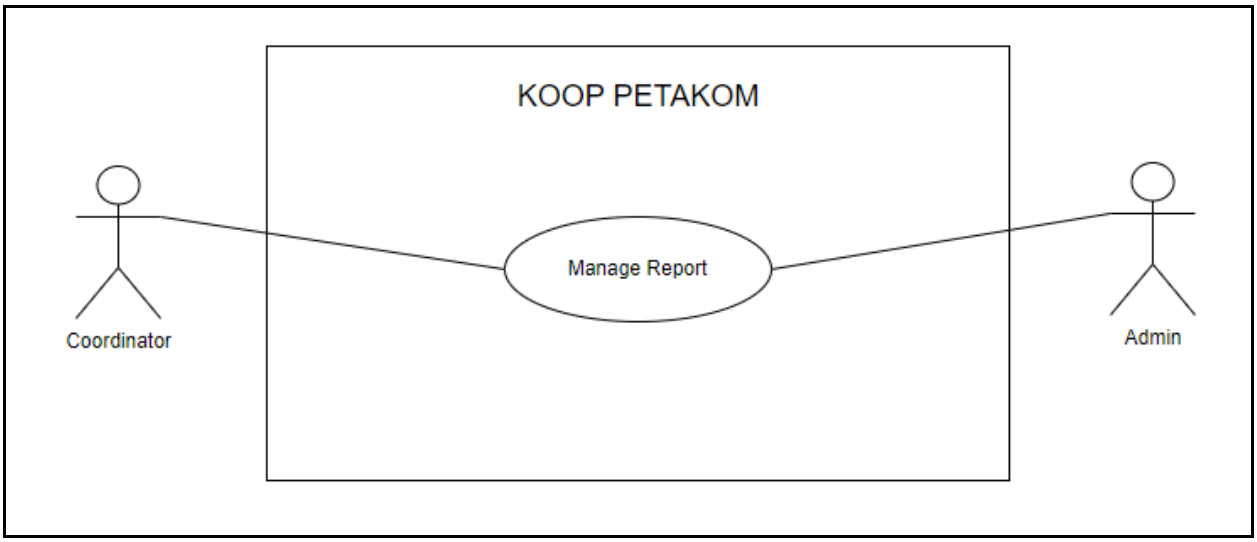


Figure above show the Use Case Diagram of Manage Report

Feature Requirements: Manage Report (FR-MR)

Feature ID	Feature Name	Description
FR-MR1	Generate Report	The application shall allow the user to download a report statistics of the product sorted by daily, weekly, monthly or yearly that been generated by the system in a PDF file.
FR-MR2	View Report Detail	The application shall allow the user to view the report detail that contains the graph statistics and table data of the sales product.

The table above shows the Future Requirement Manage Report

Use Case ID	UC03-PETAKOM-MMS-2023			
Use Case Name	Manage Report Feature			
Purpose	**Admin:** System shall allow the user to manage the report by generating the statistic product sales sorted by daily, weekly, monthly and yearly. **Coordinator:** System shall allow the user to view all the reports that have been recorded by the system.			
Actor	Admin, Coordinator			
Trigger	**Admin:** When the user clicks on the <<Report>> button. **Coordinator:** When the user clicks on the <<View as Coordinator>> hyperlink text.			
Pre-condition	**Admin:** User must log in to the Admin PETAKOM MM system. **Coordinator:** System must display the log-in interface			
Scenario Name	**Admin**		**Coordinator**	
	Step	**Action**	**Step**	**Action**

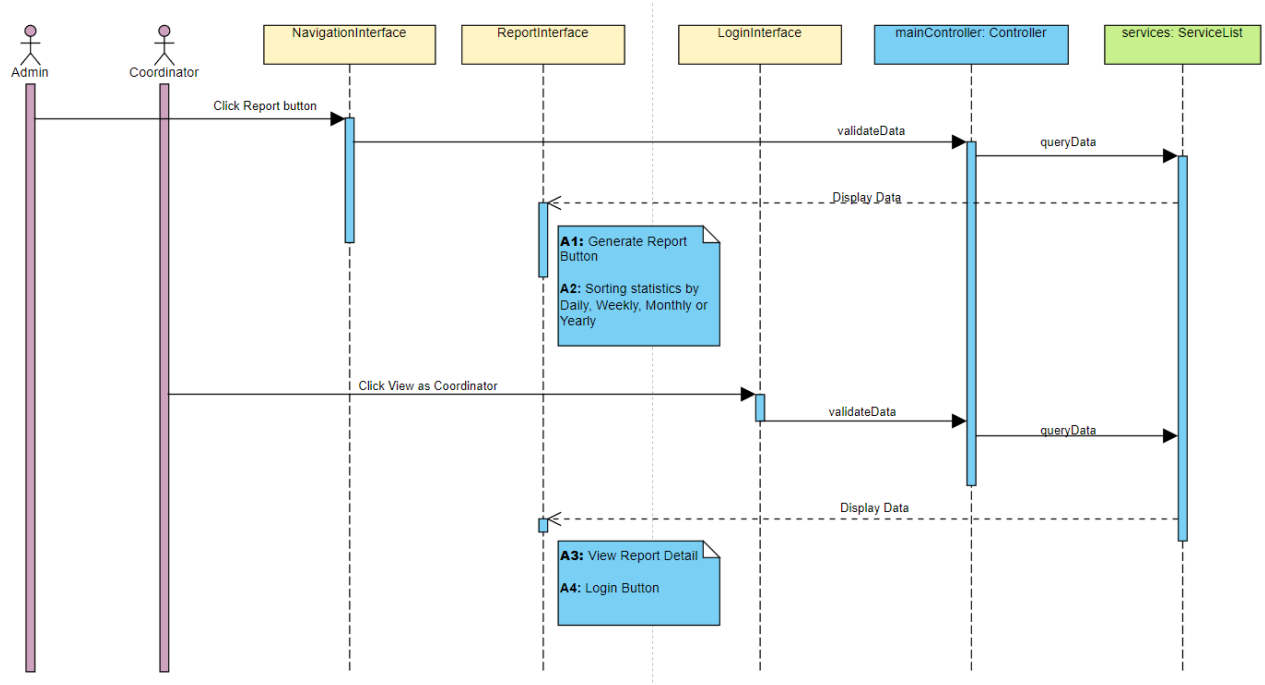
Main Flow	1.	When the user clicks on the <<Report>> button in the application.	1.	When the user clicks on the <<View as Coordinator>> hyperlink text in the login interface.
	2.	The system directly validates the user input and displays the interface managing of reports which the user can do as a following: **[A1]: Generate Report Button** **[A2]: Sorting Statistics by Daily, Weekly, Monthly, or Yearly.**	2.	The system directly validates the user input and displays the Main interface of the coordinator which the user can do as a following: **[A3]: View Report Detail** **[A4]: Login Button**
	3.	The use case end.	3.	The use case end.
Alternative Flow 1 - Generate Report Button	1.1.	The user clicks on the <<Generate Report>> button.		
	1.2.	The system directly validates the user input and generates the report by converting it to a PDF document file.		
	1.3	The system directly retrieves the PDF document file that has been converted to the local device user and displays the downloading file progressing on the user's local device.		
	1.4	The flow continues to step 3 in Main Flow.		
Alternative Flow 2 - Sorting Statistics by Daily, Weekly, Monthly, or Yearly	2.1.	The user clicks on the <<Day>>, <<Week>>, <<Month>>, or <<Yearly>> button.		
	2.2.	The system directly validates the input from the user.		
	2.3.	In order to display the report, the system retrieves the data from the database by sorting the data into statistics graphs and table data based on the user input.		
	2.4.	The flow continues to step 3 in Main Flow.		
Alternative	3.1.	The user clicks one of the <<Report>> buttons that be listing by the system.		

Flow 3 - View Report Detail	3.2.	The system directly validate the user input and retrieve the report data from the database by displaying the report detail interface where the user can view all the detail of the sales product and the user can do the following: **[A4]: Login Button** **[A5]: Home Button**
	3.3.	The flow continues to step 3 in Main Flow.
Alternative Flow 4 - Login Button	4.1.	The user clicks on the <<Login>> button.
	4.2.	The system directly validates the user input and displays the login PETAKOM MM interface.
	4.3.	The flow continues to step 3 in Main Flow and to step 3 in Alternative Flow 3.
Alternative Flow 5 - Home Button	5.1.	The user clicks on the <<Home>> button.
	5.2.	The system directly validates the user input and displays the Coordinator's Main interface.
	5.3.	The flow continues to step 2 in Main Flow.
Exception Flow	Not Applicable	
Rules	1. The system shall connect to the internet.	
Sequence Diagram	Refer Appendix A-3.1: Sequence Diagram - Main Flow A-3.2: Sequence Diagram - Alternative Flow A1 A-3.3: Sequence Diagram - Alternative Flow A2 A-3.4: Sequence Diagram - Alternative Flow A3 A-3.5: Sequence Diagram - Alternative Flow A4 A-3.6: Sequence Diagram - Alternative Flow A5	

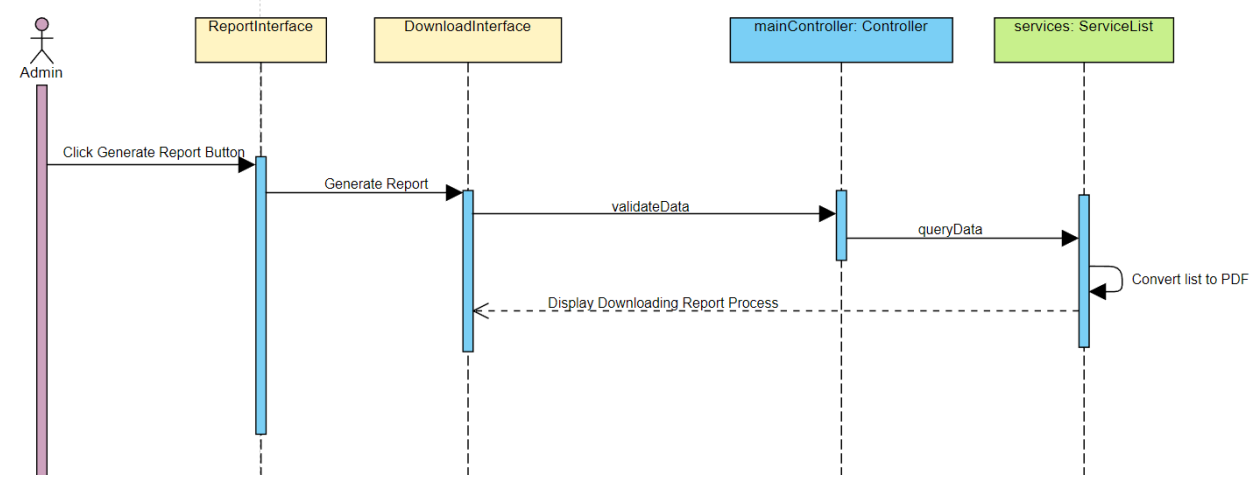
The table above shows the Use Case Description of the Manage Report

3.3.4 APPENDIX - SEQUENCE DIAGRAM

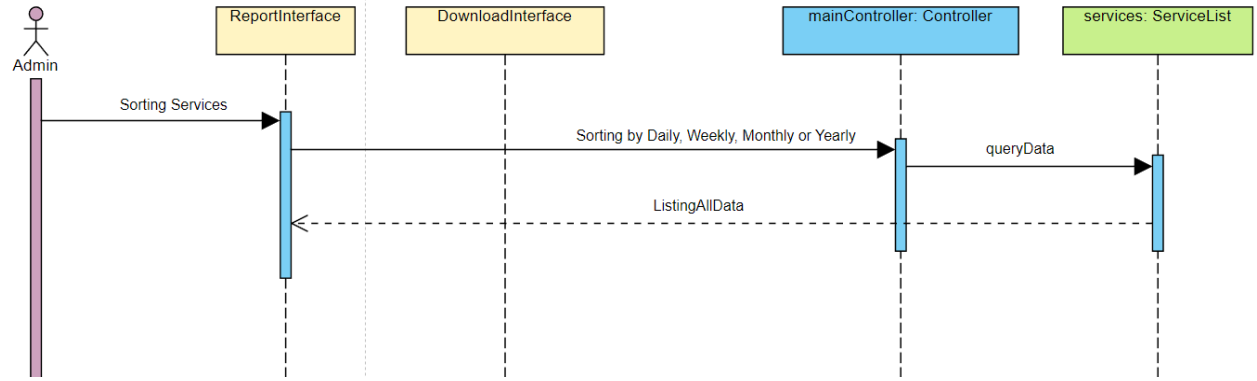
A-3.1: Main Flow:



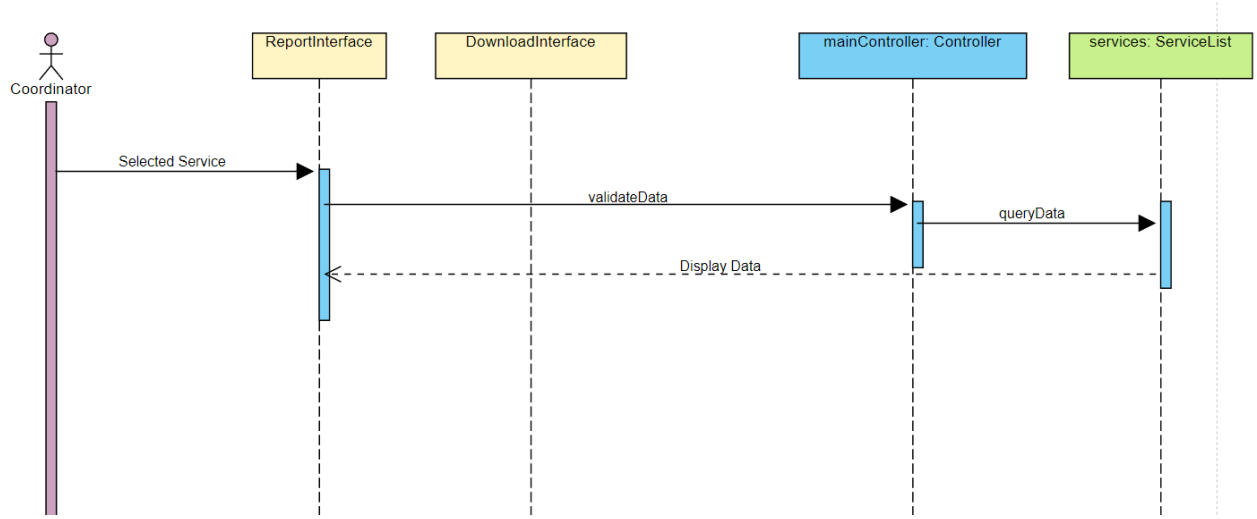
A-3.2: Alternative Flow A1:



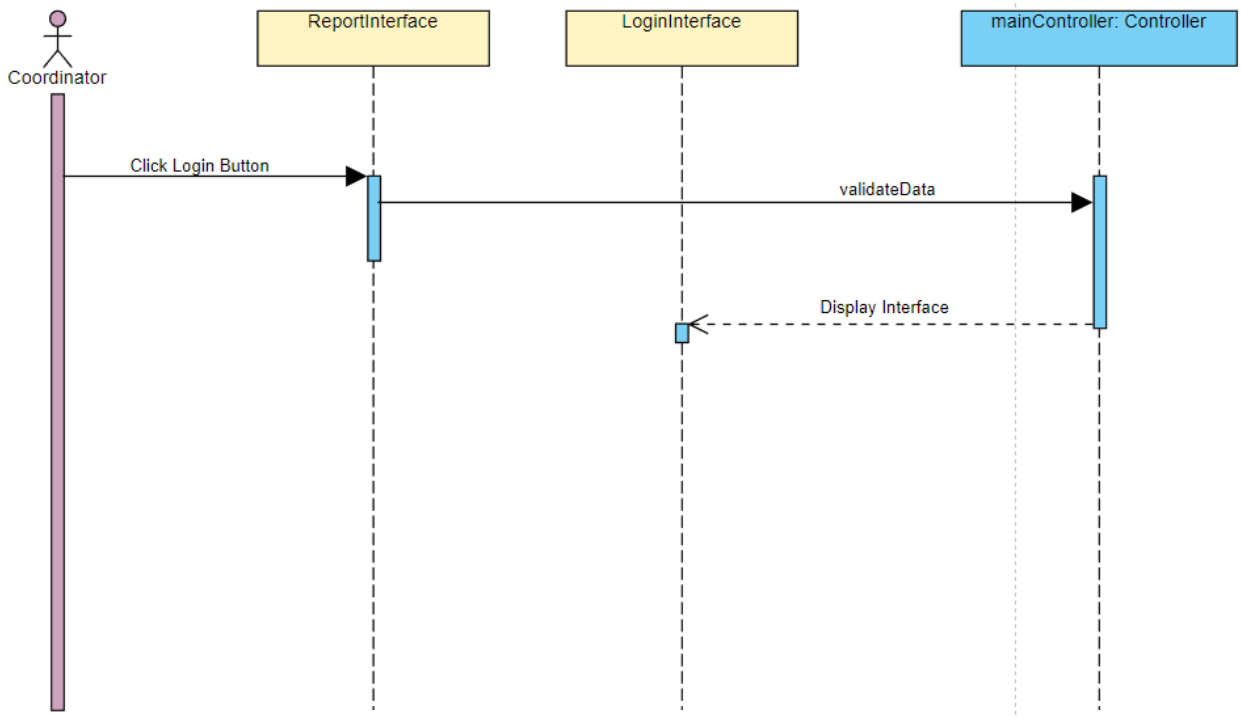
A-3.3: Alternative Flow A2:



A-3.4: Alternative Flow A3:



A-3.5: Alternative Flow A4:



A-3.6: Alternative Flow A5:

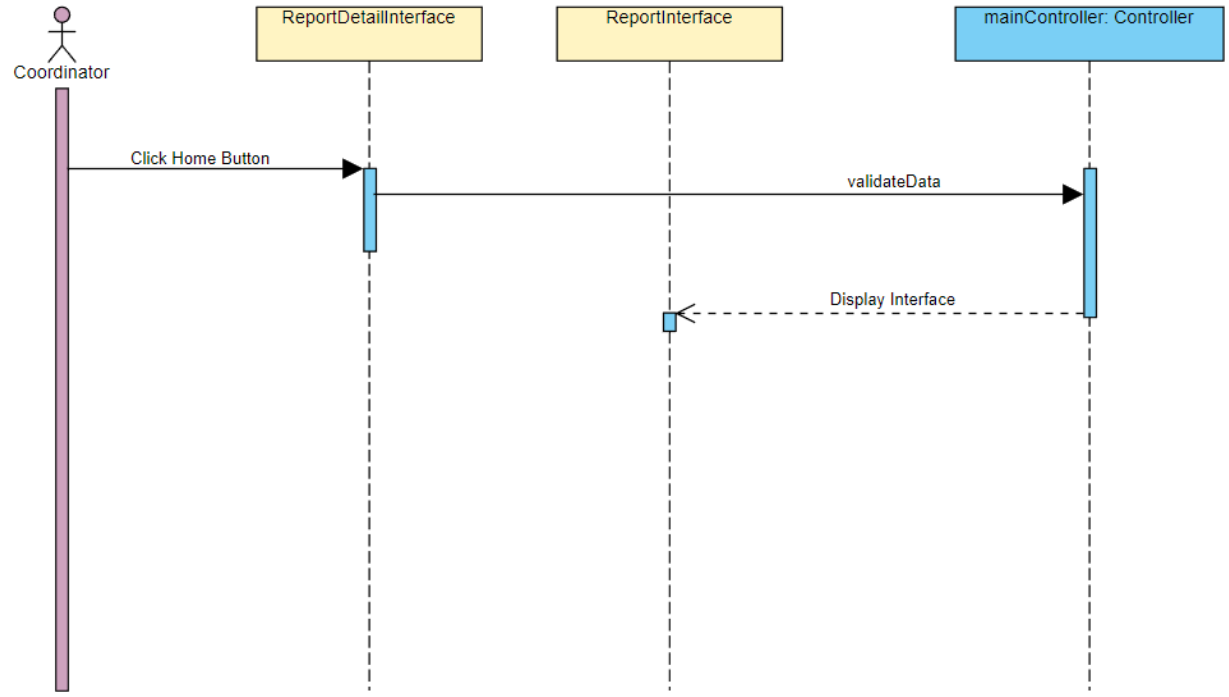


Figure above shows the Sequence Diagram of Manage Report

3.4 MANAGE PAYMENT (RQ04-PETAKOM-MMS-2023)

3.4.1 DESCRIPTION AND PRIORITY

The system should allow the admin and cashier to manage the payment.

