

# **Employee Management System**

**Diploma in Software Engineering**

**Final Project Documentation**

**22.3**

**CODSE22.3F-072    I T Kannangara**

**CODSE22.3F-006    I D V Madhushan**

**CODSE22.3F-022    A D D S Amaratunga**

**CODSE22.3F-021    K C A Silva**

**Year of Submission: 2025**



**School of Computing and Engineering  
National Institute of Business Management  
Colombo-7**

Project title:	Employee management software for Samajaya Pvt Ltd
Student index and name:	CODSE22.3F-072 I T Kannangara CODSE22.3F-006 I D V Madhushan CODSE22.3F-022 A D D S Amaratunga CODSE22.3F-021 K C A Silva
Name of the program:	Diploma in Software Engineering
Supervisor:	Mr. Thisara Weerasinghe
Institution:	School of Computing and Engineering National Institute of Business Management
Date:	12/20/2024

## **Declaration Page**

I certify that this project does not incorporate without acknowledgement any material previously submitted for a Diploma in any institution and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my project report, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations

## **Abstract**

This project involves developing an Employee Management System for Samajaya Micro Capital Limited (SMCL) to replace its inefficient manual processes. The proposed system enhances operations by automating employee details management, attendance tracking, payroll processing, leave requests, task assignments, and performance evaluation.

The system is built using an iterative and incremental development approach, ensuring continuous improvements. It utilizes MySQL, WampServer, and other essential tools to create a secure and scalable platform. Rigorous testing guarantees functionality and adherence to business requirements. Implementation follows a phased approach, running alongside the current system to ensure a seamless transition. By digitizing manual tasks, this solution aims to improve operational efficiency, accuracy, and workforce management, driving productivity and streamlined administration at SMCL.

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# **Chapter 1: Introduction**

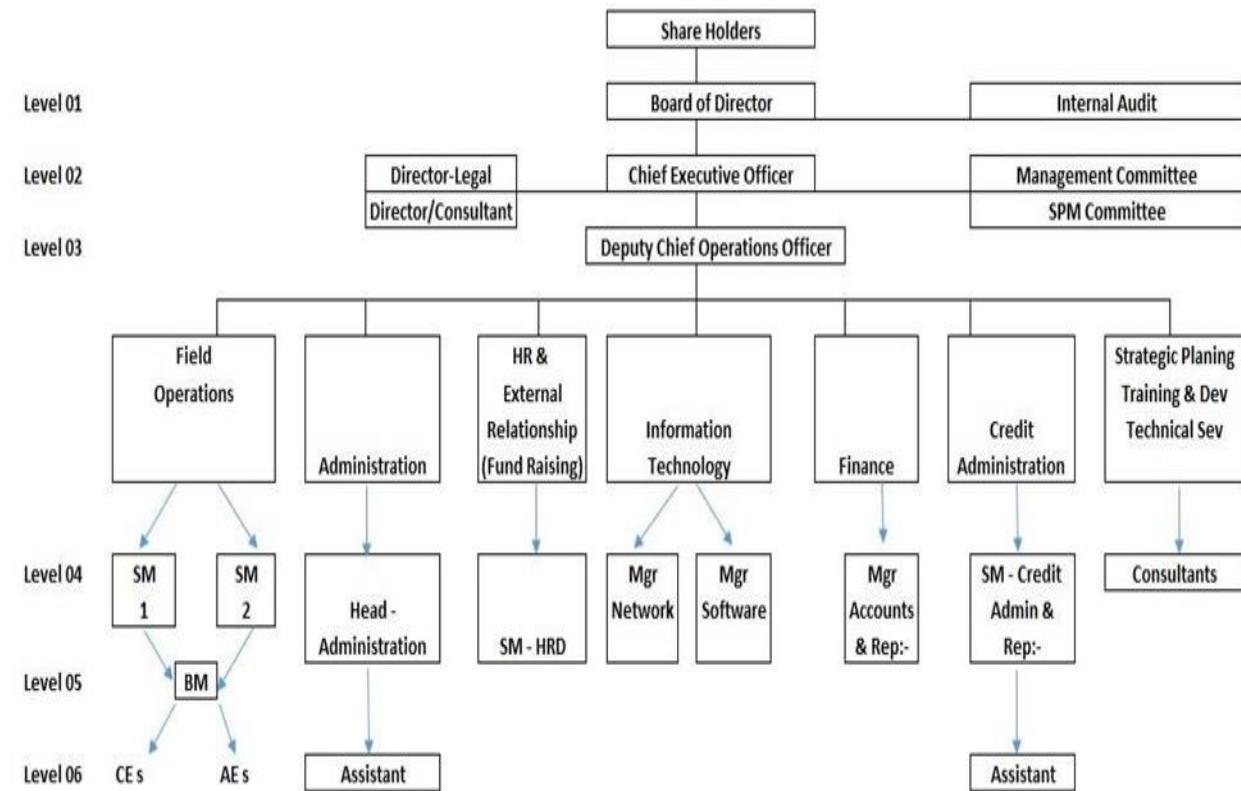
## **1.1 Introduction of the Organization**

