Software Requirements Specification

for

< Shift Ease Ayam Gepuk Top Global System >

Version 1.0 approved

Prepared by

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REVISION HISTORY

NAME	DATE	REASON FOR CHANGES	VERSION
Nurin Adlina Intan Farhana Nur Nadirah	31.1.2024	Change the name of the system to Shift Ease Ayam Gepuk Top Global	1.3
Intan Farhana Nur Nadirah Ilyana Zahira Nurin Adlina	30.1.2024	Updated with: Use Case Description SSD Domain Class Diagram Interfaces	1.2
Intan Farhana Nur Nadirah Ilyana Zahira Nurin Adlina	24.11.2024	Created: Ayam Gepuk Top Global Scheduling System	1.0

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1. INTRODUCTION

1.1 PURPOSE

Our proposed system is Shift Ease Ayam Gepuk Top Global System Ayam Gepuk Top Global system that enables ease for the staff of Ayam Gepuk Top Global at Seksyen 7 branch. It overcomes the disadvantages of manual task distribution, traditional record attendance using thumbprint system and manual leave application. Our proposed system is a medium to record the attendance, online distributing the staff's task, and leave application for all staff at Ayam Gepuk Top Global Seksyen 7 branch. This system changes the method record attendance of the staff from using thumbprint system to online clock-in and clock-out system, so that the staff do not have to worry about the physical contact with other staff while taking attendance especially there are a lot of diseases that conjugate others like Covid-19.

The Shift Ease Ayam Gepuk Top Global System function are to make a schedule for the staff, the supervisor can make a change the timetable using this system by checking their attendance and leave application. This can make the timetable more systematic and more organized. This system also provides an online leave application which allows staff to apply for leave, and the supervisor can check the attendance to give approval to the leave application. For the security, this system is only for Seksyen 7 branch, and every staff member will be given their own staff ID, every role has a different kind of access based on their position.

1.2 DOCUMENT CONVENTIONS

Convention	Description
Font Size	A font size with the size of 18 will be used for the header. Font size with the size of 14 will be used for the sub header. The font size of 12 will be used for writing content.
Font type	Font type for the header, sub header, and writing content is Times New Roman
Bold	used for header and sub header highlighting and to emphasize some points
DB	stands for Database
UC	stands for Use Case
SSA	stands for System Sequence Diagram
SDP	Stands for Software Development Plan
SDLC	Stands for Software Development Life Cycle
SRS	Stands for Software Requirements Specifications
DCD	Stands for Design Class Diagram

Table 1.0 Document Conventions

1.3 INTENDED AUDIENCE AND READING SUGGESTIONS

The system developers, as well as the employees and management of Ayam Gepuk Top Global Seksyen 7, Shah Alam, are the intended audience for this SRS document. This document will be the official source for planning and developing system capabilities, used by the system developer. The user will learn how the system operates and what kinds of data are needed in the system from this text. In addition, the user must check to ensure that the documentation fully and accurately represents the expected capability. To help audiences as they read this text, all requirements have been numbered and listed in the table of contents.

1.4 PROJECT SCOPE

The scope of the project is to provide a system which will allow staff to easily record their attendance, get their duty schedule and make staff to easily apply leave. Ayam Gepuk Top Global Seksyen 7, Shah Alam is currently distributing tasks manually, apply leave through message the supervisor and they still use thumbprint system to record attendance.

Therefore, this system will help the staff get their duty more organized and easier because it is digitalized this system also help the staff to make them easy to apply leave because this system has leave application function for all staff Ayam Gepuk Top Global Seksyen 7, Shah Alam. By using this system, the staff don't have to wait any longer to get their task distributed by the supervisor after recording the attendance and the supervisor doesn't get the message or forgets to reply to the staff who apply leave.

Furthermore, this system will help staff record their attendance by using clock-in and clock-out function in this system, staff will not be at risk of the thumbprint's data can't read. Staff must log in to record attendance, view duty schedule or apply leave. To do that, staff need an account to use the system. staff can view their account, and if they want to update any information, they need to inform the manager, because only manager can manage the staff account which is the manager can create, editor delete staff's account. Next, in this system staff can view their attendance record. Staff can also apply, modify and delete their leave application in this system.

1.5 REFERENCES

WEBSITE

Bandakkanavar, R. (2023, May 8). *Software Requirements Specification document with example*. Krazytech. Retrieved February 5, 2024, from https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database

PEOPLE
DR. KAMALIA AZMA BINTI KAMARUDDIN

BOOK
- Glinz, M., Loenhoud, H. van, Staal, S., & Bühne, S. (n.d.). Handbook for the Cpre Foundation Level according to the Ireb Standard (First Release, Vol. 1.0.0).
- Satzinger, J. W., Jackson, R. B., & Burd, S. D. (2015, February 1). Systems Analysis and Design in a Changing World. Cengage Learning. (7th Edition)

2. OVERALL DESCRIPTION

2.1 PRODUCT PERSPECTIVE

Shift Ease Ayam Gepuk Top Global System is an online system that will be established to facilitate employees at the Ayam gepuk top global in the work division process. The system will introduce a well-organized duty schedule that addresses the current challenges of role uncertainty and congestion during peak hours. Each worker will have a clearly defined set of roles and responsibilities for specific days or weeks, ensuring a fair distribution of tasks among the staff. The supervisor will have the flexibility to edit the duty schedule as needed, adapting to changing circumstances or unexpected absences. Moreover, the organized changing of positions will help employees develop their expertise, which will improve overall productivity and customer satisfaction.

Beyond duty scheduling, this comprehensive system introduces a secure attendance verification process through image uploads for clocking in and out. This replaces the previously unreliable thumbprint machine, providing a more precise method for supervisors to track attendance and reducing the likelihood of inconsistencies. Access to this system is exclusive to Ayam Gepuk Top Global workers, safeguarding the privacy and security of employee data. Each employee receives individual login credentials, granting them access to personal data and their specific position within the restaurant. The emphasis on maintaining accurate employee details optimizes human resource management, ensuring appropriate task assignments based on skills and experience, fostering trust between employees and management.

Finally, this system includes the procedure for employees to apply for and get approval for leaves of absence. The system would make it simple for employees to request leave off, allowing them to apply for leave up to a month in advance. Supervisors, in turn, will have an efficient platform to review and approve or reject these requests. By reducing the amount of paperwork and physical labor involved in leave management, this automation ensures a faster and more transparent process. It also enables better workforce planning by providing supervisors with a clear overview of scheduled absences, enabling proactive adjustments to duty schedules to maintain operational efficiency.

2.2 PRODUCT FEATURES

ACTOR	USE CASE	BRIEF DESCRIPTION
Staff, Supervisor and Admin	Login	Staff, Supervisor and Amin need to log in their account to record attendance, apply leave, view attendance, approve leave, manage duty account, view duty account and manage user account, but based on their role.
Staff and Supervisor	Record Attendance	Staff and supervisor will clock in by entering their role to log their attendance and clock out at the end of the working day.
Staff	Apply Leave	Staff can submit the leave application form after filling in through the system. Staff can edit or delete their leave application form, and staff can view the approval of their leave application
Staff, Supervisor, and Admin	View Attendance	The staff and supervisor can view their attendance on the attendance page. The supervisor and admin can view attendance of all staff at view attendance page. This use case is integrated into the leave approval process.
Supervisor	Approve Leave	Supervisors receive leave applications from staff and have the authority to either approve or reject these requests.
Supervisor	Manage Duty Schedule	Supervisors utilize the system to create and organize an efficient duty schedule for all staff members. The supervisor assigns specific roles to each staff member, ensuring that the duty schedule aligns with their availability.
Staff, Supervisor and Admin	View Monthly Report	Supervisor, admin and staff can view the monthly report for their attendance, leave per month and total hour they work for the company
Admin	Manage User Account	The use case involves the process of managing user accounts within the system, including creating, editing, deleting, and downloading staff information. Updated staff information will be stored in the database.

Table 2.0 Product Features Description

2.3 USER CLASSES AND CHARACTERISTICS

USER	STAFF	SUPERVISOR	ADMIN
Characteristic	Staff need to clock in and clock out with this system. They just take image and send to this system. Staff also need to apply leave at this system and just fill in the form and wait for the approval. Staff also can view their duty schedule by week and can view their profile	Supervisor have access to manage duty schedule based on staff available. Supervisor can add new schedule, edit, delete and download duty schedule if needed. Supervisor also need to clock in and clock out at this system and can view the recorded attendance from all staff. Only supervisor need to approve staff leave based on their type of leave and can choose whether to approve and reject.	Only admin have access to manage user account such as create, edit, delete, and download staff information. Admin also can view recorded attendance of staff and supervisor. Admin also can view duty schedule of staff
Frequency of Use	High	High	Medium
Technical expertise	Medium	High	Medium
Security or Privileges level	Medium	High	High
Educational Level	Low	Medium	High
Experience	Medium	High	Medium
Special requirement	Staff only can view their own attendance record on the	Supervisor can track the status of all staff clock in and clock out date.	Only admin have access to create, edit,

	attendance page. Users can only see the pending status if the supervisor has not given approval for their leave application. Only two staff may take leave on the same day	Permission controls ensure that only authorized supervisors can access and search staff information, maintaining data privacy and security	delete and download staff information.
Level of importance to satisfy	Medium	High	Low

2.4 OPERATING ENVIRONMENT

Hardware

ITEM	DESCRIPTION
Hardware Platform	Laptop

Operating System

ITEM	DESCRIPTION
Windows 10	Version 10.0.19045 Build 19045
Windows 11	Version 11

Software

ITEM	DESCRIPTION
Softr Studio	Last updated 22 January 2024
Airtable	Version 5.4.0
Internet Browser	Google Chrome

2.5 DESIGN AND IMPLEMENTATION CONSTRAINTS

TYPE OF CONSTRAINTS	CONSTRAINTS

Network	• An unstable of internet connection
Software	• insufficient knowledge to use the latest software. • Application software is very expensive. • inadequate experience with unfamiliar software. • Has limitations to use and need to subscribe
Tools and database	• Database error

2.6 USER DOCUMENTATION

- User Manuals

  We provide guidelines and frequently asked questions in Portable Document Format (PDF).

- Tutorials

  We made a video tutorial on how to use this system and gave it to them**.**

2.7 ASSUMPTIONS AND DEPENDENCIES

1. Assumption

- Third-Party Components: It is assumed that the third-party components, such as Softr Studio and Airtable, will continue to provide compatibility and support for the versions integrated into the Shift Ease Ayam Gepuk Top Global System. Any changes or discontinuation of support from these third-party components may impact the functionality of Shift Ease Ayam Gepuk Top Global System.

- Internet Connectivity: The system assumes a reliable internet connection for staff, supervisors, and admins to interact seamlessly with the Shift Ease Ayam Gepuk Top Global System. Issues related to internet connectivity may affect real-time data updates and communication with external components.

- User Authentication: Assumption is made that user authentication processes, including login credentials and authorization mechanisms, will be implemented securely to safeguard sensitive information. Any compromise in user authentication could pose security risks to the system.

- Compliance with Labor Regulations: It is assumed that the Shift Ease Ayam Gepuk Top Global System will be used in compliance with local labor regulations, and any changes to these regulations may require adjustments to the system's functionalities related to attendance tracking and leave management.

2. Dependencies

- Softr Studio and Airtable Integration: The project is dependent on the continued support and functionality of Softr Studio and Airtable for content management and database operations. Any changes, disruptions, or discontinuation of services from these components may necessitate modifications to the Shift Ease Ayam Gepuk Top Global System.

- API Compatibility: The system is dependent on the compatibility and stability of external APIs, including those provided by Softr Studio and Airtable. Any

alterations to these APIs may require corresponding adjustments in the Shift Ease Ayam Gepuk Top Global System to maintain smooth data interchange.

- Operating System Updates: Dependencies exist on the stability and compatibility of the operating systems used by staff members. Shift Ease Ayam Gepuk Top Global System assumes that updates to these operating systems will not introduce significant issues that impact the functionality of the application.

- Security Updates and Patches: Dependencies on timely application of security updates and patches to all software components, including the operating system, database, and third-party services, are crucial to maintaining a secure environment for Shift Ease Ayam Gepuk Top Global System.

- Staff Training: The successful adoption of the Shift Ease Ayam Gepuk Top Global System is dependent on the effective training of staff, supervisors, and admins. Adequate training ensures that users can utilize the system's features optimally, reducing the likelihood of errors and inefficiencies.

3. SYSTEM FEATURES

3.1 USE CASE DIAGRAM
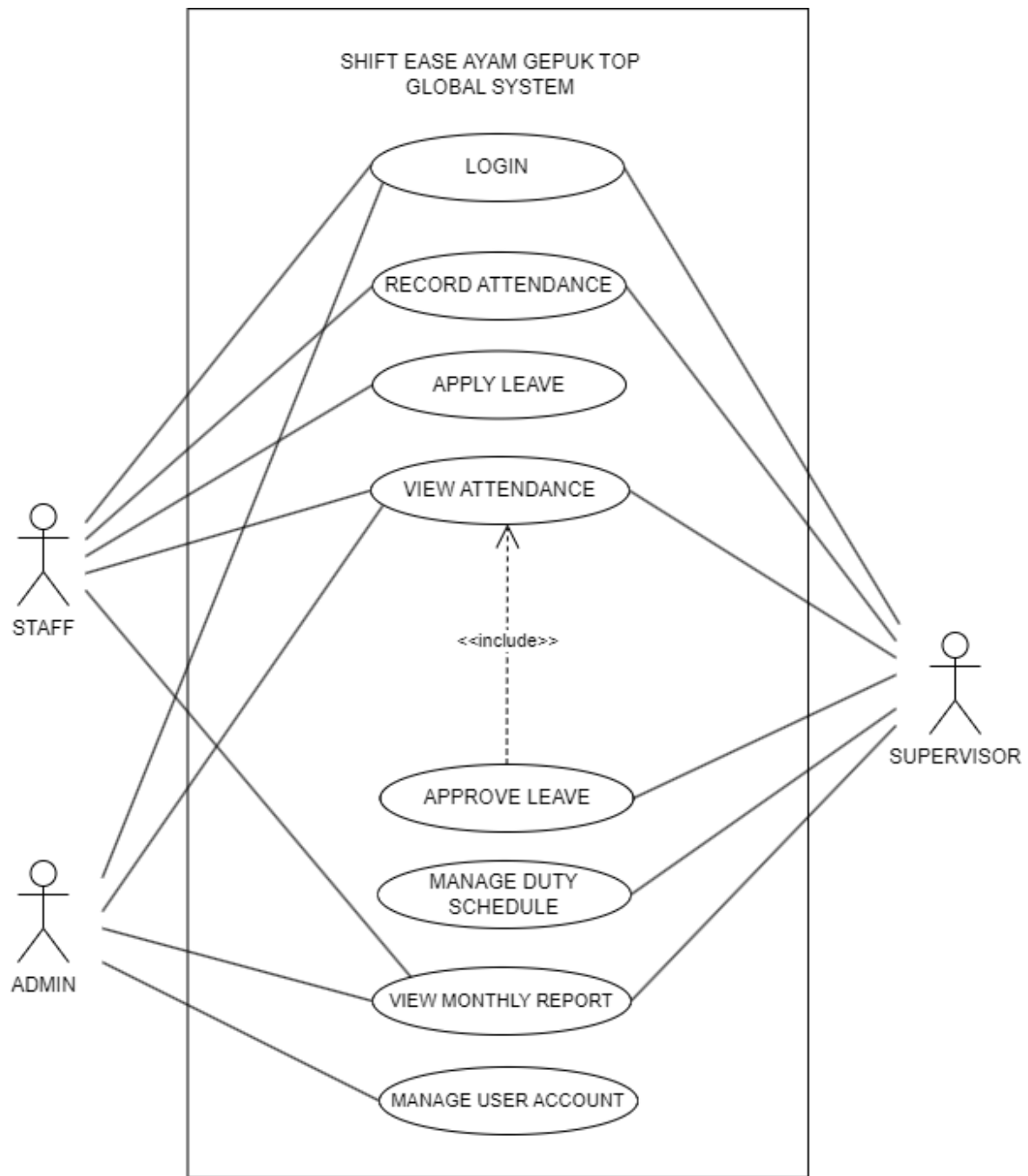
Figure 1 Use Case Diagram

3.2   USE CASE LIST

USE CASE	USE CASE BRIEF DESCRIPTION
Login	Staff, Supervisor and Amin need to log in their account to record attendance, apply leave, view attendance, approve leave, manage duty account, view duty account and manage user account, but based on their role.
Record Attendance	Staff and supervisor will clock in by entering their role to log their attendance and clock out at the end of the working day.
Apply Leave	Staff can submit leave applications through the system.
View Attendance	Supervisors can access and review the attendance records of all staff. This use case is integrated into the leave approval process. Staff can review their personal attendance record.
Approve Leave	Supervisors receive leave applications from staff and have the authority to either approve or reject these requests.
Manage Duty Schedule	Supervisors create an organized duty schedule for all staff members using the system. The supervisor can also edit the duty schedule to ensure it aligns with staff suitability.
View monthly report	The system will generate the monthly report after get approval from the supervisor
Manage User Account	Administrators handle user account management for this system.