3.4.2 STIMULUS/RESPONSE SEQUENCES

Stimulus:	Cashier clicks on the Add to cart button.
Response:	The system displays the lists of the items.
Stimulus:	Cashier clicks on the <<Add product>> button.
Response:	The system displays the lists of the items added.
Stimulus:	Cashier clicks on the quantity button.
Response:	The system saves and displays the quantity of the items.
Stimulus:	Cashier clicks on the <<Remove>> button.
Response:	The system removes selected items.
Stimulus:	Cashier clicks on the <<Checkout>> button.
Response:	The system displays payment methods.
Stimulus:	Cashier chooses one of the payment methods.
Response:	The system displays payment in progress and cashier perform the payment.
Stimulus:	Cashier clicks on the <<Complete>> button.
Response:	The system displays a successful message.

3.4.3 FUNCTIONAL REQUIREMENTS

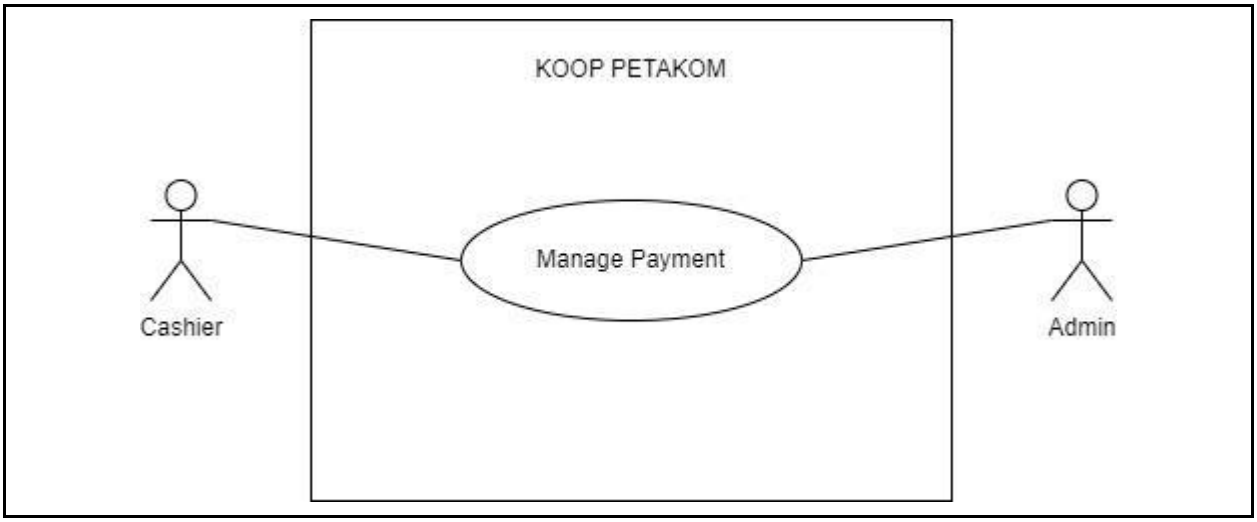


Figure above show the Use Case Diagram of Manage Payment

Feature Requirements: Manage Payment (FR-MPM)

Feature ID	Feature Name	Description
FR-MPM 1	Add item	The system shall allow the cashier to add the item.
FR-MPM 2	Edit item	The system shall allow the cashier to increase or decrease the item quantity.
FR-MPM 3	Remove item	The system shall allow the cashier to delete the item.
FR-MPM 4	Payment via cash	The system shall allow the cashier to perform the payment via cash.
FR-MPM 5	Payment via QR pay	The system shall allow the cashier to perform the payment via QR pay.
FR-MPM 6	View payment	The system shall allow the admin to view the payment details.

The table above shows the Future Requirement Manage Payment

Use Case ID	UC04-PETAKOM-MMS-2023
Use Case Name	Manage Payment
Purpose	To allow the cashier to manage payment for the PETAKOM MM system and admin to view the payment.
Actor	Cashier, Admin
Trigger	**Cashier** Cashier clicks on the <<Add to cart>> button. **Admin** Admin clicks on the <<Payment>> button.
Pre-condition	**Cashier** Users must log in to the Cashier PETAKOM MM system.

	Admin: Users must log in to the Admin PETAKOM MM system.			
Scenario Name	**Cashier**		**Admin**	
	Step	**Action**	**Step**	**Action**
Main Flow	1.	Cashier clicks on the <<Add to cart>> button.	1.	Admin clicks on the <<Payment>> button.
	2.	The system will display the item to the cart page.		
	3.	Cashier can do the following: **[A1]: Add item** **[A2]: Edit item** **[A3]: Remove item** **[A4]: Payment via cash** **[A5]: Payment via QR pay** **[E1]: Cancel Payment** **[E2]: Payment Unsuccessful**		
	4.	The cashier clicks on the <<Checkout>> button.		
	5.	The cashier can choose the payment method whether payment via cash or payment via QR pay.	2.	Admin views the list of payment.
	6.	The cashier performs the payment within the time limit.		
	7.	Cashier clicks on the		

		<<Complete>> button.		
	8.	The system displays a successful message.		
	9.	The use case ends.	3.	The use case ends.
Alternative Flow [A1]				
Alternative Flow 1 - Add item	2.1.1	Cashier adds the items by clicking on the <<Add product>> button during the cart page.		
	2.1.2	The system displays the added item to the lists.		
	2.1.3	Use case continues to step 2 in main flow.		
Alternative Flow [A2]				
Alternative Flow 2 - Edit item	2.2.1	Cashier clicks on the <<+>> or <<->> button to edit the quantity of the item.		
	2.1.2	The system will save the changes.		
	2.1.4	Use case continues to step 2 in main flow.		
Alternative Flow [A3]				
Alternative Flow 3 - Remove item	2.2.1	Cashier clicks on the <<Remove>> button at the item.		
	2.2.2	The system will remove the selected item and save.		
	2.2.4	Use case continues to step 2 in main flow.		
Alternative Flow [A4]				
Alternative Flow 4 - Pay via cash	2.3.1	Cashier clicks on the <<Pay via cash>> button and proceeds with the payment within the time given.		
	2.3.2	Cashier clicks on the <<Complete>> button.		

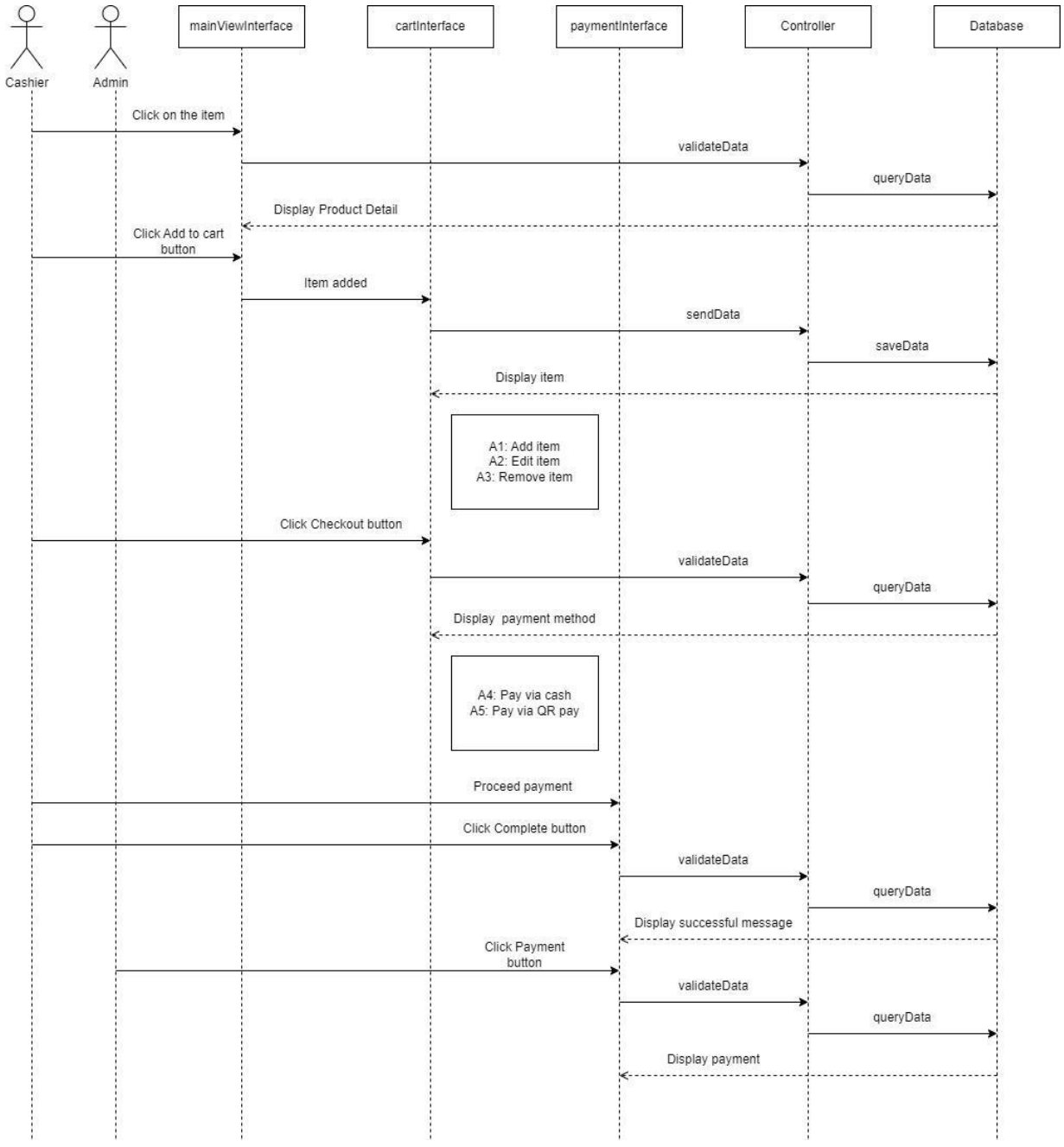
	2.3.3	System displays that the payment is successful.
	2.3.4	Use case continues to step 2 in main flow.
Alternative Flow [A5]		
Alternative Flow 5 - Pay via QR pay	2.4.1	Cashier clicks on the <<Pay via QR pay>> button and proceeds the payment within the time given.
	2.4.2	Cashier clicks on the <<Complete>> button.
	2.4.3	System displays that the payment is successful.
	2.4.4	Use case continues to step 2 in main flow.
Exception Flow [E1]		
Exception Flow 1 - Cancel payment	6.1.1	Cashier clicks on the <<Cancel>> button.
	6.1.2	The system canceled the payment process.
	6.1.3	Use case continues to step 2 in main flow.
Exception Flow 2 - Payment Unsuccessful	6.2.1	Cashier performs the payment exceeding the time limit.
	6.2.2	The system displays an unsuccessful message.
	6.2.3	Use case continues to step 2 in main flow.
Rules	The system shall connect to the internet.	
Sequence Diagram	Refer Appendix: A-4.1: Sequence Diagram - Main Flow A-4.2: Sequence Diagram - Alternative Flow - A1 A-4.3: Sequence Diagram - Alternative Flow - A2 A-4.4: Sequence Diagram - Alternative Flow - A3 A-4.5: Sequence Diagram - Alternative Flow - A4 A-4.6: Sequence Diagram - Alternative Flow - A5 A-4.7: Sequence Diagram - Exception Flow - E1	

	A-4.8: Sequence Diagram - Exception Flow - E2

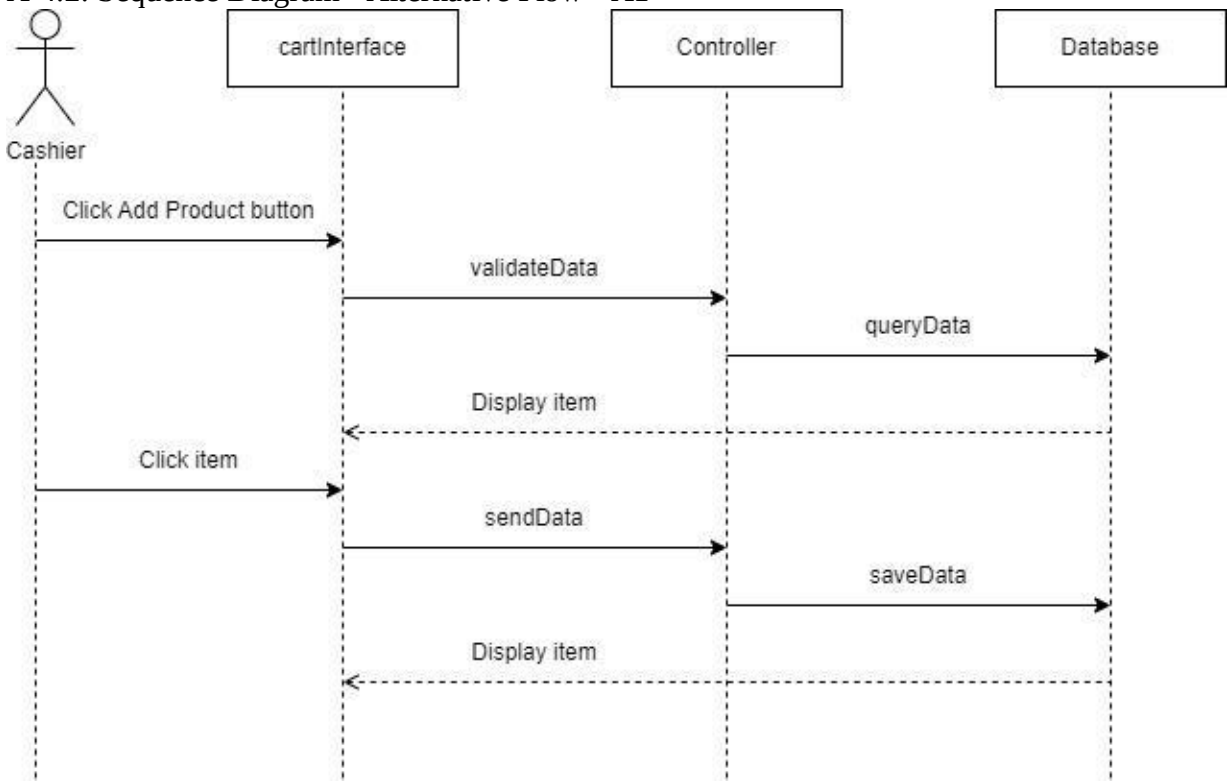
The table above shows the Use Case Description Manage Payment

3.4.4 APPENDIX - SEQUENCE DIAGRAM

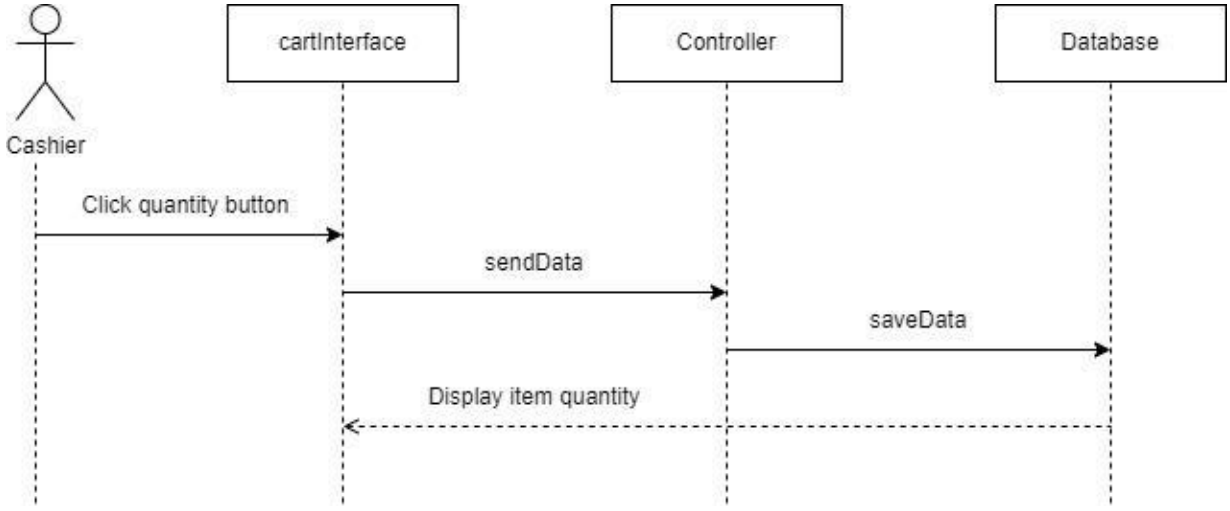
A-4.1: Sequence Diagram - Main Flow



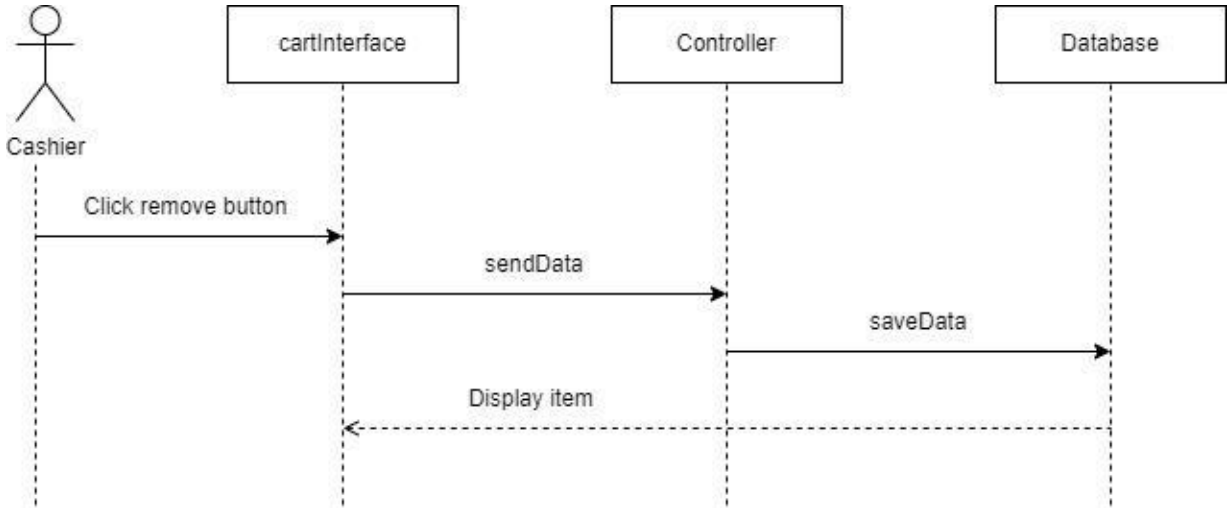
A-4.2: Sequence Diagram - Alternative Flow - A1



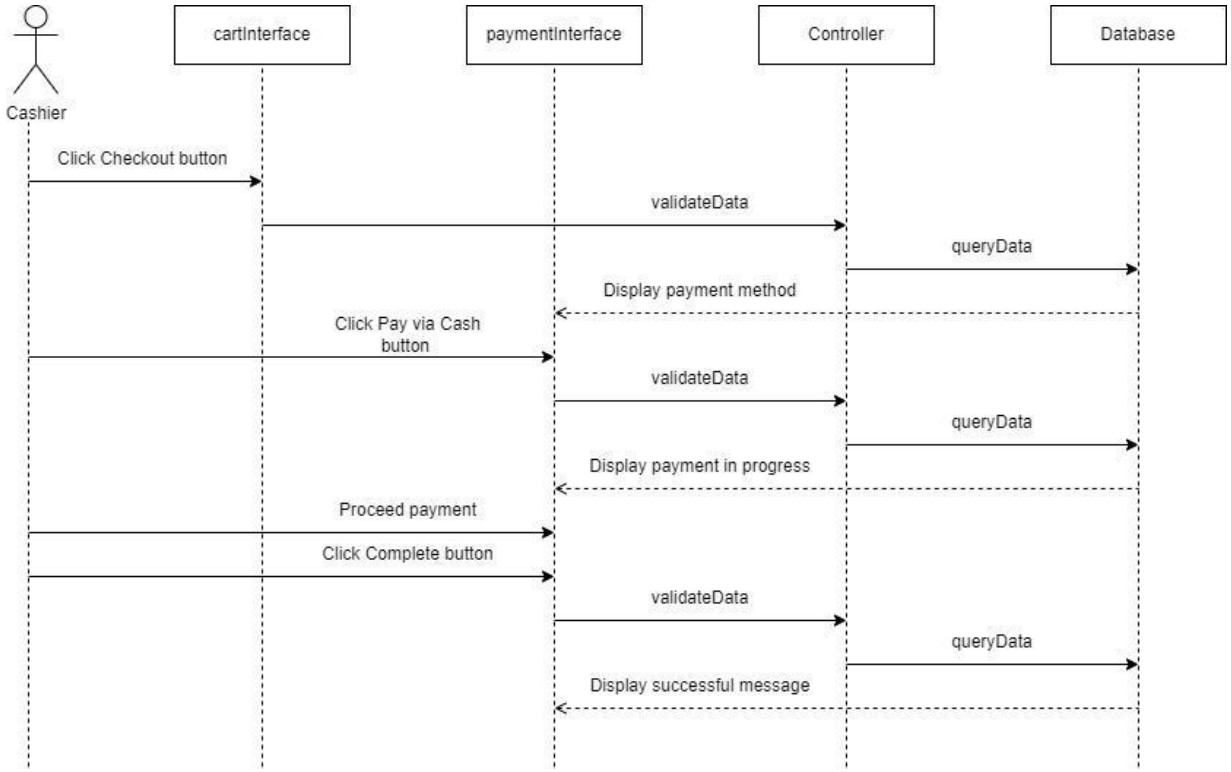
A-4.3: Sequence Diagram - Alternative Flow - A2



