Software Requirements Specification

for

PETAKOM Mart Management System

Version 2.0 approved

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Immortal Tech Sdn Bhd

31 March 2023

Table of Contents

1. Introduction 1	
Purpose of Document	1
System Identification	1
System Overview	3
References	4
2. Overall Description	5
2.1 Product Functions (Use case diagram)	5
Context Diagram	6
3. Detail Requirements Description	7
3.1 Software Product Function	7
3.1.1 Manage User Registration	7
3.1.2 Inventory Management	10
3.1.3 Use Case Payment	14
3.1.4 Use Case Duty Roster	16
3.1.5 Report	20
GUI/ Wireframe	22
4.0 Acronyms and Abbreviation/Requirement Traceability	25
4.1 Acronyms and Abbreviation	25
4.2 Requirement Traceability 26	
Appendix A: Sequence Diagram	29
A1-1: Sequence diagram - Manage User Basic Flow (Admin)	29
A1-2: Sequence diagram - Manage User Alternative Flow A1 (Admin)	- Create New User
Account	30
A1-3: Sequence diagram - Manage User Alternative Flow A2 (Admin) 31	- Delete User Account
A1-4: Sequence diagram - Manage User Alternative Flow A3 (Admin)	- Edit User Account 31
A1-5: Sequence diagram - Manage User Exception Flow E1 (Admin) -	Incomplete or Invalid

	User Information 32 A2-1: Sequence diagram - Manage Inventory Basic Flow (Admin & Cashier) 33	
	A2-2: Sequence Diagram - Manage Inventory Basic Flow (Petakom Secretariat And	
	Coordinator)	33
	A2-3: Sequence Diagram - Manage Inventory Alternative Flow - Low Inventory Alerts	34
	A2-4: Sequence Diagram - Manage Inventory Exception Flow (Admin & Cashier) - Failed Save In The Database	To 35
	A3-1: Sequence diagram of manage payment	36
	A3-2: Sequence diagram of edit item quantity	37
	A3-3: Sequence diagram of cancel payment	37
	A4-1: Sequence diagram - Manage Duty Roster Basic Flow (Admin)	38
	A4-2: Sequence diagram - Manage Duty Roster Basic Flow (PETAKOM Committee)	39
44	-3: Sequence diagram - Manage Duty Roster Basic Flow (PETAKOM Secretariat and	
	Coordinator)	40
	A4-4: Sequence diagram - Manage Duty Roster Alternative Flow A1 (Admin) - Create New	V
	Duty Roster	41
	A4-5: Sequence diagram - Manage Duty Roster Alternative Flow A2 (Admin) - Edit Duty	
	Roster	42
	A4-6: Sequence diagram - Manage Duty Roster Alternative Flow A3 (Admin) - Delete Duty	y
	Roster	43
	A4-7: Sequence diagram - Manage Duty Roster Alternative Flow A4 (PETAKOM Committee - Add Time Slot 44	ee)
	A4-8: Sequence diagram - Manage Duty Roster Alternative Flow A5 (PETAKOM Committee - View Own Schedule 45	ee)
	A4-9: Sequence diagram - Manage Duty Roster Alternative Flow A6 (PETAKOM Committee - Drop Time Slot 46	ee)
	A4-10: Sequence diagram - Manage Duty Roster Exception Flow E1 (Admin, PETAKOM Committee) - Cancel Action	47
	A4-11: Sequence diagram - Manage Duty Roster Exception Flow E2 (PETAKOM	

Software Requirements Specification for <project></project>	Page 4
Committee) - Unavailable Selected Time Slot	48
A4-12: Sequence diagram - Manage Duty Roster Exception Flow E3 (PETAKOM	
Committee) - Failed to Save In the Database	49
A5-1: Sequence diagram of manage report	50
Appendix B: User Interface	51
B1-1: View User Listing (Admin)	51
B1-2: Create User Account (Admin)	52
B1-3: Delete User Account (Admin)	53
B1-4: Update User Account (Admin)	54
B2-1: Inventory management Page for users to a list of inventory	55
B2-2: Create new inventory Page for admin and cashier	56
B2-3 View/ Edit/ Delete inventory Page for users	57
B2-4: Manage Inventory Page for cashier	58
B2-5: Opening & Closing inventory Page for cashier	59
B3-1: Main page of manage payment	60
B3-2: Payment confirmation page	61
B3-2: Receipt page	62
B4-1: Admin - View Duty Roster	63
B4-2: Admin - Create New Duty Roster	64
B4-3: Admin - Edit Duty Roster	65
B4-4: Admin - Delete Duty Roster	66
B4-5: PETAKOM Committee - View Duty Roster	67
B4-6: PETAKOM Committee - Add Time Slot	68
B4-7: PETAKOM Committee - View Own Schedule	69
B4-8: PETAKOM Committee - Drop Time Slot	70
B4-9: PETAKOM Committee - Unavailable Selected Time Slot	71
B4-10: PETAKOM Committee - Failed to Save in Database	72
B4-11: PETAKOM Secretariat and Coordinator - View Duty Roster	73

B5-1: Manage report page

74

Appendix C - Task Distribution

75

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

Purpose of Document

The purpose behind doing this Software Requirement Specification (SRS) is used to gather and analyze all assorted ideas that have come up to develop the PETAKOM Mart Management System (PMMS). This document defines the project scope and what the PMMS is intended to do, thus establishing a clear understanding of what features and functionalities the PMMS should have. This document also provides a detailed description of the PMMS requirements, including the functional requirements, non-functional requirements, and external interfaces requirements. Besides, this document is likewise used to establish the basis of the details for an agreement among clients, software development team and project stakeholders on how the PMMS should work. It serves as a foundation for the project planning and development process, ensuring that the PMMS is developed according to the client's requirements and expectations.

System Identification

This Software Requirements Specification (SRS) belongs to the "PETAKOM Mart Management System" (PMMS).

System title : PETAKOM Mart Management System

System abbreviation : PMMS

System identification number : PMMS-SRS-2023-V1

System version number : 1.0

System release number : 1.0

For the system identification number, the SRS refers to the Software Requirement Specification, followed by PMMS as the abbreviation name of the system, 2023 refers to the published year of the system and V1 stands for version 1 of the software documented in the

document. The system version number is written as 1.0 whereas the number 1 refers to the major version while number 0 refers to the minor version. The system release number is the same as the system version number since the system release the system version of 1.0.

For the use case ID, it follows the format of 'PMMS-SRS-REQ-X00' in which PMMS is the system abbreviation, SRS stands for Software Requirement Specification, and REQ stands for requirement. 'X' is the numerical variable referring to the sequence of use cases. The number starts with 1 which is for the first use case, then the number will be increased by 1 for every next use case. For example, 'PMMS-SRS-REQ-100' represents the first use case, 'PMMS-SRS-REQ-200' represents the second use case and it continues for the following use case.

For requirement ID in a use case, it follows the format of 'PMMS-SRS-REQ-YXX' in which Y will represent the use case ID and the XX will represent the requirement ID in that use case. The XX will start from 01, 02, and it continues for each requirement in that use case. For example, for the first requirement in the first use case, the requirement ID will be 'PMMS-SRS-REQ-101'.

System Overview

This system was created for managing inventory of PETAKOM's mart in computing faculty. As students in computing faculty will buy accessories or foods frequently in PETAKOM's mart, it needs a management system for convenient management. This system will have the main function of inventory management, where the inventory in the mart is recorded in the system, and perform auto-increment or auto-decrement when the staff restock the items or sell the items. The system will also notify admins or person-in-charge when the stocks of some items are low.

Furthermore, another requirement is the system should be able to allow admin to create and update staff duty roster. PETAKOM committee will be able to chose the available time slot to take the responsibility as cashier in PETAKOM mart. Other than that, payment made will be recorded into the system's database for record purpose when a payment is made by the customer.. The system

is also able to generate weekly, monthly, and yearly sales/inventory reports. Lastly, the system shall allow admin to manage user registration for PETAKOM Committee members and PETAKOM Secretariat and Coordinator.

References

- Petakom. (n.d.). Facultyof Computing. https://fk.ump.edu.my/index.php/en/others/staff-student/petakom
- NetSuite.com. (2020, September 18). How to master your stock levels. Oracle NetSuite. https://www.netsuite.com/portal/resource/articles/inventory-management/inventory-management.shtml
- 3. Blog.sheetgo.com. (n.d.). *Top 10 inventory Excel tracking templates*. Sheetgo Blog. https://blog.sheetgo.com/inventory-processes/top-10-inventory-tracking-excel-templates/
- 4. *Laravel*. (n.d.). Laravel The PHP Framework For Web Artisans. https://laravel.com/docs/10.x/database
- Kruger, G. & Lane, C. (2023, January 17). How to Write a Software Requirement
 Specification
 (SRS
 Document).
 https://www.perforce.com/blog/alm/how-write-software-requirements-specification-srs-document
- 6. GeeksforGeeks. (2023, March 6) Software Requirement Specification (SRS) Format. https://www.geeksforgeeks.org/software-requirement-specification-srs-format/

2. Overall Description

2.1 Product Functions (Use case diagram)

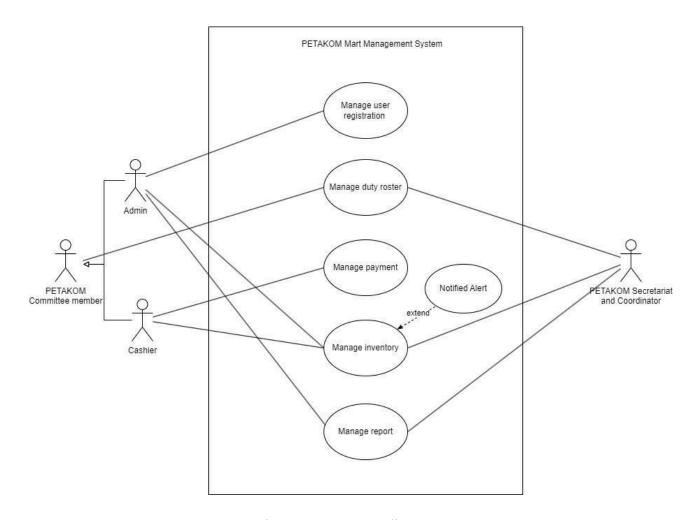


Figure 2.1 Use case diagram

PETAKOM Mart Management System will have main functions like below: -

- 1. The system shall allow admin to manage user registration for PETAKOM Committee members and PETAKOM Secretariat and Coordinator.
- 2. The system shall be able to manage inventory information.
- 3. The system shall send an alert when the inventory stock is low.
- 4. The system shall be able to perform payment action.
- 5. The system shall allow admin to manage staff duty roster.
- 6. The system shall be able to generate sales reports.