Table 3.0 Use Case List

3.3 USE CASE DESCRIPTION

UC 100 - LOGIN

Use Case ID	UC 100
Created By	Ilyana Zahira Binti Ismail
Use Case Name	Login
Scenario	Supervisors and staff want to take attendance, request leave, view work schedules and view their records
Triggering Event	When the supervisor and staff want to use the system
Brief Description	Supervisors and staff will insert their employee id and password if they want to take attendance, request leave, view work schedules and view their work records
Actor	Supervisor and staff
Related Use Case	None
Stakeholders	Supervisor and Admin
Pre-Conditions	1. Supervisor and staff must insert their employee id and password first
Post Conditions	The system should display the dashboard of the system

Flow Activities	ACTOR	SYSTEM
	STAFF	
		1. Display dashboard of the system

	2. Click on whether staff want to record attendance, apply for leave, view the schedule or view the attendance record	
		2.1 System will display what staff click on
	SUPERVISOR	1. Display dashboard of the system
	2. Click on whether supervisor want to record attendance, apply for leave, approve leave, view the schedule or view the attendance record	
		2.1 System will display what supervisor click on
Exception Condition	None	
Special Requirement	All the record will be stored in the system	
Assumptions	Only supervisors and registered staff can log in the system.	
Notes an issues	To be defined.	

UC 200 - RECORD ATTENDANCE

Use Case ID	UC 200
Created By	Intan Farhana Binti Samudin
Use Case Name	Record attendance
Scenario	Staff and supervisor want to record their attendance.
Triggering Event	Staff want to record their attendance for evidence of their attend to work.
Brief Description	Staff and supervisor will clock in by entering their role to log their attendance and clock out at the end of the working day.
Actor	Staff and supervisor
Related Use Case	None
Stakeholders	Staff, Supervisor, admin
Pre-Conditions	Staff and supervisor need to log in to the system.
Post Conditions	The time of "clock-in" and "clock-out" are saved in the database and can be viewed at attendance page.

	ACTOR	SYSTEM
Flow Activities	**STAFF AND SUPERVISOR** 2. Click button "Clock – In". 2.1 Insert the role and click button "Clock-in" 4. Click button "Clock – out"	1. Display screen attendance page. 2.2 System will display the time of clocked in, role and clock out button at table when the user clicks on the submit button. 3. System generate schedule based on attendance 4.1 System will display the time and image of clock-in and clock-out at table when the user clicks on the submit button.

Exception Condition	None
Special Requirement	Time will be recorded when button clicked.
Assumptions	Only staff and supervisor of Ayam Gepuk Top Global Seksyen 7 can record their attendance.
Notes an issues	To be defined.

UC 210 - VIEW ATTENDANCE

Use Case ID	UC 210
Created By	Nurin Adlina Binti Mohd Nor
Use Case Name	View Attendance
Scenario	When staff, supervisor and admin want to check attendance record
Triggering Event	When stakeholder needs to check attendance record
Brief Description	The staff and supervisor can view their attendance on the attendance page. The supervisor and admin can view attendance of all staff at view attendance page. This use case is integrated into the leave approval process.
Actor	Staff, supervisor, admin
Related Use Case	Approve leave
Stakeholders	Supervisor and Admin
Pre-Conditions	Stakeholder must login the system first
Post Conditions	System should display an accurate recorded attendance

	ACTOR	SYSTEM
Flow Activities	**STAFF AND SUPERVISOR** 2. Search attendance record by month. [E1] **SUPERVISOR AND ADMIN** 2. Search attendance record by month or employee id. [E1]	1. Display screen of attendance page 2.1 The system will display the recorded attendance by selected month. 1. Display screen of list of recorded attendance 2.1 The system will display the recorded attendance by selected month or employee id

Exception Condition	None
Special Requirement	Supervisor and admin can track the status of all staff clock in and clock out date. Supervisor and staff can only view their attendance record at attendance page.
Assumptions	Stakeholder can only view attendance record.
Notes an issues	To be defined.

UC 300 - APPLY LEAVE

Use Case ID	UC 300	
Created By	Intan Farhana Binti Samudin	
Use Case Name	Apply leave	
Scenario	Staff intend to apply for leave through the system.	
Triggering Event	Staff initiates the process by filling in the leave application form.	
Brief Description	Staff can submit the leave application form after filling in through the system. Staff can edit or delete their leave application form, and staff can view the approval of their leave application.	
Actor	Staff	
Related Use Case	None	
Stakeholders	Staff and admin	
Pre-Conditions	Staff need to log in to the system before initiating the leave application process	
Post Conditions	Staff leave application will be sent to the supervisor for approval.	
Flow Activities	**ACTOR**	**SYSTEM**
	STAFF 2. Select to: [A1: Apply leave] [A2: Date leave application] 2.1.1 User will fill in all the required information and clicks on the button "Submit" to submit the form. [E1]	1. Display screen of leave application page. 2.1 [A1: Apply leave] The system will display a form of Apply Leave Application. 2.1.2 System will display the date of the leave application and the detail of the leave inside the date and the data will be saved into the

		database.
		2.2 [A2: Date leave application] System will display the detail of the leave application.
	2.2.1 View the leave application details, and leave application status (pending, approve, reject) from the supervisor and can select to: [A3: Modify] [A4: Delete]	
		2.3 [A3: Modify] The System will display the update leave record form that the user has submitted to be edited.
	2.3.1 User will edit the information that they want to change and clicks on the button "update" to submit the form. [E2]	
		2.3.2 The system will update the data at the leave application page and at the database and the system will auto display the leave application page.
		2.4 [A4: Delete Form] The system will delete the database of the leave application and open the leave application's page with updated data.
		3.0 Update remaining days of leave application

Exception Conditions	1. 2.1 [Apply leave]
	
	    [E1: Error: Alert unable to submit form]
	
	    The system will revert to the previous page.
	
	2. 2.3 [Edit]
	
	    [E2: Error: Alert unable to resubmit form]
	
	    The system will revert to the previous page.
	
	3. 2.4 [Delete]
	
	    [E3: Error: unable to delete the form]
	
	    The system will revert to the previous page.

Special Requirement	User can only apply 21 leave a year. Users can only see the pending status if the supervisor has not given approval for their leave application.
Assumptions	Only staff of Ayam Gepuk Top Global Seksyen 7 can apply for leave.
Notes an issues	None

UC 310 - APPROVE LEAVE

Use Case ID	UC 310
Created By	Ilyana Zahira Binti Ismail
Use Case Name	Approve Leave
Scenario	The supervisor wants to update the staff leave application's status.
Triggering Event	When the staff requests leave
Brief Description	Supervisors receive leave applications from staff and have the authority to either approve or reject these requests.
Actor	Supervisor
Related Use Case	View Attendance
Stakeholders	Supervisor and Admin
Pre-Conditions	1. Supervisor must login the system first 2.Supervisor must be on the leave application approval page.
Post Conditions	The system should display an updated status on staff's application leave.
Flow Activities	**ACTOR**	**SYSTEM**
	SUPERVISOR	1. Display screen of calendar show all staff leave application
	2. Click on the employee id who made the leave request	

		2.1 System will display remaining leave days and working hours for employees requesting leave. 2.2 Display pop out of the leave application detail on that date alongside edit button and close button for each leave application details.
	3. Click close to review other leave application details. 4. Due to rules where staff only can apply maximum 2 leave application in a month, and only two staff may take leave on the same day. Start making decisions based on the pending status, by filter it based on the pending status, and click on the date.	
		4.1 Display the leave applications detail alongside edit button and close button for each leave application details.
	4.2 Change the status from pending to approve or reject status	
Exception Condition	None	

Special Requirement	1. Leave approval can only be made after the supervisor has seen the record of working hours and the remaining leave.
Assumptions	Only supervisors have the authority to approve or reject leave applications.
Notes an issues	To be defined.

UC 400 - MANAGE DUTY SCHEDULE

Use Case ID	UC 400
Created By	Nurin Adlina Binti Mohd Nor
Use Case Name	Manage Duty Schedule
Scenario	The system will display the weekly duty schedule after user login, reflecting staff names and roles based on attendance and leave. Any modifications, such as staff leave applications, will be managed by the supervisor to assign alternative staff to specific roles.
Triggering Event	Whenever changes occur, like staff requesting leave, the system will prompt the supervisor to adjust the duty schedule accordingly.
Brief Description	Supervisors utilize the system to create and organize an efficient duty schedule for all staff members. The supervisor assigns specific roles to each staff member, ensuring that the duty schedule aligns with their availability.
Actor	Supervisor
Related Use Case	None
Stakeholders	Supervisor and admin
Pre-Conditions	System must have updated information regarding staff availability to ensure accurate role assignments.
Post Conditions	Well-organized and updated duty schedule has been successfully generated and distributed.

	ACTOR	SYSTEM
Flow Activities	SUPERVISOR 2. Select to 　[A1: Add Staff Name] 　[A2: Choose Role] 　[A3: Download] 2.1.1 Supervisor fill in the required information and click button 'add'. 　[E1] 　2.2.1 Select to [A4: Close] [A5: Edit] [A6: Delete]	1.Display screen of duty schedule. 2.1 [A1: Add Staff Name] system will pop out add record new duty form. 2.1.2 system will display the new duty record of the day based on the role. 2.2 [A2: Choose Role] system will display the details of the role. 2.2.1.1 [A4: Close] System will close the pop out details. 2.2.1.2 [A5: Edit]

	2.2.1.2.2 Change the staff name and click button update.	System will display staff name to edit. 2.2.1.2.3 system will display new details. 2.2.1.3 [A6: Delete] system will delete the data.
Exceptions Conditions	2.1 [A1: Select staff name to designated role] [E1: Error: Cannot choose staff that on leave on the day to assign role] System will remain on the same page. 2.2 [A2: Edit staff name] [E3: Error: Duplicate Staff Name on the same day] System will remain on the same page. 2.3[A3: Delete irrelevant details] [E4: Error: Delete button is not working] System will remain on the same page.	
Special Requirement	It is noted that there will be eight people in charge every day, except on Sunday when the full staff complement is expected to be working	
Assumptions	The accuracy and regular updating of staff availability information in the system, the supervisor's appropriate system access rights for duty schedule management, consistent availability of the duty schedule template, and the supervisor's ability to assign roles that align with staff suitability.	
Notes an issues	To be defined.	

UC 410 - VIEW MONTHLY REPORT

Use Case ID	UC 410
Created By	Najmi Akmal
Use Case Name	View monthly report.
Scenario	Actor wants to view monthly report.
Triggering Event	The event is triggered by the involved actor when actor click on report menu.
Brief Description	The actor will interact with system to view monthly report.
Actor	Supervisor, Admin, Staff.
Related Use Case	None.
Stakeholders	Supervisor, Admin, Staff.
Pre-Conditions	Attendance, leave per month and total hour must be recorded and available in the database.
Post Conditions	Actor will be able to view current item report.

	ACTOR	SYSTEM
Flow Activities	1. Actor select 'Report' menu.	
		2. Display fields of current monthly report.

Exceptions Conditions	Database could not reach and display the information required for the report.
Special Requirement	All user have privilege to view the monthly report.
Assumptions	Attendance, leave per month and total hour is accurate.
Notes an issues	To be defined.

UC 500 - MANAGE USER ACCOUNT

Use Case ID	UC 500
Created By	Nur Nadirah Binti Mohamad Rafi
Use Case Name	Manage User Account
Scenario	Create, edit, delete, and download staff information.
Triggering Event	When there are changes with staff information or admin wants to create a staff account
Brief Description	The use case involves the process of managing user accounts within the system, including creating, editing, deleting, and downloading staff information. Updated staff information will be stored in the database.
Actor	Admin
Related Use Case	None
Stakeholders	Admin, supervisor
Pre-Conditions	Admin has access to manage user account to store the information into the system.
Post Conditions	Information about staff has been updated and stored in database
Flow Activities	**ACTOR**	**SYSTEM**

	ACTOR	**SYSTEM**
Flow Activities	2. Select to: [A1: Add Staff] [A2: Edit] [A3: Delete] [A4: Download] 2.1.1 Admin will insert required information of the staff and click the button 'add'	1. System will display a list of staff 2.1 [A1: Add Staff] The system will display pop out new staff form

		2.1.2 The system will store the information into the database and the system will display the staff information.
		2.2 [A2: Edit] The system will display staff details.
	2.2.1 Admin make change any staff details and click button 'update' [E1]	2.2.2 System will display the new staff information and update it in the database.
		2.3 [A3: Delete staff information] System will delete the information of the staff that selected.
		2.4 [A4: Download staff information] System will download the list of staff.

Exceptions Conditions	1. 2.2 [A2: Edit]
	   [E1: Error: staff information cannot be edited]
	   The system will revert to the previous screen.
	
	2. 2.3 [A3: Delete]
	   [E2: Error: information not found]
	   The system will revert to the previous screen.	

Special Requirement	Only admin have access to create, edit, delete and download staff information.
Assumptions	The accuracy and regular updating of staff availability information in the system, the admin's appropriate system access rights for manage the user account, which can create an account for new staff, can delete account that not useable, can edit the user account if there are any update and download all staff information.
Notes an issues	To be defined

4. EXTERNAL INTERFACE REQUIREMENTS

4.1 USER INTERFACES

Home page

- Home page for Shift Ease Ayam Gepuk Top Global System.
- Simple goals for Restaurant Ayam Gepuk Top Global.
- Login button.