“Samajaya Micro Capital Limited (SMCL)” was incorporated as a private limited company, on 27 October 2020, to cater to the urgent financial needs of women to uplift their lives after the devastating consequences to livelihoods due to the Covid-19 Pandemic.

SMCL further wishes to assist its clients in terms of trainings and business plans to advance their businesses forward in the respective areas where SMCL presents to provide financial assistance.

SMCL envisions, providing innovative financial services to the clients to enable significant improvements in financial inclusion as against the competitors in the market. Further, SMCL promotes digital finance solutions from inception to motivate clients in line with government and CBSL objectives of digital financing. (Central Bank of Sri Lanka announced year 2020 as “Digital 2020”)

## **1.2 Organization Structure**



### **1.3 Current Operations in Organization**

- Organization specializes in providing financial loan services.
- Offering a range of loan products to our customers, including Educational loans, Center loans, Emergency loans, Housing loans and Micro enterprise loan.
- Primarily revolve around assessing loan applications, determining eligibility, disbursing loans, and managing loan repayments.

### **1.4 Users and Responsibilities of the Organization**

- Director Panel: Provides strategic leadership, governance, and oversight of the organization's activities.
- Loan Operations Team: Responsible for assessing loan applications, determining eligibility, and managing loan disbursements and repayments.
- Customer Service Team: Provides support, addresses inquiries, and ensures a positive customer experience.
- Loan Officers: Interact directly with loan applicants and manage the loan approval process.
- Operations Staff: Manages various internal operations to ensure the smooth functioning of the organization.
- HR Team: Manages human resources, personnel recruitment, and staff development.
- IT Staff: Manages and maintains the organization's internal IT systems.

### **1.5 Problem Definition**

- The current company operations lack an integrated Employee Management System to efficiently handle employee attendance, work hours, leave management, payroll, and field operations.
- The absence of a centralized, technology-driven solution creates challenges in maintaining accurate attendance records, payroll processing, performance tracking, and overall workforce management across branches.

## 1.6 Project Objectives

- Develop and implement a comprehensive Employee Management System tailored to the organization's structure and operational needs.
- Ensure accurate tracking and management of employee attendance, working hours, leaves, payroll, and performance reviews.
- Streamline workforce management processes across different departments and branches.
- Enhance operational efficiency, transparency, and employee satisfaction through a user-friendly, secure, and scalable solution.

## 1.7 Proposed Solution

To address the company's growing operational needs, we propose the development of a **Smart Employee Management System**. This system will integrate multiple modules including:

- **Secure Employee Authentication** for HR personnel, Accountants, Field Operation Staff, and IT Operators.
- **Attendance Management** using fingerprint/QR code scanning, with real-time monitoring of working hours and daily activities.
- **Employee Self-Service Portal** for viewing attendance history, submitting leave requests, updating profiles, and checking work goals.
- **Leave and Resignation Management** allowing employees to apply for leaves and resignations while enabling HR to manage approvals.
- **Payroll Management** automating payslip generation, attendance-based salary calculations, overtime, tax deductions, and other financial processes.
- **Task and Goal Management** for Field Operations with features to create, assign, update, prioritize, and track task progress.
- **Performance Review System** with feedback collection, improvement planning, and automated performance reporting.

This all-in-one platform will enhance organizational efficiency by automating manual processes, improving data accuracy, and providing real-time insights for informed decision-making.

## **Functional Requirements**

### **1. Employee Registration and Authentication**

- Secure registration of employees with unique QR codes/fingerprints and role-based login authentication.

### **2. Attendance Tracking**

- QR code or fingerprint-based check-in/check-out, with real-time logging of work hours and attendance history.

### **3. Leave Management**

- Employee submission of leave requests via the portal and real-time status updates by HR.

### **4. Resignation Management**

- Submission and management of both voluntary and involuntary resignations through the system.

### **5. Payroll Processing**

- Attendance-based salary computation, overtime management, allowances, deductions, payslip generation, and tax rate management.