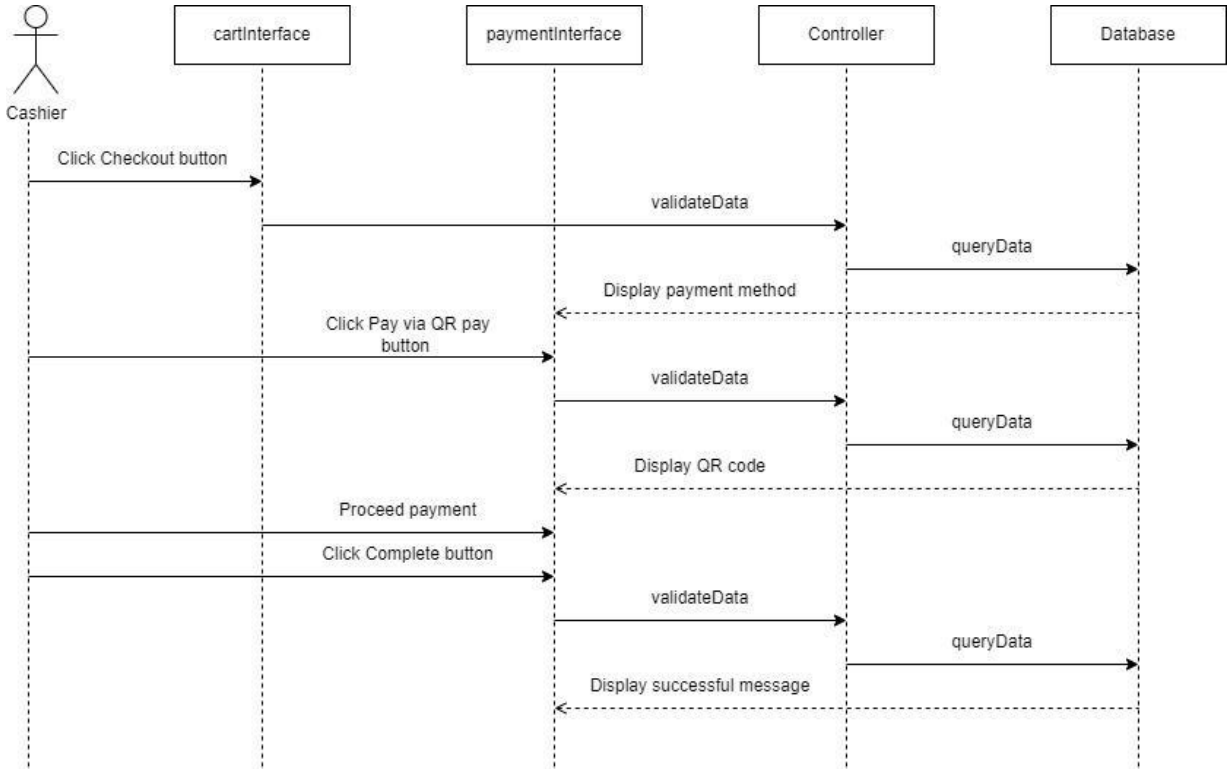
A-4.4: Sequence Diagram - Alternative Flow - A3



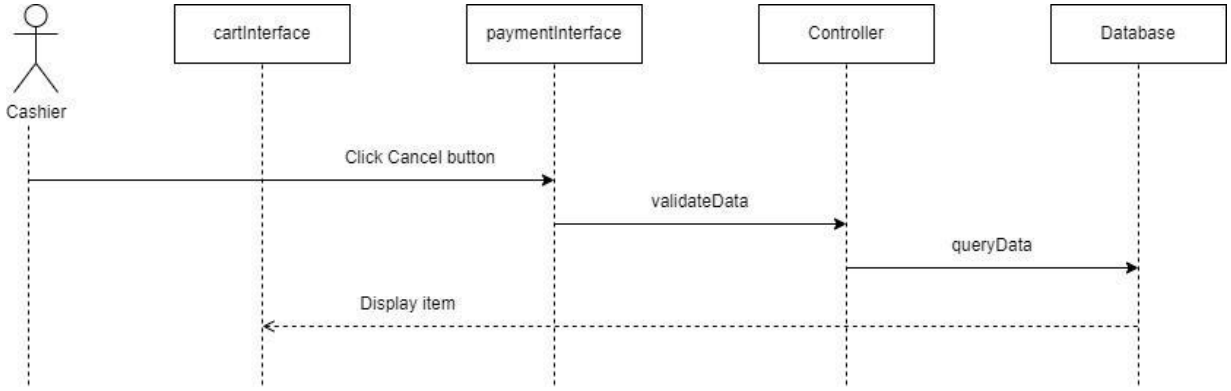
A-4.5: Sequence Diagram - Alternative Flow - A4



A-4.6: Sequence Diagram - Alternative Flow - A5



A-4.7: Sequence Diagram - Exception Flow - E1



A-4.8: Sequence Diagram - Exception Flow - E2

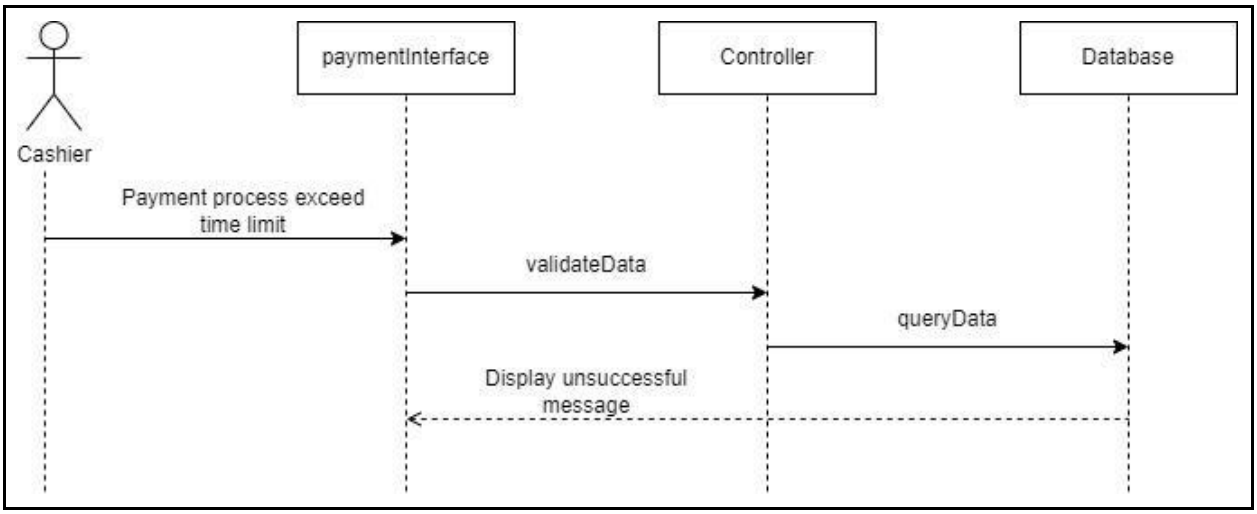


Figure above shows the Sequence Diagram of Manage Payment

3.5 MANAGE DUTY ROSTER (RQ05-PETAKOM-MMS-2023)

3.5.1 DESCRIPTION AND PRIORITY

The system shall allow admin to manage duty roster. Admin may edit, add, delete and view duty roster.

3.5.2 STIMULUS/RESPONSE SEQUENCES

Stimulus:	Admin clicks on the <<Schedule Duty>> button.
Response:	System displays the calendar view.
Stimulus:	Admin clicks on the <<+>> button.
Response:	System displays the schedule duty editing interface.
Stimulus:	Admin enters the new schedule time and clicks on the <<Save>> button.
Response:	System saves changes and displays the success message.
Stimulus:	Admin clicks on the <<Delete>> button.
Response:	System will display the confirmation message.
Stimulus:	Admin clicks on the <<Yes>> button for confirmation to delete the schedule.
Response:	System deletes the selected schedule and displays a success message.

3.5.3 FUNCTIONAL REQUIREMENTS

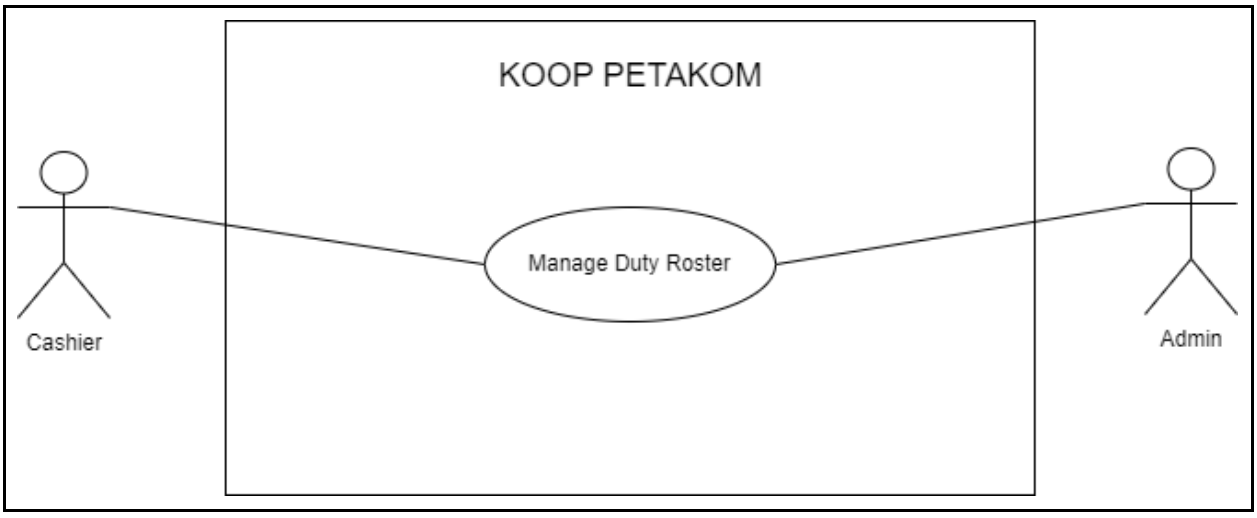


Figure above show the Use Case Diagram of Manage Duty Rooster

Feature Requirements: Manage Duty Roster (FR-MDR)

Feature ID	Feature Name	Description
FR-MDR1	View Duty Roster	The system shall allow admin and cahsier to view the duty roster.
FR-MDR2	Edit Duty Roster	The system shall allow admin to edit the duty roster.
FR-MDR3	Add Duty Roster	The system shall allow admin to add new items in the duty roster.
FR-MDR4	Delete Duty Roster	The system shall allow admin to delete items in the duty roster.

The table above shows the Future Requirement Manage Duty Roster

Use Case ID	UC05-PETAKOM-MMS-2023	
Use Case Name	Manage Duty Roster	
Purpose	To allow the admin to manage the duty roster for the PETAKOM MM System and cashier to view duty roster.	
Actor	Admin, cashier	
Trigger	Admin clicks on the <<Schedule Duty>> button.	
Pre-condition	Admin must log in to the Admin PETAKOM MM System.	
Scenario Name	**Step**	**Action**
Main Flow	1.	Admin clicks on the <<Schedule Duty>> section.
	2.	The system redirect to Schedule Duty page which admin can do as following: **[A1]: View Duty Roster** **[A2]: Edit Duty Roster** **[A3]: Delete Duty Roster** **[A4]: Add Duty Roster**
	3.	The use case ends.

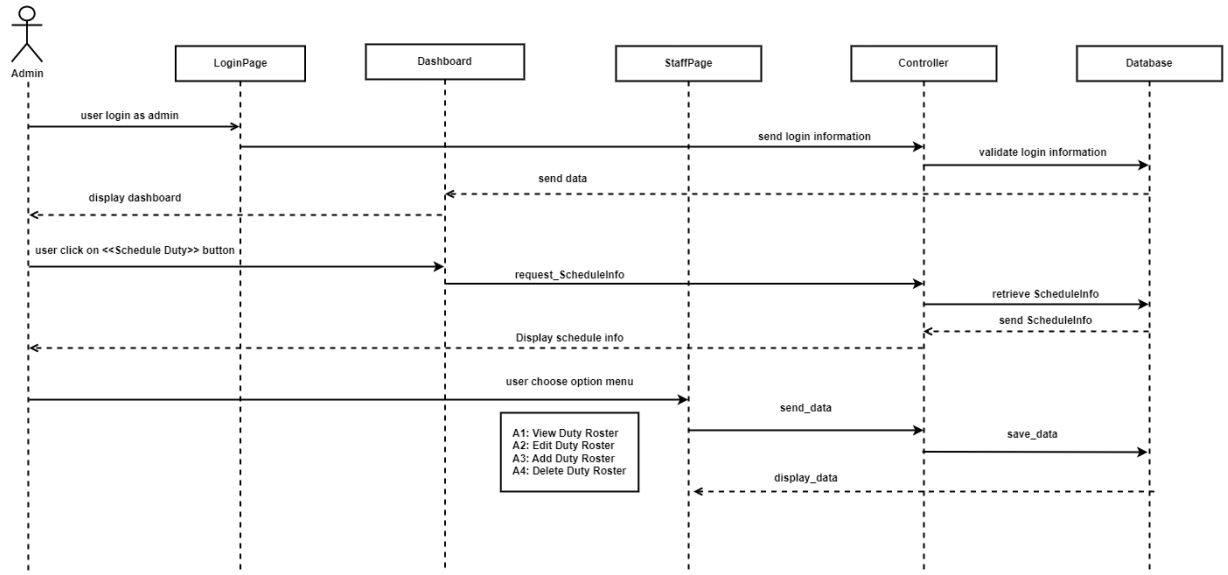
Alternative Flow 1 - View Duty Roster	1.1.	Admin clicks on the <<Schedule Duty>> section.
	1.2.	The system will retrieve data from the database and display a calendar view which includes the work scope and time.
	1.3.	Back to Main Flow step 3.
Alternative Flow 2 - Edit Duty Roster	2.1.	Admin clicks on the schedule at the calendar view.
	2.2.	The system will display the schedule information.
	2.3.	Admin changes the schedule information and clicks on the <<Save>> button. **[A5: Cancel edit schedule information]**
	2.4.	The system will update the schedule information in the database.
	2.5.	Back to Main Flow step 3.
Alternative Flow 3 - Delete Duty Roster	3.1.	Admin clicks on the schedule at the calendar view.
	3.2.	The system will display the schedule information.
	3.3.	Admin clicks on the <<Delete>> button.
	3.4.	The system will remove the selected schedule information from the database.
	3.5	Back to Main Flow step 3.
Alternative Flow 4 - Add Duty Roster	4.1.	Admin clicks on the <<+>> button.
	4.2.	The system will display the schedule duty form.
	4.3.	Admin can add schedule information and click on the <<Save>> button. **[A6: Cancel add new schedule]**
	4.4.	The system will save the schedule information into a database and update the calendar view on the schedule duty page.
	4.5.	Back to Main Flow step 3.

Alternative Flow 5 - Cancel edit schedule information	5.1.	Admin clicks on the <<Cancel>> button
	5.2.	Back to Main Flow step 3.
Alternative Flow 6 - Cancel add new schedule	6.1.	Admin clicks on the <<Cancel>> button.
	6.2	Back to Main Flow step 3.
Exception Flow	Not Applicable	
Rules	The system connects to the internet.	
Sequence Diagram	Refer Appendix: A-5.1: Sequence Diagram - Main Flow A-5.2: Sequence Diagram - Alternative Flow - A1 A-5.3: Sequence Diagram - Alternative Flow - A2 A-5.4: Sequence Diagram - Alternative Flow - A3 A-5.5: Sequence Diagram - Alternative Flow - A4 A-5.6: Sequence Diagram - Alternative Flow - A5 A-5.7: Sequence Diagram - Alternative Flow - A6	

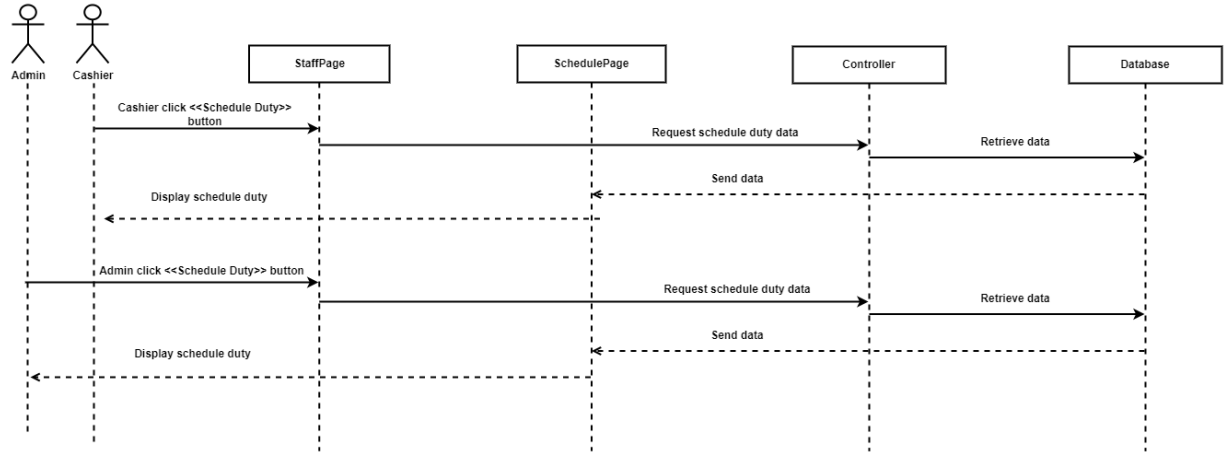
The table above shows the Use Case Description Manage Duty Roster