Figure 2 Home page

Sign in page

- Sign in page for Shift Ease Ayam Gepuk Top Global System.
- Users need to enter registered email and password.
- Users can click "Sign in" button to go to the next page.
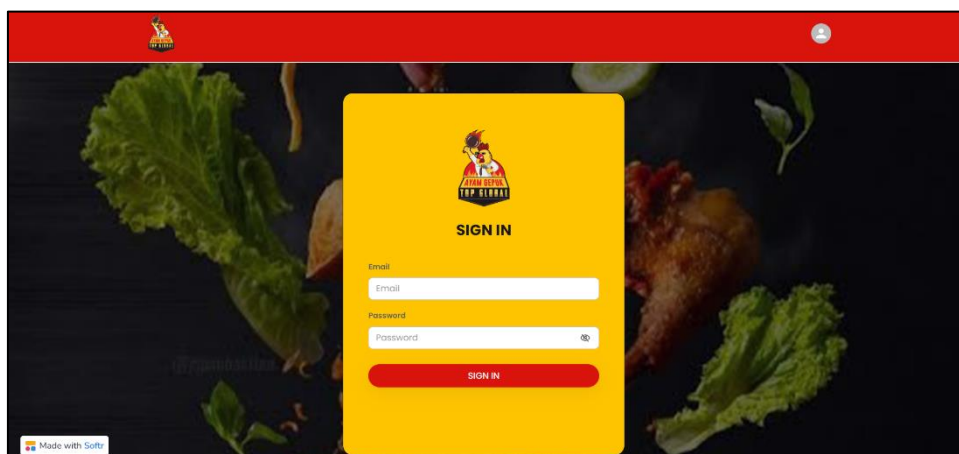
Figure 3 Sign In page

STAFF

Dashboard page

- Dashboard page for staff in Shift Ease Ayam Gepuk Top Global System.
- Staff can choose either they want to take attendance, make a leave application, view duty schedules or view profile.
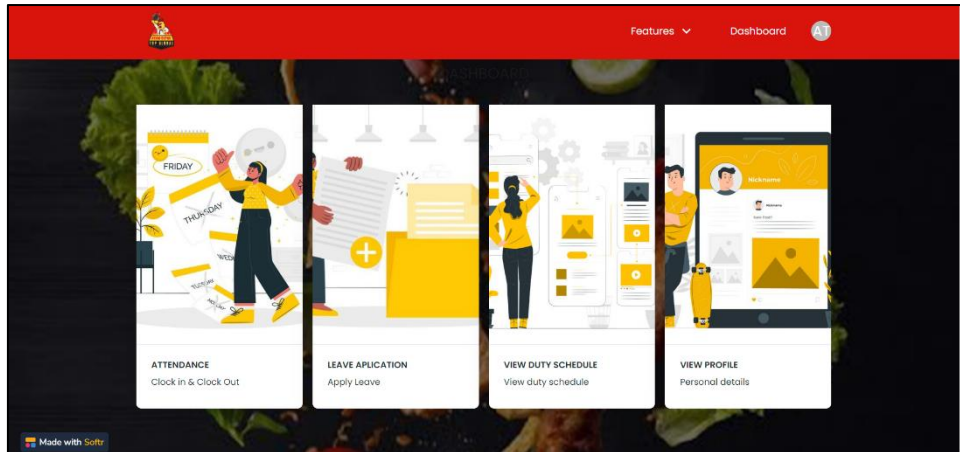
Figure 4 Dashboard page for staff

Attendance page

- Attendance page for Shift Ease Ayam Gepuk Top Global System.
- Staff can click the "Clock In" button to record their arrival and the "Clock Out" button before returning.
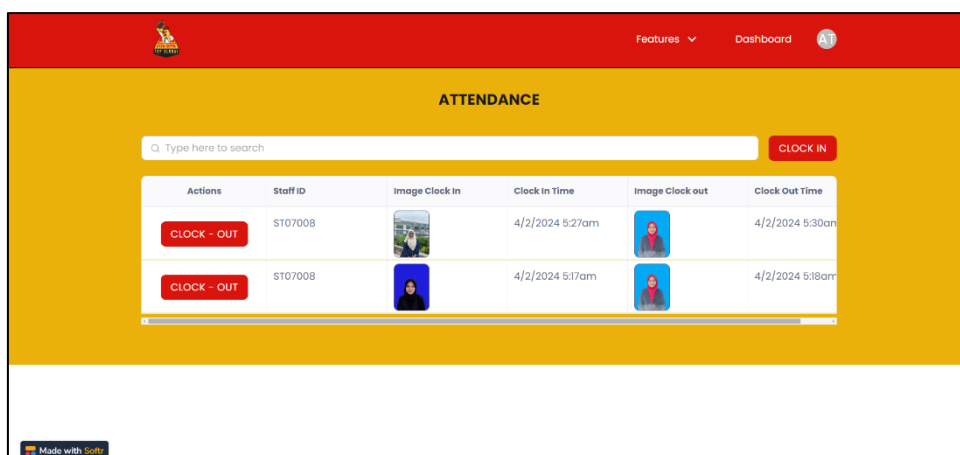
Figure 4.1 Record attendance page

Clock In form

- Clock In form for Shift Ease Ayam Gepuk Top Global System.
- Staff need to enter *Employee ID* and *Image,* after that click the "Submit" button to record their return.

Figure 4.2 Clock-In form

Clock Out form

- Clock Out form for Shift Ease Ayam Gepuk Top Global System.
- Staff need to enter *Image,* after that click the "Submit" button to record their arrival.

Figure 4.3 Clock-Out form

Apply leave page

- Apply leave page for Shift Ease Ayam Gepuk Top Global System.
- Staff need to click the "Apply Leave" button to apply their leave.
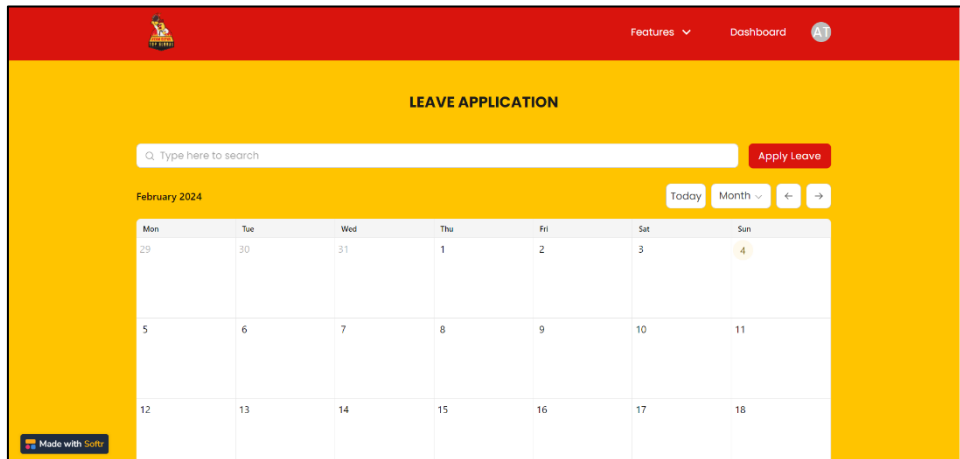
Figure 5 Appy leave page

Apply Leave form

- Apply leave form for Shift Ease Ayam Gepuk Top Global System.
- Staff need to enter *Staff ID, Leave Type, Reason for Leave, Leave Start and End* and *Status,* after that click the "Apply" button to notify the supervisor.
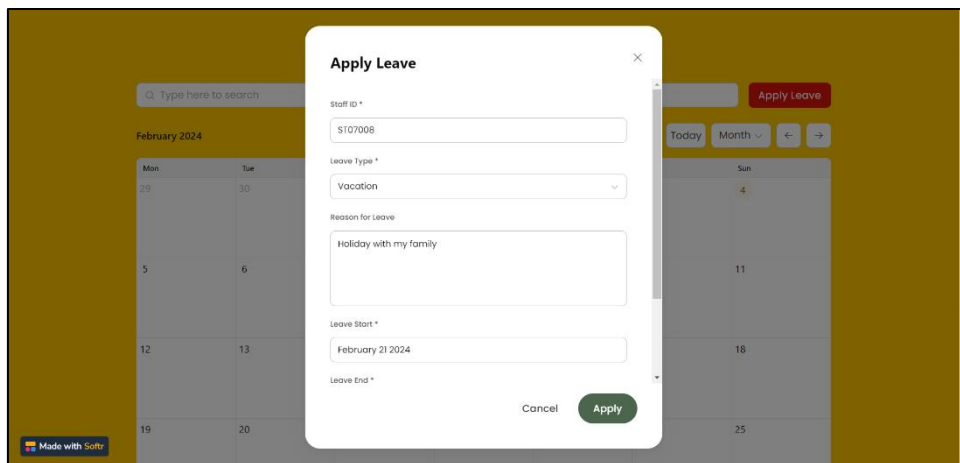
Figure 5.1 Appy leave form
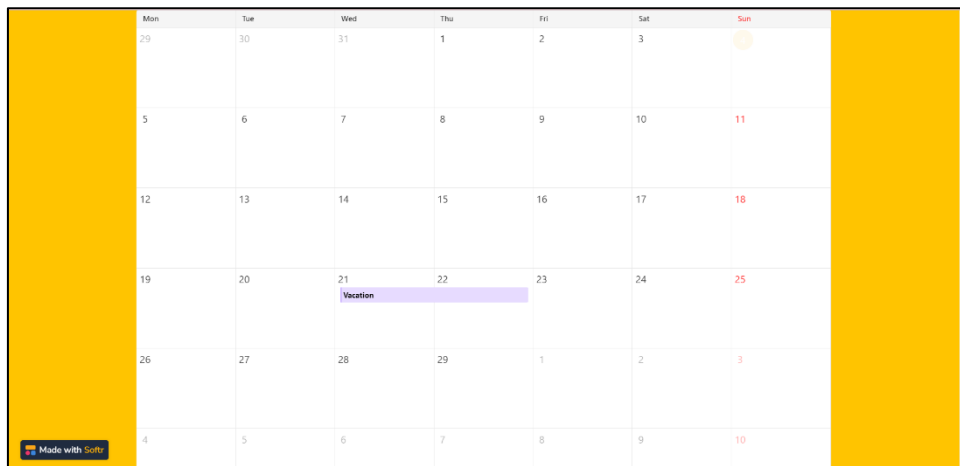
Figure 5.2 Successfully apply leave page
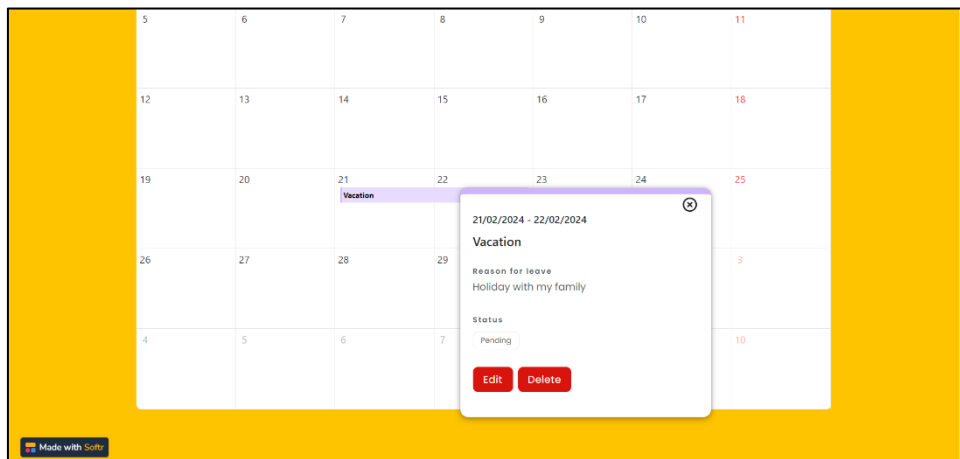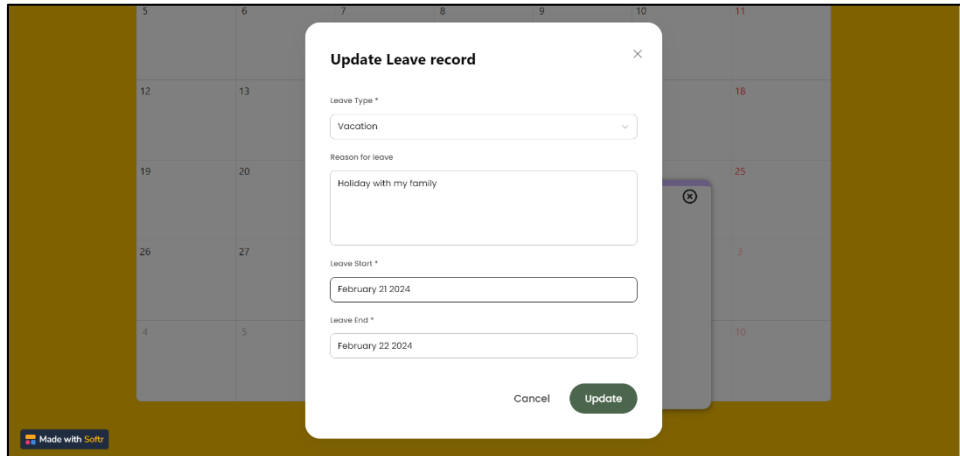
Figure 5.3 Apply leave information

Update Leave form

- Update leave form for Shift Ease Ayam Gepuk Top Global System.

- Staff can change the leave details, after that click the "Update" button to notify the supervisor.

Figure 5.4 Update leave

View Duty Schedule page

- View Duty Schedule page for Shift Ease Ayam Gepuk Top Global System.

- Staff can view their schedule by month.
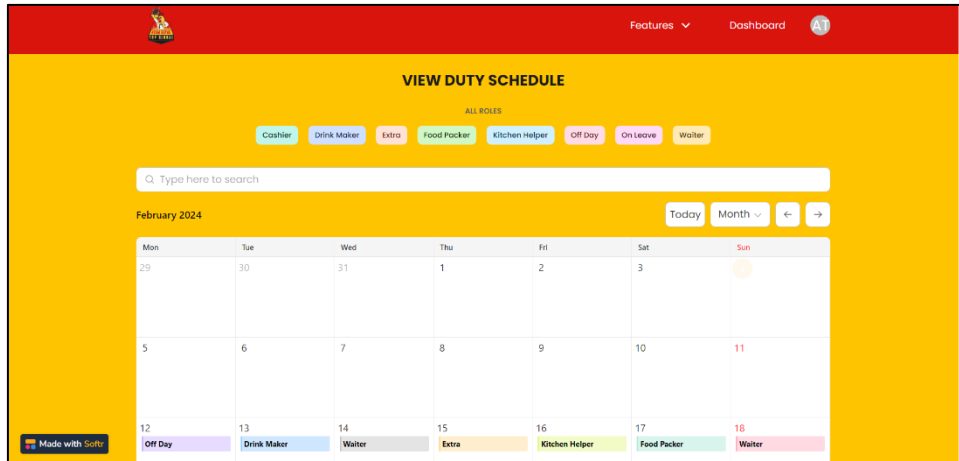
Figure 6 View duty schedule

Staff profile page

- Staff profile page for Shift Ease Ayam Gepuk Top Global System.
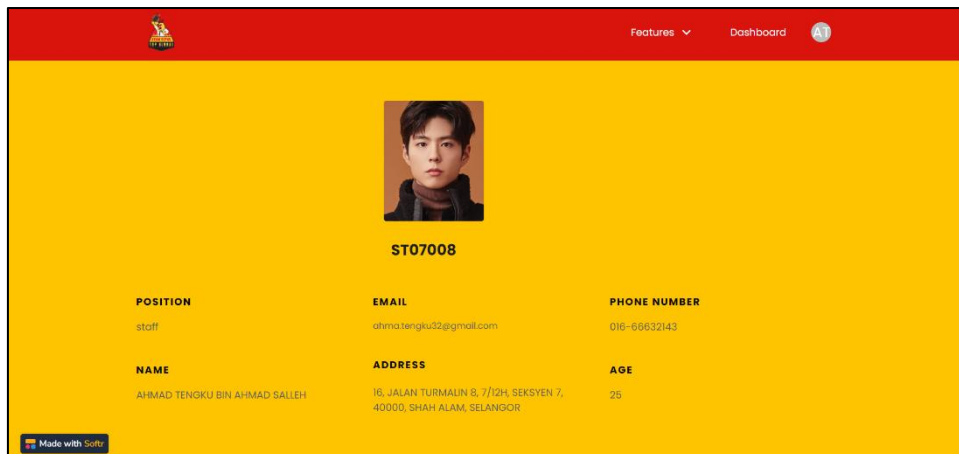
Figure 7 Staff profile