Context Diagram

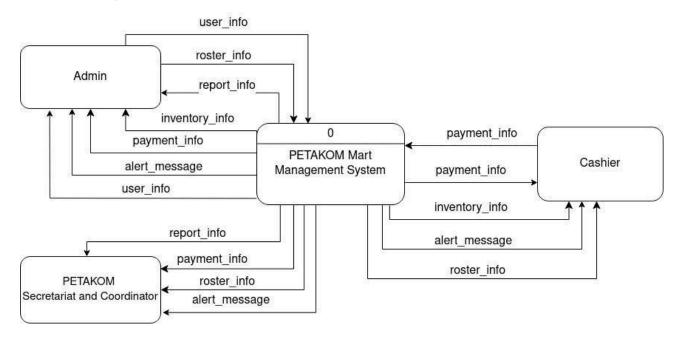


Figure 2.2 Context diagram

3. Detail Requirements Description

3.1 Software Product Function

3.1.1 Manage User Registration

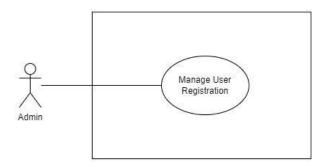


Figure 3.1.1 Use Case Diagram for Manage User Registration

Table 3.1.1 Use Case Manage User Registration

	10 J. 1. 1 Obe Cube Wallings Obel Registration
Use Case ID	PMMS-SRS-REQ-100
Brief Description	This use case is initiated by the admin when the admin needs to register an account for the new PETAKOM Committee member or PETAKOM Secretariat and Coordinator. Besides, the admin can delete accounts for them as well.
Actor	Admin
Pre-Conditions	Admin has logged in to the PMMS system.
Basic Flow	Admin 1. The use case begins when the admin navigates to the user listing page. 2. The system displays the user listing page. 3. Admin can do the following options: [A1] Create New User Account [A2] Delete User Account [A3] Edit User Account 4. The use case ends.

Alternative Flow	 A1: Create New User Account [PMMS-SRS-REQ-101] Admin clicks on the "Create New User" button. The system displays a registration form, requesting the new user's personal information. Admin fills in user information and submit the registration form. [E1: Incomplete or Invalid User Information] The system creates a new user account. The use case continues to step 4 in basic flow (Admin). 	
	A2: Delete User Account [PMMS-SRS-REQ-102] 1. Admin clicks on the "Delete" button.	
	2. The system displays a delete confirmation box.	
	3. Admin click on the "Yes" button.	
	4. The system deletes the selected user account.	
	5. The use case continues to step 4 in basic flow (Admin).	
	A3: Edit User Account [PMMS-SRS-REQ-103]	
	1. Admin clicks on the "Edit" button.	
	2. The system displays an edit user account form.	
	3. Admin edits user information and submit the edit user account form.	
	4. The system updates the selected user account.	
	5. The use case continues to step 4 in basic flow (Admin).	
Exception Flow	E1: Incomplete or Invalid User Information [PMMS-SRS-REQ-104]	
	Admin registers a new user account with incomplete or invalid user information.	
	2. The system displays an error message indicating that the	
	registration cannot be completed.	
	3. Admin makes corrections on the user information and	
	submit the registration form.	
	4. The use case continues to step number 4 in alternative flow A1.	
Post-Conditions	1. The new user registration is successfully done.	
1 Out Conditions	2. The selected user account is successfully updated.	
	3. The selected user account is successfully deleted.	

Rules	R1: Complete and Valid User Information [PMMS-SRS-REQ-105]
	1. Admin must fill in all the text fields and the password must be at least 12 characters long with a combination of uppercase and numbers.

Constraints	Not applicable.
Sequence Diagram	Refer Appendix
	A1-1: Sequence diagram - Manage User Basic Flow (Admin)
	A1-2: Sequence diagram - Manage User Alternative Flow A1 (Admin) - Create New User Account
	A1-3: Sequence diagram - Manage User Alternative Flow A2 (Admin) - Delete User Account
	A1-4: Sequence diagram - Manage User Alternative Flow A3 (Admin) - Edit User Account
	A1-5: Sequence diagram - Manage User Exception Flow E1 (Admin) - Incomplete or Invalid User Information

3.1.2 Inventory Management

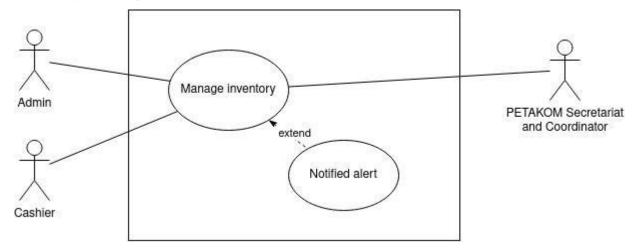


Figure 3.1.2 Use Case Diagram for Manage Inventory

Table 3.1.2 Use Case Manage Inventory

Use Case ID	PMMS-SRS-REQ-200
Brief Description	This use case describes how the system manages the inventory, allowing the admin, cashier, PETAKOM Secretariat and Coordinator to create, view and update inventory data. Besides, the system can send alerts if any inventory is low.
Actor	 Admin Cashier PETAKOM Committee Secretariat and Coordinator
Pre-Conditions	 The system is running and the user has logged in as an admin, cashier or PETAKOM Secretariat and Coordinator. The user has necessary permission to manage inventory.
Basic Flow	Admin 1. Admin selects the "Inventory Management" option from the main menu. 2. The system displays the inventory management page. [A1: Low inventory alerts] 3. Admin can perform any of the following operations: a. Create: Admin can add new inventory information by clicking the "Create New" button from the page. b. Read: Admin can view the inventory information

- by searching from the inventory list and clicking the "View" button from the stock item.
- c. Update: Admin can update a particular inventory data by clicking the "Edit" button from the inventory.
- d. Update opening: Admin clicks the "Opening inventory" button to insert the opening quantity of each inventory.
- e. Update closing: Admin clicks the "Closing inventory" button to insert the closing quantity of each inventory.
- f. Delete: Admin can delete a particular inventory by selecting the item from the inventory list and clicking the "Delete" button.
- 4. After performing an operation, the system saves the inventory data in the database. [E1: Failed to save in the database]
- 5. The use case ends.

Cashier

- 1. Cashier selects the "Inventory Management" option from the main menu.
- 2. The system displays the inventory management page. [A1: Low inventory alerts]
- 3. Cashier can perform any of the following operations:
 - a. Read: Cashier can view the inventory information by searching from the inventory list and clicking the "View" button from the stock item.
 - b. Update: Cashier can update a particular inventory data by clicking the "Edit" button from the inventory.
 - c. Update opening: Cashier clicks the "Opening inventory" button to insert the opening quantity of each inventory.
 - d. Update closing: Cashier clicks the "Closing inventory" button to insert the closing quantity of each inventory.
- 4. After performing an operation, the system saves the inventory data in the database. [E1: Failed to save in the database]

	5. The use case ends.
	o. The doc ends that.
	PETAKOM Committee Secretariat and Coordinator 1. The user selects the "Inventory Management" option from the main menu. 2. The system displays the inventory management page. [A1: Low inventory alerts] 3. The user can view the inventory data by clicking the "View" button from the inventory list. 4. The use case ends.
Alternative Flow	 A1: Low inventory alerts. [PMMS-SRS-REQ-201].1. The record implies that one or more inventory is low. 2. The system sends an alert message to notify the user which inventory is low. 3. The user clicks on that message then the system displays the list of low inventory data. 4. The user who is admin or cashier can click the "Edit" button to update the inventory data. 5. The user updates the inventory data and clicks the "Save" button. 6. The system saves the inventory data in the database. 7. The use case continues at step 2 from the basic flow.
Exception Flow	E1: Failed to save in the database. [PMMS-SRS-REQ-202]
	1 If the system encounters an error while undating

6. The system saves the inventory data in the database. 7. The use case continues at step 2 from the basic flow. Exception Flow E1: Failed to save in the database. [PMMS-SRS-REQ-202] 1. If the system encounters an error while updating inventory data, the system displays an error message to the user and prompts the user to try again later. 2. The use case ends. Post-Conditions 1. The inventory data in the system is updated to reflect actual inventory changes. 2. The system displays a successful message to the user after successful inventory updates.

Rules	R1: Access control. [PMMS-SRS-REQ-203] 1. The admin grants all permission to manage inventory data. 2. The cashier can only create, view and update inventory as well as add opening and closing inventory data.
	 3. The system should only allow cashiers to add opening and closing inventory at the beginning and the end of every operating day respectively. 4. The PETAKOM Committee Secretariat and Coordinator can only view the inventory data.

	 5. All inventory details must be saved in the database and cannot be null. R2: Alert notifications. [PMMS-SRS-REQ-204] 1. The system should identify low inventory levels every time the user updates the inventory data and send an alert notification. 2. If the opening inventory does not match the closing inventory from the previous day, the system should send an alert notification.
Constraints	 C1: Inventory value [PMMS-SRS-REQ-205] 1. The quantity, unit cost, and price values must be greater than 0. 2. Only one picture can be uploaded per inventory item. 3. The maximum file size for attachments is 10 MB.
Sequence Diagram	Refer Appendix 1. A2-1: Sequence diagram - Manage Inventory Basic Flow (Admin & Cashier) 2. A2-2: Sequence Diagram - Manage Inventory Basic Flow (Petakom Secretariat And Coordinator) 30 3. A2-3: Sequence Diagram - Manage Inventory Alternative Flow - Low Inventory Alerts 4. A2-4: Sequence Diagram - Manage Inventory Exception Flow (Admin & Cashier) - Failed To Save In The Database

3.1.3 Use Case Payment

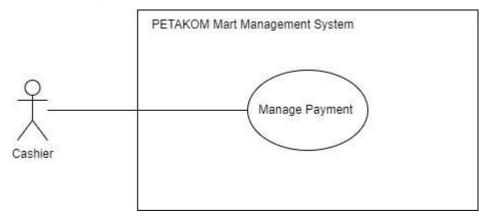


Figure 3.1.3 Use Case Manage Payment Diagram

Table 3.1.3 Use Case Manage Payment

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Use Case ID	PMMS-SRS-REQ-300	
Brief Description	This use case is initiate by cashier when there is customer that want to checkout their items. Total items purchase and the total payment amount will be displayed, payment from customer will be received by cashier. A receipt will be generated after payment complete.	
Actor	1. Cashier	
Pre-Conditions	The cashier had logged in to his/her account.	
Basic Flow	 The cashier selects/scans the items that want to be purchase by the customer and clicks "PAY" button. The cashier able to search items that customer want to purchase. [A1: Search Item] The system displays the total items purchase and total price. [A2: Edit item quantity] The cashier receive payment from customer and clicks "DONE" button. [E1: Cancel Payment] The system displays a receipt with necessary information likes receipt ID, date, items purchase, price of each item, and the total price. The use case end. 	