3.5.4 APPENDIX - SEQUENCE DIAGRAM

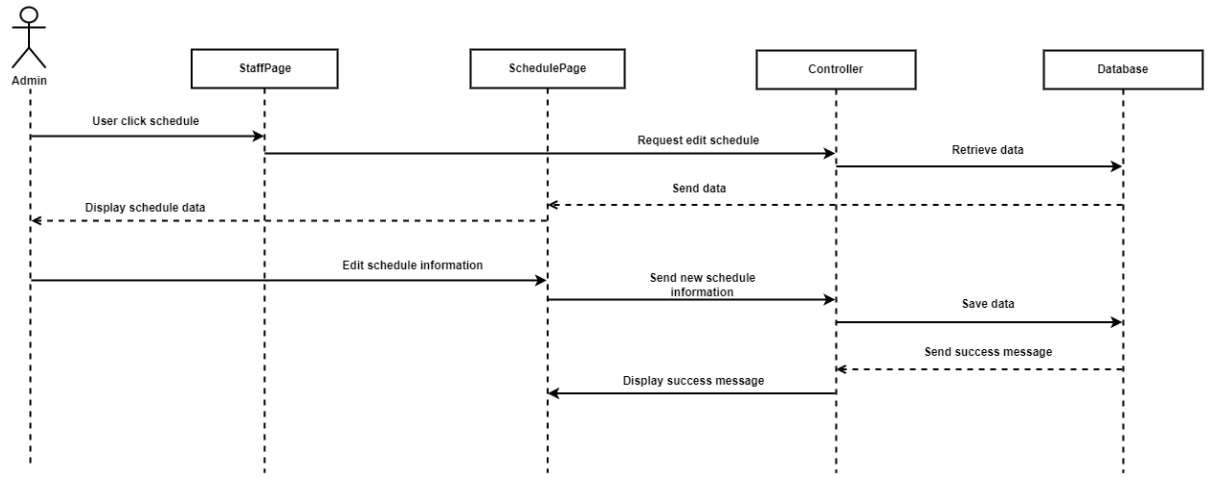
A-5.1: Sequence Diagram - Main Flow



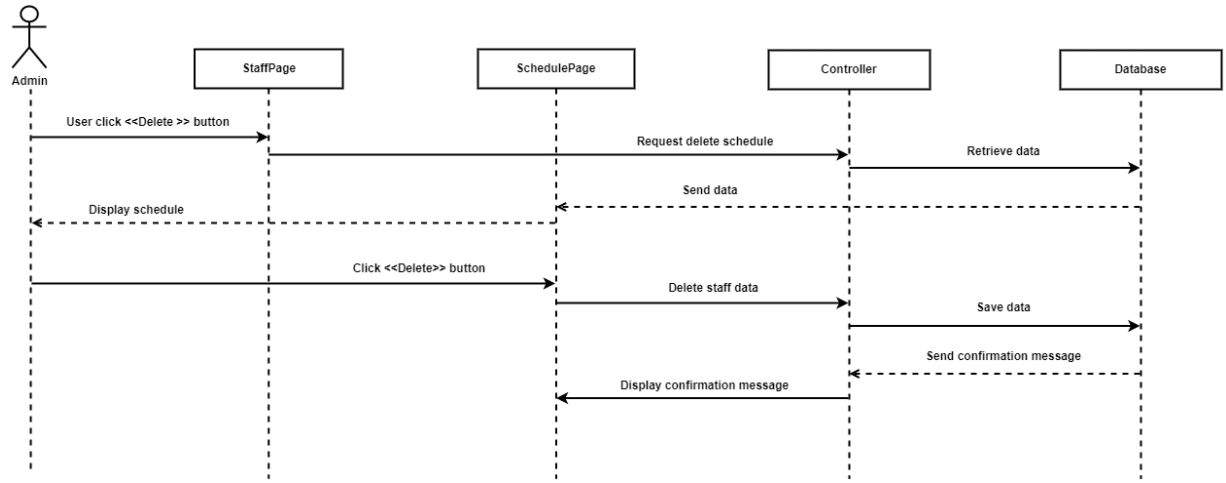
A-5.2: Sequence Diagram - Alternative Flow - A1 (View Duty Roster)



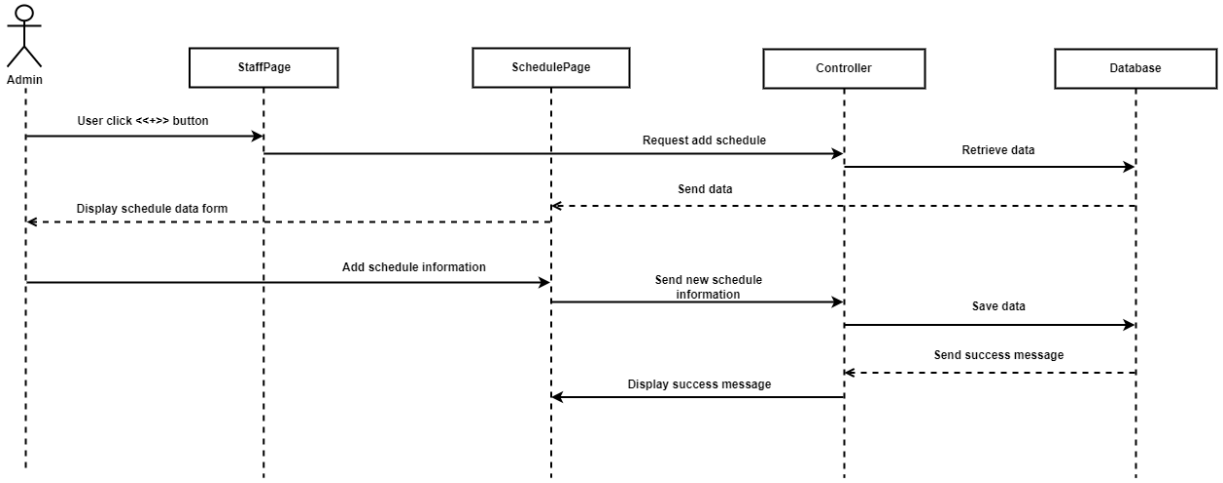
A-5.3: Sequence Diagram - Alternative Flow - A2 (Edit Duty Roster)



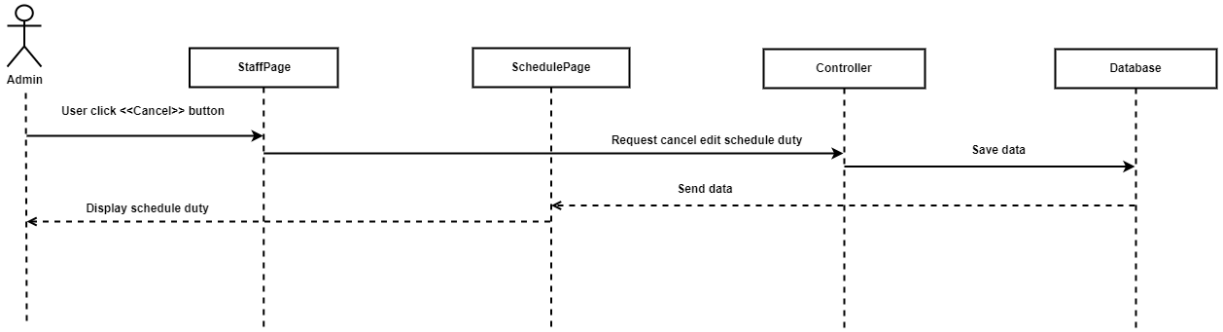
A-5.4: Sequence Diagram - Alternative Flow - A3 (Delete Duty Roster)



A-5.5: Sequence Diagram - Alternative Flow - A4 (Add Duty Roster)



A-5.6: Sequence Diagram - Alternative Flow - A5 (Cancel edit duty roster)



A-5.7: Sequence Diagram - Alternative Flow - A6 (Cancel add duty roster)

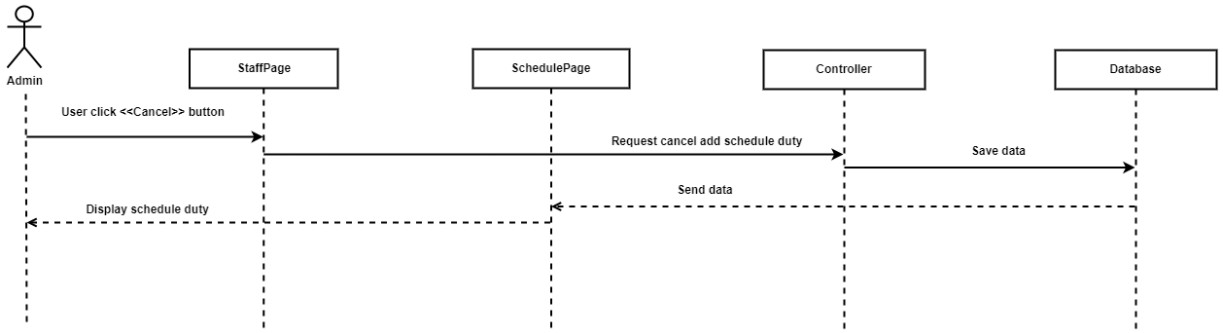


Figure above shows the Sequence Diagram of Manage Duty Rooster

3.6 GUI/WIREFRAME

Welcome Interface

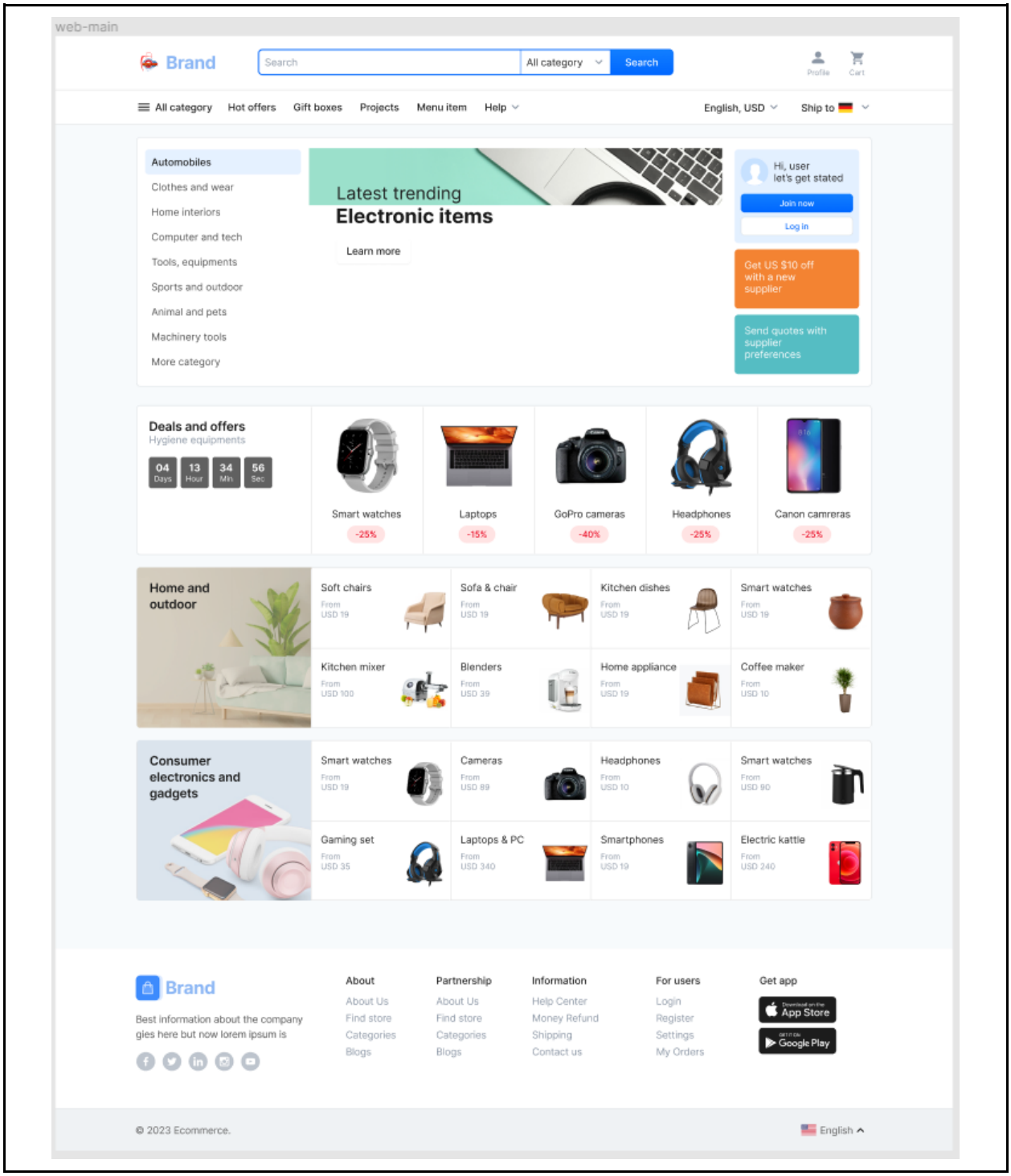
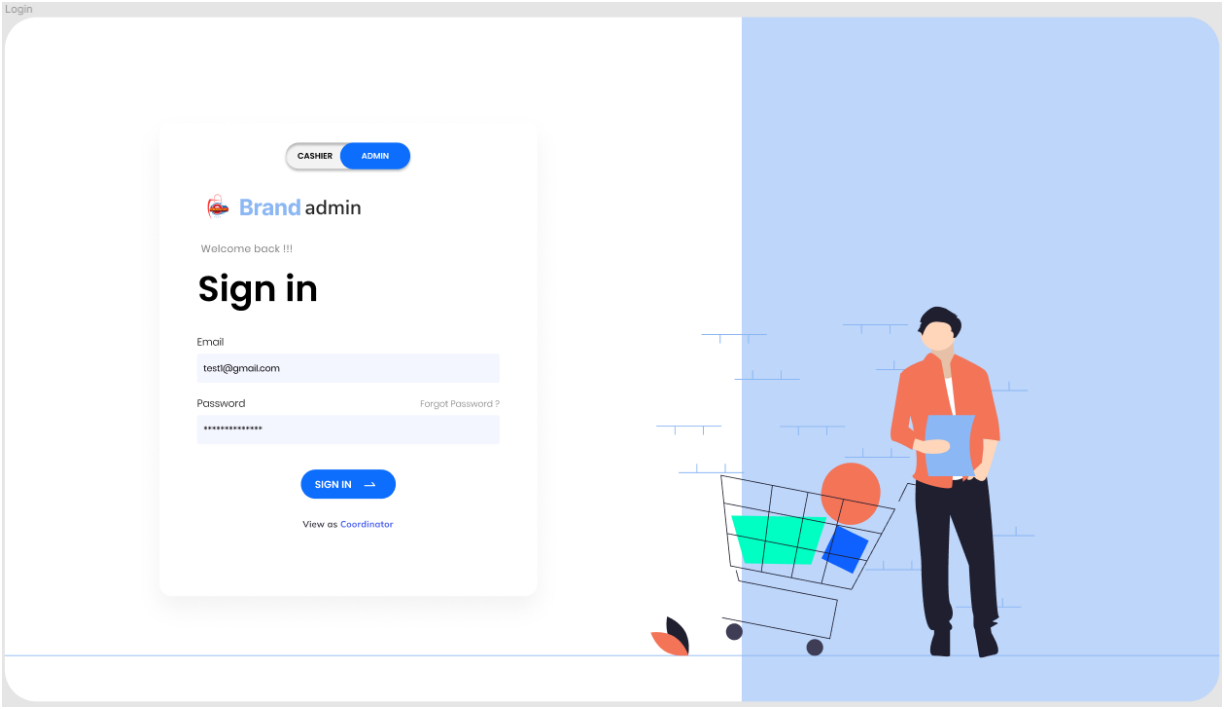


Figure above shows GUI Welcome Interface of PETAKOM Mart Management System

Login Interface

Admin



Cashier

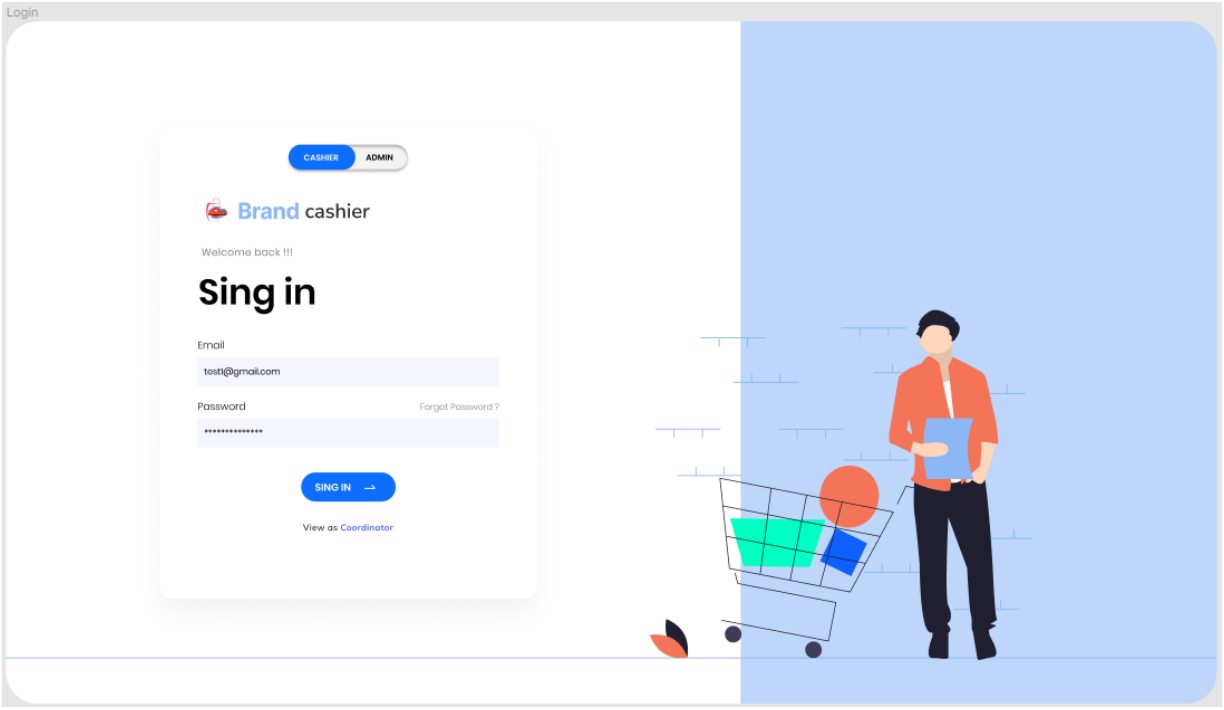
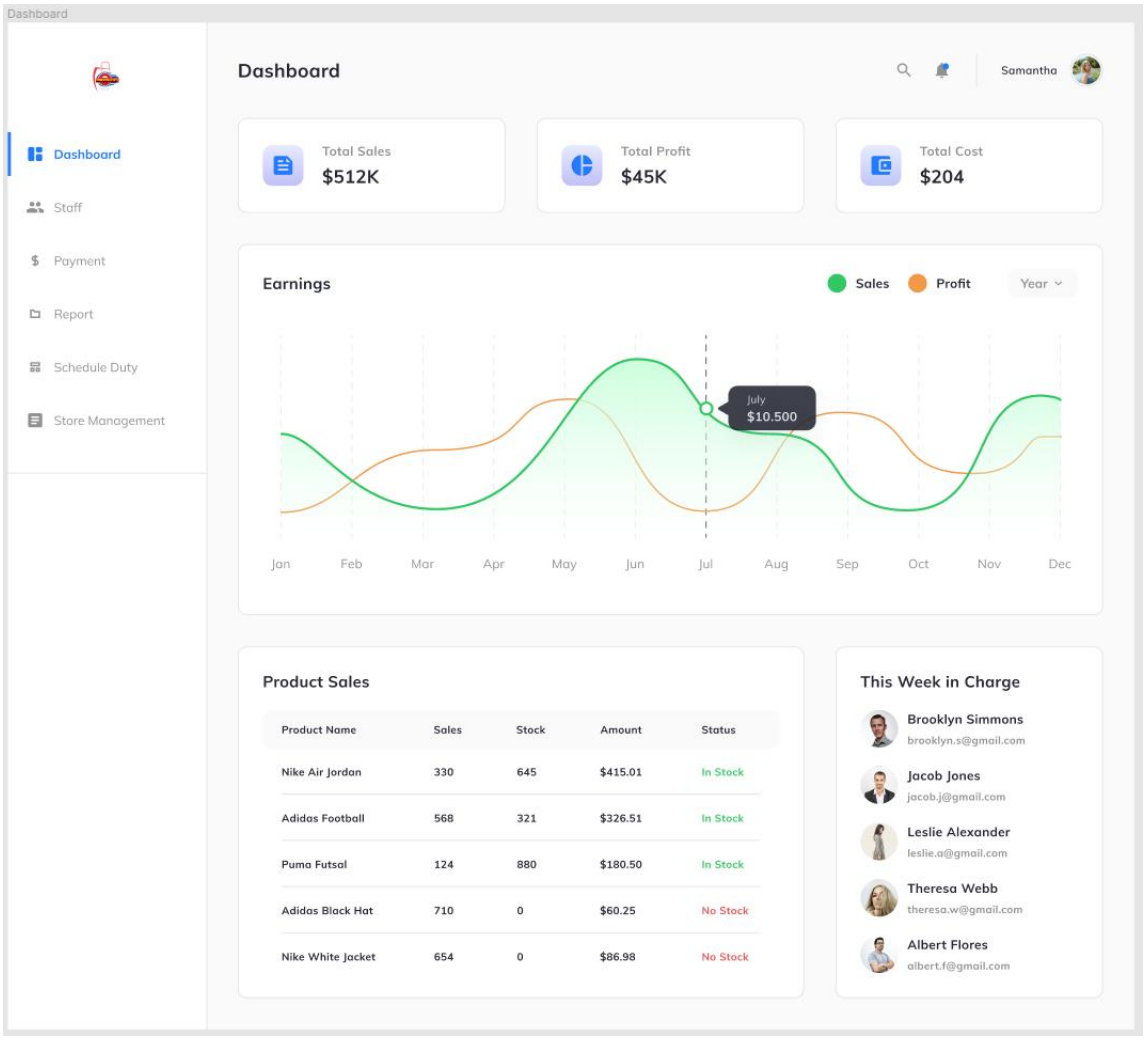