SUPERVISOR

Dashboard page

- Dashboard page for staff in Shift Ease Ayam Gepuk Top Global System.
- Supervisor can choose either he wants to take attendance, manage duty schedule, leave application approval, view attendance, view duty schedules or view profile.
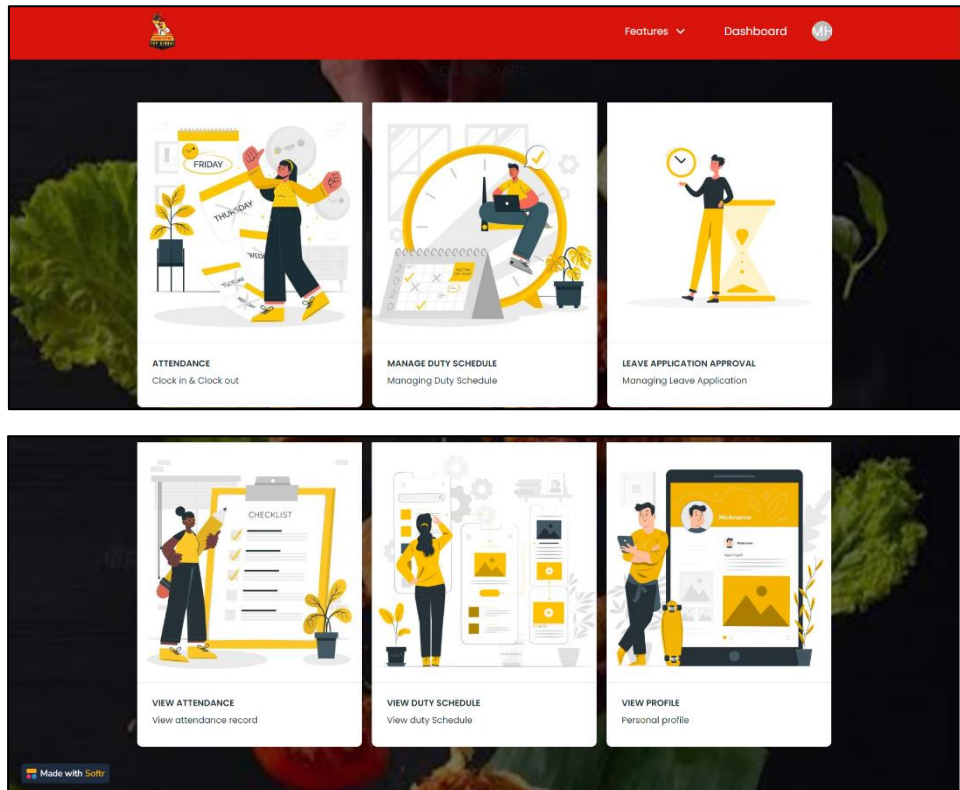
Figure 8 Dashboard page for supervisor

Attendance page

- Attendance page for Shift Ease Ayam Gepuk Top Global System.
- Supervisor can click the "Clock In" button to record their arrival and the "Clock Out" button before returning.
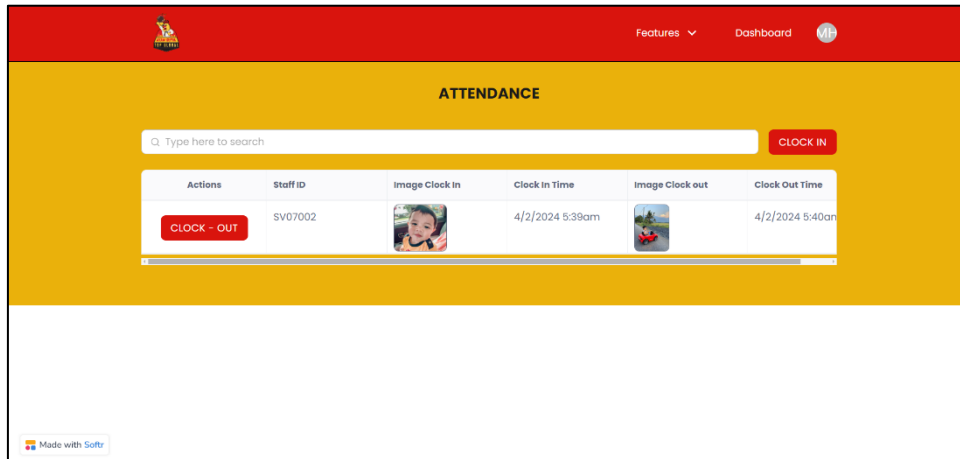
Figure 9 Record attendance page

Clock In form

- Clock In form for Shift Ease Ayam Gepuk Top Global System.

- Supervisor need to enter *Employee ID* and *Image,* after that click the "Submit" button to record their return.

Figure 9.1 Clock-In form

Clock Out form

- Clock Out form for Shift Ease Ayam Gepuk Top Global System.

- Staff need to enter *Image,* after that click the "Submit" button to record their arrival.

Figure 9.2 Clock-Out form

Manage duty schedule page

- Manage duty schedule page for Shift Ease Ayam Gepuk Top Global System.

- Supervisor can click "Add Record" button to create schedule.
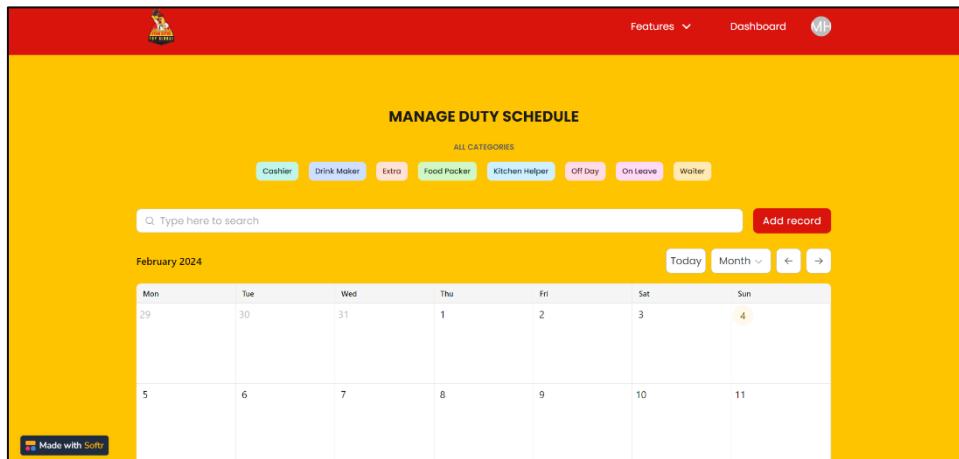
Figure 10 Manage duty schedule page
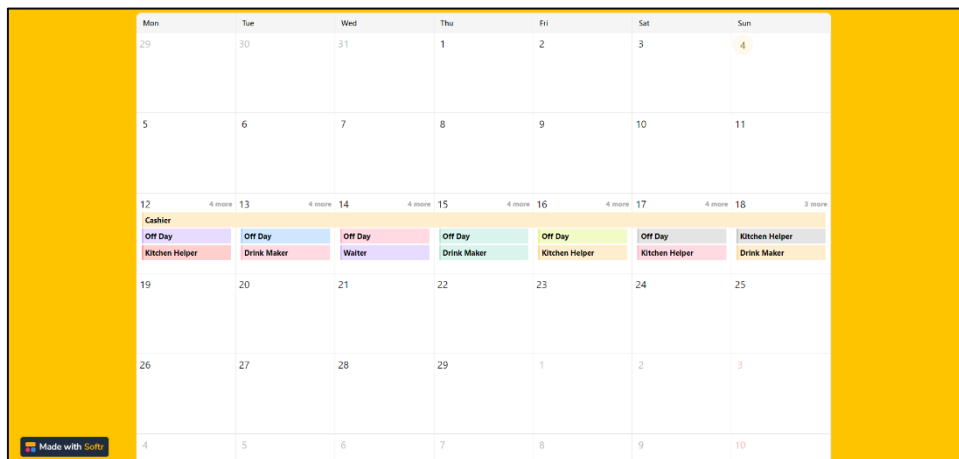
Figure 10.1 Manage duty schedule
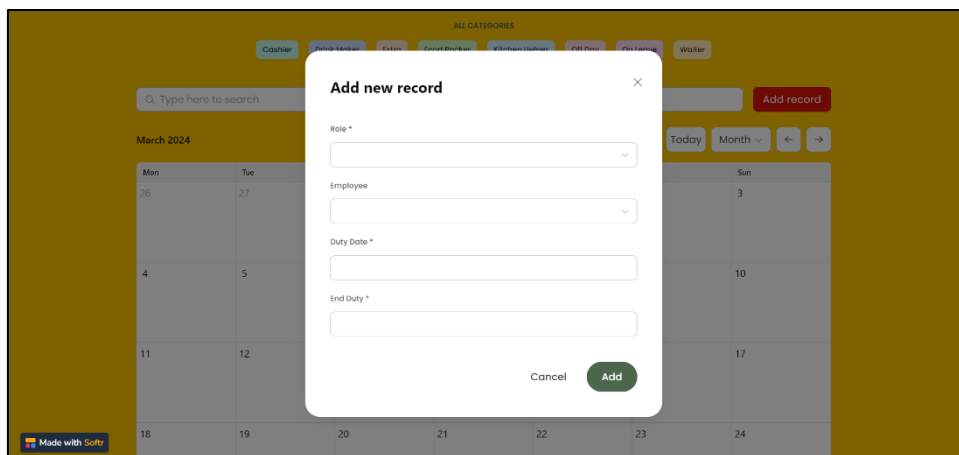
Figure 10.2 Add new duty schedule
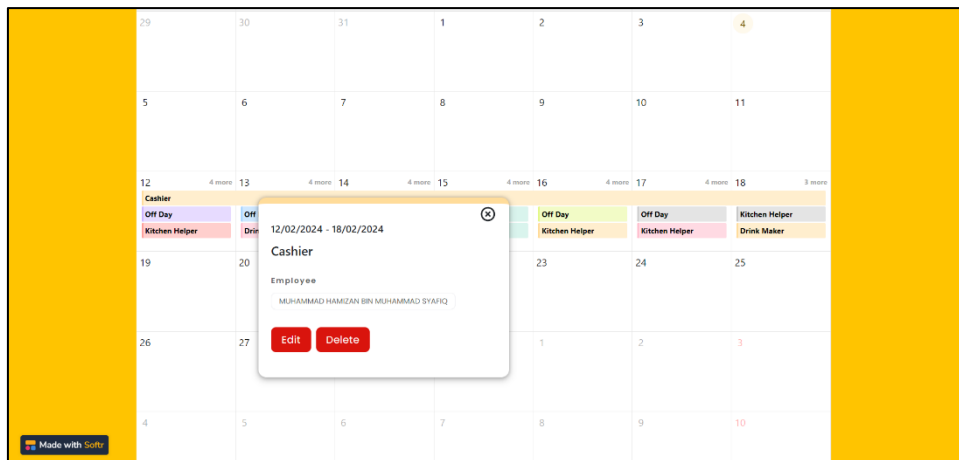
Figure 11 Duty schedule information
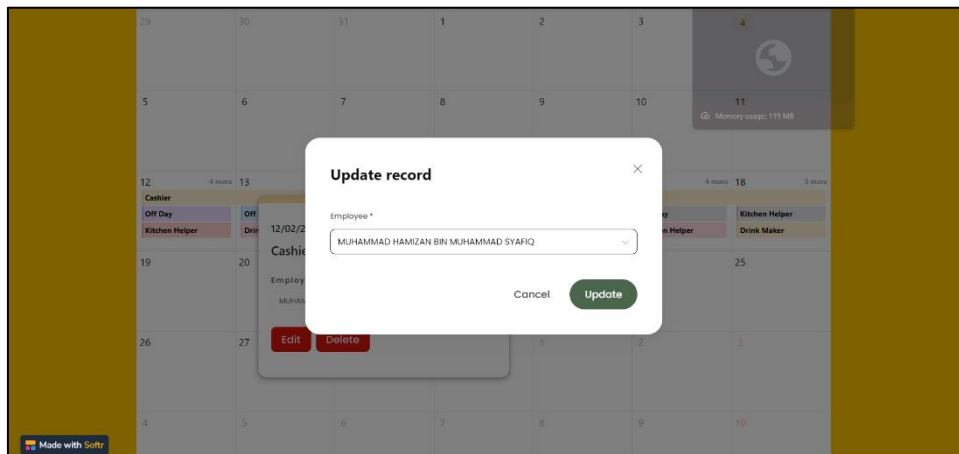
Figure 11.1 Update duty schedule
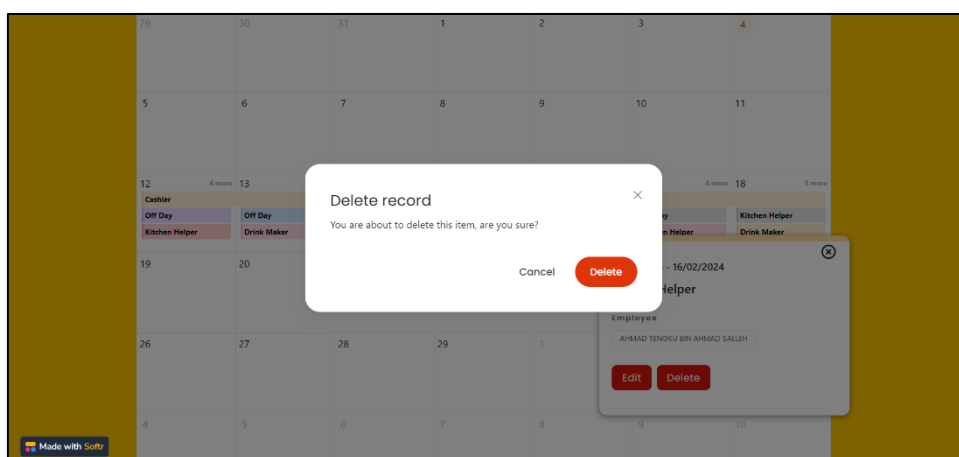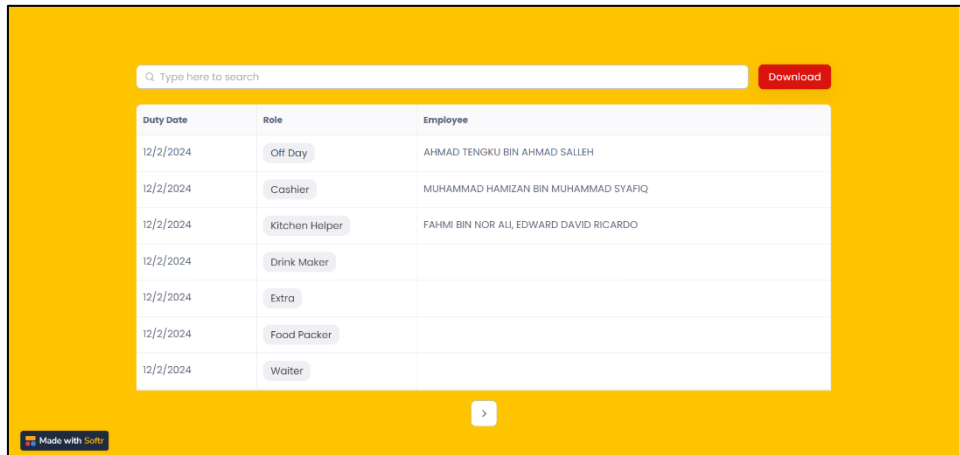
Figure 11.2 Delete duty schedule record

Download duty schedule page

- Download duty schedule page for Shift Ease Ayam Gepuk Top Global System.
- Supervisor can click "Download" button to download all the staff schedule.
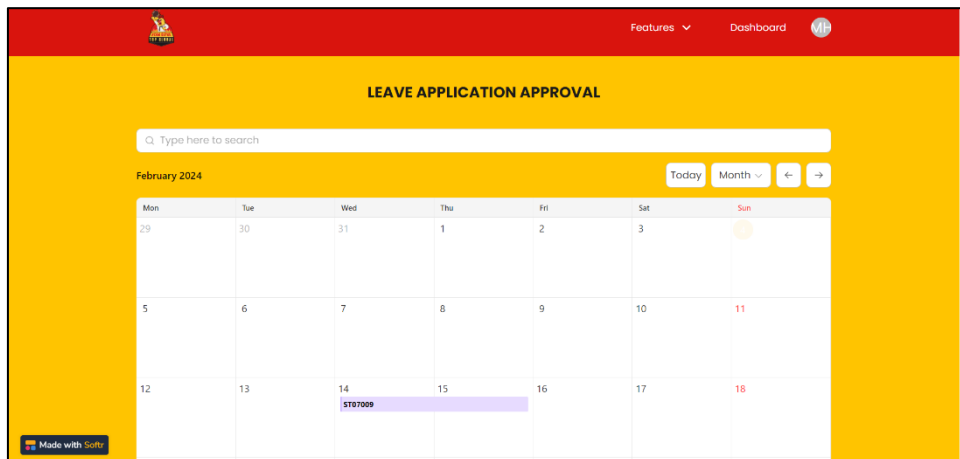
Figure 12 Download duty schedule page

Leave Application Approval page

- Leave application approval page for Shift Ease Ayam Gepuk Top Global System.
- Supervisor can update *Status* based on application that have been made.