### **6. Employee Dashboard**

- Personalized dashboard providing attendance history, working hours, leave balances, tasks, and performance summaries.

### **7. Task Management for Field Operations**

- Creation, assignment, deadline setting, priority tagging, and progress tracking of tasks.

### **8. Goal Setting and Performance Review**

- Goal assignment, feedback collection, evaluation, and generation of performance improvement reports.

## **9. Penalty Management for Late Attendance**

- Automatic detection of late arrivals, employee submission of reasons, HR review interface, and penalty adjustments.

## **10. Reporting and Notifications**

- Auto-generated daily, weekly, and monthly reports on attendance, payroll, and performance sent to management.
- Notification system to alert employees about HR actions, leave updates, and task assignments.

## **Non-Functional Requirements**

- **Data Security and Privacy:** Strict data protection protocols for employee personal, attendance, and payroll data.
- **User-Friendly Interface:** Simple, intuitive design for employees and admin users.
- **Real-Time Data Processing:** Instant updates across all modules upon employee actions or HR changes.
- **Scalability:** Ability to support increasing numbers of employees and branches.
- **Cross-Browser and Mobile Compatibility:** Full functionality across different browsers and devices.
- **High System Availability:** Reliable system uptime to support 24/7 accessibility.
- **Efficient QR/Barcode Scanning:** Fast and accurate scanning operations.
- **Automated Reporting:** Scheduled daily generation of attendance and performance reports.
- **Notification System:** Integrated alert system for approvals, updates, and reminders.

## **1.8 Chapter Summary**

This chapter introduces the projects, highlighting introduction to the organization, organization structure, Current operations in organization, users and responsibilities, problem definition, project objectives, proposed solution. The aim of this chapter is to provide a clear understanding of the background of the organization.

## **Chapter 2: Methodology**

### **2.1 Introduction**

This section outlines the strategies and methodologies for achieving the project objectives of creating a comprehensive Employee Management System that supports attendance, payroll, task management, and performance evaluation.

### **2.2 Data collection methods**

- Surveys and Questionnaires: Distributed among employees, HR personnel, accountants, and IT operators to gather operational insights and system expectations.
- Interviews: Conducted with key stakeholders such as Field Operation staff, COO, and HR managers to better understand system requirements.
- Existing Data Sources: Analysis of existing manual attendance logs, payroll documents, and performance records.
- Observation: On-site observations at both branches to study current attendance and task tracking practices and identify pain points.

### **2.3 Software Process Model**

- The project will follow an Agile Development Model to allow incremental development, continuous feedback, and flexible adjustments based on user requirements.
- Agile's iterative approach ensures that we can adapt to organizational needs and integrate new features seamlessly.

### **2.4 Software Development Tools**

- Apache NetBeans IDE 19: Selected for coding and designing was Apache NetBeans IDE 19. This is an integrated development environment that's well-supported, with rich features for Java development.
- Visual Code: VS Code is selected because it is more flexible, it supports most languages, and it also has a wide range of features that allow the coding experience to be enhanced.

- MySQL-8.1: Is a reliable, scalable, RDBMS system that will support the storage of data.
- mysql-connector-j-8.1.0.jar: It is used for connecting databases and java applications. A JDBC driver creates a link to communicate between java application and MySQL database.
- Wampserver-3.3.0-64bit: Used to generate the instance environment for the development project.
- Draw.io: Used to illustrate diagrams such as ER diagrams, Use case diagram.
- Microsoft Word: Microsoft Word is used for documentation purposes.
- Figma: Use to design user interfaces.

## **2.5 Testing Strategies**

- Unit Testing: Each major function is unit tested separately to ensure that each component is working as intended.
- Integration Testing: Integrates different components checks whether they are working as intended as a system.
- System Testing: Tests the complete system and functionalities are working as intended.
- User Acceptance Testing (UAT): Client validates that the system is working as intended and their requests were met.

## **2.6 Implementation Plan**

- Parallel Implementation: Parallel implementation means the old manual system and new system are running parallel to each other. Both systems can be accessed by users. Some advantages of parallel implementation are
  - Less Risk: Reduces the risk of downtime since both systems are running parallel.
  - Data Integrity: Since the old system is still functional, it acts as a backup which ensures date integrity.
  - Learning Time: Users can gradually get familiar with the new system.

## **2.7 Chapter Summary**

This chapter highlights how the software development process is planned out from data collection methods to Implementation phase. We have discussed software development tools that will be used to develop the system. Which testing strategies are used to check functional behavior and implementation strategy to ensure smooth deployment.