Alternative Flow	 A1: Edit Item quantity [PMMS-SRS-REQ-301] 1. The cashier is able to search the item by clicking on the search bar. 2. The cashier enters the name of the item to be searched. 3. The display will show the item. 4. The use case continues step 3 in basic flow. A2: Edit Item quantity [PMMS-SRS-REQ-302] 1. The cashier can edit the item quantity by clicking the "-" or "+" icon to edit the item quantity. 2. The use case continue with step 3 in basic flow. 	

Exception Flow	E1: Cancel Payment. [PMMS-SRS-REQ-303] 1. The cashier clicks "Cancel" button. 2. The system cancel the purchase and navigate cashier back to the homepage. 3. The use case end.	
Post-Conditions	The items purchase will be deducted from the inventory and the payment is made by the customer.	
Rules	1. The system allows users to enter prices in 2 decimal places.	
Constraints	C1: Maximum quantity of item selected. [PMMS-SRS-REQ-303] 1. The quantity of a selected item cannot exceed the maximum amount of that item in the inventory.	
Sequence Diagram	Refer Appendix A3-1: Sequence diagram of manage payment A3-2: Sequence diagram of edit item quantity A3-3: Sequence diagram of cancel payment	

3.1.4 Use Case Duty Roster

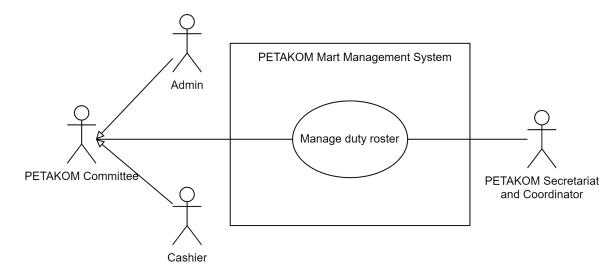


Figure 3.1.4 Use Case Diagram for Manage Duty Roster

Table 3.1.4 Use Case Manage Duty Roster

	Tuble 3.1. 1 ese euse Manage Buty Roster		
Use Case ID	PMMS-SRS-REQ-400		
Brief Description	This use case is initiated by the PETAKOM Committee or PETAKOM Secretariat and Coordinator. It allows admin to create and update the duty roster. PETAKOM Committees are allowed to select slots and view their cashier duty schedule. The admin and PETAKOM Secretariat and Coordinator can view the duty roster.		
Actor	2. Admin3. PETAKOM Committee4. PETAKOM Secretariat and Coordinator		
Pre-Conditions	The user had logged in to his/her account.		
Basic Flow	Admin 1. The admin navigates to the duty roster page. 2. The system displays the latest duty roster. 3. The admin can manage duty roster by doing the following options: [A1: Create New Duty Roster] [A2: Edit Duty Roster] [A3: Delete Duty Roster] 4. The use case ends.		

PETAKOM Committee

- 1. The PETAKOM Committee navigates to the duty roster page.
- 2. The system displays the latest duty roster with time slots.
- 3. The PATAKOM Committee can perform any of the following options:

[A4: Add Time Slot]
[A5: View Own Schedule]

4. The use case ends.

PETAKOM Secretariat and Coordinator

- 1. The PETAKOM Secretariat and Coordinator navigates to the duty roster page.
- 2. The system displays the latest duty roster.
- The use case ends.

Alternative Flow

A1: Create New Duty Roster [PMMS-SRS-REQ-401]

- 1. The admin clicks the "+NEW" button.
- 2. The system requests the input data of date, opening time and closing time.
- 3. The admin selects the date, opening time and closing time.
- 4. The admin clicks the "POST" button.
- 5. Back to Basic Flow Admin step 2.

A2: Edit Duty Roster [PMMS-SRS-REQ-402]

- 1. The admin clicks the "EDIT" button.
- 2. The system displays the current duty roster.
- 3. The admin edits the date, opening time or closing time.
- 4. The admin clicks the "UPDATE" button.
- 5. The system overwrites the previous duty roster in the database.
- 6. Back to Basic Flow Admin step 2.

A3: Delete Duty Roster [PMMS-SRS-REQ-403]

- 1. The admin clicks the "DELETE" button.
- 2. The system displays the message "Are you sure to delete?".
- 3. The admin clicks the "YES" button. **[E1: Cancel action]** 4. The system deletes the selected duty roster from the database.
 - 5. Back to Basic Flow Admin step 2.

3.

A4: Add Time Slot [PMMS-SRS-REQ-404] 1. The PETAKOM Committee clicks the "ADD SLOT" button. 2. The system displays the date and time slot to be selected. 3. The PETAKOM Committee selects the date and time slot and clicks the "ADD" button. 4. The system checks the duty time slot in the database. **[E2: Unavailable selected time slot** 5. The system saves the data in the database. [E3: Failed to save in the database] 6. Back to Basic Flow – PETAKOM Committee step 2. A5: View Own Schedule [PMMS-SRS-REQ-405] 1. The PETAKOM Committee clicks the "MY SCHEDULE" button. 2. The system displays the duty schedule of the user. [A6: **Drop Time Slot**] 3. Back to Basic Flow – PETAKOM Committee step 3. A6: Drop Time Slot [PMMS-SRS-REQ-406] The PETAKOM Committee clicks the "DROP" button of 1. the selected time slot. The system displays the message "Are you sure you want 2. to drop this time slot?" The PETAKOM Committee clicks the "YES" button. 3. [E1: Cancel action] 4. The system deletes the selected slot record from the database. Back to Alternative Flow - View Own Schedule [A5] step 5. **Exception Flow** E1: Cancel action [PMMS-SRS-REQ-407] 1. The admin clicks the "No" button. 2. The system cancels the action.

Back to Alternative Flow - Delete Duty Roster [A3] step 5

or Alternative Flow - Drop Time Slot [A6] step 5.

E2: Unavailable selected time slot [PMMS-SRS-REQ-408] 1. The PETAKOM Committee submits the unavailable time slot. 2. The system shows an error message "The time slot may be
full, or it has been added before. Please select another time slot".Back to Alternative Flow - Add Time Slot [A4] step 3.
E3: Failed to save in the database [PMMS-SRS-REQ-409] 1. The system displays an error message. 2. Back to Alternative Flow - Add Time Slot [A4] step 3.

Post-Conditions	The system displays the updated duty roster according to the user's operation.	
Rules	Not Applicable	
Constraints	C1: Maximum quota for each time slot. [PMMS-SRS-REQ-410] 1. Each time slot cannot be owned by more than two people.	
	C2: Forbidden repeated account in one time slot. [PMMS-SRS-REQ-411] 1. Each committee is not allowed to add the same time slot to his/her duty schedule.	

Sequence Diagram	Refer Appendix		
	A4-1: Sequence diagram - Manage Duty Roster Basic Flow		
	(Admin)		
	A4-2: Sequence diagram - Manage Duty Roster Basic Flow		
	(PETAKOM Committee)		
	A4-3: Sequence diagram - Manage Duty Roster Basic Flow		
	(PETAKOM Secretariat and Coordinator)		
	A4-4: Sequence diagram - Manage Duty Roster Alternative Flow		
	A1 (Admin) - Create New Duty Roster		
	A4-5: Sequence diagram - Manage Duty Roster Alternative Flow		
	A2 (Admin) - Edit Duty Roster		
	A4-6: Sequence diagram - Manage Duty Roster Alternative Flow		
	A3 (Admin) - Delete Duty Roster		
	A4-7: Sequence diagram - Manage Duty Roster Alternative Flow		
	A4 (PETAKOM Committee) - Add Time Slot		
	A4-8: Sequence diagram - Manage Duty Roster Alternative Flow		
	A5 (PETAKOM Committee) - View Own Schedule		
	A4-9: Sequence diagram - Manage Duty Roster Alternative Flow		
	A6 (PETAKOM Committee) - Drop Time Slot		
	A4-10: Sequence diagram - Manage Duty Roster Exception Flow		
	E1 (Admin, PETAKOM Committee) - Cancel Action		
	A4-11: Sequence diagram - Manage Duty Roster Exception Flow		
	E2 (PETAKOM Committee) - Unavailable Selected Time Slot		
	A4-12: Sequence diagram - Manage Duty Roster Exception Flow		
	E3 (PETAKOM Committee) - Failed to Save In the Database		
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3.1.5 Report

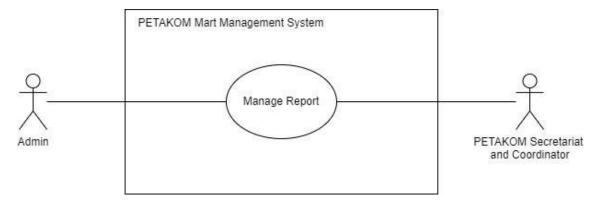


Figure 3.5 Use Case Manage Report Diagram

Table 3.5 Use Case Manage Report

	<u> </u>
Use Case ID	PMMS-SRS-REQ-500

Brief Description	This use case is initiate by admin or PETAKOM secretariat or coordinator. It allows user to view the data of PETAKOM mart in report form, including sales report and inventory report. They can also view reports with different period, like daily, monthly, or yearly.	
Actor	 Admin PETAKOM secretariat and coordinator 	
Pre-Conditions	The admin, PETAKOM secretariat, and coordinator had logged into their account.	
Basic Flow	 The user clicks "Report" in the side tab. The system displays the reports to the user. The use case ends. 	
Alternative Flow	Not Applicable	
Exception Flow	Not Applicable	
Post-Conditions	The admin or PETAKOM secretariat or coordinator had viewed the report.	
Rules	Not Applicable	
Constraints	Not Applicable	

Sequence Diagram

GUI/ Wireframe

User Interface	Description	User Interface Layout
View User Listing (Admin)	The system allows admin to view existing users' details in list form.	Refer Appendix B1-1
Create User Account (Admin)	The system allows admin to create user accounts for the PETAKOM Committee members and PETAKOM Secretariat and Coordinator.	Refer Appendix B1-2
Delete User Account (Admin)	The system allows admin to delete selected user accounts for the PETAKOM Committee members and PETAKOM Secretariat and Coordinator.	Refer Appendix B1-3
Edit User Account (Admin)	The system allows admin to edit user information for selected user accounts for the PETAKOM Committee members and PETAKOM Secretariat and Coordinator.	Refer Appendix B1-4
Inventory Management	The system displays a list of inventory items, including their names, quantities, costs, and prices.	Refer Appendix B2-1
Create Inventory	The system displays inventory forms for users to add new inventory data.	Refer Appendix B2-2
View/Edit/Delete Inventory	The system allows users to view, edit, and delete inventory data for the selected item.	Refer Appendix B2-3
Manage Inventory (Cashier)	The system displays a list of inventory items to cashier, including their names, quantities, costs, and prices.	Refer Appendix B2-4
Update Opening and Closing Inventory (Cashier)	The system presents a form with a list of inventory items, enabling users to enter the actual quantity and comments.	Refer Appendix B2-5
Item Selection	The system displays all the available items in the store. Item selection can be made by cashier and proceed to payment page.	Refer Appendix B3-1
Confirm Order	The system displays the items and	Refer Appendix B3-2