Figure above shows GUI Login Interface of PETAKOM Mart Management System

Main Interface

Admin


Dashboard
Dashboard
Samantha
Dashboard
Staff
Payment
Report
Schedule Duty
Store Management
Total Sales
$512K
Total Profit
$45K
Total Cost
$204
Earnings
Sales
Profit
Year
July
$10.500
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Product Sales
Product Name
Sales
Stock
Amount
Status
Nike Air Jordan
330
645
$415.01
In Stock
Adidas Football
568
321
$326.51
In Stock
Puma Futsal
124
880
$180.50
In Stock
Adidas Black Hat
710
0
$60.25
No Stock
Nike White Jacket
654
0
$86.98
No Stock
This Week in Charge
Brooklyn Simmons
brooklyn.s@gmail.com
Jacob Jones
jacob.j@gmail.com
Leslie Alexander
leslie.a@gmail.com
Theresa Webb
theresa.w@gmail.com
Albert Flores
albert.f@gmail.com

Cashier

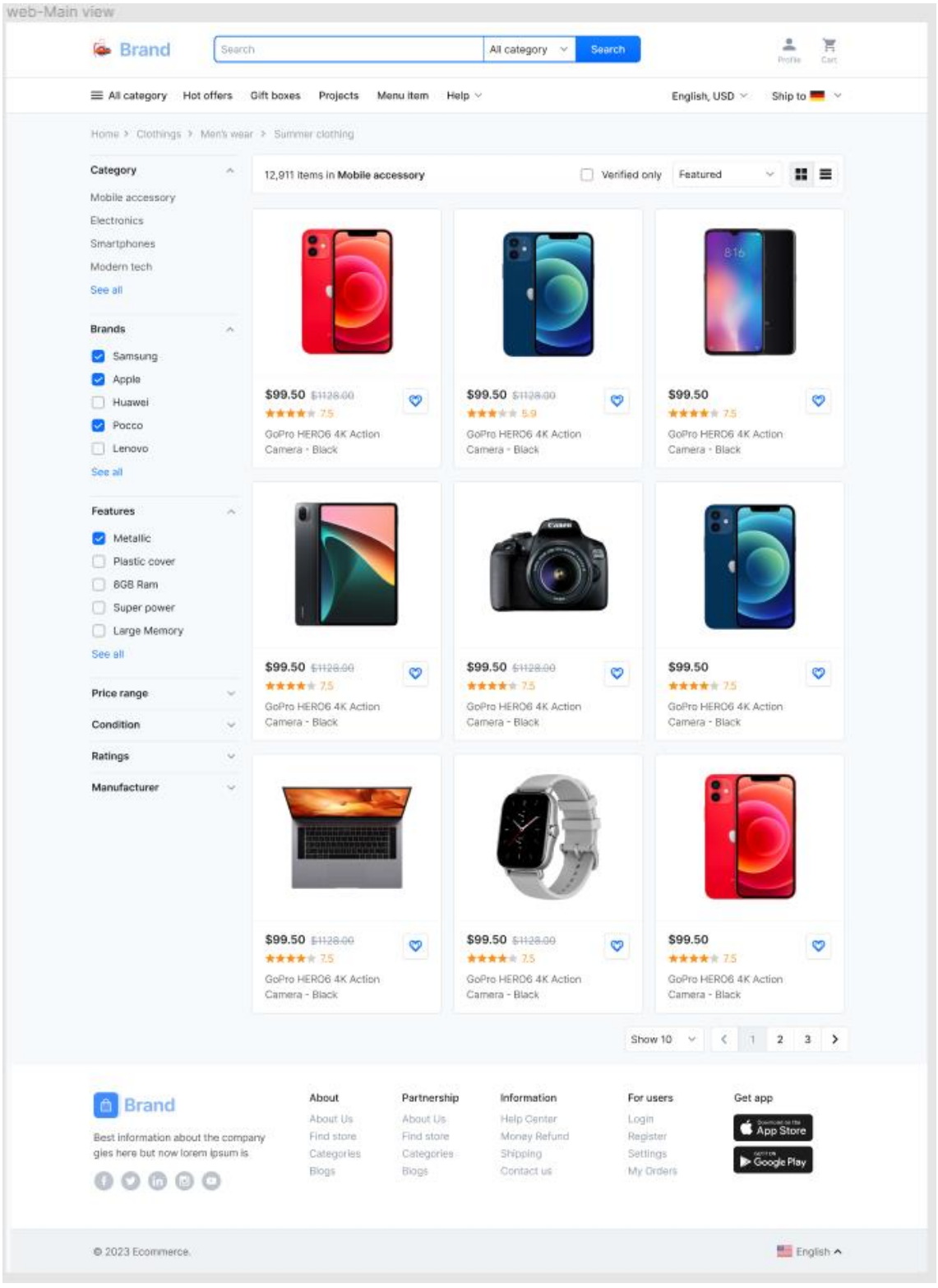
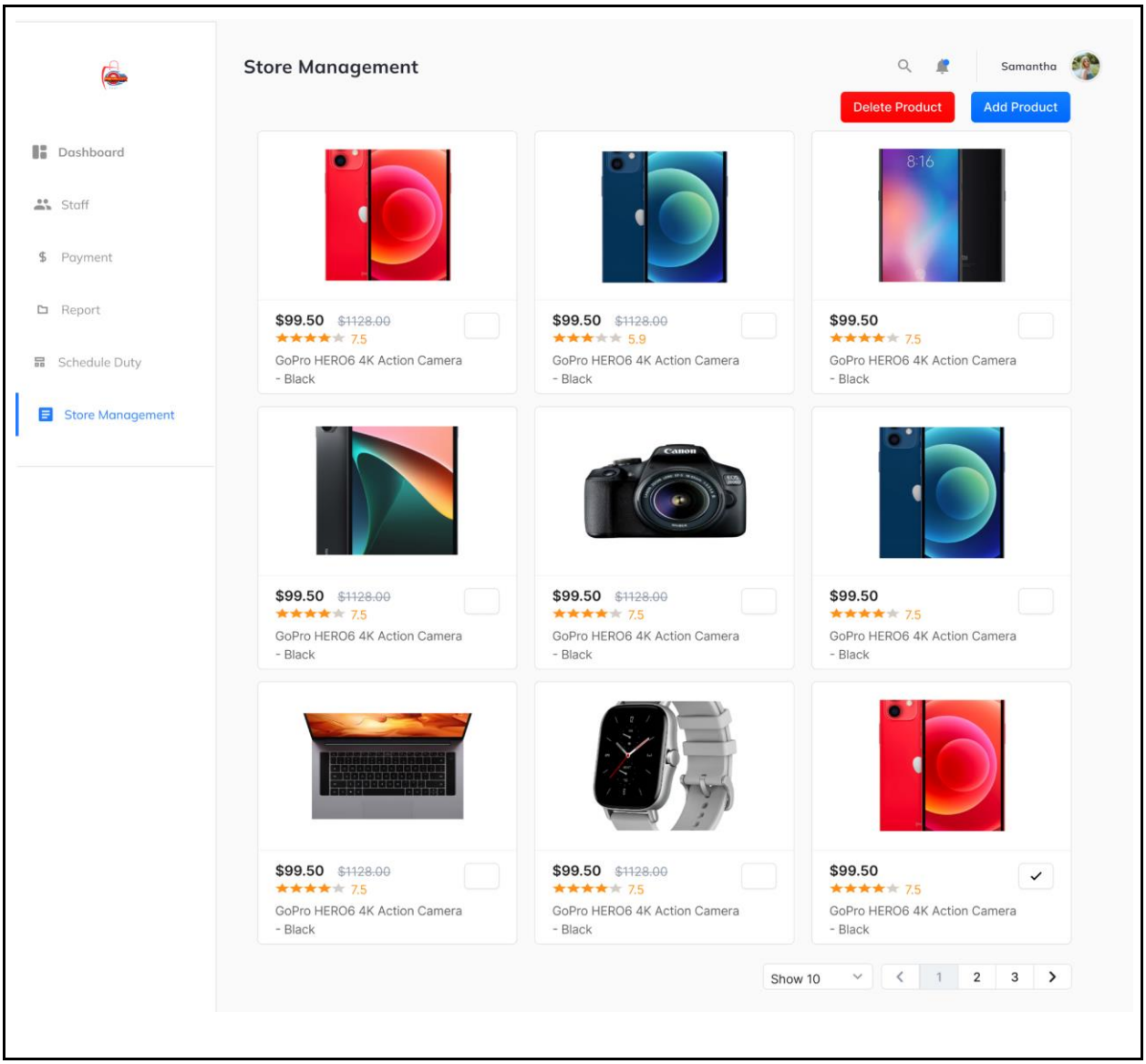
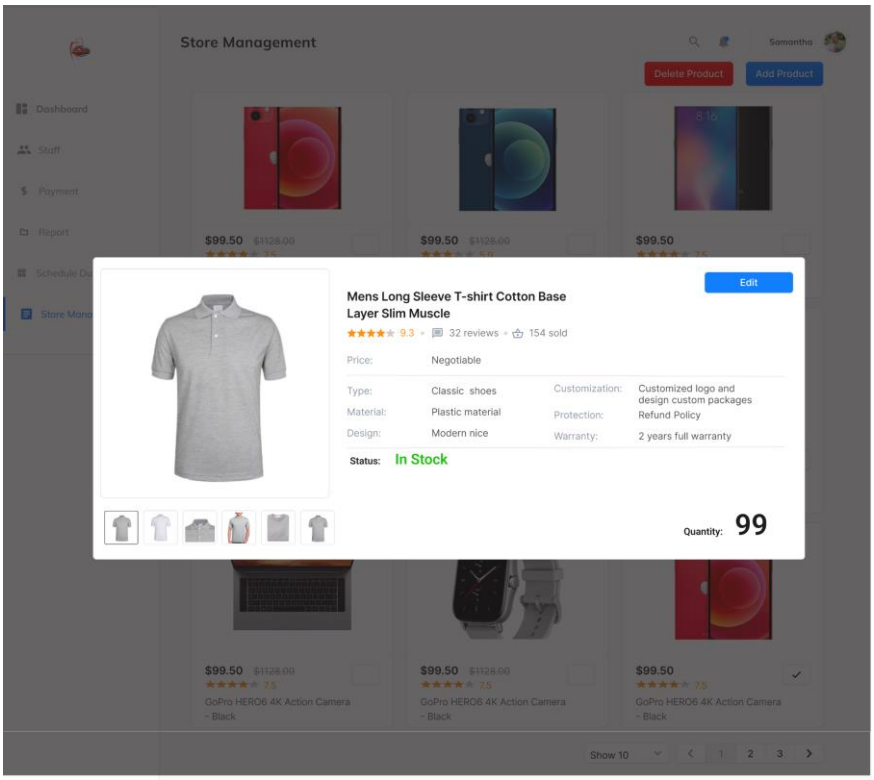
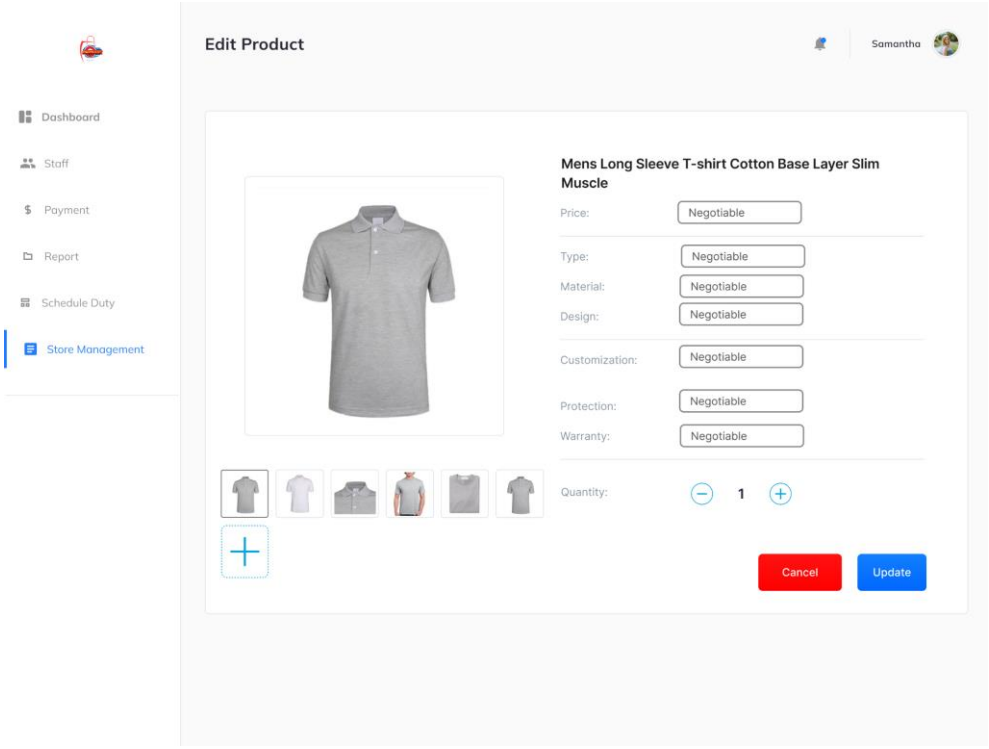


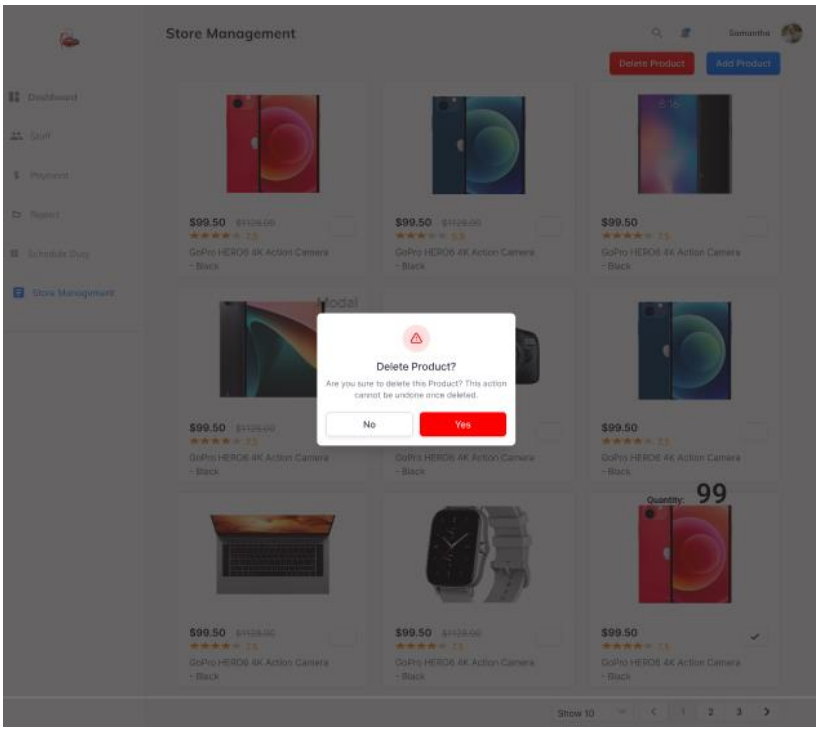
Figure above shows GUI Main Interface of PETAKOM Mart Management System

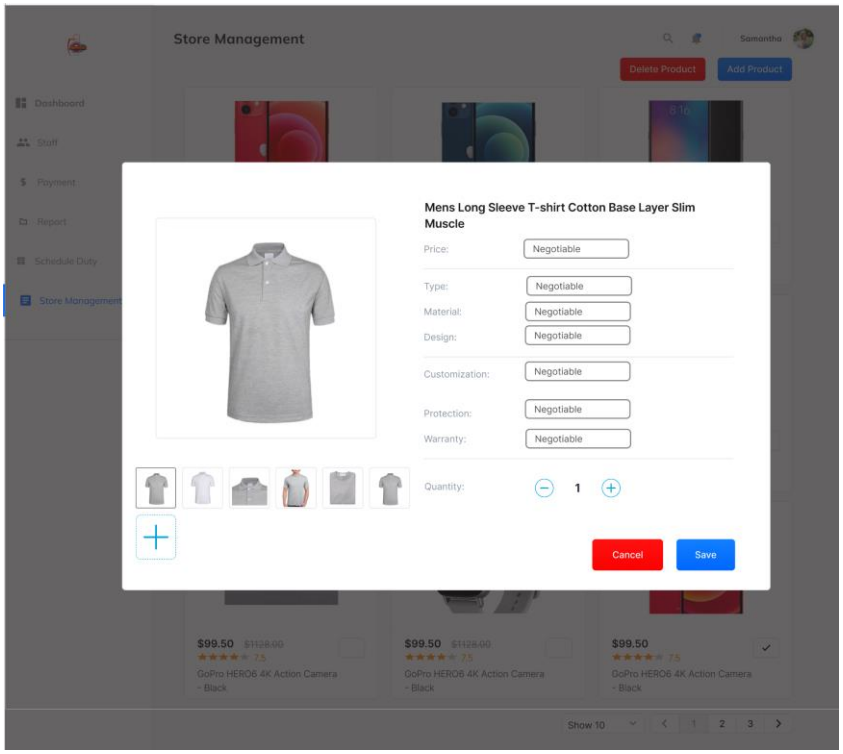
Manage Inventory Interface


Store Management
Samantha
Delete Product
Add Product
Dashboard
Staff
Payment
Report
Schedule Duty
Store Management
$99.50 $1128.00 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 $1128.00 5.9
GoPro HERO6 4K Action Camera - Black
$99.50 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 $1128.00 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 $1128.00 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 $1128.00 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 $1128.00 7.5
GoPro HERO6 4K Action Camera - Black
$99.50 7.5
GoPro HERO6 4K Action Camera - Black
Show 10
1
2
3


Store Management
Samantha
Delete Product
Add Product
Dashboard
Staff
Payment
Report
Schedule Duty
Store Management
$99.50
Edit
Mens Long Sleeve T-shirt Cotton Base Layer Slim Muscle
9.3
32 reviews
154 sold
Price: Negotiable
Type: Classic shoes
Material: Plastic material
Design: Modern nice
Customization: Customized logo and design custom packages
Protection: Refund Policy
Warranty: 2 years full warranty
Status: In Stock
Quantity: 99
GoPro HERO6 4K Action Camera - Black
Show 10


Edit Product
Samantha
Dashboard
Staff
Payment
Report
Schedule Duty
Store Management
Mens Long Sleeve T-shirt Cotton Base Layer Slim Muscle
Price: Negotiable
Type: Negotiable
Material: Negotiable
Design: Negotiable
Customization: Negotiable
Protection: Negotiable
Warranty: Negotiable
Quantity: 1
Cancel
Update


Store Management
Delete Product
Add Product
Delete Product?
Are you sure to delete this Product? This action cannot be undone once deleted.
No
Yes
Quantity:
99


Store Management
Delete Product
Add Product
Mens Long Sleeve T-shirt Cotton Base Layer Slim Muscle
Price:
Negotiable
Type:
Material:
Design:
Customization:
Protection:
Warranty:
Quantity:
1
Cancel
Save