## **Chapter 3: Analysis**

### **3.1 Introduction**

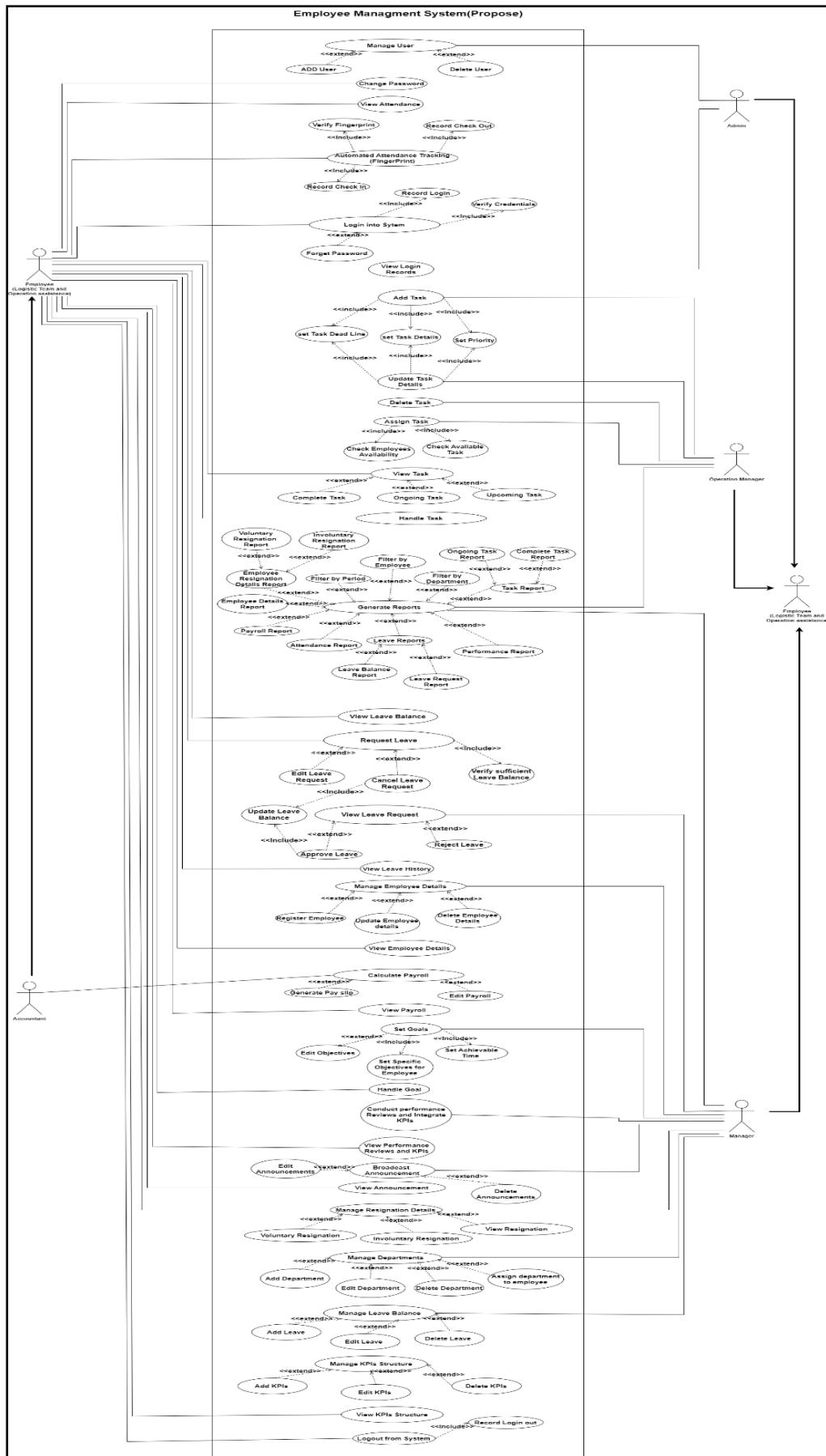
This section highlights the analysis of the system that is designing diagrams such as case diagrams, class diagrams, Entity related diagrams and sequence diagrams are used to plan the system architecture. By adherence to this we ensure that the system is developed properly and robustly.