		T
	quantity chosen for confirmation purpose.	
Receipt	The system displays the receipt of the payment made. Details like order ID, time, date, items purchased, and total price are included in the receipt.	Refer Appendix B3-3
Admin View Duty Roster	The system displays the latest duty roster with PIC for each time slot. Admin can create new, edit or delete duty roster from this interface.	Refer Appendix B4-1
Create New Duty Roster	The system allows the admin to select the date and time slot for a new duty roster.	Refer Appendix B4-2
Edit Duty Roster	The system allows the admin to edit the date and time slot for the selected duty roster.	Refer Appendix B4-3
Delete Duty Roster Confirmation Message	The system displays a confirmation message to check whether the delete action needs to proceed.	Refer Appendix B4-4
PETAKOM Committee View Duty Roster	The system displays the latest duty roster with time slots provided. The "ADD SLOT" button is provided.	Refer Appendix B4-5
Add Time Slot	The system allows the users to select their desired date and time slot.	Refer Appendix B4-6
View Schedule	The system displays the added time slots details. The system allows the user to drop his/her added time slot in this interface.	Refer Appendix B4-7
Drop Time Slot Confirmation Message	The system displays a confirmation message to check whether the drop action needs to proceed.	Refer Appendix B4-8
Unavailable Time Slot Error Message	The system displays an error message and prompts the user to select another time slot.	Refer Appendix B4-9
Save Failed Error Message	The system displays an error message and prompts the user to try again later.	Refer Appendix B4-10

PETAKOM Secretariat and Coordinator View	The system displays the latest duty roster with PIC for each time slot. The action of	Refer Appendix B4-11
Duty Roster	create, edit or delete duty roster is not provided.	
Report	The system displays the sales report/inventory report according to the time scale.	Refer Appendix B5-1

4.0 Acronyms and Abbreviation/Requirement Traceability

4.1 Acronyms and Abbreviation

Term	Abbreviation
PMMS	The short form for PETAKOM Mart Management System
PETAKOM	The malay short form for "Persatuan Teknologi Komputer"
REQ	The short form for requirement
ID	The short form for identification number
CRUD	The short form for create, read, update and delete operation.
Users	Person who interacts with the system

4.2 Requirement Traceability

Requirements	Description	
PMMS-SRS-REQ-100	Manage User Registration	
	Allow admin to view user listing in list form and manage user registration.	
PMMS-SRS-REQ-101	Create New User Account	
	Allow admin to create a new user account for the PETAKOM Committee members and PETAKOM Secretariat and Coordinator.	
PMMS-SRS-REQ-102	Delete User Account	
	Allow admin to delete selected user account for the PETAKOM Committee members and PETAKOM Secretariat and Coordinator.	
PMMS-SRS-REQ-103	Edit User Account	
	Allow admin to edit user information for selected user account for the PETAKOM Committee members and PETAKOM Secretariat and Coordinator.	
PMMS-SRS-REQ-104	Incomplete or Invalid User Information	
	Handle the exceptional scenario in which the admin fills in incomplete or invalid user information.	
PMMS-SRS-REQ-105	Complete and Valid User Information	
	Must fill in all the text fields and the password must be at least 12 characters long with a combination of uppercase and numbers.	
PMMS-SRS-REQ-200	Manage Inventory	
	Enables admin, cashier, PETAKOM secretariat, and coordinator to manage inventory.	
PMMS-SRS-REQ-201	Low inventory alerts	
	Sends alerts to enable admin, cashier, PETAKOM secretariat, and coordinator to view low inventory items.	
PMMS-SRS-REQ-202	Failed to save in the database.	
	Handles the exceptional scenario where the inventory data is failed to save in the database.	

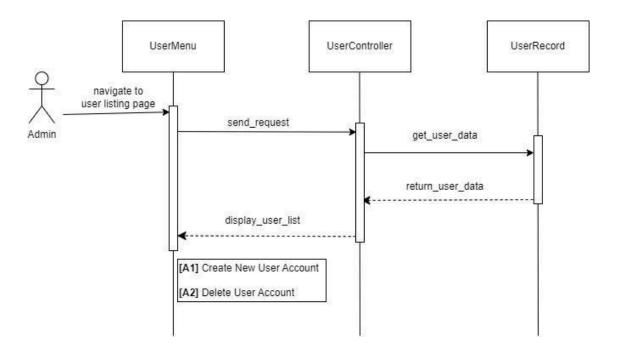
PMMS-SRS-REQ-203	Access control	
Timing sits italy 200		
	Assign specific inventory management permissions for admin, cashier, PETAKOM secretariat, and coordinator.	
PMMS-SRS-REQ-204	Alert notification	
	Specifies the rules for the system to send an alert.	
PMMS-SRS-REQ-205	Inventory value	
	Specifies the rules for validating inventory values.	
PMMS-SRS-REQ-300	Manage Payment	
	Provides the ability for cashier to make payment for customer.	
PMMS-SRS-REQ-301	Cancel Payment	
	Provides the ability for cashier to cancel the payment.	
PMMS-SRS-REQ-400	Manage Duty Roster	
	Enables admin, PETAKOM Committee, PETAKOM secretariat and coordinator to manage duty roster.	
PMMS-SRS-REQ-401	Create New Duty Roster	
	Allow admin to create a new duty roster.	
PMMS-SRS-REQ-402	Edit Duty Roster	
	Allow admin to edit the selected duty roster.	
PMMS-SRS-REQ-403	Delete Duty Roster	
	Allow admin to delete the selected duty roster.	
PMMS-SRS-REQ-404	Add Time Slot	
	Allow the PETAKOM Committee to add time slots to his/her duty schedule.	
PMMS-SRS-REQ-405	View Own Schedule	
	Allow the PETAKOM Committee to view his/her duty schedule with the added time slots.	

PMMS-SRS-REQ-406	Drop Time Slot
	Allow the PETAKOM Committee to drop the selected time slot in his/her duty schedule.

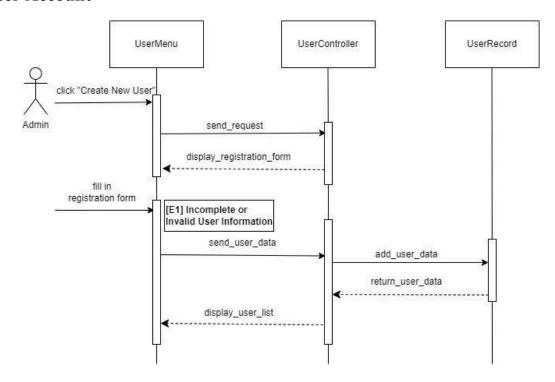
PMMS-SRS-REQ-407	Cancel Action	
	Provide the ability for the admin and PETAKOM Committee to cancel his/her action such as delete or drop the duty roster.	
PMMS-SRS-REQ-408	Unavailable Selected Time Slot	
	Exception when the selected time slot is either full of quota or it has been already added in the user's duty schedule.	
PMMS-SRS-REQ-409	Failed to Save In the Database	
	Exception when the system is unable to store the data in the database.	
PMMS-SRS-REQ-410	Maximum Quota For Each Time Slot	
	Constraint to restrict the maximum quota for every time slot.	
PMMS-SRS-REQ-411	Forbidden Repeated Account in One Time Slot	
	Constraint to avoid one time slot owned by the same account.	
PMMS-SRS-REQ-500	Manage Report	
	Provides the ability for admin, PETAKOM secretariat, and coordinator to view reports of PETAKOM Mart.	

Appendix A: Sequence Diagram

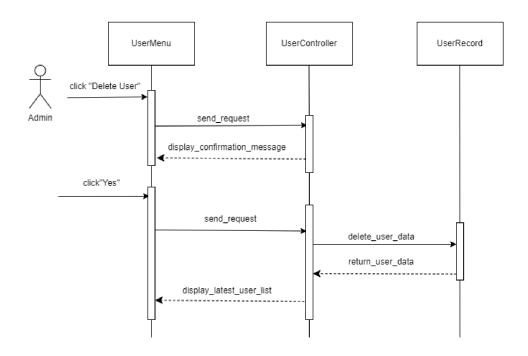
A1-1: Sequence diagram - Manage User Basic Flow (Admin)



A1-2: Sequence diagram - Manage User Alternative Flow A1 (Admin) - Create New User Account

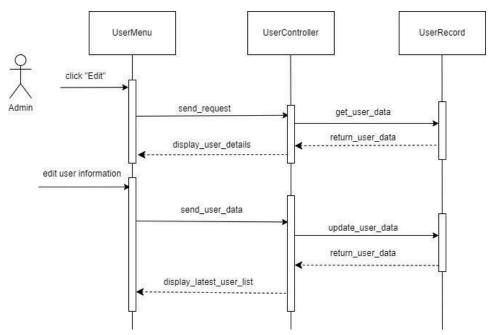


A1-3: Sequence diagram - Manage User Alternative Flow A2 (Admin) - Delete User Account

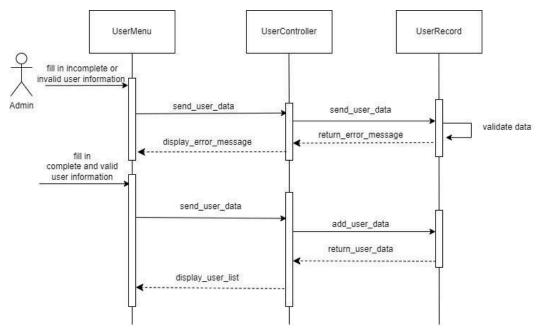


A1-4: Sequence diagram - Manage User Alternative Flow A3 (Admin) - Edit User Account

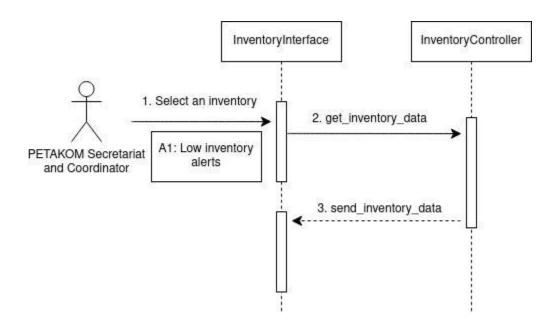
A1-5: Sequence diagram - Manage User Exception Flow E1 (Admin) -