Figure 13 Leave application approval
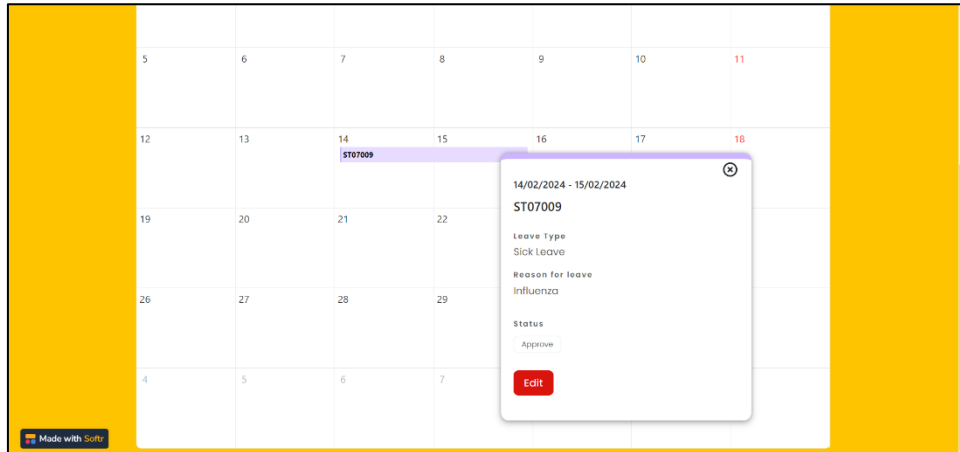
Figure 13.1 Leave information
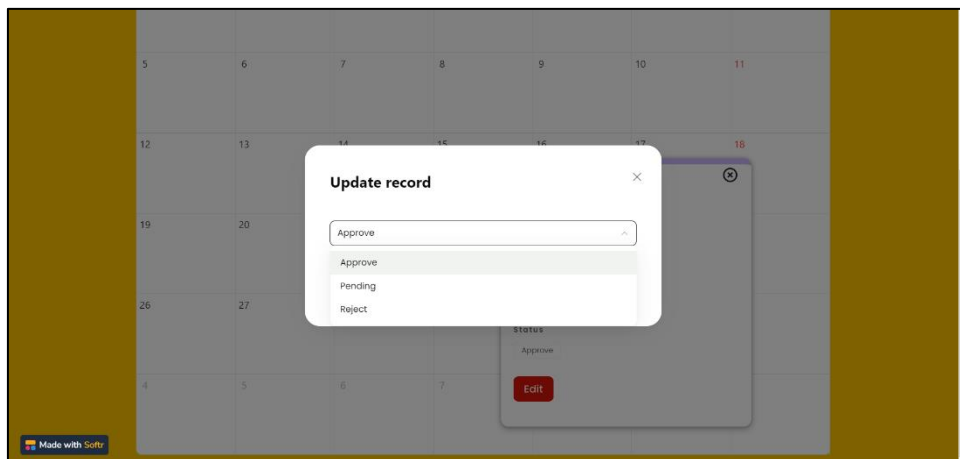
Figure 13.2 Update status leave

View Duty Schedule page

- View Duty Schedule page for Shift Ease Ayam Gepuk Top Global System.

- Supervisor can view all the staff schedules by month.
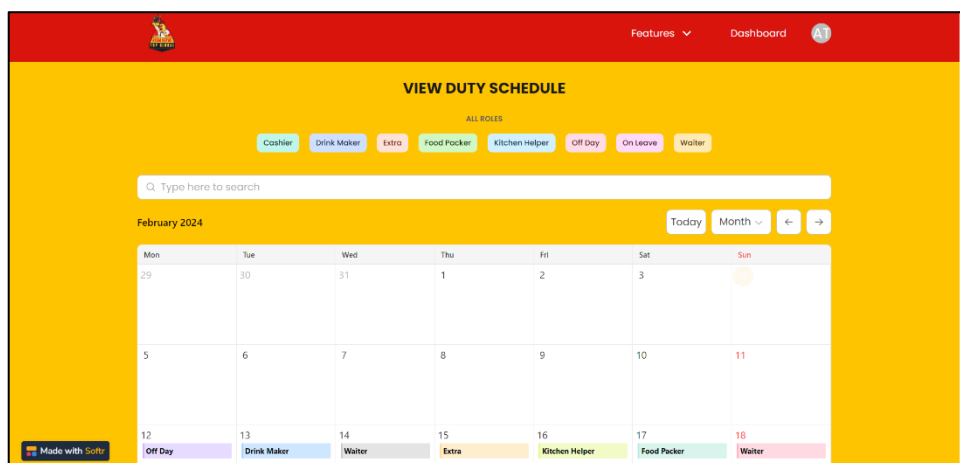
Figure 14 View Duty Schedule

ADMIN

Dashboard page

- Dashboard page for staff in Shift Ease Ayam Gepuk Top Global System.
- Admin can choose either he wants to manage user account, view attendance record, view duty schedule, view staff profile, view about company or view profile.
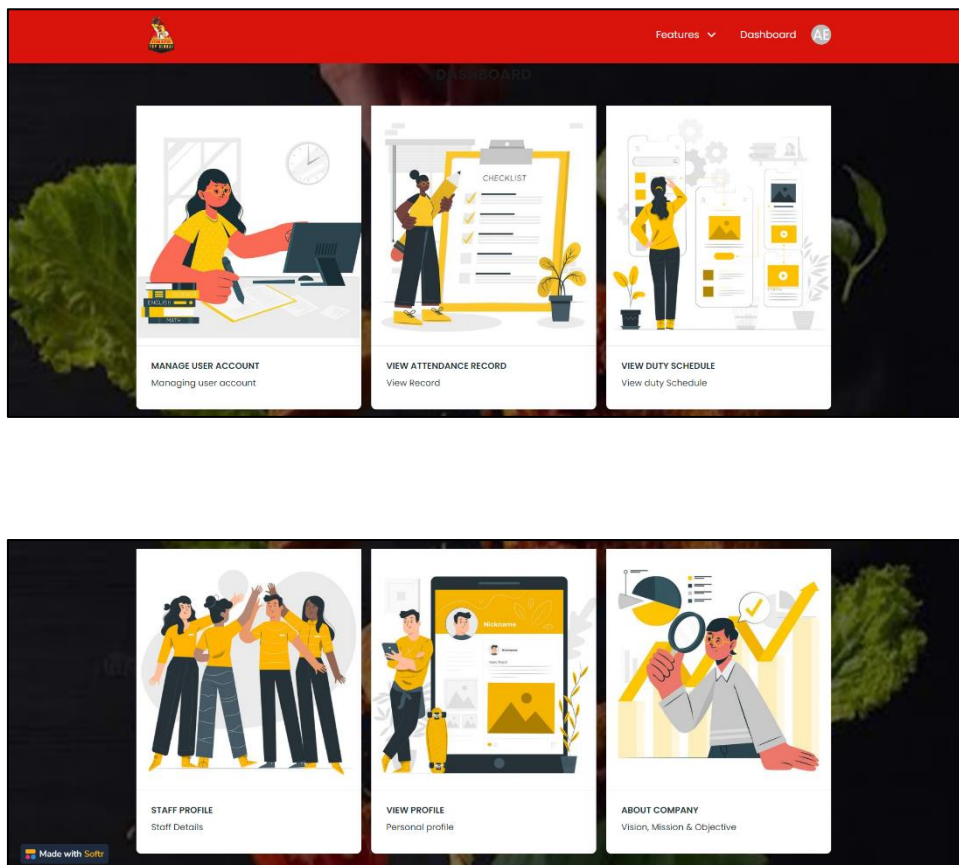
Figure 15 Dashboard page for admin

Figure 16 Manage user account

Figure 16.1 Add new staff account

Figure 16.2 Update staff account
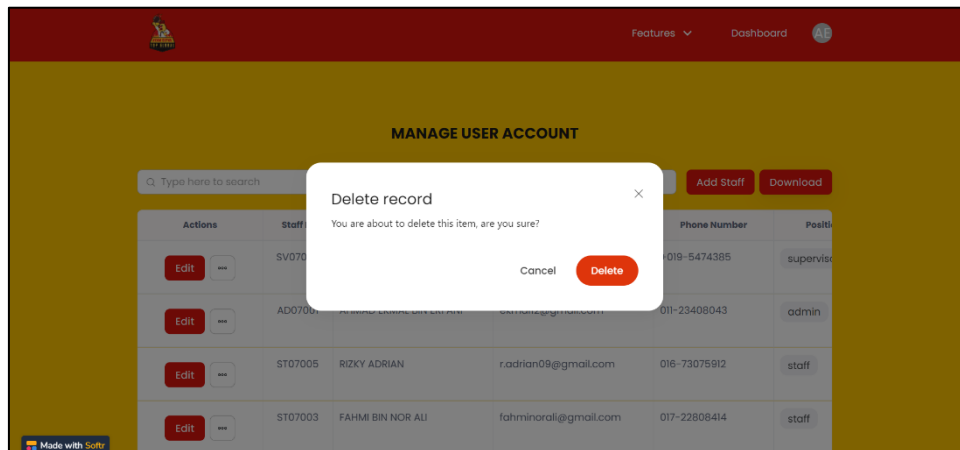
Figure 16.3 Delete staff account
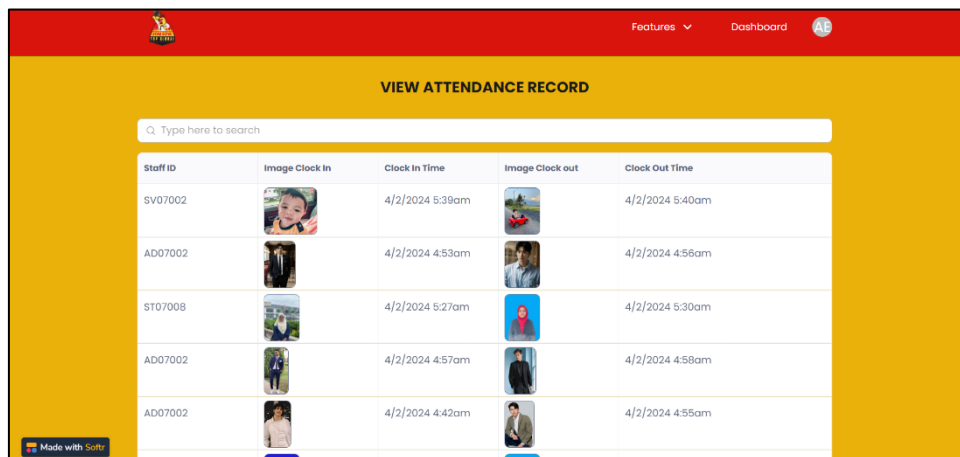
Figure 17 View attendance record staff and supervisor

4.2 HARDWARE INTERFACES

1. Supported Device Types:

    - Logical: The Shift Ease Ayam Gepuk Top Global System supports devices such as smartphones, tablets, and computers for staff to clock in and out, apply leave, and view duty schedules.
    - Physical: These devices can have various physical interfaces, like touchscreens for smartphones and tablets, and keyboards for computers.

2. Nature of Data and Control Interactions:

    - Logical: The system interacts with the clocking-in and out feature by recording timestamps, processes leave applications, and displays duty schedules.
    - Physical: When a staff member clocks in, the system records the timestamp, and when a supervisor manages the duty schedule and an admin manages user accounts, the system updates the database with new records.

3. Communication Protocols:

    - Logical: The Shift Ease Ayam Gepuk Top Global System uses internet communication protocols to facilitate interactions between the software and the server where the data is stored.
    - Physical: The devices running the Shift Ease Ayam Gepuk Top Global System application communicate with the server using standard internet protocols like HTTP or HTTPS for secure data transmission.

4.3 SOFTWARE INTERFACES

1. Database:

- Software Component: Airtable

- Purpose: Shift Ease Ayam Gepuk Top Global System interacts with the Airtable database to store and retrieve data related to staff details, attendance records, leave applications, duty schedules, and user accounts.

- Data Items or Messages:
  Incoming: Staff details, clock-in/out timestamps, leave application information, duty schedule details, and user account data.
  Outgoing: Approved leave status, updated duty schedules, and user account modifications.

2. CMS (Content Management System):

- Software Component: Softr Studio

- Purpose: Softr Studio is utilized for managing the content and user interface elements of the Shift Ease Ayam Gepuk Top Global System, providing a platform for designing and updating web pages.

- Data Items or Messages:
  Incoming: Design elements, content updates, and user interface configurations.
  Outgoing: Rendered web pages, user interface interactions, and dynamic content.

3. Operating System:
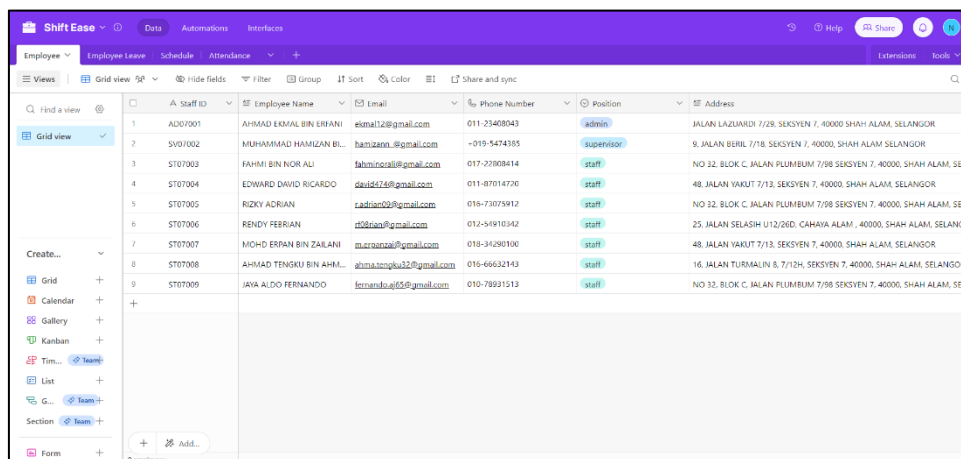
- Software Component: Windows, macOS, iOS, Android

- Purpose: The Shift Ease Ayam Gepuk Top Global System application is designed to run on specific operating systems, ensuring compatibility and optimal performance.

- Services Needed: Access to file systems for data storage, network communication for internet-based features, and system-level permissions for various functionalities.

4. Communication Protocols:

- Software Component: Shift Ease Ayam Gepuk Top Global System API

- Purpose: An API (Application Programming Interface) is provided to facilitate communication between Shift Ease Ayam Gepuk Top Global System and external systems or third-party applications.

- Nature of Communications: HTTP or HTTPS protocols are used for secure data transmission, allowing seamless integration with other software components.

5. Data Sharing Mechanism:
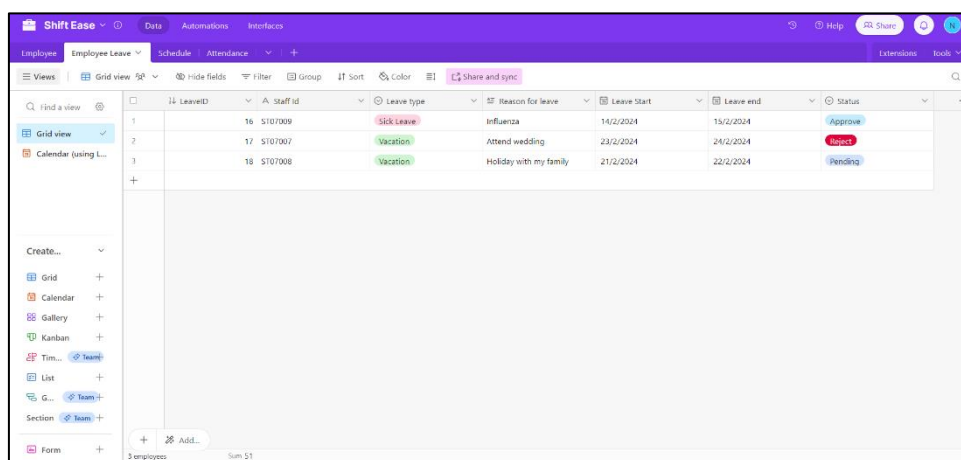
- Data is shared between Softr Studio, Airtable, and Shift Ease Ayam Gepuk Top Global System through API calls. The structure of data, such as staff details, attendance records, and duty schedules, must adhere to a predefined format to ensure proper communication and synchronization across components.