### 3.2 UML Diagram.

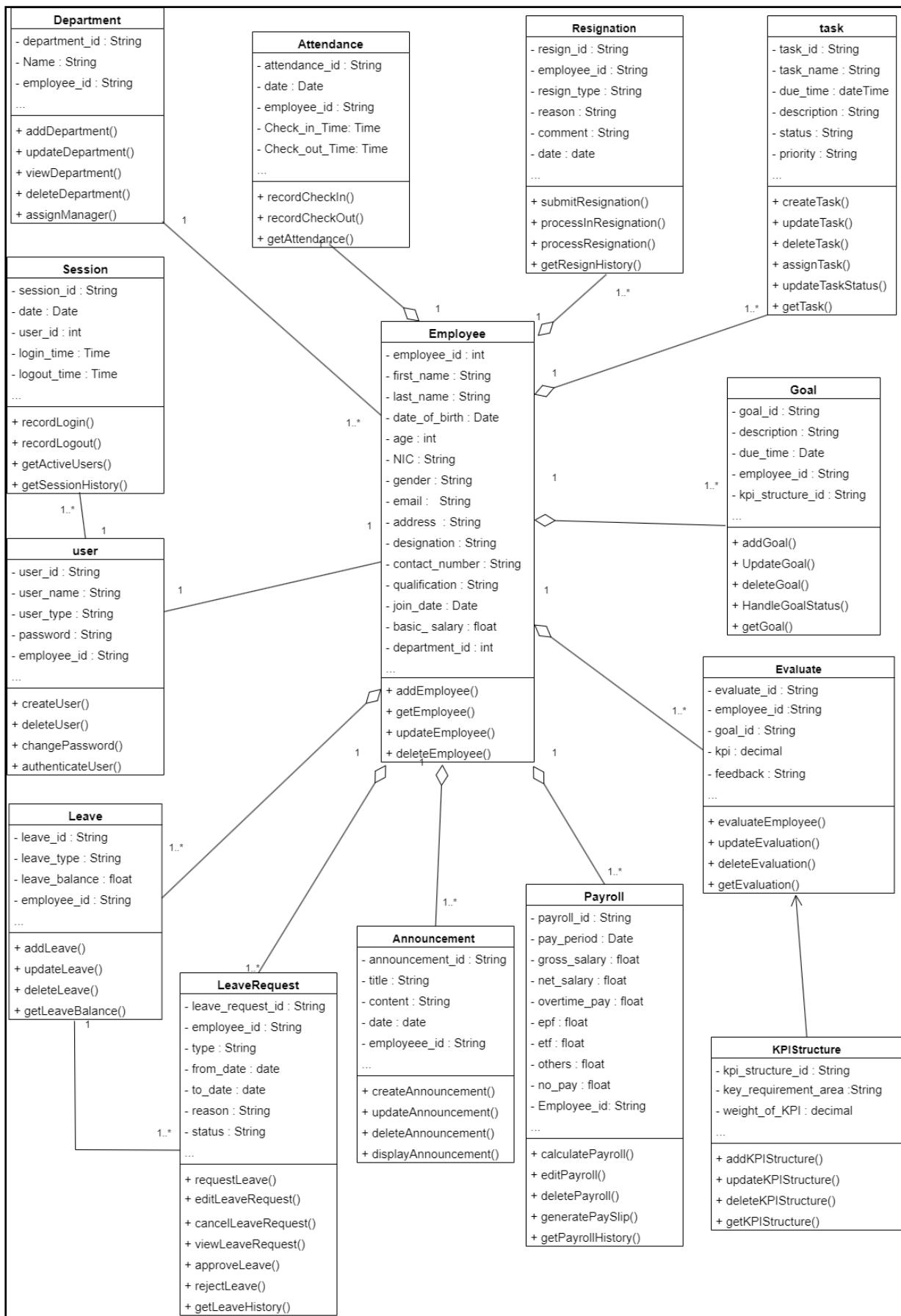
Use Case Diagram of Current System



## Use Case Diagram of Proposed System.



## Class Diagram of Proposed System.

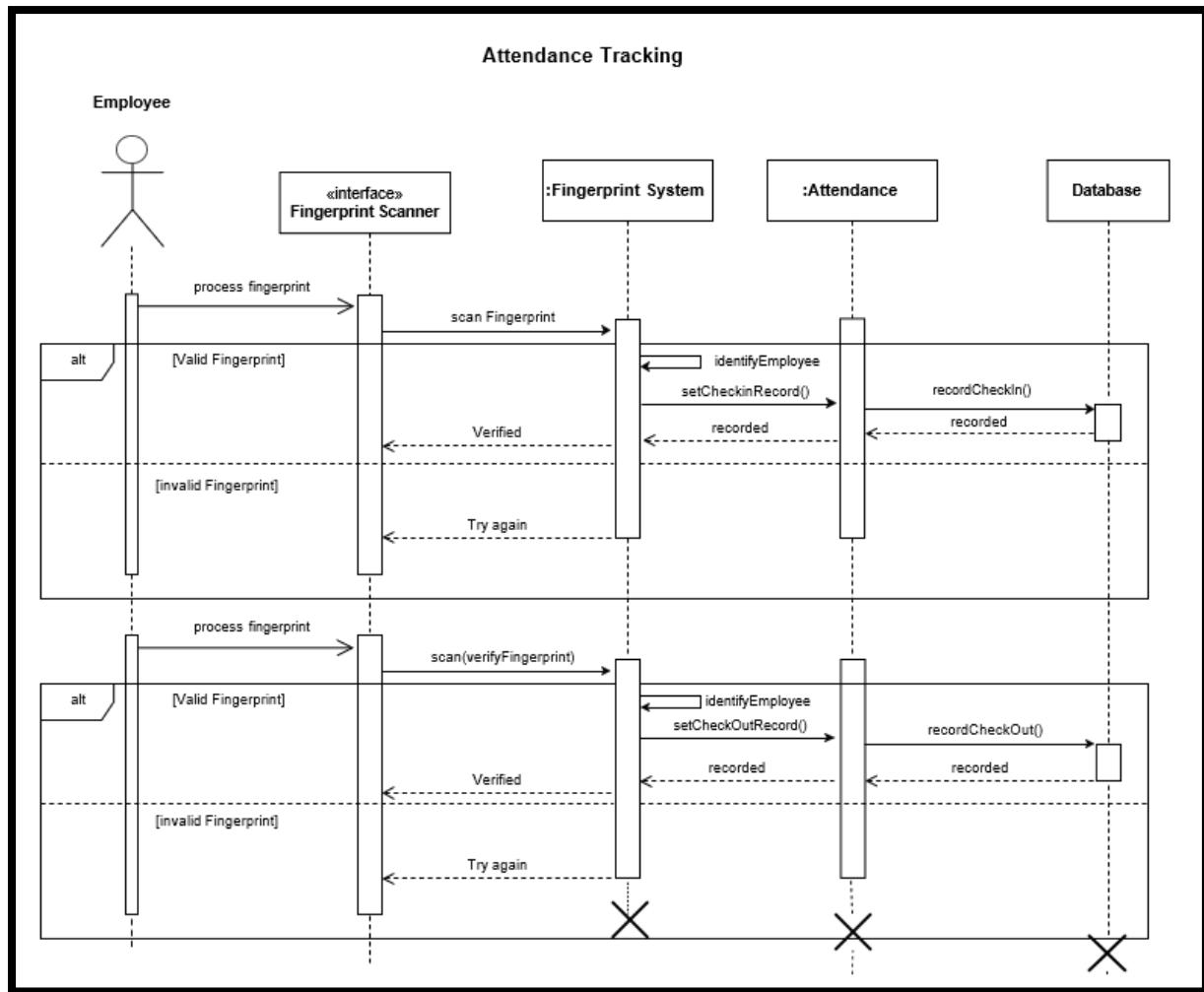