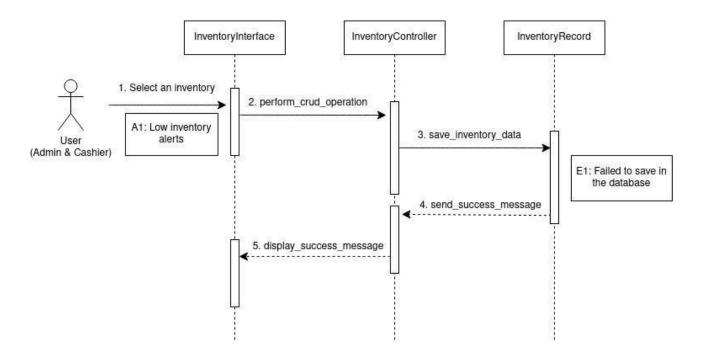


Incomplete or Invalid User Information



A2-1: Sequence diagram - Manage Inventory Basic Flow (Admin & Cashier)

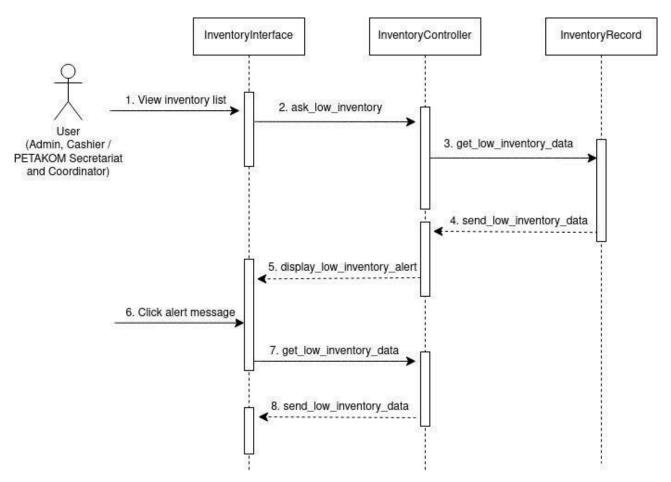




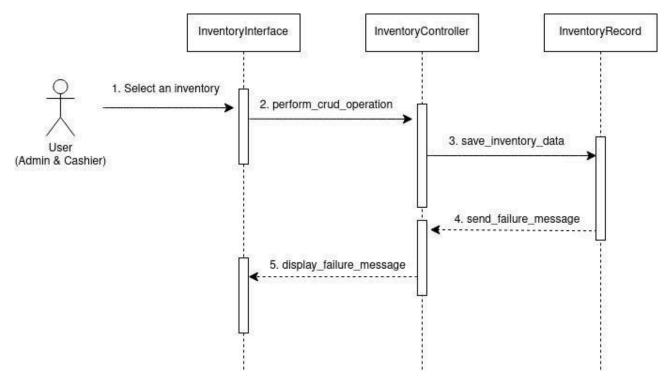
A2-2: Sequence Diagram - Manage Inventory Basic Flow (Petakom Secretariat And Coordinator)

A2-3: Sequence Diagram - Manage Inventory Alternative Flow - Low Inventory

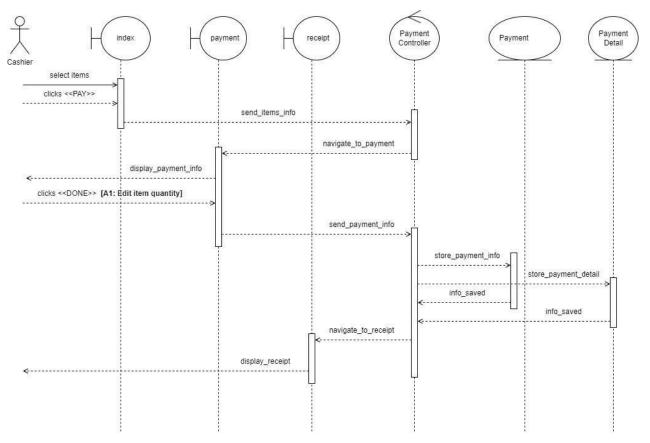
Alerts



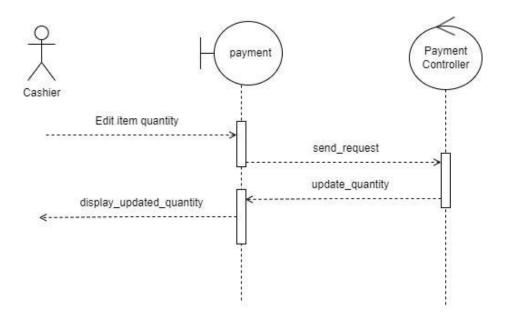
A2-4: Sequence Diagram - Manage Inventory Exception Flow (Admin & Cashier) - Failed To Save In The Database



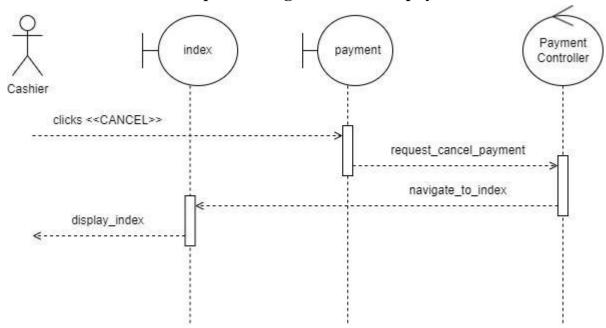
A3-1: Sequence diagram of manage payment



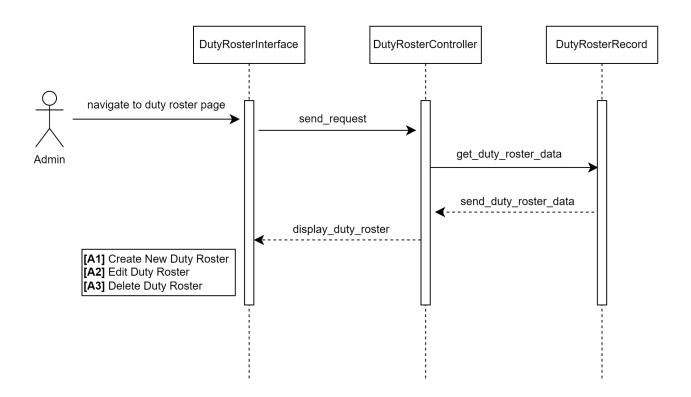
A3-2: Sequence diagram of edit item quantity



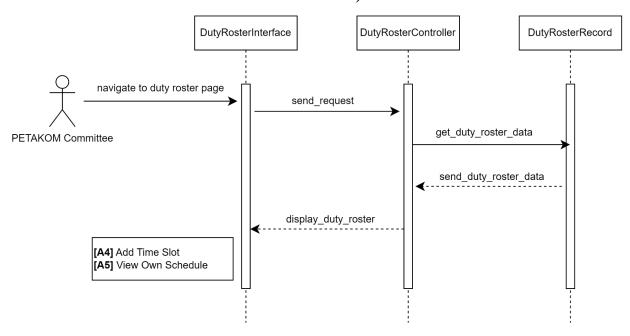
A3-3: Sequence diagram of cancel payment



A4-1: Sequence diagram - Manage Duty Roster Basic Flow (Admin)



A4-2: Sequence diagram - Manage Duty Roster Basic Flow (PETAKOM Committee)



A4-3: Sequence diagram - Manage Duty Roster Basic Flow (PETAKOM Secretariat and Coordinator)

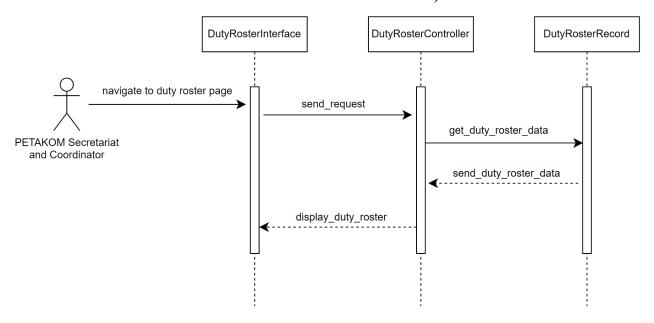


diagram - Manage Duty Roster Alternative Flow (Admin) -

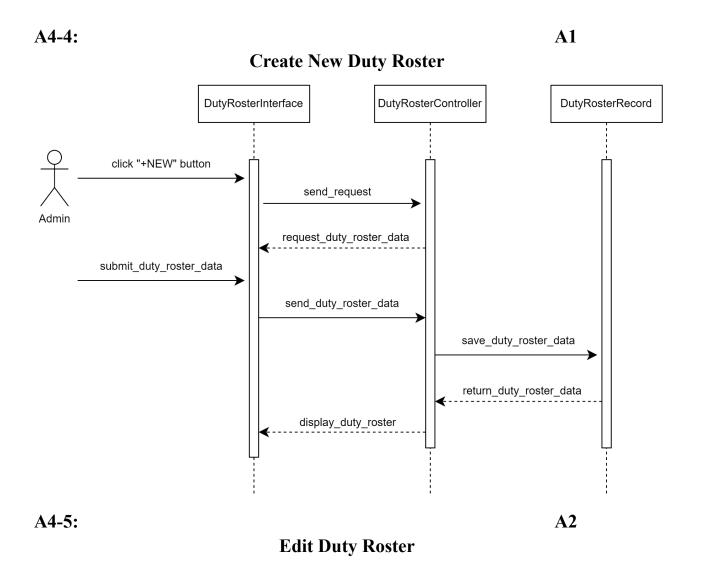
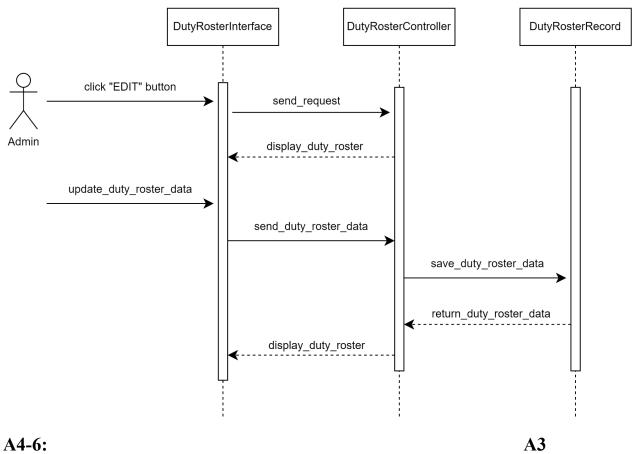