Figure 18 Database of employee

Figure 19 Database of employee leave

Figure 20 Database of schedule

Figure 21 Database of attendance

4.4 COMMUNICATION INTERFACE

1. Internet Communication:

- Requirement: The system requires internet connectivity for staff, supervisors, and admins to access and interact with the Shift Ease Ayam Gepuk Top Global System application.

- Protocol: HTTP or HTTPS protocols will be utilized for secure data transmission over the internet.

- Security: Secure Socket Layer (SSL) encryption will be implemented to ensure the confidentiality and integrity of data during communication.

2. Staff Information Retrieval:

- Requirement: Staff members can view their attendance records, leave status, and duty schedules directly from the Shift Ease Ayam Gepuk Top Global System.

- Protocol: HTTP or HTTPS will be employed for secure data retrieval.

- Security: Access to staff information will be role-based and require proper authentication to ensure data privacy.

3. Data Transfer Rates:

- Requirement: The system should support reasonable data transfer rates to ensure responsive interactions.

- Rate: Data transfer rates should be optimized for efficient communication, considering factors such as image uploads, attendance logs, and schedule updates.

4. Synchronization Mechanisms:

- Requirement: Real-time synchronization is required for data consistency across all instances of the Shift Ease Ayam Gepuk Top Global System.

- Mechanism: Bidirectional synchronization will be implemented to ensure that changes made by staff, supervisors, or admins are reflected promptly in the system.

5. File Uploads (Clock-In & Clock-Out Images, Document Attachments):

- Requirement: Staff members may upload images for clocking in and out, and document attachments for leave applications.

- Protocol: File uploads will use HTTP/HTTPS protocols.

- Security: Secure and authenticated channels will be maintained to protect the confidentiality and integrity of uploaded files.

6. Network Server Communication:

- Requirement: The Shift Ease Ayam Gepuk Top Global System relies on network server communications for data storage, retrieval, and system operations.

- Protocol: HTTP/HTTPS protocols will be used for client-server interactions.

- Security: Server-client communications will be secured using encryption mechanisms to protect data during transit.

5. OTHER NONFUNCTIONAL REQUIREMENTS

5.1 PERFORMANCE REQUIREMENTS

1. System Response Time:

- Requirement: The system should exhibit a response time of no more than 2 seconds for routine user interactions, such as clocking in/out, viewing attendance, and accessing duty schedules.

- Rationale: Fast response times enhance user satisfaction and productivity, ensuring that staff can perform their tasks efficiently.

2. Database Query Performance:

- Requirement: Database queries related to attendance records, duty schedules, and leave status should be executed within 1 second, even under peak usage conditions.

- Rationale: Efficient database query performance is essential for real-time data retrieval and overall system responsiveness.

3. File Upload Performance:

- Requirement: Uploading images for clocking in/out or document attachments for leave applications should not exceed 10 seconds per file, considering file sizes up to 5 MB.

- Rationale: Efficient file upload performance ensures that staff can seamlessly contribute to the system without delays.

4. Audit Log Processing:

- Requirement: The system should process and store audit trail entries with minimal impact on regular system operations. Audit log entries should be generated and stored within 1 second of the corresponding activity.

- Rationale: Timely and efficient processing of audit logs is essential for monitoring system activities and ensuring compliance.

5.2 SAFETY REQUIREMENTS

1. Data Security and Privacy:

- Requirement: The system must implement robust data security measures, including encryption of sensitive information such as user credentials, attendance records, and personal details, to prevent unauthorized access and data breaches.
- Safeguard: Regular security audits and vulnerability assessments should be conducted to identify and address potential threats.

2. User Authentication:

- Requirement: Only authorized users with valid credentials should have access to the Shift Ease system. Passwords must adhere to strong complexity standards, and multi-factor authentication is encouraged for enhanced security.
- Safeguard: Regularly update and strengthen authentication protocols to prevent unauthorized access.

3. Secure File Uploads:

- Requirement: File uploads, including images for clocking in/out and document attachments, must be scanned for malware and undergo secure processing to prevent the inadvertent spread of malicious content.
- Safeguard: Use reputable antivirus software to scan uploaded files and implement secure file handling protocols.

4. Access Control:

- Requirement: Access to sensitive functionalities, such as duty schedule management and user account administration, should be restricted to authorized supervisors and administrators. Role-based access control (RBAC) should be implemented.
- Safeguard: Regularly review and update access control policies to align with organizational changes.

5.3 SECURITY REQUIREMENTS

Shift Ease Ayam Gepuk Top Global System uses email and password in order for stakeholders to access the system. All the stakeholders can take the attendance and view their record attendance into the system. Admin can manage the staff information, while supervisor can manage staff duty schedule and approve leave that has been applied by staff. Staff can apply leave and view their duty schedule.

5.4 SOFTWARE QUALITY ATTRIBUTES

1. Adaptability

The system was adapted with the capability to seamlessly integrate with various devices and platforms, allowing users to access features consistently across different environments. The system should support at least three different operating systems (e.g., Windows, iOS, Android) and adapt to various screen sizes for optimal user experience.

2. Availability

The system provides a database that facilitates keeping all employee information, attendance and schedule records.

3. Correctness

The systems display accurate data for attendance based on local time zone.

4. Flexibility

The system can be accessed anywhere and anytime. All the stakeholders require a network connection only to access the website or application.

5. Maintainability

All the stakeholders can take the attendance and view their record attendance into the system. Admin can manage the staff information, while supervisor can manage staff duty schedule and approve leave that has been applied by staff. Staff can apply leave and view their duty schedule.

6. Reliability

The system is to ensure that the shift schedules are consistently available and accurate, with minimal downtime and user-friendly interface.

7. Usability

Stakeholders can quickly and easily navigate through the system to manage shift schedules, enhancing user experience and reducing the learning curve.

6. OTHER REQUIREMENTS

1. Database Requirements:

- Requirement: The database (Airtable) must be capable of handling concurrent transactions and provide reliable data storage for staff details, attendance records, leave applications, duty schedules, and user accounts.

- Performance: The database should offer efficient query performance to support real-time data retrieval.

2. Reuse Objectives:

- Objective: Code modularization and documentation will be emphasized to support future reuse of components in different projects within the Ayam Gepuk Top Global restaurant chain.

3. User Training and Support:

- Requirement: A comprehensive user training program should be developed to ensure staff, supervisors, and admins are proficient in using the Shift Ease Ayam Gepuk Top Global System. Additionally, a support mechanism, such as FAQs or a helpdesk, should be provided to address user queries.

4. Audit Trail:

- Requirement: The system must maintain an audit trail, log in key activities such as user logins, changes to duty schedules, and approval/rejection of leave applications. This log should be accessible to authorized admins for monitoring and compliance purposes.

5. Device Responsiveness:

- Requirement: The Shift Ease Ayam Gepuk Top Global System web application should be responsive, ensuring optimal user experience across various screen sizes, including desktops, tablets, and smartphones.

7. APPENDIX A: GLOSSARY

Software Requirements Specification (SRS)

A comprehensive document outlining every feature of a suggested system as well as the limitations it faces.

Domain Class Diagram

Diagram that shows the relationships and static structure of the classes in a particular domain or business sector.

Data

Information or facts that are collected, stored, and processed

Database

A structured collection of data that is organized and stored in a way that allows for efficient retrieval, management, and modification

Software

A set of files, applications, or instructions that give a computer the ability to carry out particular duties.

Hardware

The external and internal devices and equipment that enable you to perform major functions such as input, output, storage, communication, processing, and more.

Hyper Text Markup Language (HTML)

The code that is used to structure a web page and its content.

Context Diagram

Demonstrate how a system interacts with other actors, or external circumstances, that the system is intended to interface with.