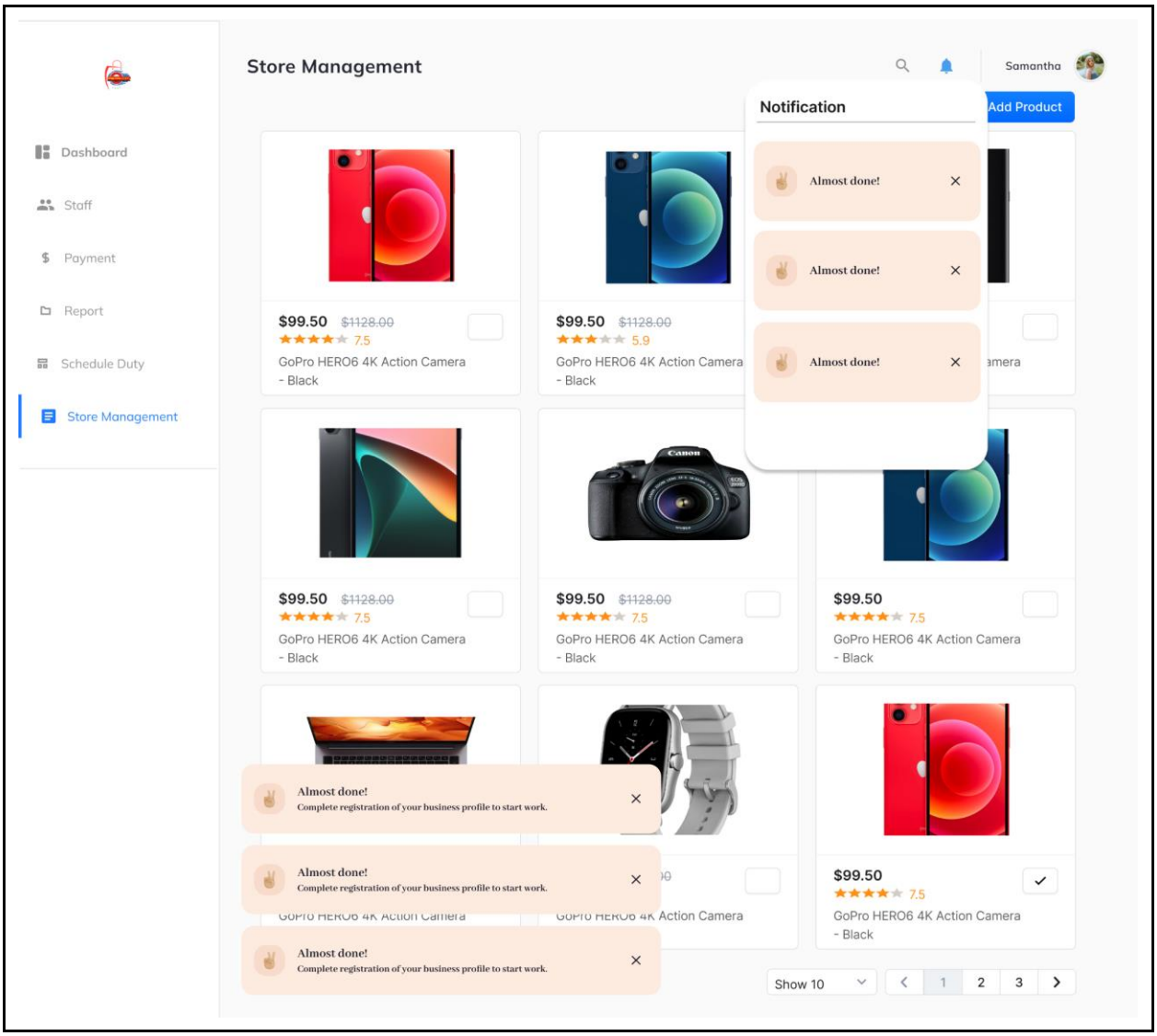
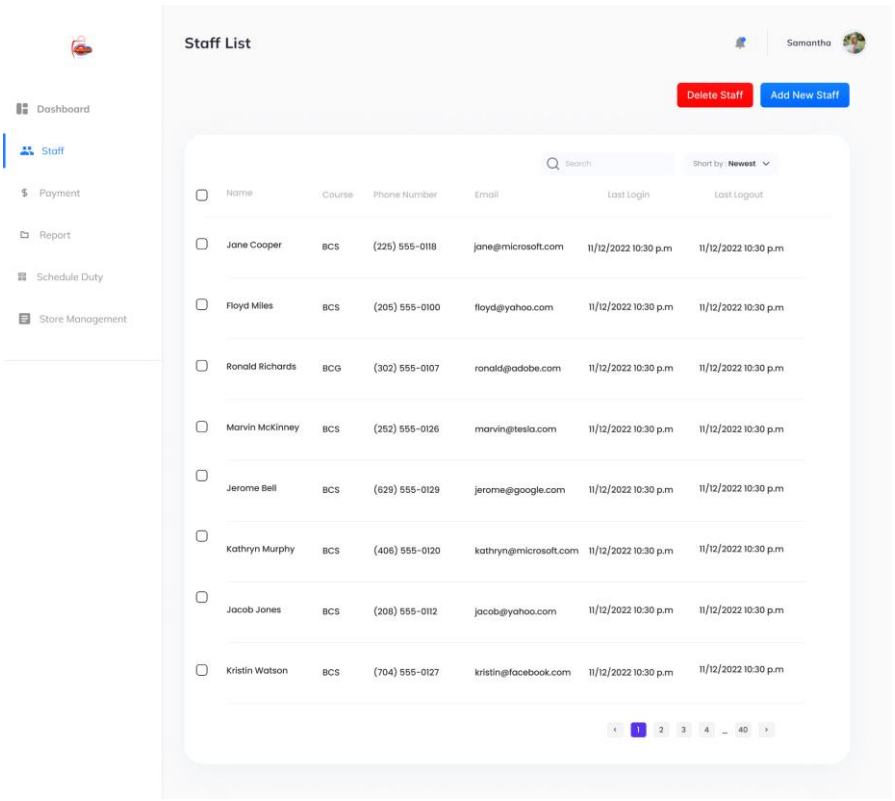
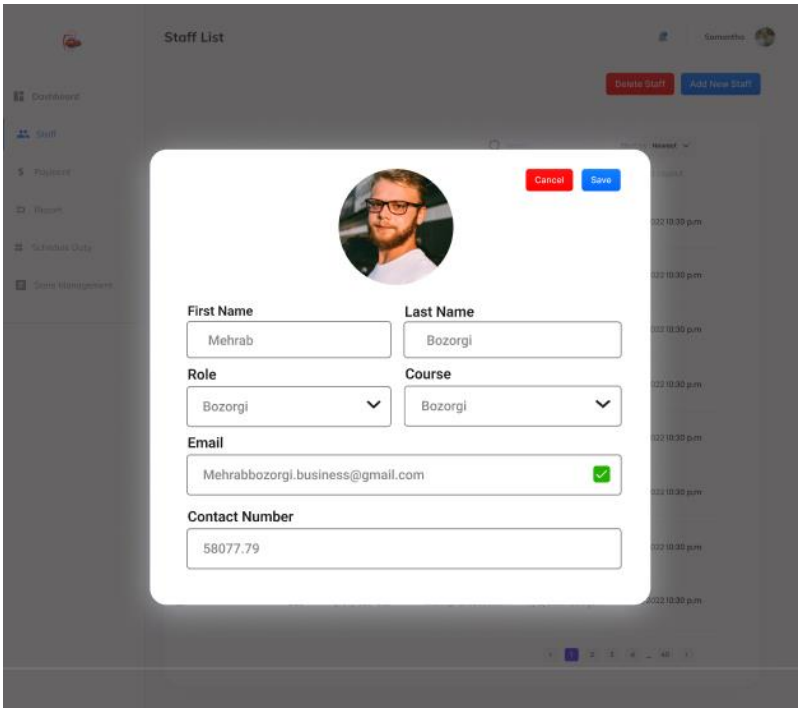


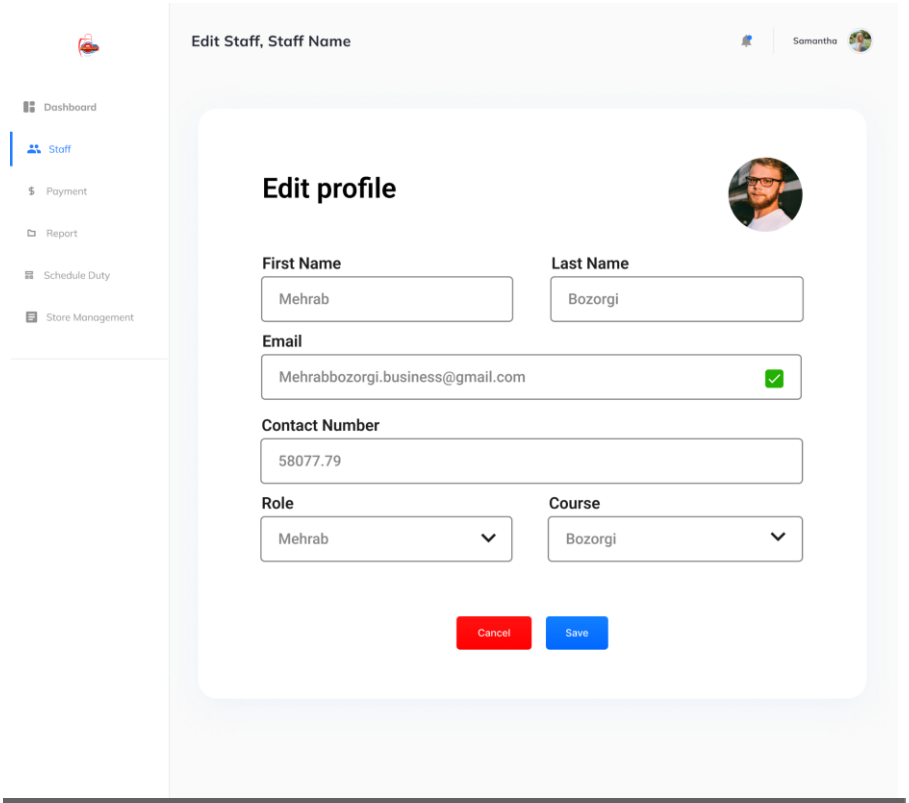
Figure above show GUI Manage Inventory Interface of PETAKOM Mart Management System

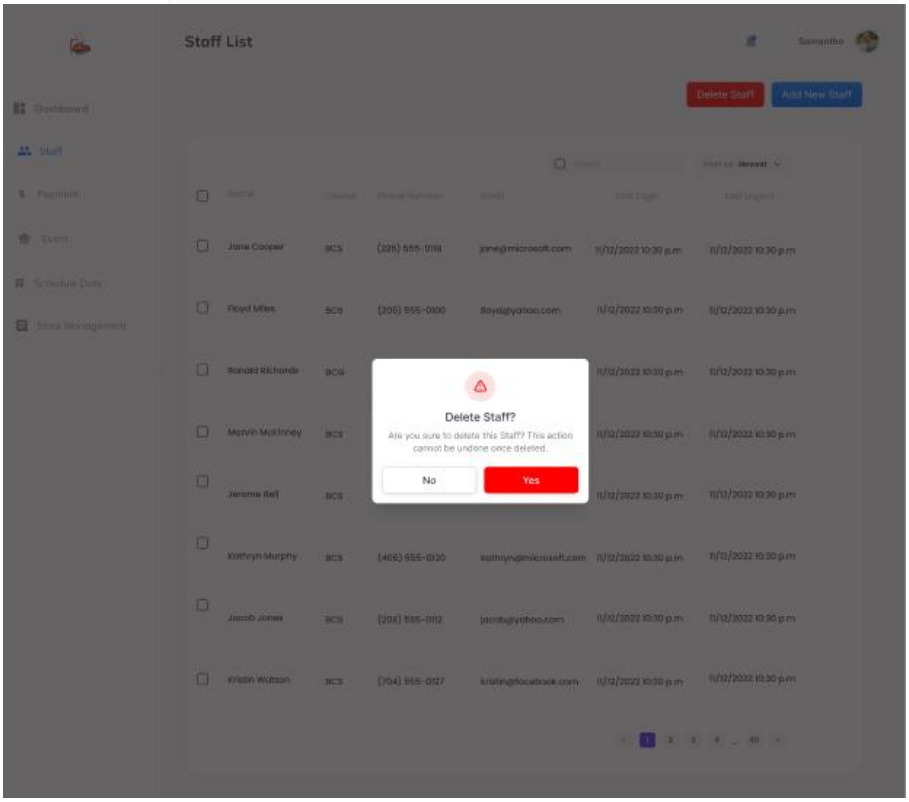
Manage Profile Interface

Admin:






Edit Staff, Staff Name
Samantha
Dashboard
Staff
Payment
Report
Schedule Duty
Store Management
Edit profile
First Name
Mehrab
Last Name
Bozorgi
Email
Mehrabbozorgi.business@gmail.com
Contact Number
58077.79
Role
Mehrab
Course
Bozorgi
Cancel
Save


Staff List
Samantha
Delete Staff
Add New Staff
Delete Staff?
Are you sure to delete this Staff? This action cannot be undone once deleted.
No
Yes

Cashier:

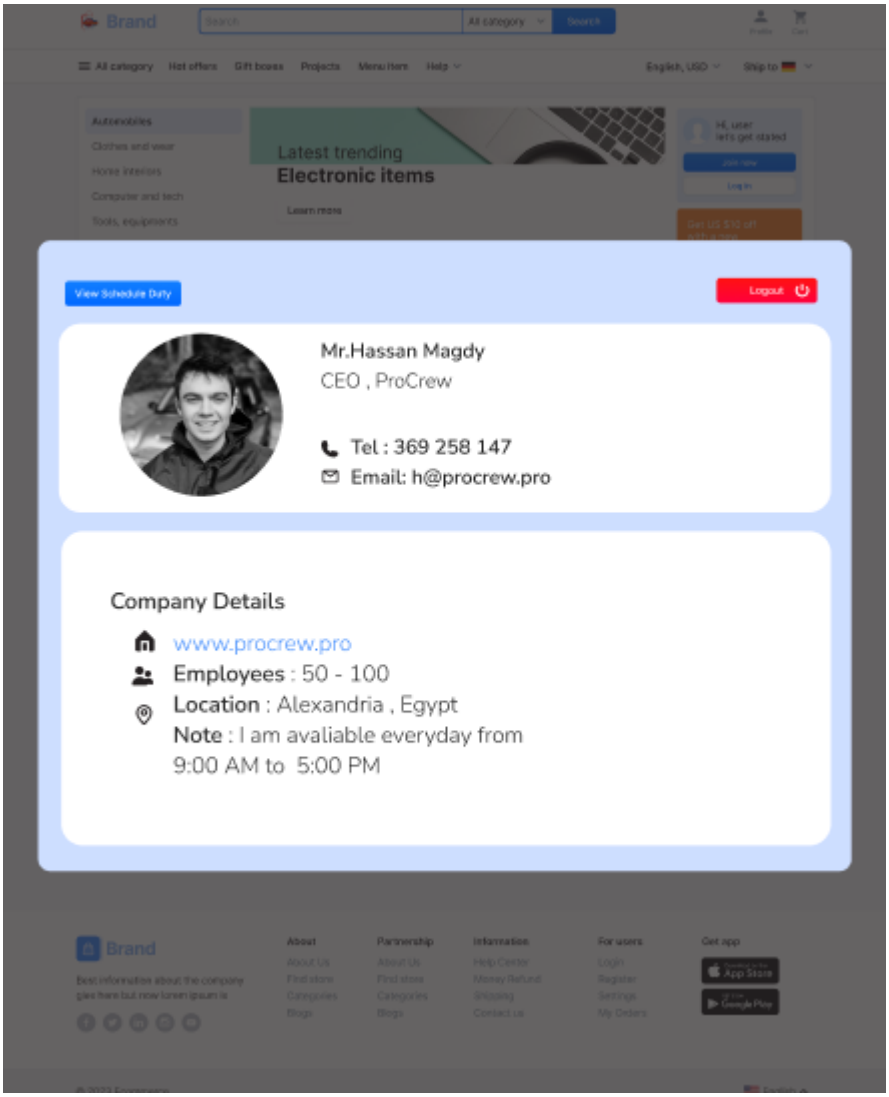
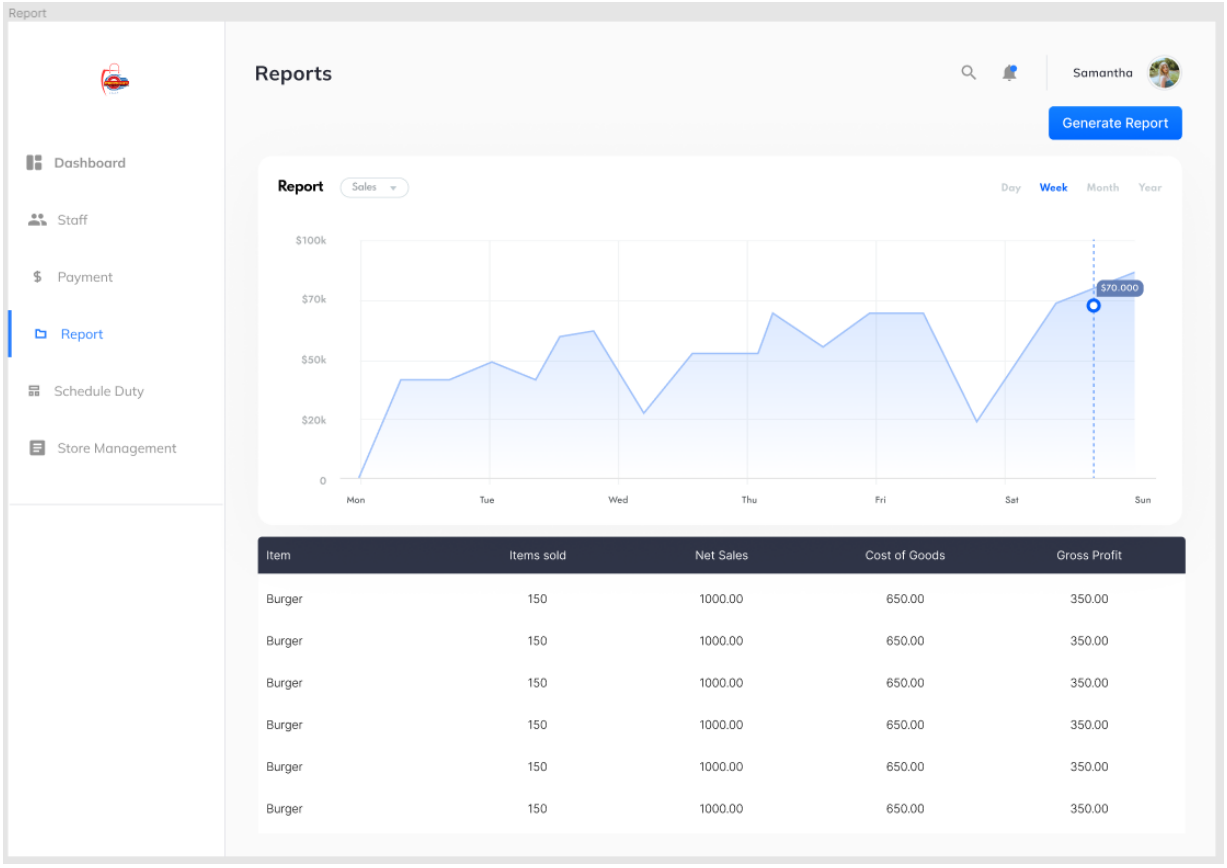


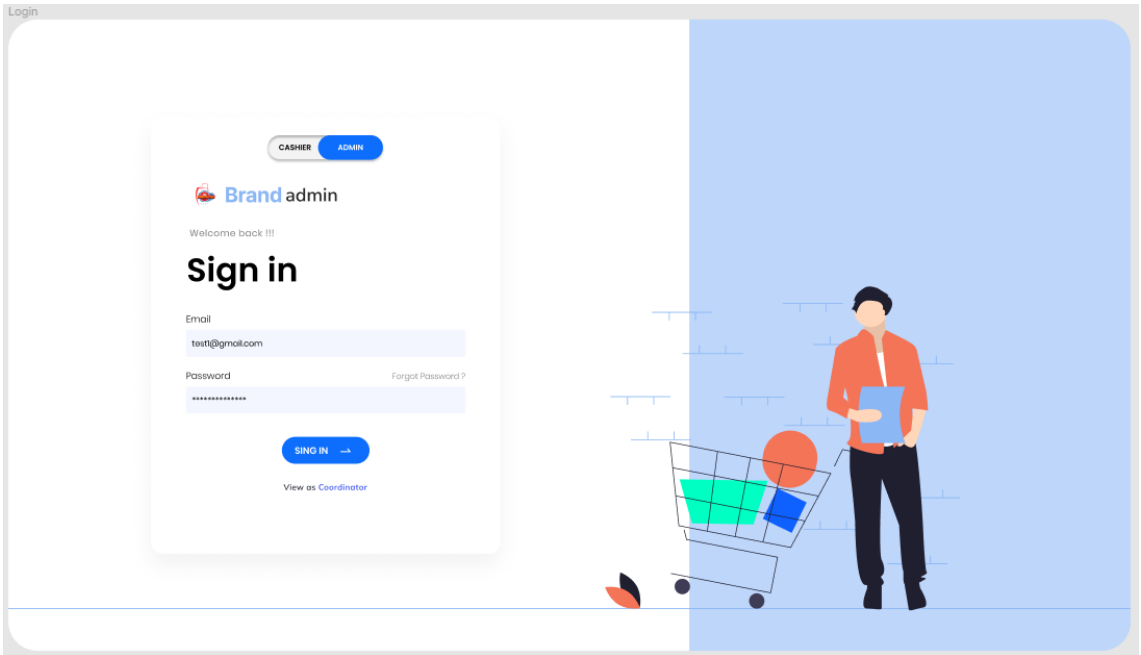
Figure above show GUI Manage Profile Interface of PETAKOM Mart Management System