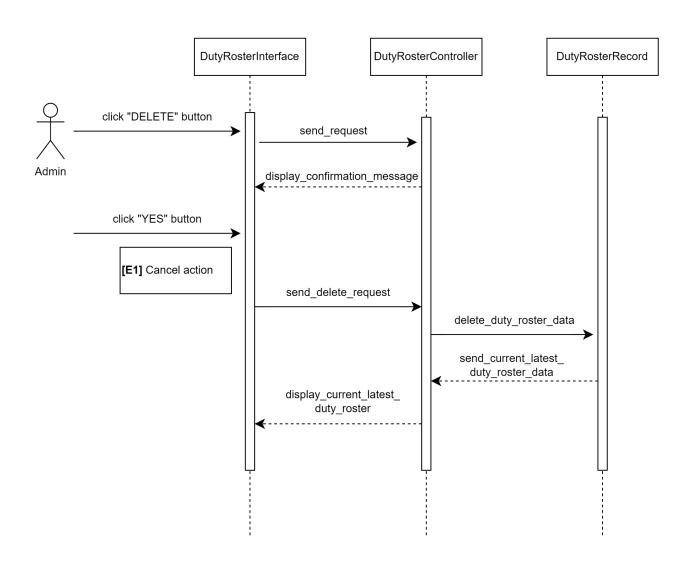
diagram - Manage Duty Roster Alternative Flow (Admin) -



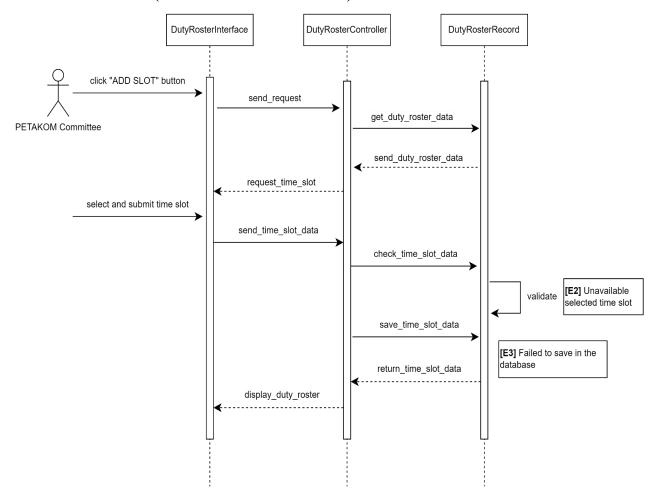
A4-6:

Delete Duty Roster

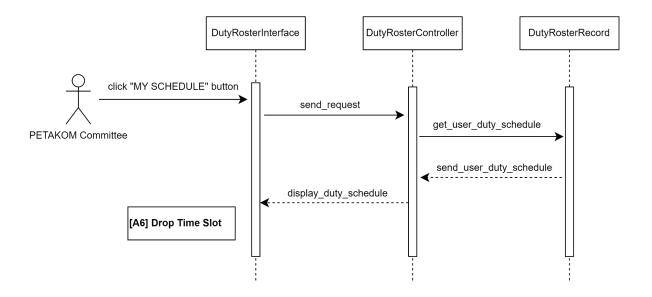
diagram - Manage Duty Roster Alternative Flow (Admin) -



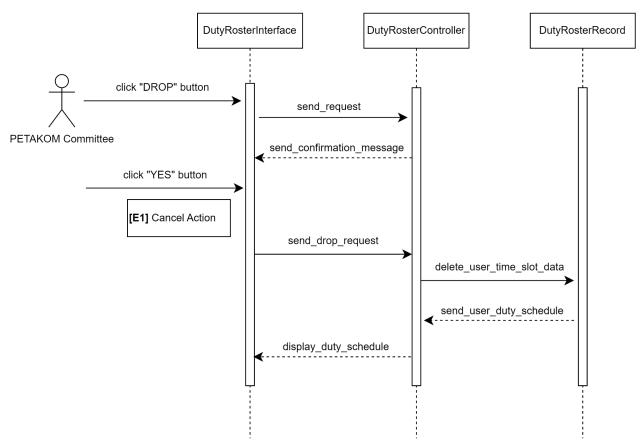
A4-7: Sequence diagram - Manage Duty Roster Alternative Flow A4 (PETAKOM Committee) - Add Time Slot



A4-8: Sequence diagram - Manage Duty Roster Alternative Flow A5 (PETAKOM Committee) - View Own Schedule

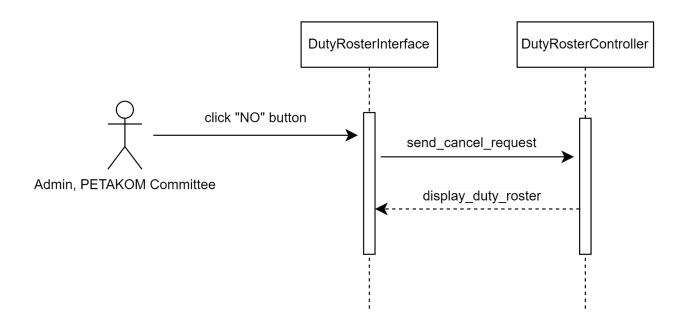


A4-9: Sequence diagram - Manage Duty Roster Alternative Flow A6 (PETAKOM Committee) - Drop Time Slot

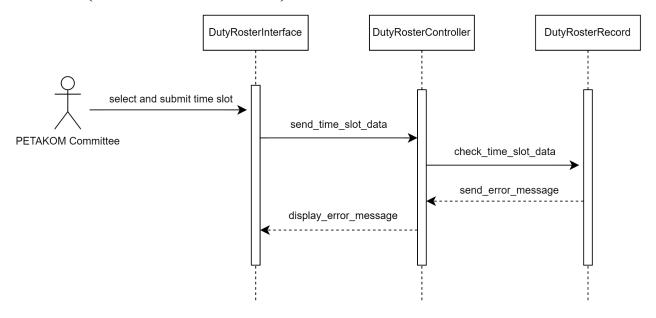


A4-10: Sequence diagram - Manage Duty Roster Exception Flow E1 (Admin,

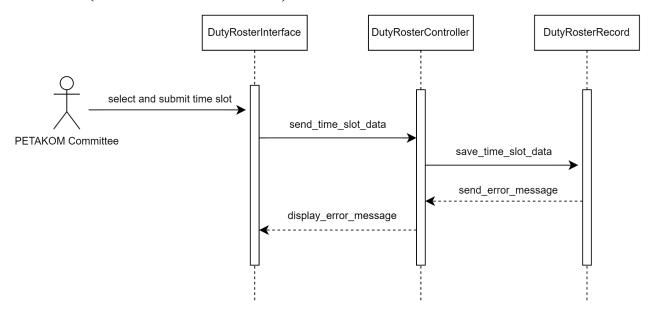
PETAKOM Committee) - Cancel Action

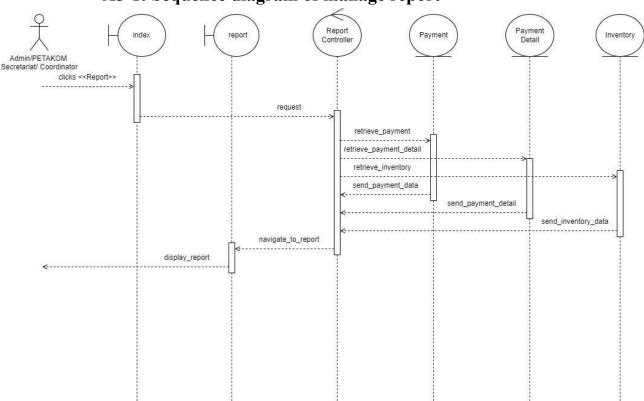


A4-11: Sequence diagram - Manage Duty Roster Exception Flow E2 (PETAKOM Committee) - Unavailable Selected Time Slot



A4-12: Sequence diagram - Manage Duty Roster Exception Flow E3 (PETAKOM Committee) - Failed to Save In the Database

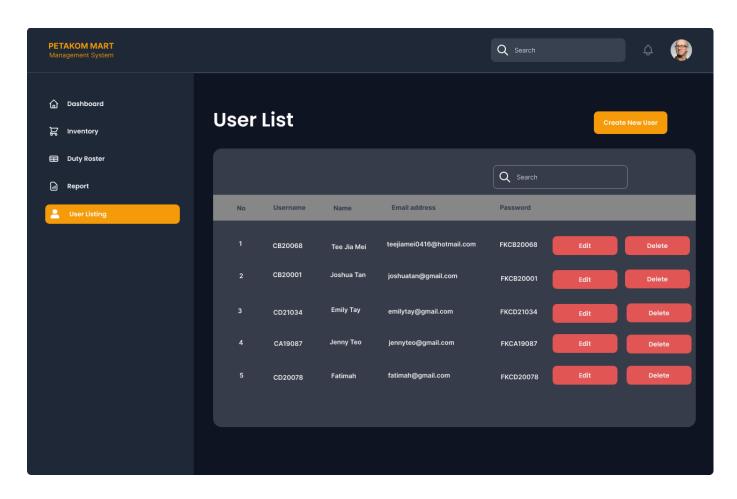




A5-1: Sequence diagram of manage report

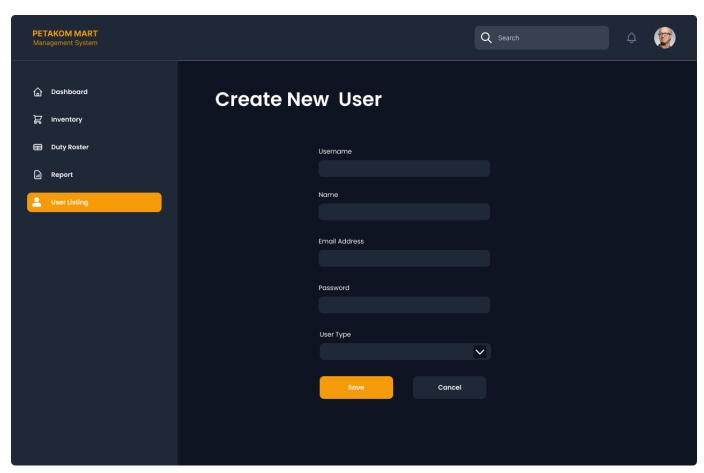
Appendix B: User Interface

B1-1: View User Listing (Admin)