8. APPENDIX B: ANALYSIS MODELS

8.1 ACTIVITY DIAGRAM

Role Distribution
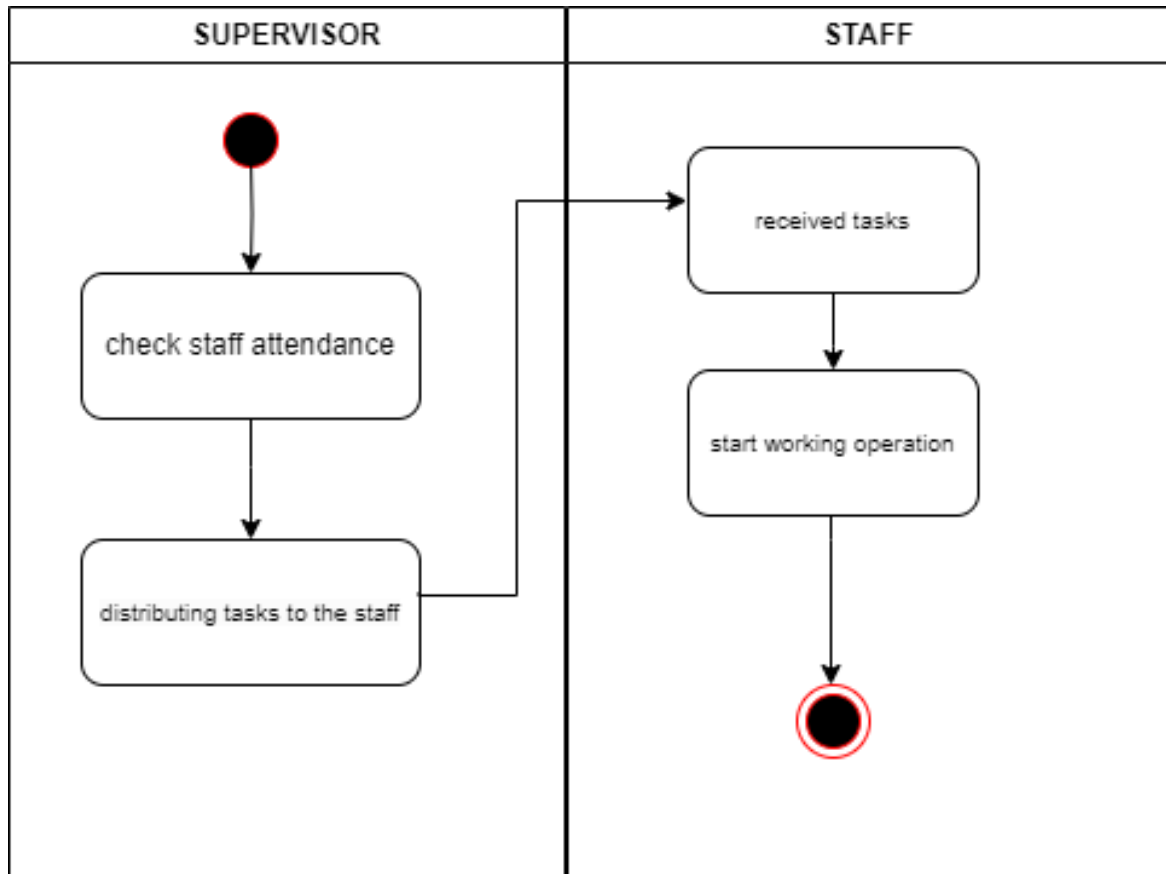
Leave Application Process
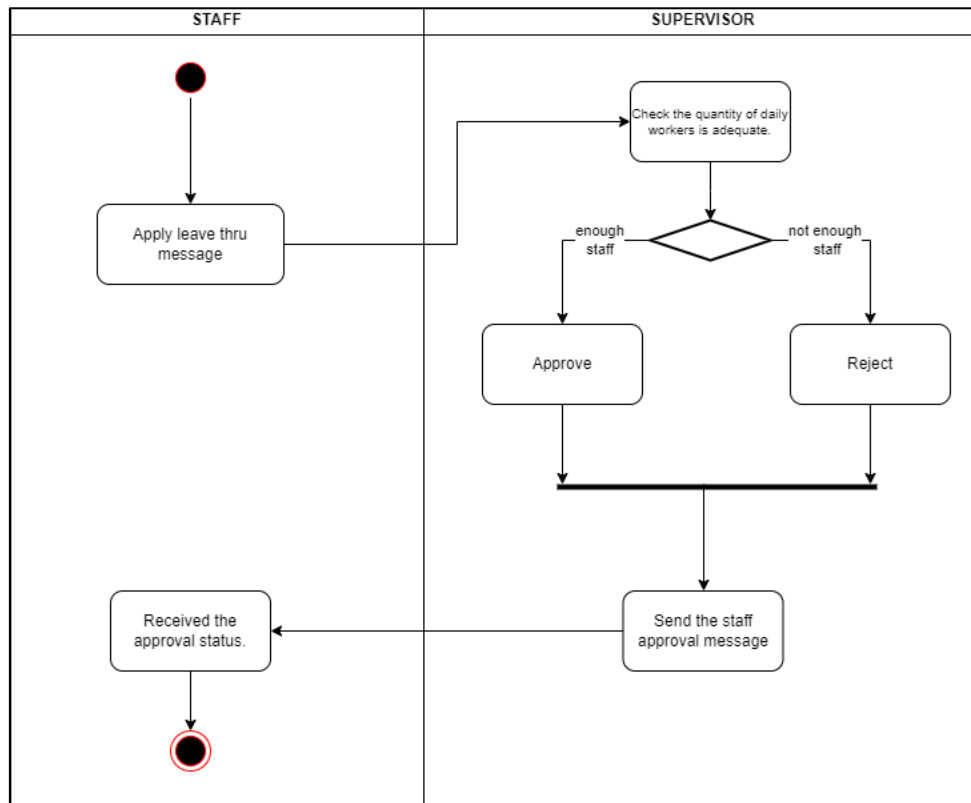
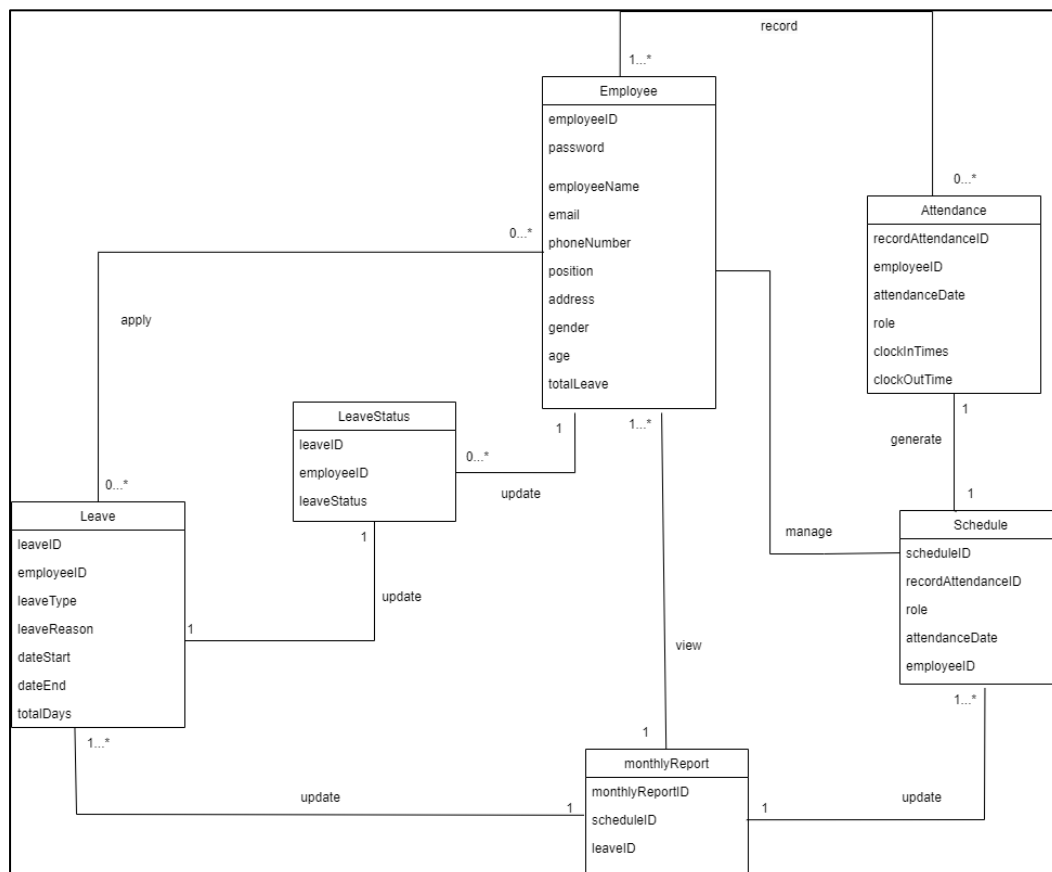## Record Attendance System
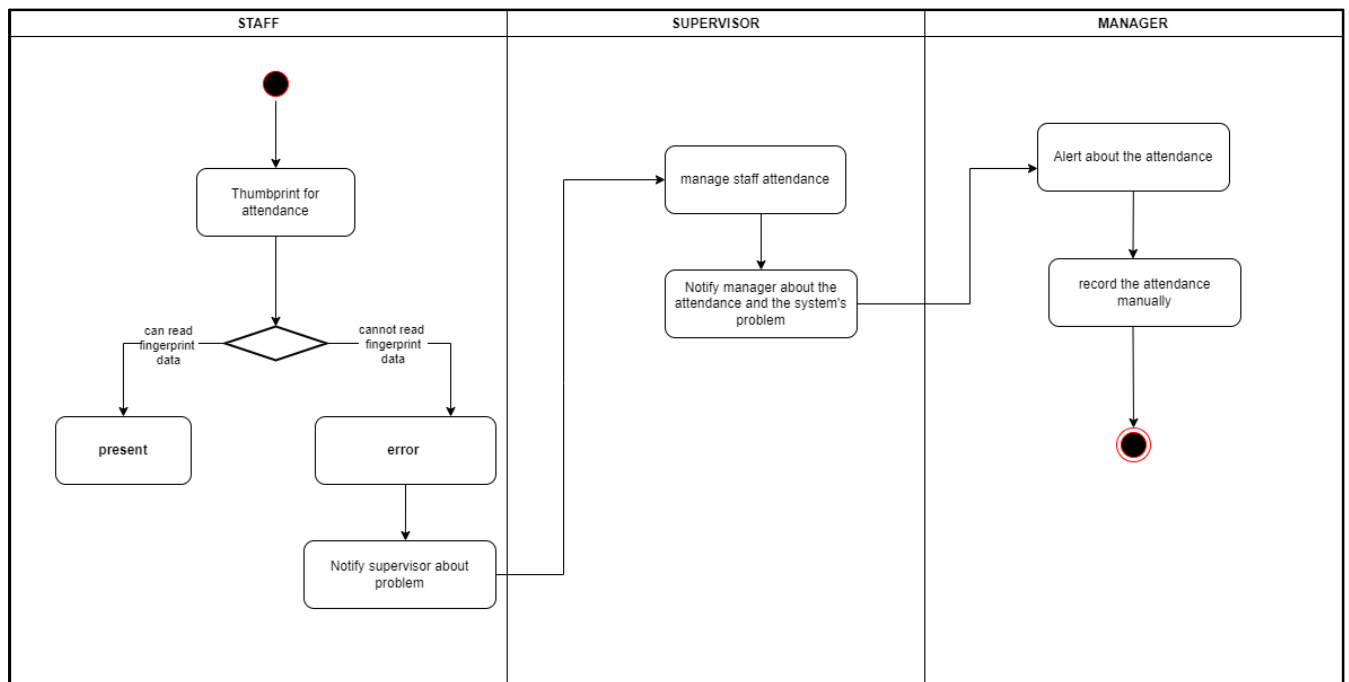
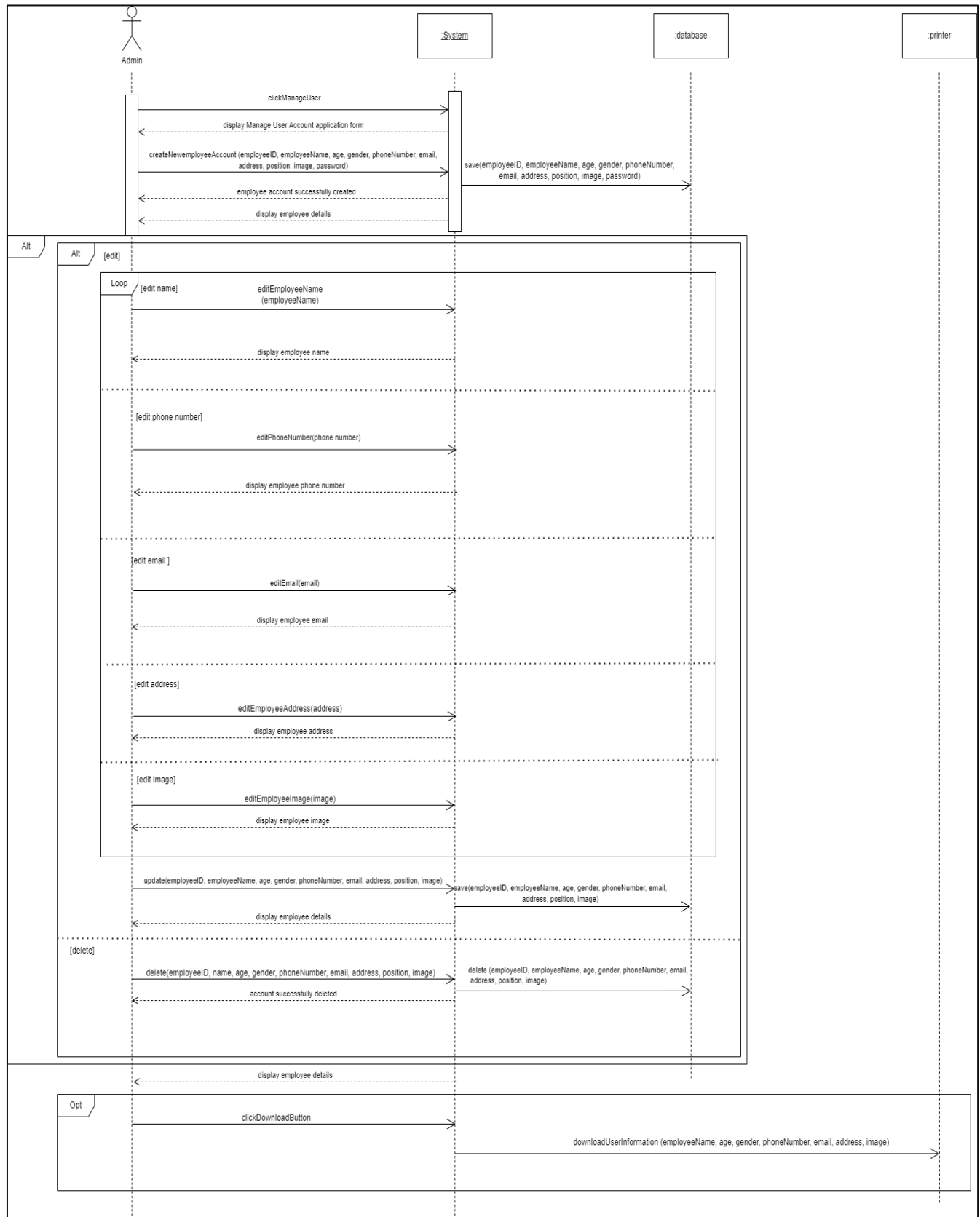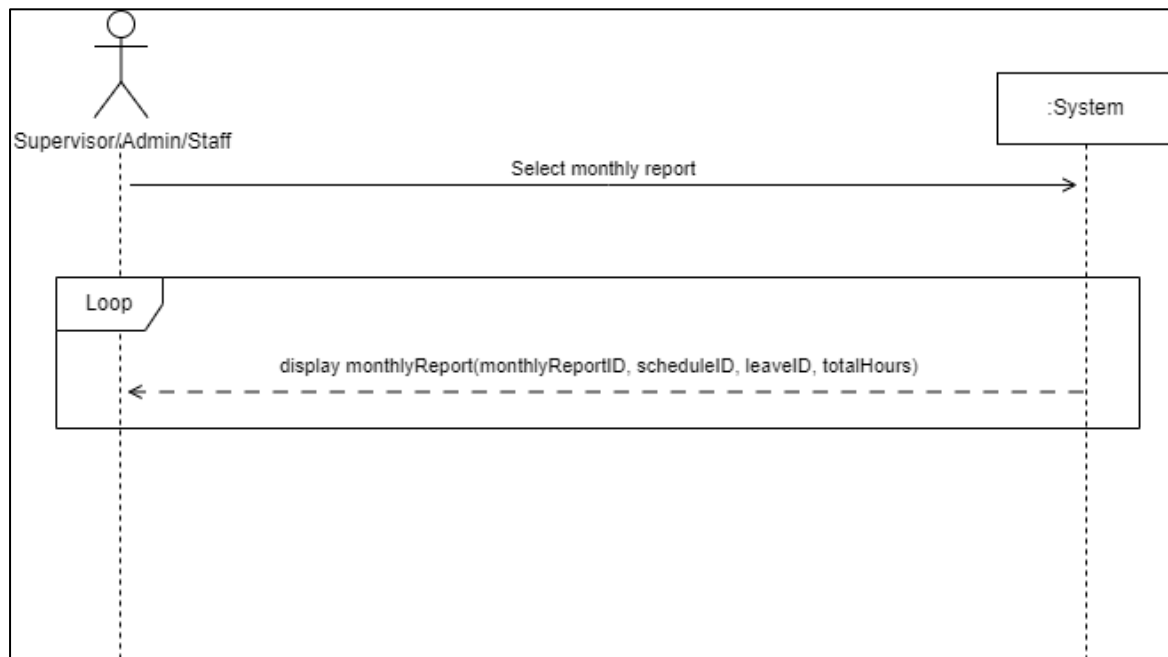## 8.2 CONTEXT DIAGRAM
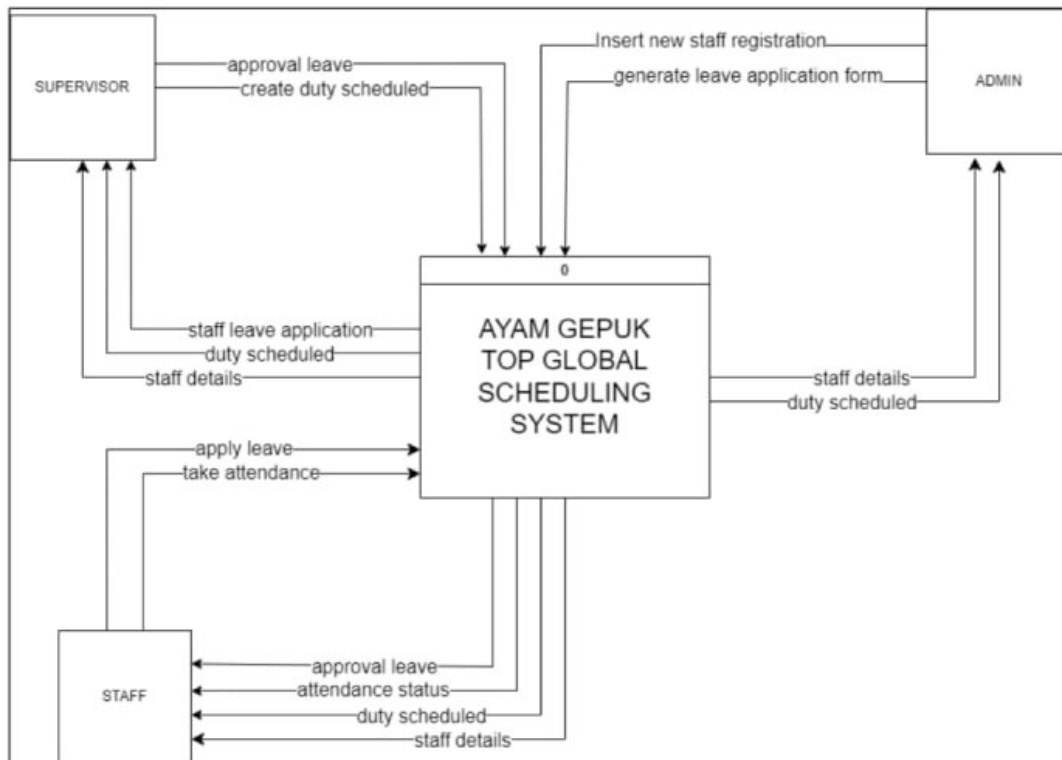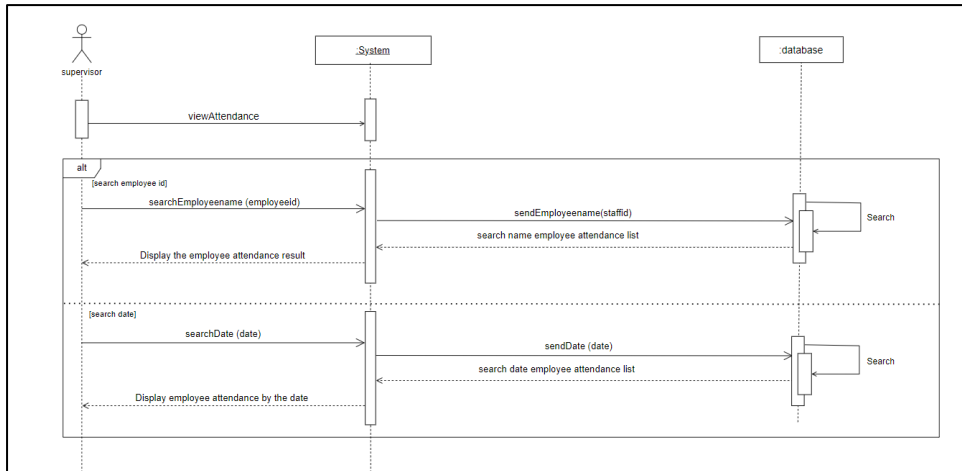

8.3 DOMAIN CLASS DIAGRAM

Domain Class Diagram

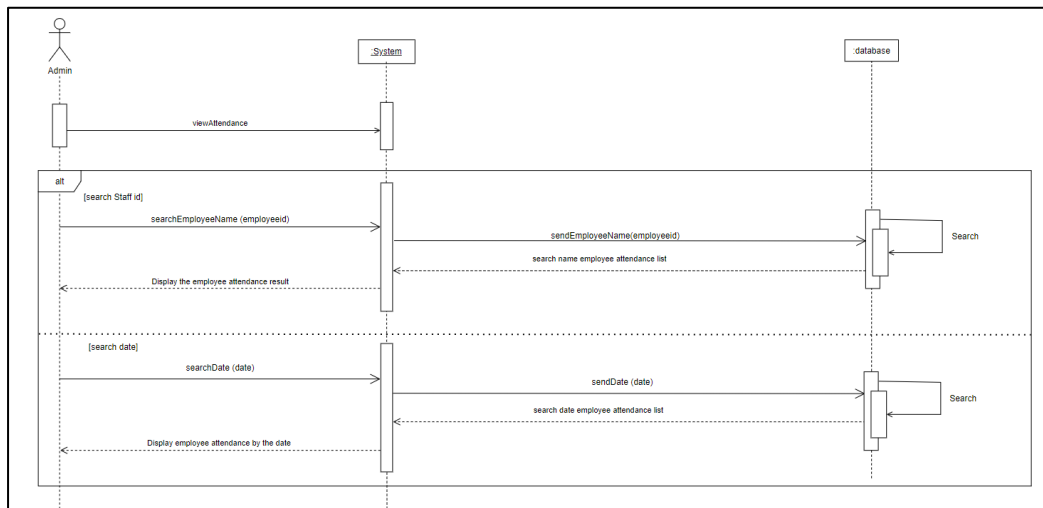## 8.4 SYSTEM SEQUENCE DIAGRAM (SSD)