## Sequence Diagrams (Each Use case) for Proposed System.

Sequence Diagram No: 01

Sequence Diagram Name: Attendance Tracking

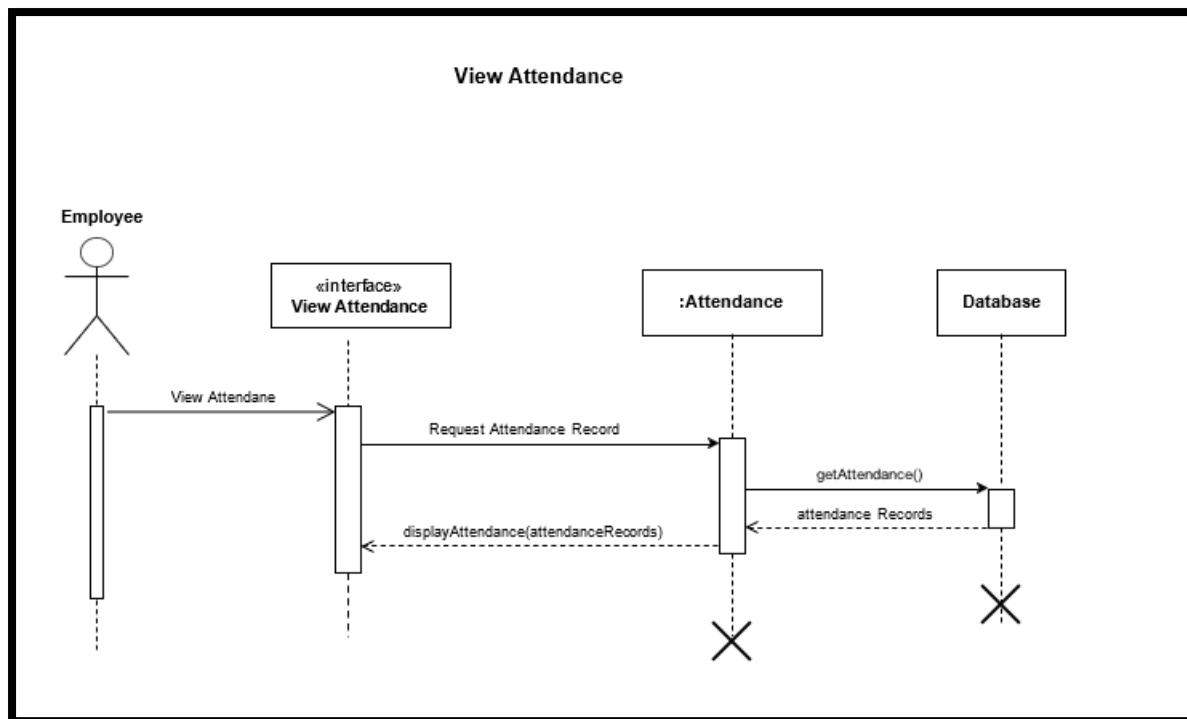
Sequence Diagram Description: Displays the flow of information regarding attendance tracking with fingerprint scanner system.