Manage Report

Admin:



Coordinator:



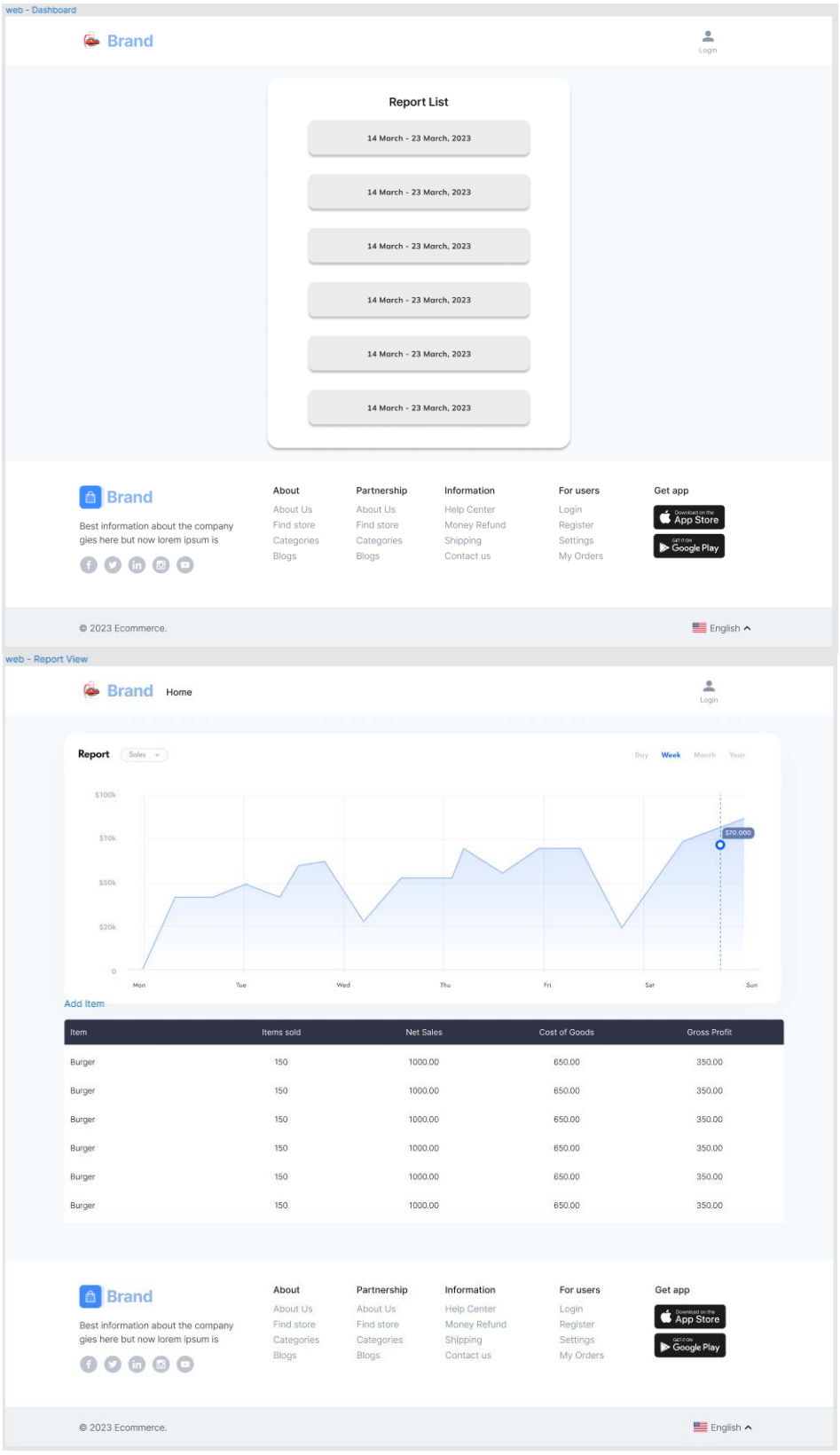


Figure above shows GUI Manage Report Interface of PETAKOM Mart Management System

Product Detail Interface

Cashier

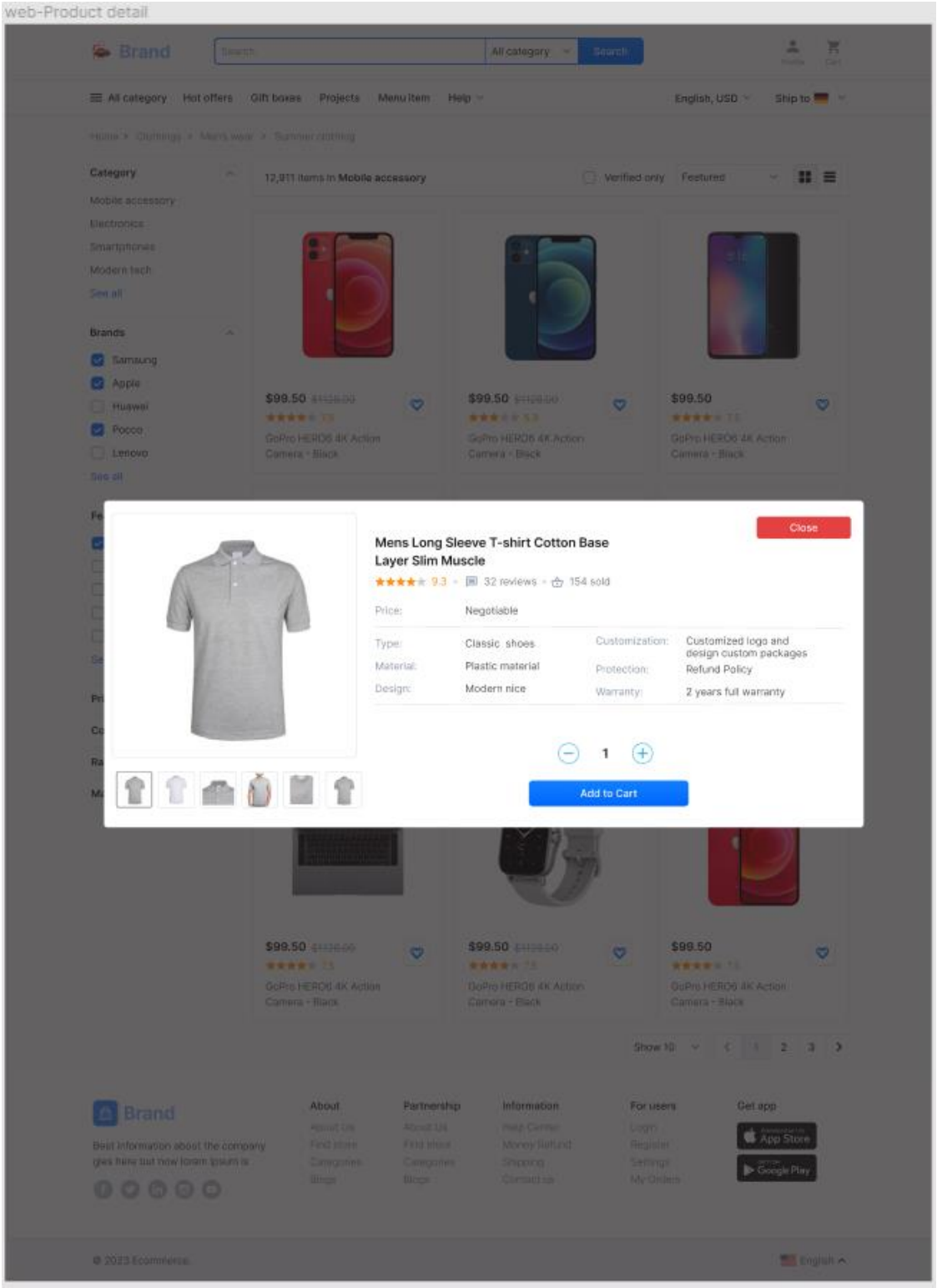
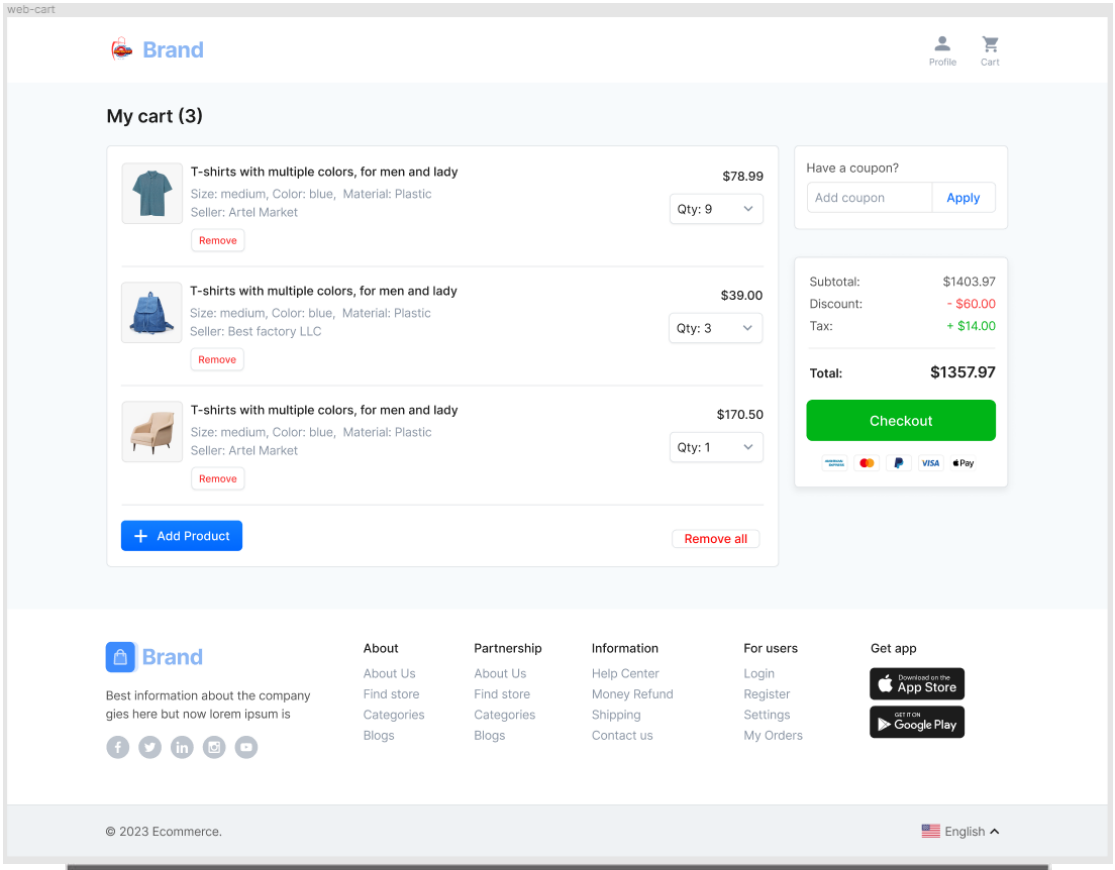
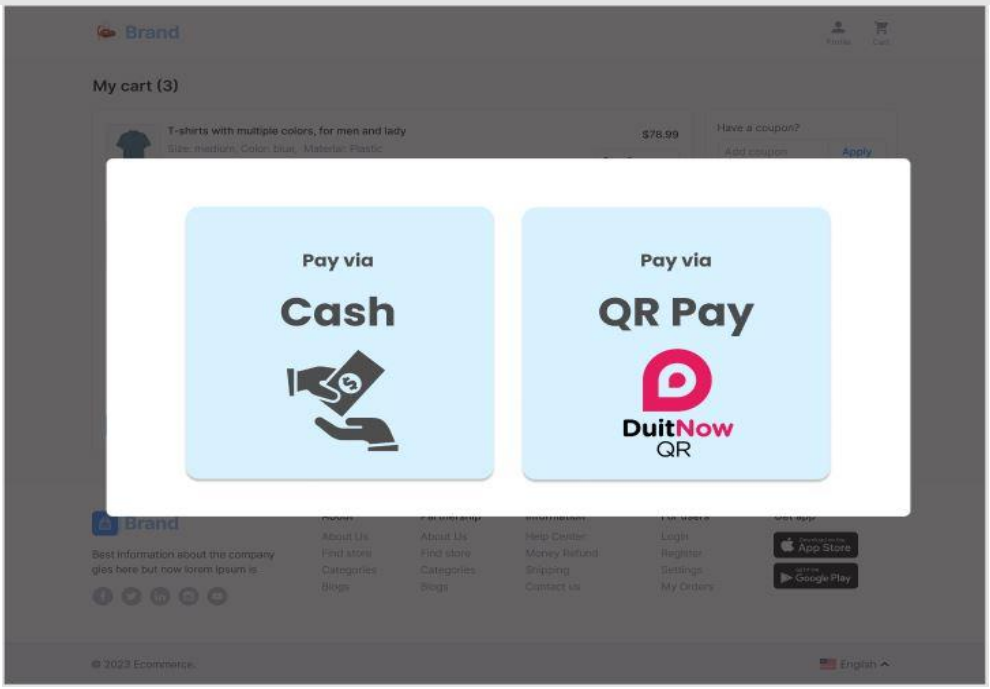
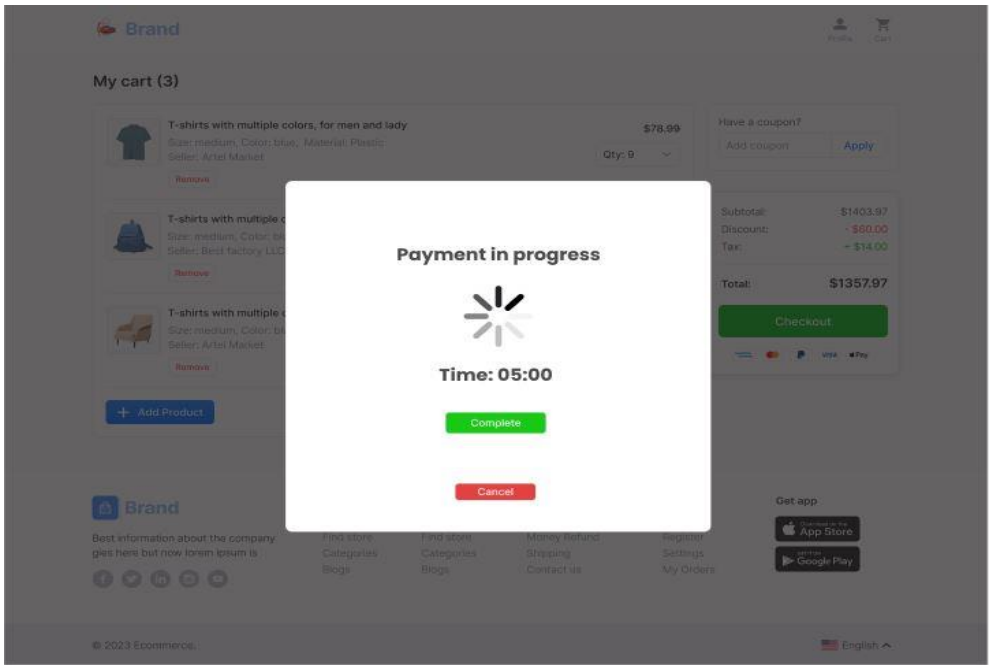


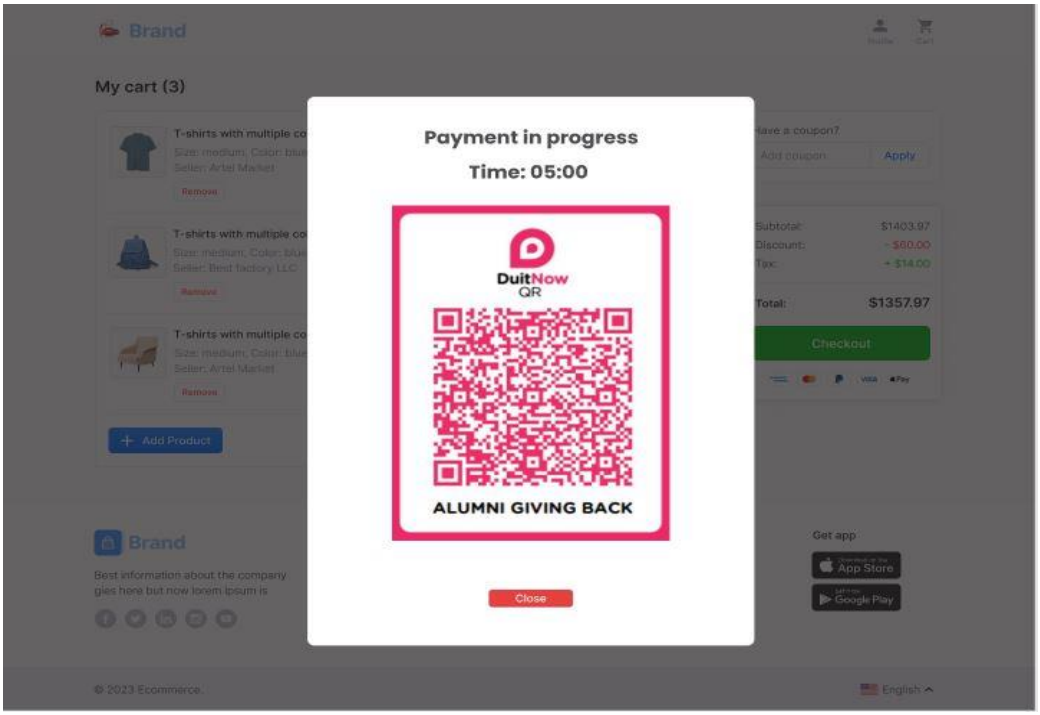
Figure above shows GUI Product Detail Interface of PETAKOM Mart Management System

Manage Payment






Brand
My cart (3)
Payment in progress
Time: 05:00
Complete
Cancel
Checkout
Total: $1357.97


Brand
My cart (3)
Payment in progress
Time: 05:00
DuitNow QR
ALUMNI GIVING BACK
Close
Checkout
Total: $1357.97