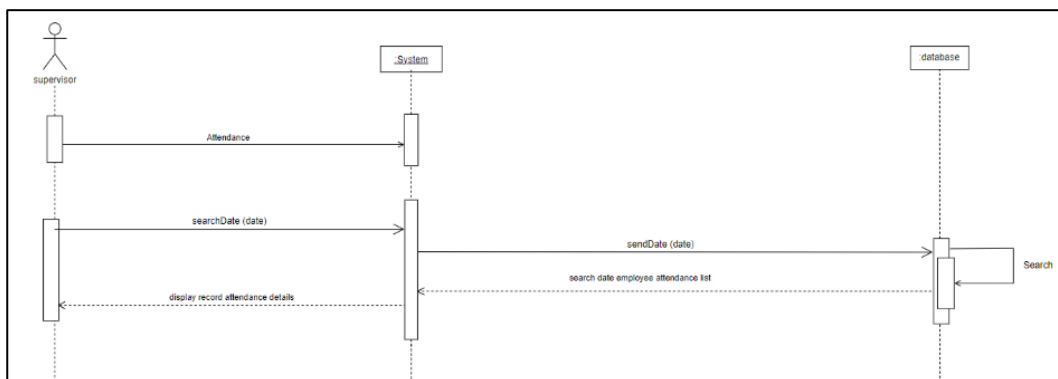**Manage User Account**

View Monthly Report
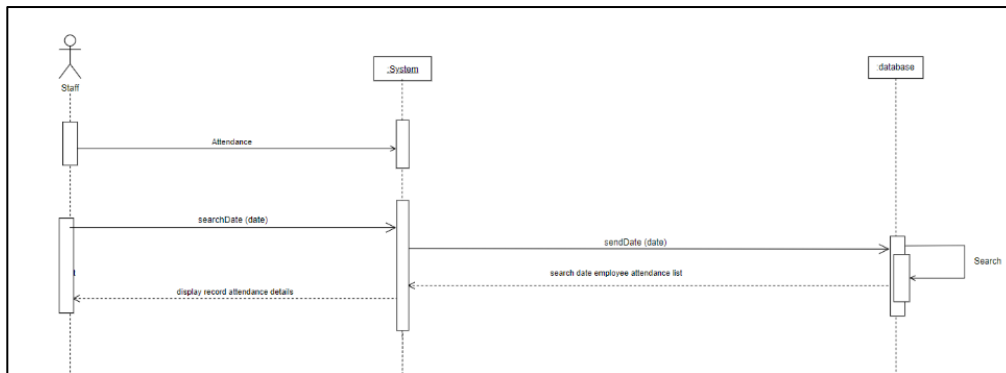
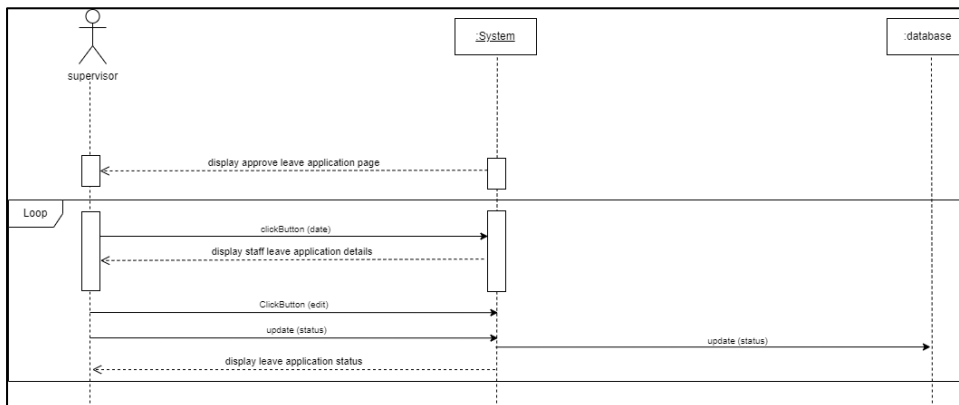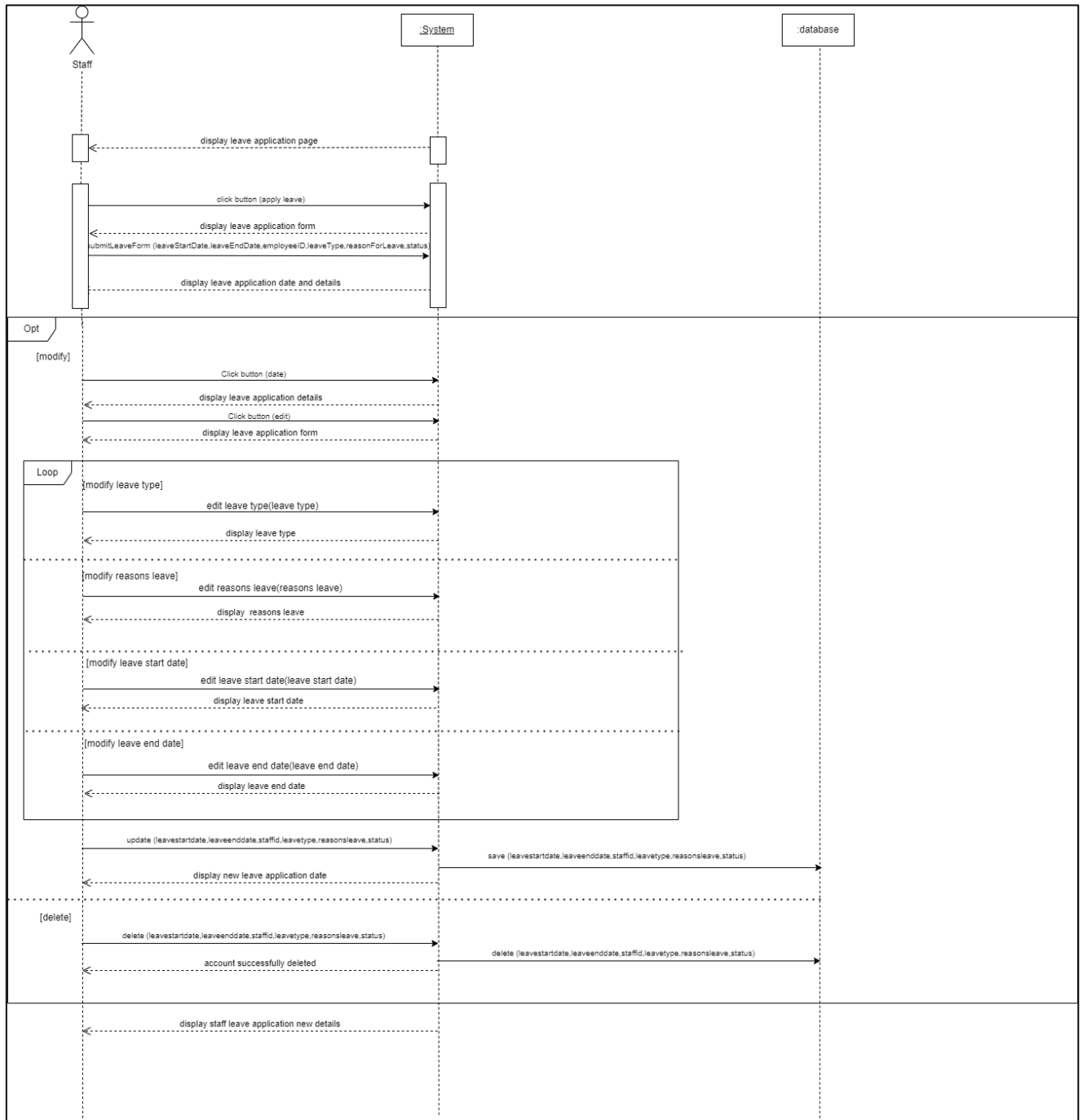## Supervisor View Attendance all staff

Admin View Attendance all staff
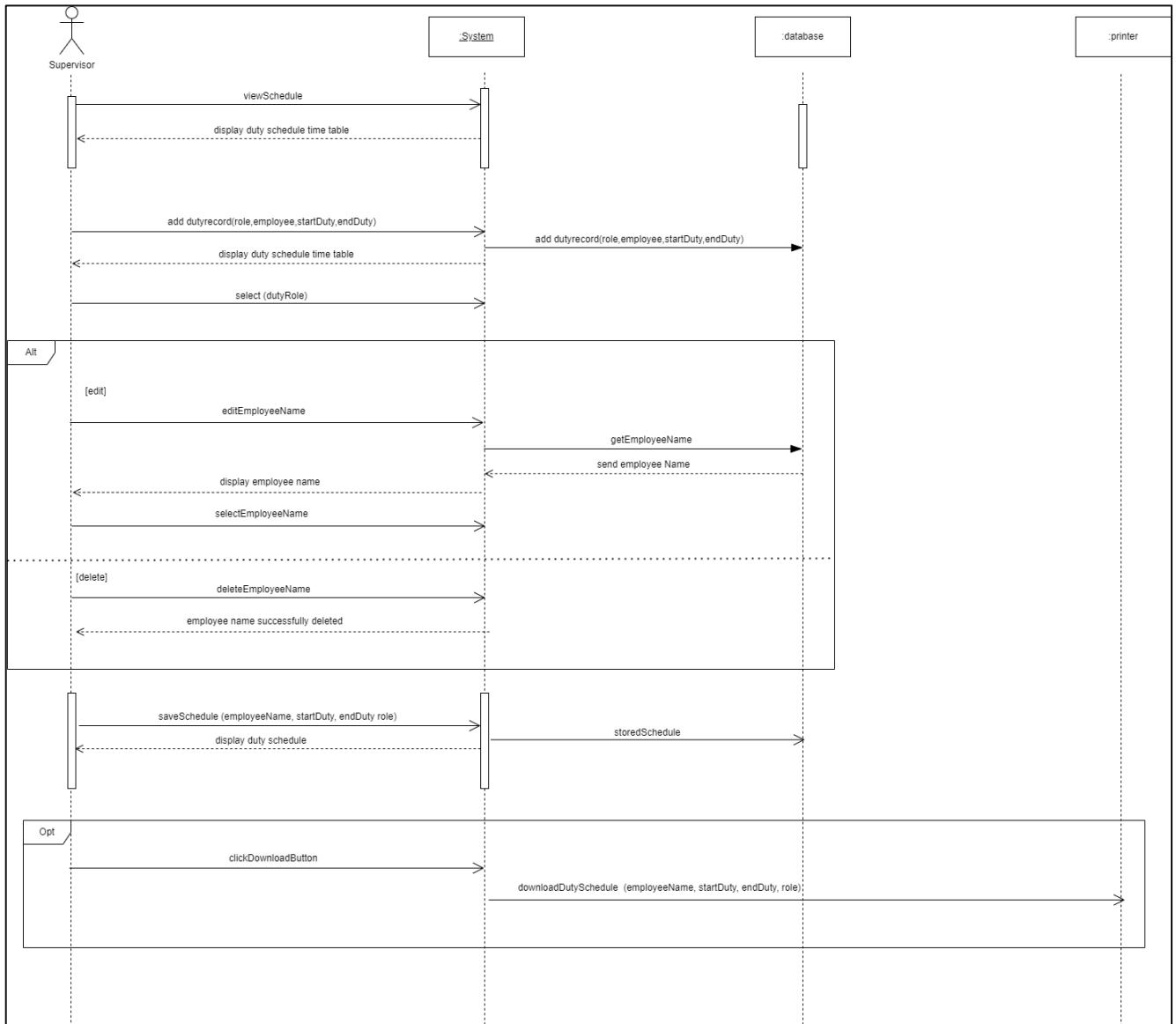

Supervisor View their Attendance

Staff View their attendance
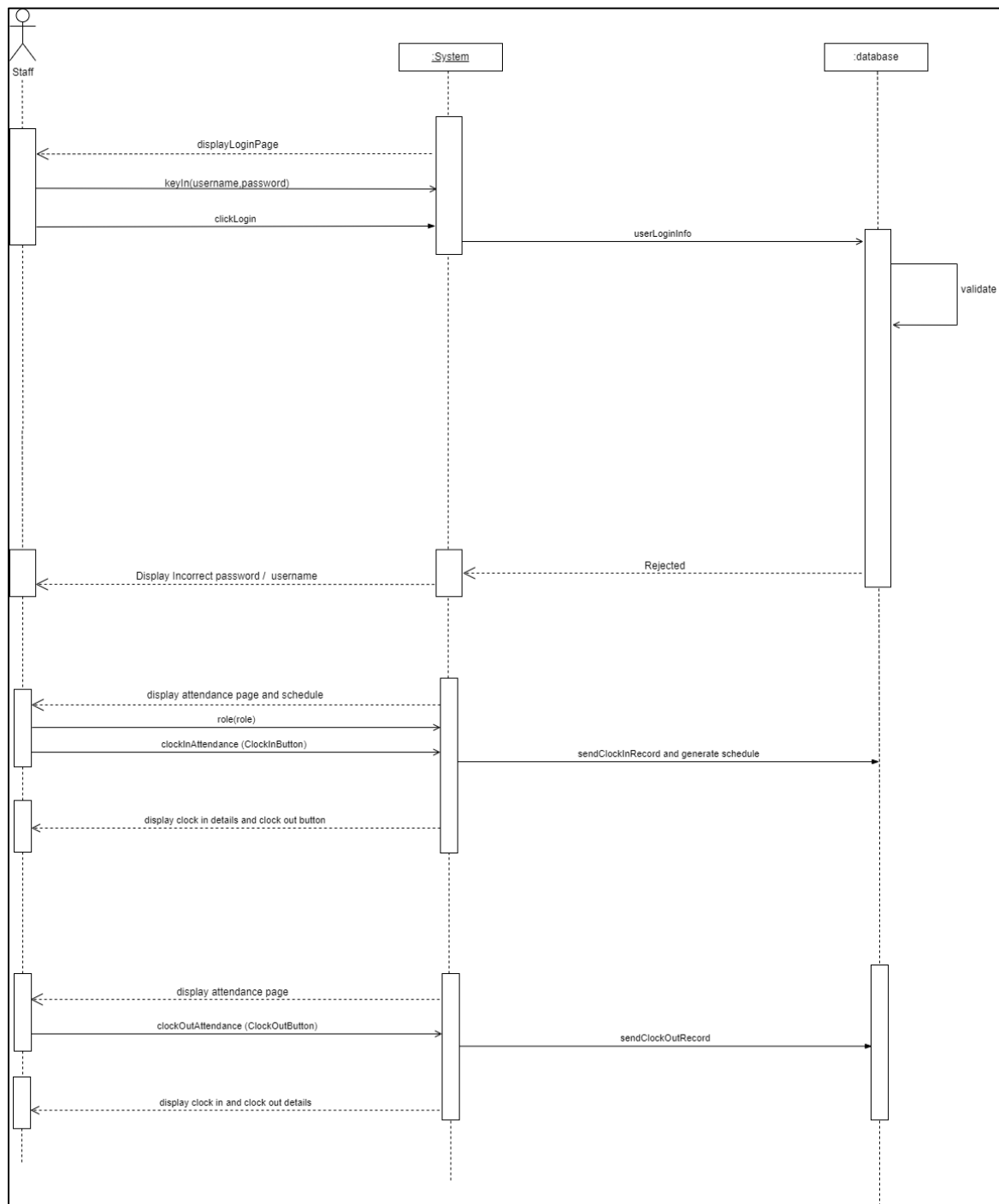

Approve Leave Supervisor

Apply Leave Staff

Manage Duty Schedule

Attendance

APPENDIX C: ISSUES LIST

Software limitation

1. Thumbprint Recognition Reliability:

Description: The thumbprint system for attendance has shown occasional reliability issues, failing to detect fingerprints due to factors such as dirty fingertips, wetness, or finger injuries.

Action: Implement measures to enhance thumbprint recognition accuracy, such as regular maintenance of the thumbprint device and providing guidelines for users.

2. Manual Duty Assignment:

Description: The current process of manually assigning duties to staff by supervisors can lead to inefficiencies and role uncertainties during peak hours.

Action: Develop a feature in the Shift Ease system to automate duty assignment based on predefined schedules and roles, reducing manual intervention.

3. Leave Application Process:

Description: Workers are currently required to apply for leave manually through WhatsApp, leading to potential delays and miscommunication.

Status: Recognized as an issue.

Action: Implement a streamlined leave application process within the Shift Ease system, allowing staff to apply for leave directly, with automated notification to supervisors for approval.