## Sequence Diagram No: 02

Sequence Diagram Name: View Attendance

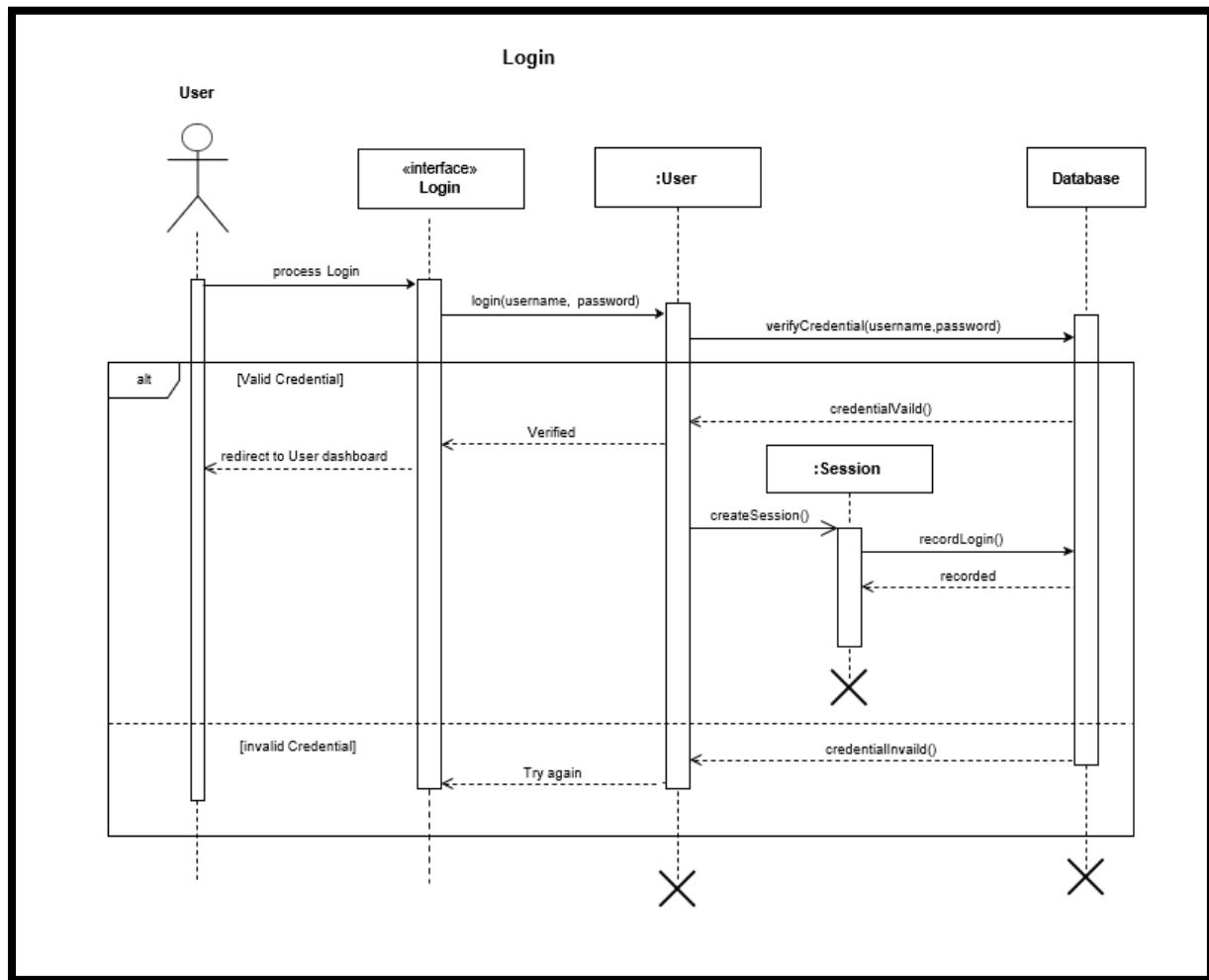
Sequence Diagram Description: Displays the flow of information when requesting attendance details