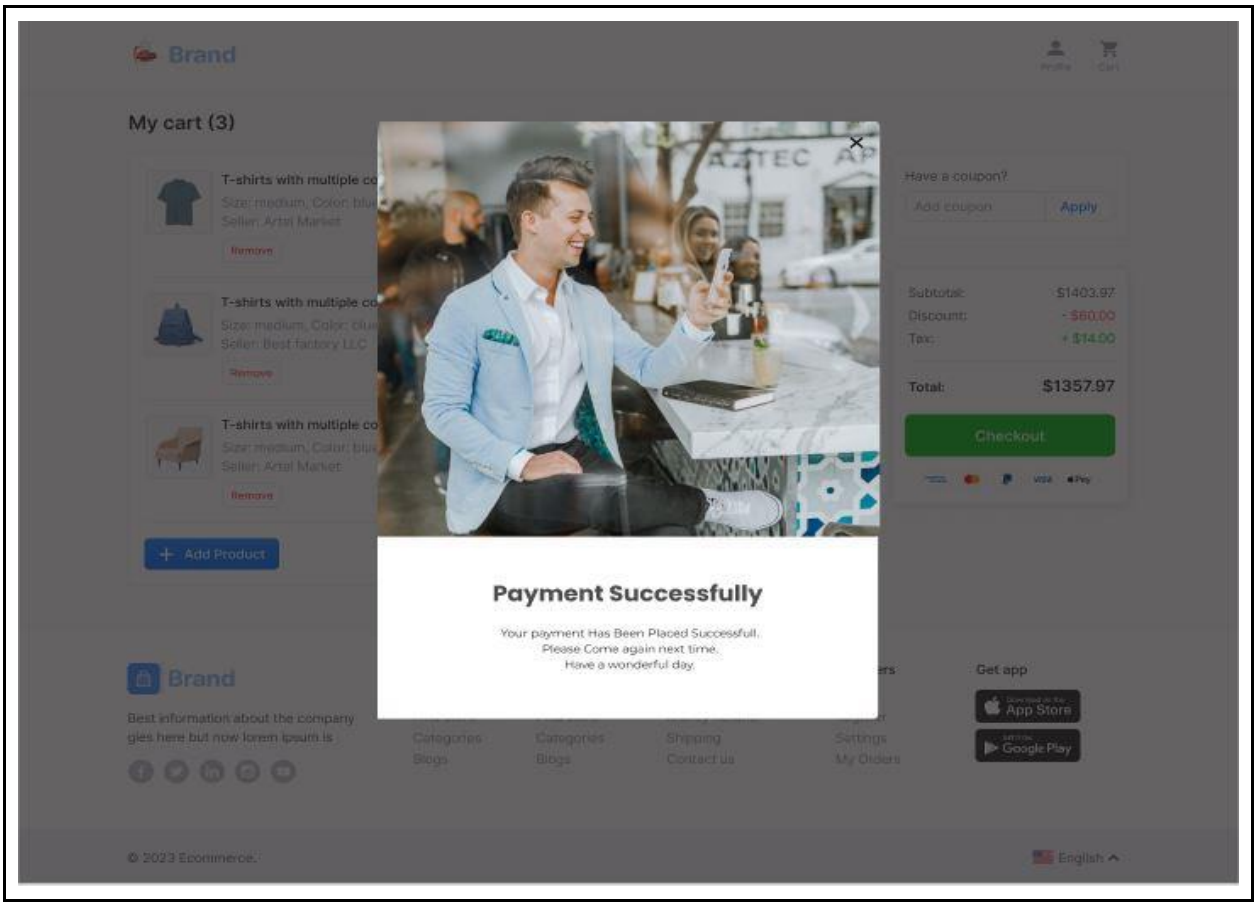
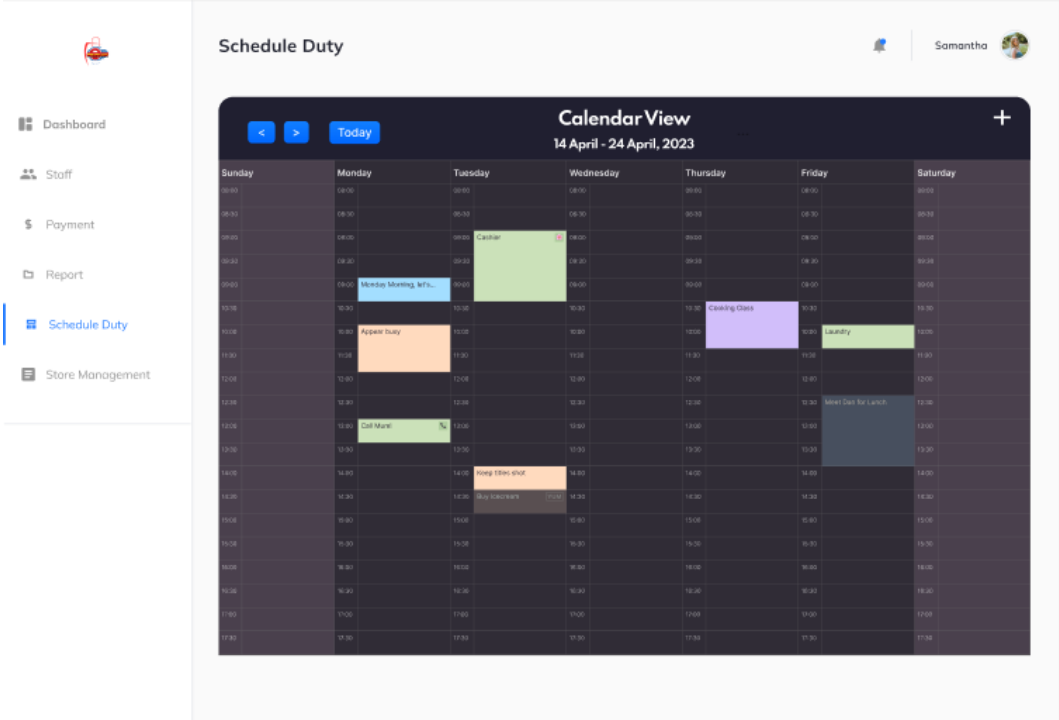
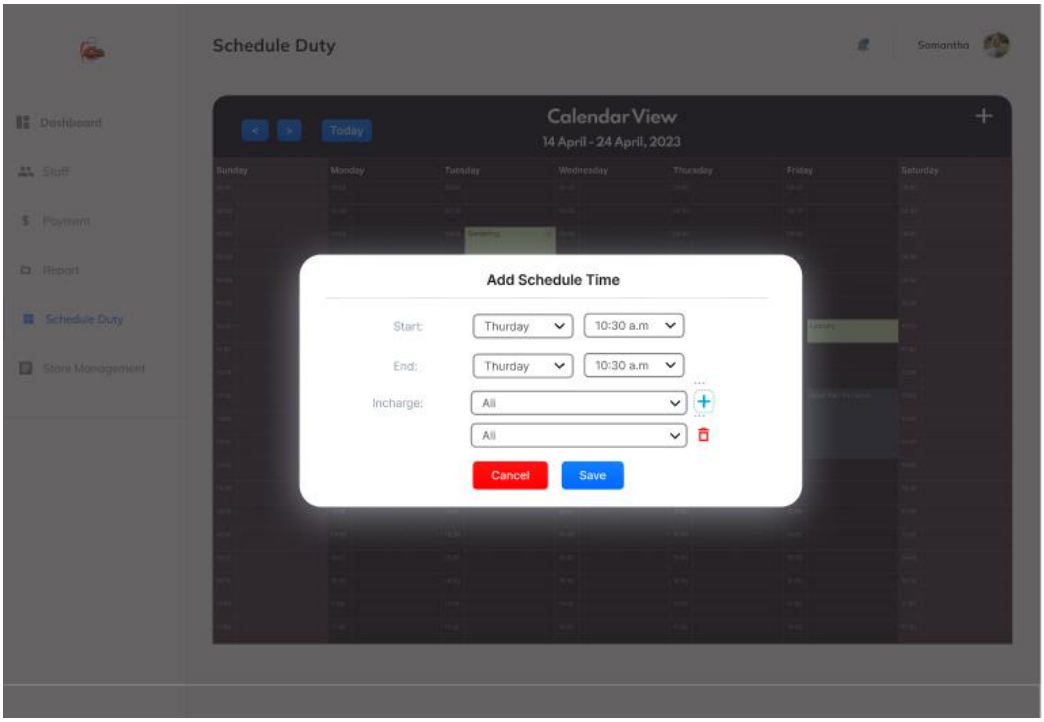


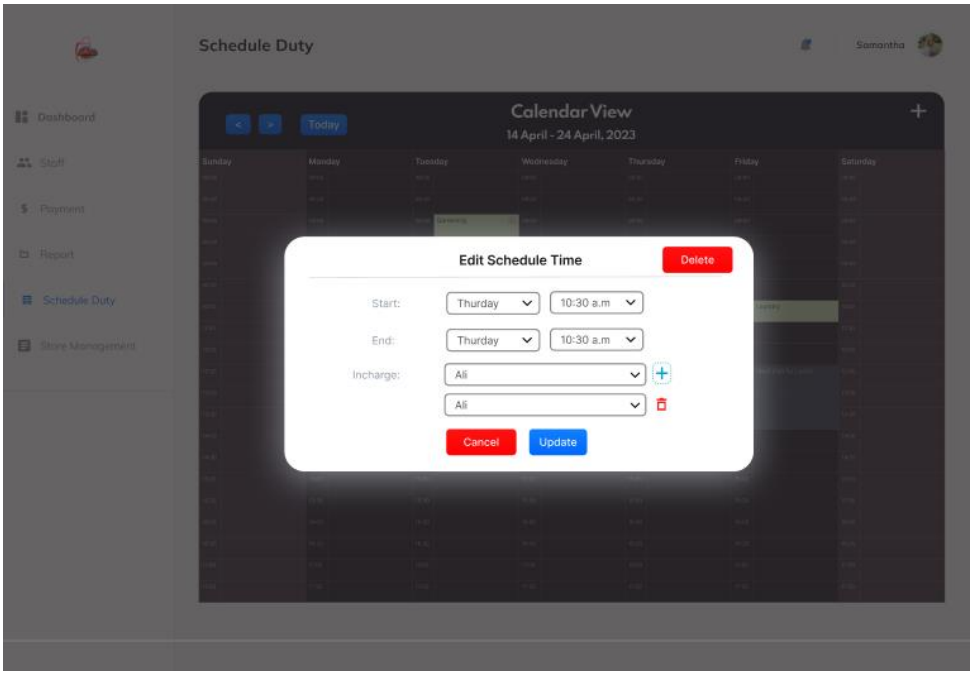
Figure above show GUI Manage Payment Interface of PETAKOM Mart Management System

Manage Duty Rooster

Admin:







Cashier:

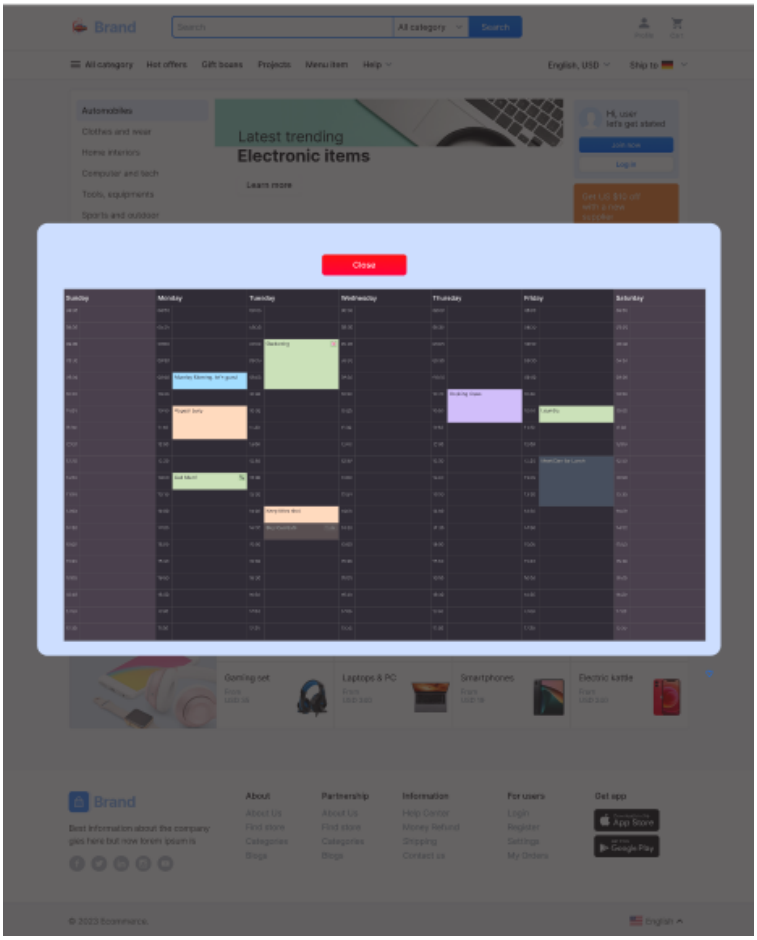


Figure above show GUI Manage Duty Roster Interface

APPENDIX A: ACRONYMS AND ABBREVIATION

Acronyms

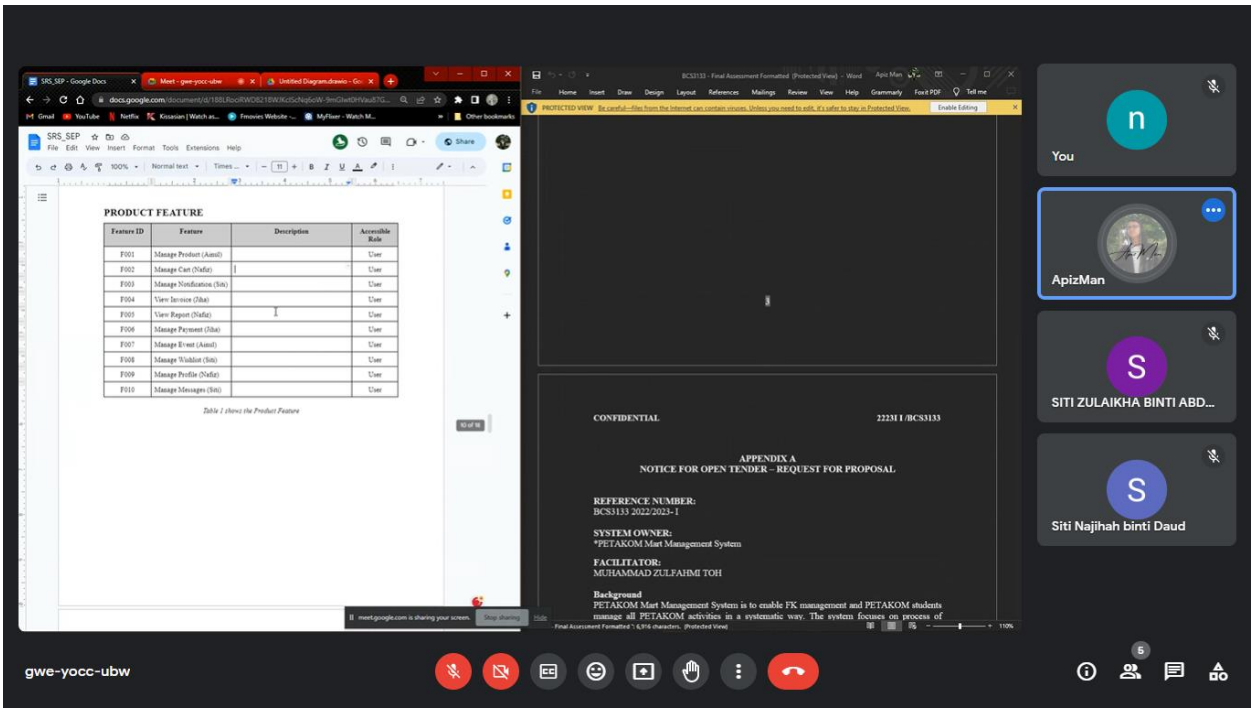
MM	Mart Management
SRS	Software Requirement Specification
UC	Use Case
FR-MI	Feature Requirements: Manage Inventory
FR-MPF	Feature Requirements: Manage Profile
FR-MR	Feature Requirements: Manage Report
FR-MPM	Feature Requirements: Manage Payment
FR-MDR	Feature Requirements: Manage Duty Roster
PDF	Portable Document Format
QR	Quick Response
GUI	Gesture User Interface

Abbreviation:

PETAKOM	Persatuan Teknologi Komputer

APPENDIX B: DAILY STANDUP/MEETING NOTES

Week 1:



We discuss and analyze all the content that should have in the Software Requirement Specification (SRS) based on the rubric that has been shared in KALAM UMP. Therefore, we find 5 main features in the PETAKOM Mart Management System.

Besides, we assign tasks for part 1: Introduction and part 2: Overview all members must cooperate, meanwhile for part 3: Detail Requirement Description we decided to assign task 1 feature for 1 member only. Therefore, we use the random picker name generator to assign that feature task.

Week 2:

We discuss all the features with the lecturer to validate that our features are correct. We make some corrections in SRS such as format, design GUI and etc. We also discuss assigning the arrangement for the next meeting on March 29, 2023, Wednesday via Online meeting in Google meeting.

Week 3:

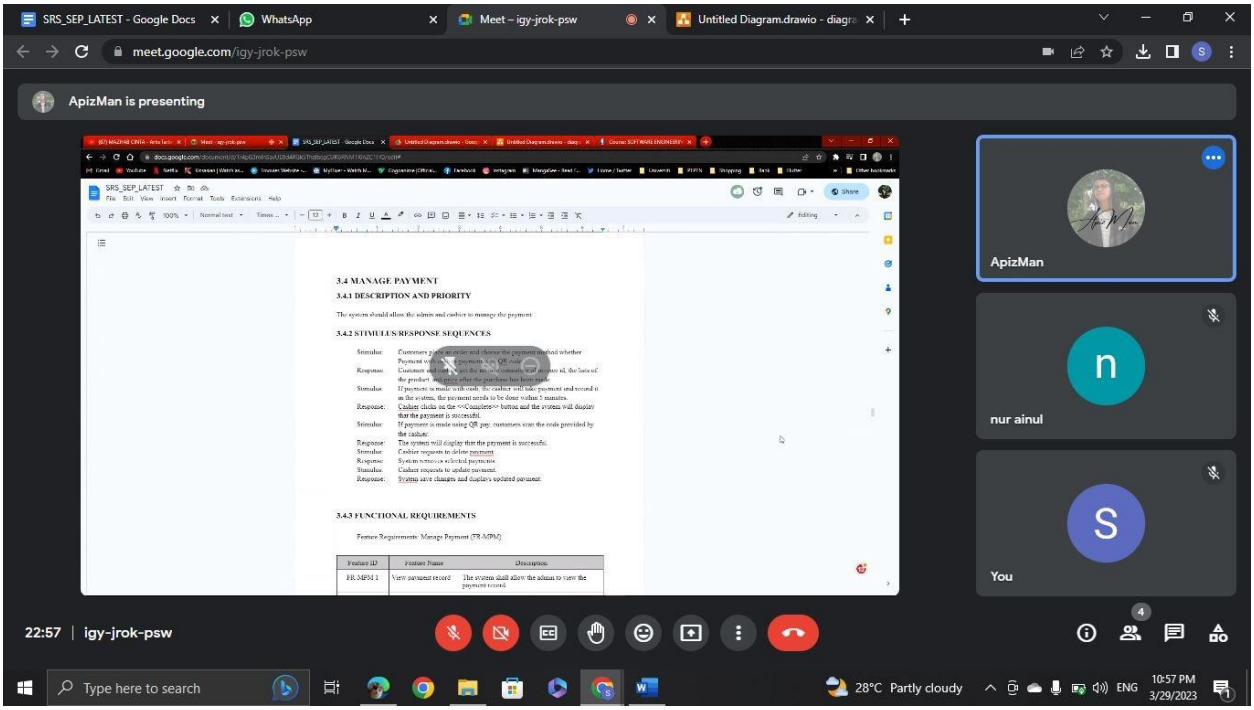


Figure shows that only 3 users are online, for 1 other member which is Siti Zulaikha, is joining together with Nur Ainul as 1 user. At this meeting, We update the progress of all the tasks that have been assigned to every one of the teams. We also make an additional part which is Appendix A: Sequence Diagram which refers to Use Case Description. We also discuss if any one of the members has any problem doing their own part and trying to solve it.

Week 4:

In this week, which is the due date of SRS on 9th April 2023, so we decided to make sure every part of the member task is completed. During the Lab session, we continue to discuss completing our SRS.

APPENDIX C: TRACEABILITY MATRIX

Req ID	Use Case ID	Description
RQ01-PETAKOM-MMS-2023	UC01-PETAKOM-MMS-2023	Main Flow
		Alternative Flow 1 - Add New Product
		Alternative Flow 2 - Update Product Details
		Alternative Flow 3 - View Product Details
		Alternative Flow 4 - Delete Product
		Alternative Flow 5 - View Notification Messages
RQ02-PETAKOM-MMS-2023	UC02-PETAKOM-MMS-2023	Main Flow
		Alternative Flow 1 - View Profile
		Alternative Flow 2 - Add Profile
		Alternative Flow 3 - Edit Profile
		Alternative Flow 4 - Delete Profile
		Alternative Flow 5 - Cancel add new staff
		Alternative Flow 6 - Cancel edit staff information
		Alternative Flow 7 - Cancel delete staff information
	UC03-PETAKOM-	Main Flow

RQ03-PETAKOM-MMS-2023	MMS-2023	Alternative Flow 1 - Generate Report Button
		Alternative Flow 2 - Sorting Statistics by Daily, Weekly, Monthly and Yearly
		Alternative Flow 3 - View Report Detail
		Alternative Flow 4 - Login Button
		Alternative Flow 5 - Home Button
RQ04-PETAKOM-MMS-2023	UC04-PETAKOM-MMS-2023	Main Flow
		Alternative Flow 1 - Add item
		Alternative Flow 2 - Edit item
		Alternative Flow 2 - Remove item
		Alternative Flow 4 - Payment via cash
		Alternative Flow 5 - Payment via QR pay
		Exception Flow 1 - Cancel payment
		Exception Flow 2 - Payment unsuccessful
RQ05-PETAKOM-MMS-2023	UC05-PETAKOM-MMS-2023	Main Flow
		Alternative Flow 1 - View Duty Roster
		Alternative Flow 2 - Edit Duty Roster
		Alternative Flow 3 - Delete Duty Roster
		Alternative Flow 4 - Add Duty Roster

		Alternative Flow 5 - Cancel edit schedule information
		Alternative Flow 6 - Cancel add new schedule