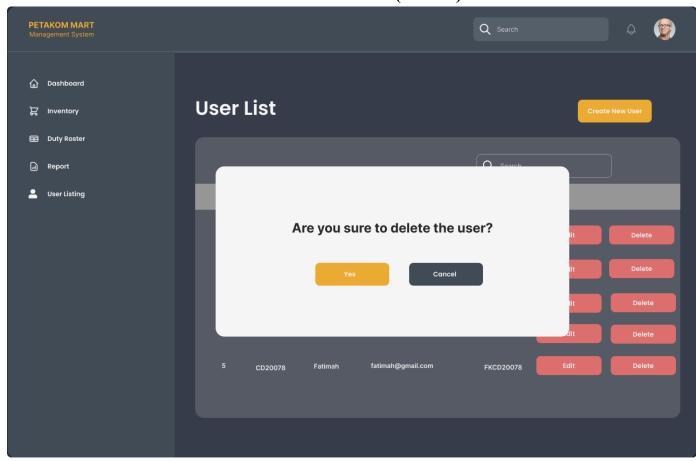
User Account (Admin)

B1-2: Create



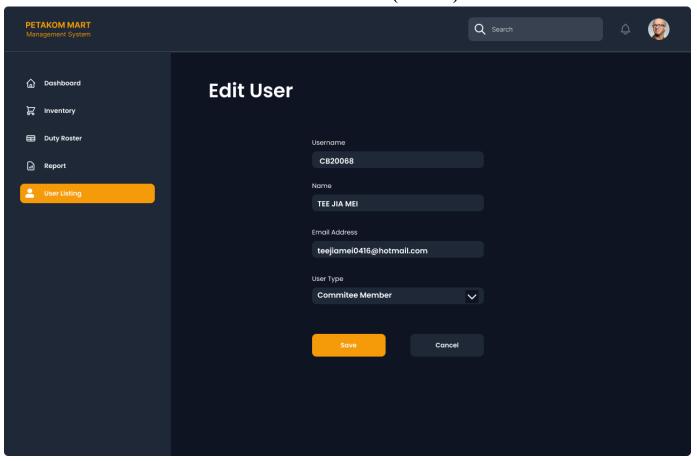
B1-3: Delete

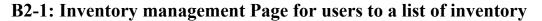
User Account (Admin)

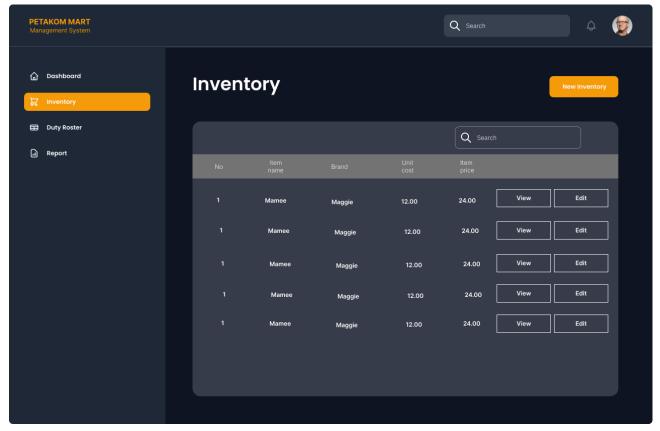


B1-4: Update

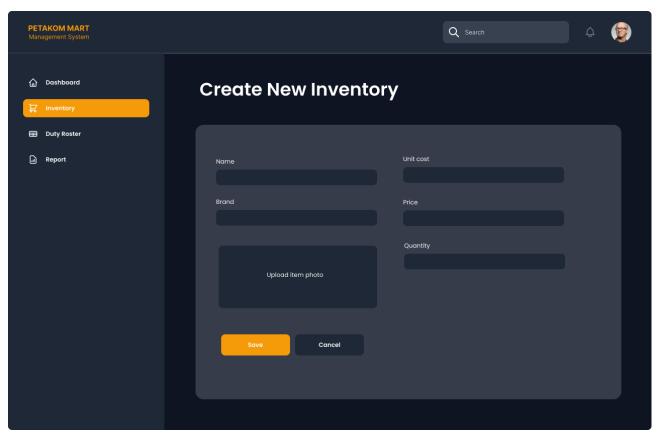
User Account (Admin)



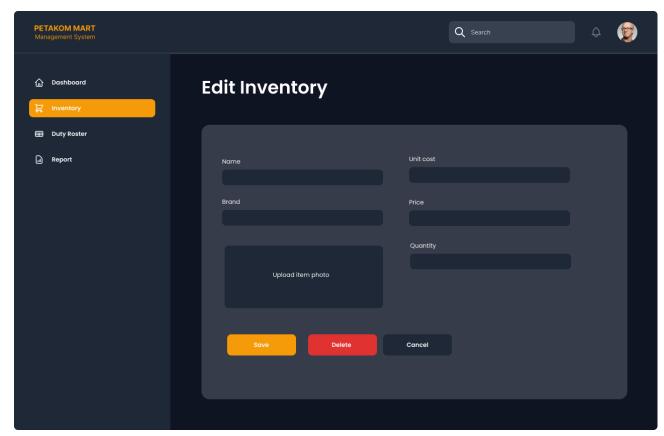




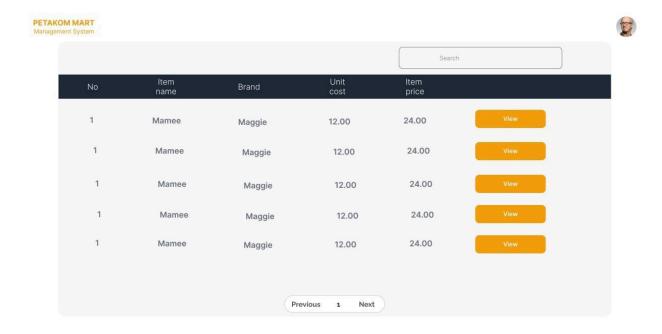
B2-2: Create new inventory Page for admin and cashier



B2-3 View/ Edit/ Delete inventory Page for users



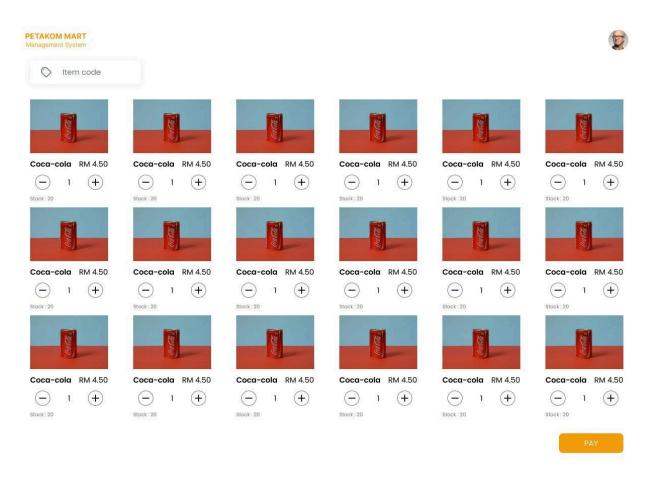
B2-4: Manage Inventory Page for cashier



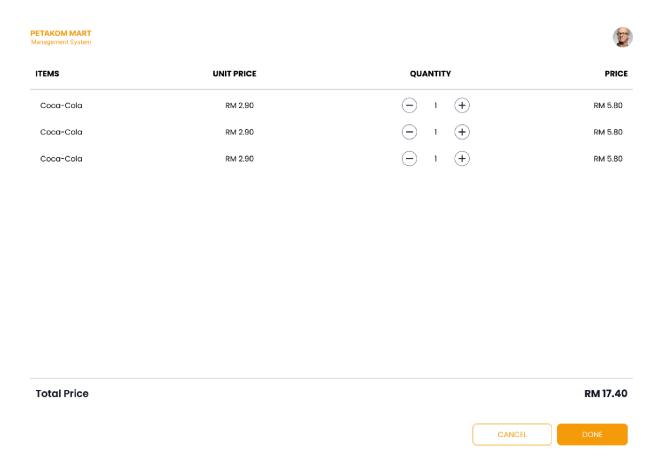
B2-5: Opening & Closing inventory Page for cashier

PETAKOM MART Management System		Q Search	ф ©
	Opening Inventory	Save	
	Name	Opening quantity	
	Mineral water		

B3-1: Main page of manage payment

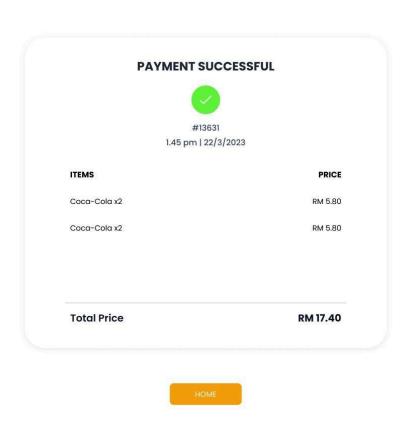


B3-2: Payment confirmation page



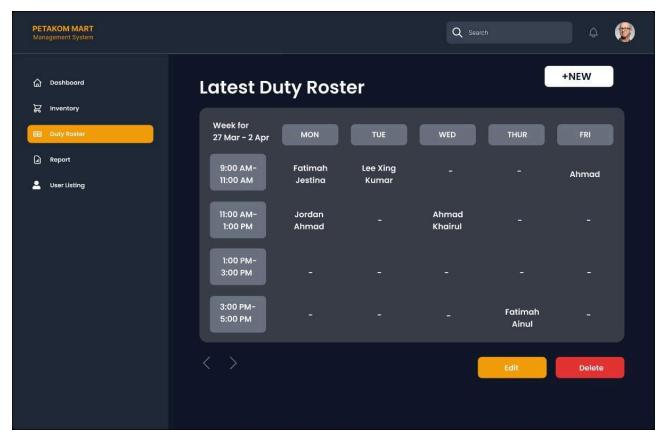
B3-2: Receipt page

PETAKOM MART Management System

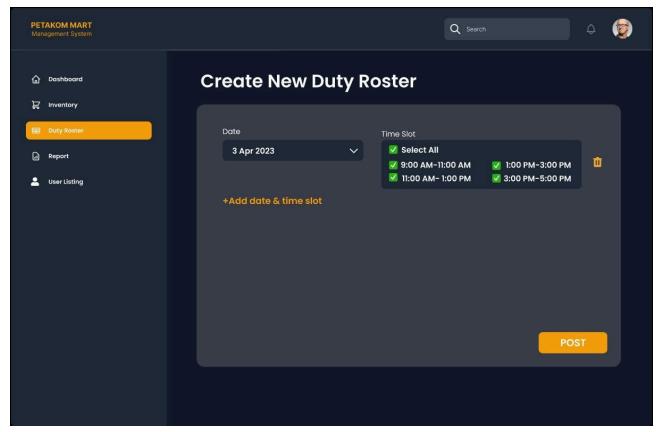


B4-1: Admin - View Duty Roster

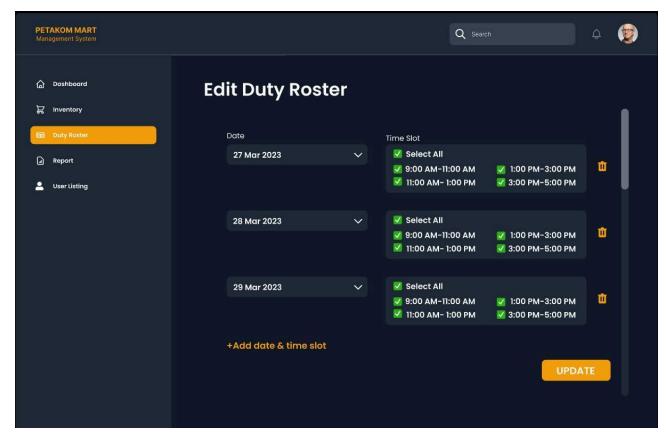




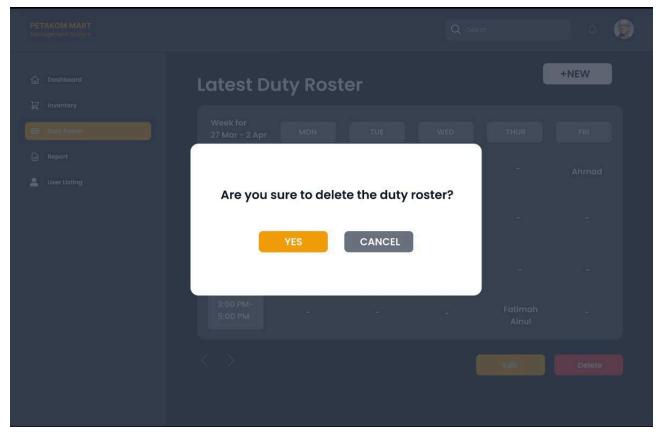
B4-2: Admin - Create New Duty Roster



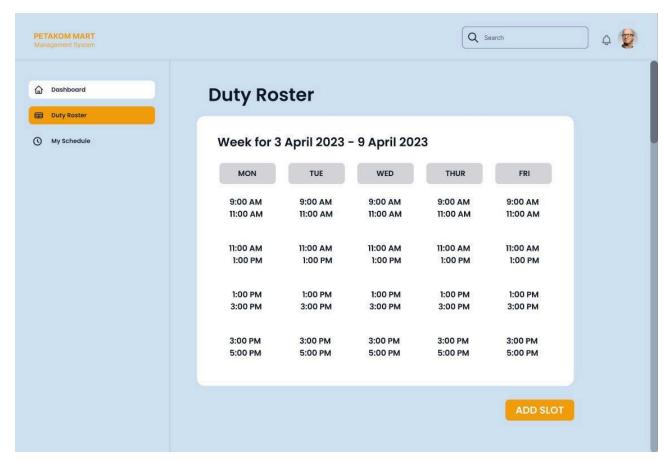
B4-3: Admin - Edit Duty Roster



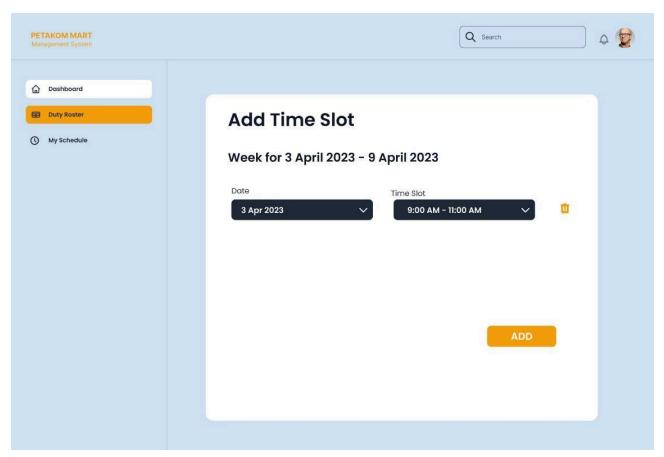
B4-4: Admin - Delete Duty Roster



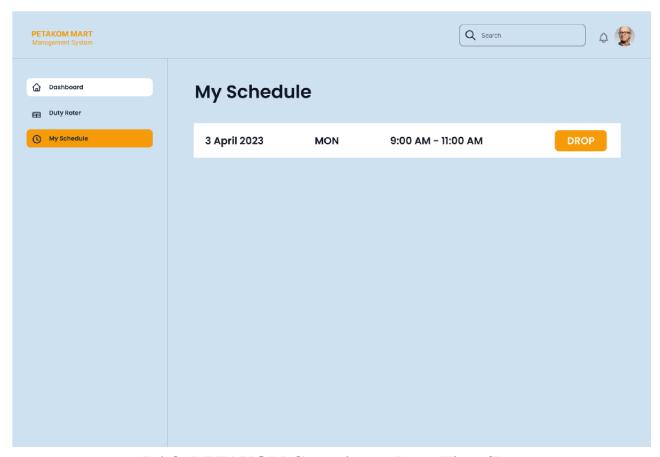
B4-5: PETAKOM Committee - View Duty Roster



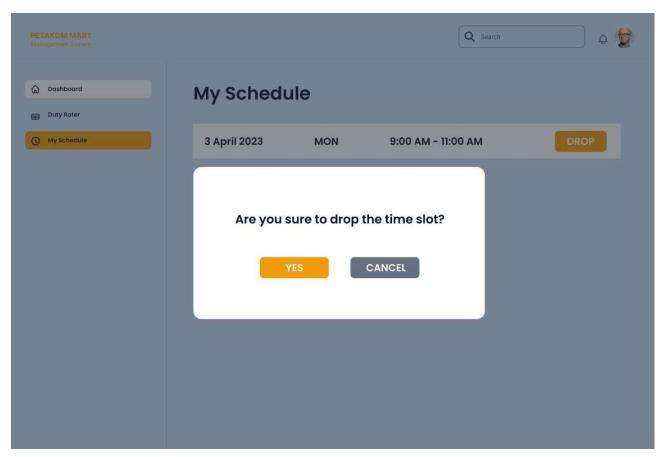
B4-6: PETAKOM Committee - Add Time Slot



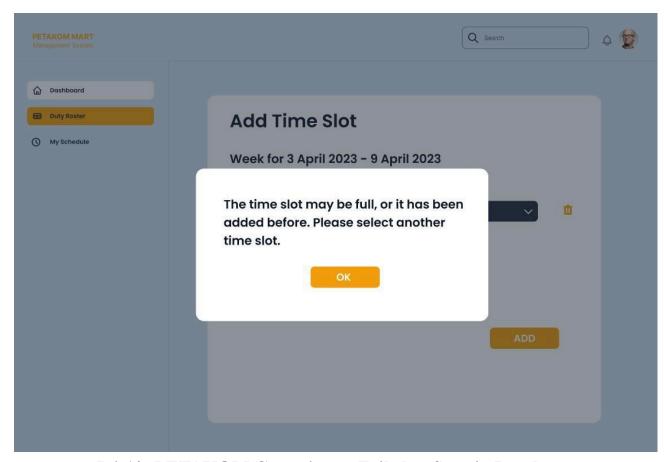
B4-7: PETAKOM Committee - View Own Schedule



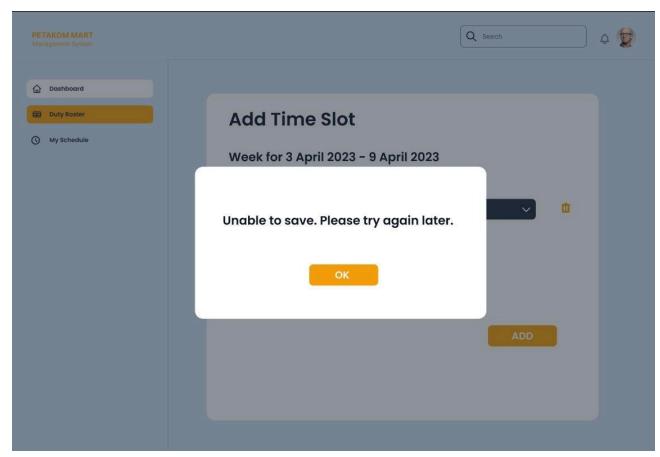
B4-8: PETAKOM Committee - Drop Time Slot



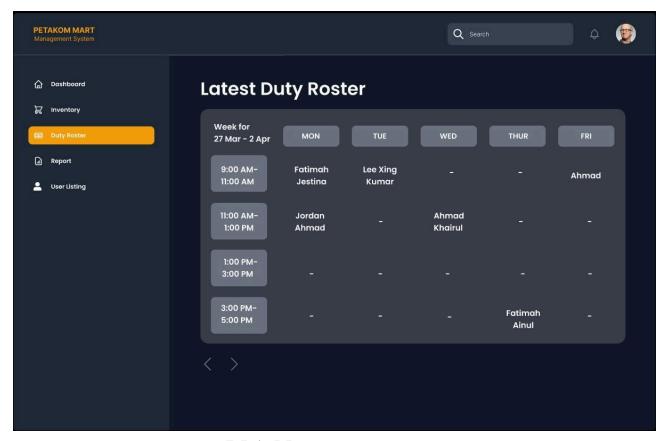
B4-9: PETAKOM Committee - Unavailable Selected Time Slot



B4-10: PETAKOM Committee - Failed to Save in Database



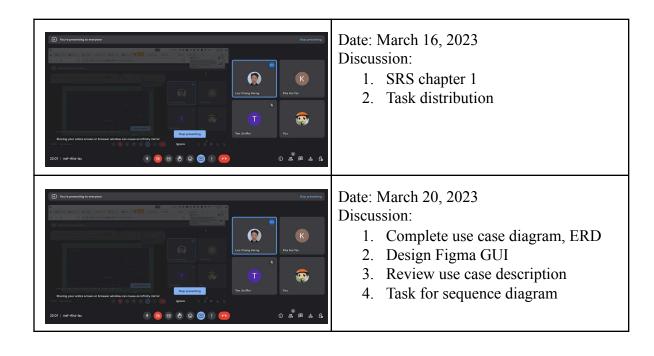
B4-11: PETAKOM Secretariat and Coordinator - View Duty Roster

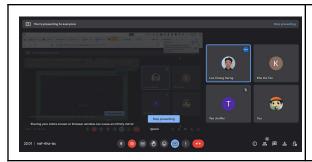


B5-1: Manage report page



Appendix C - Task Distribution





Date: March 31, 2023 Discussion:

1. Compile and finalise SRS