## Sequence Diagram No: 03

Sequence Diagram Name: Login

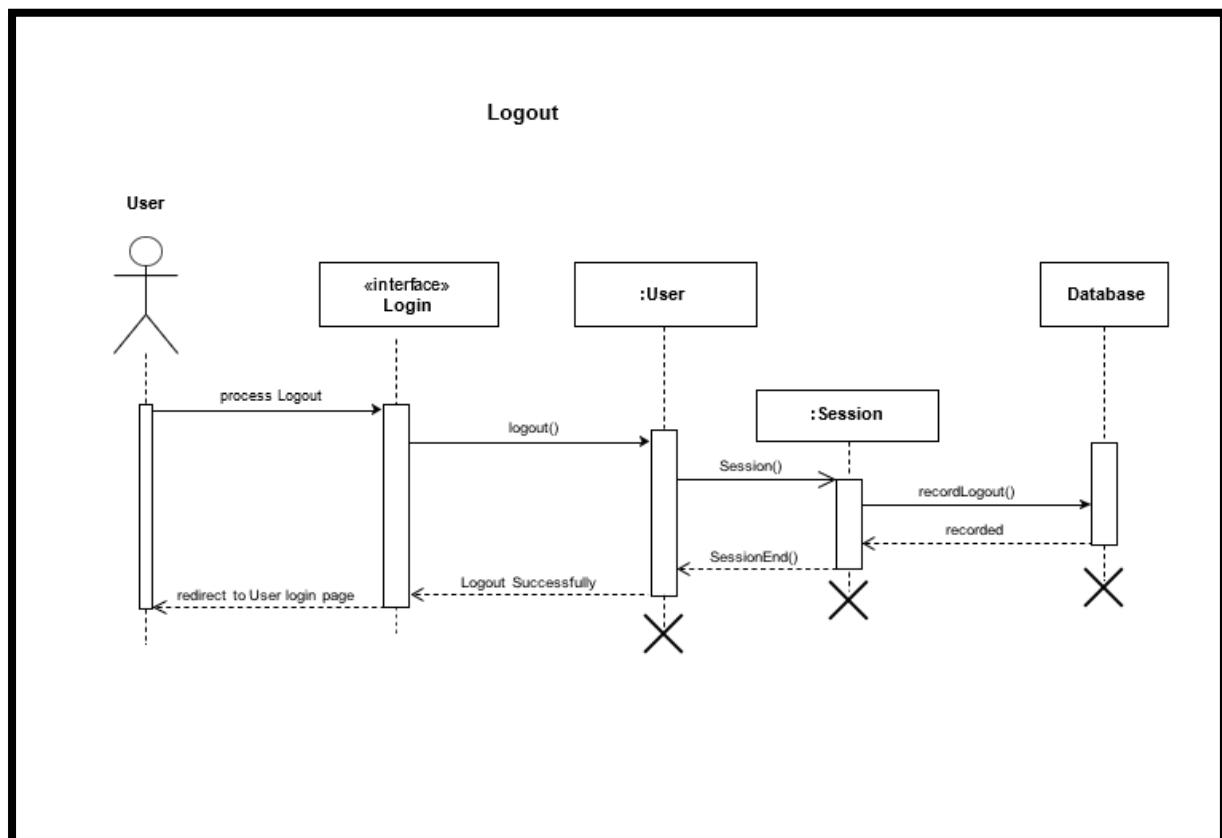
Sequence Diagram Description: Displays the flow of information when logging in to the system.



## Sequence Diagram No: 04

Sequence Diagram Name: Logout

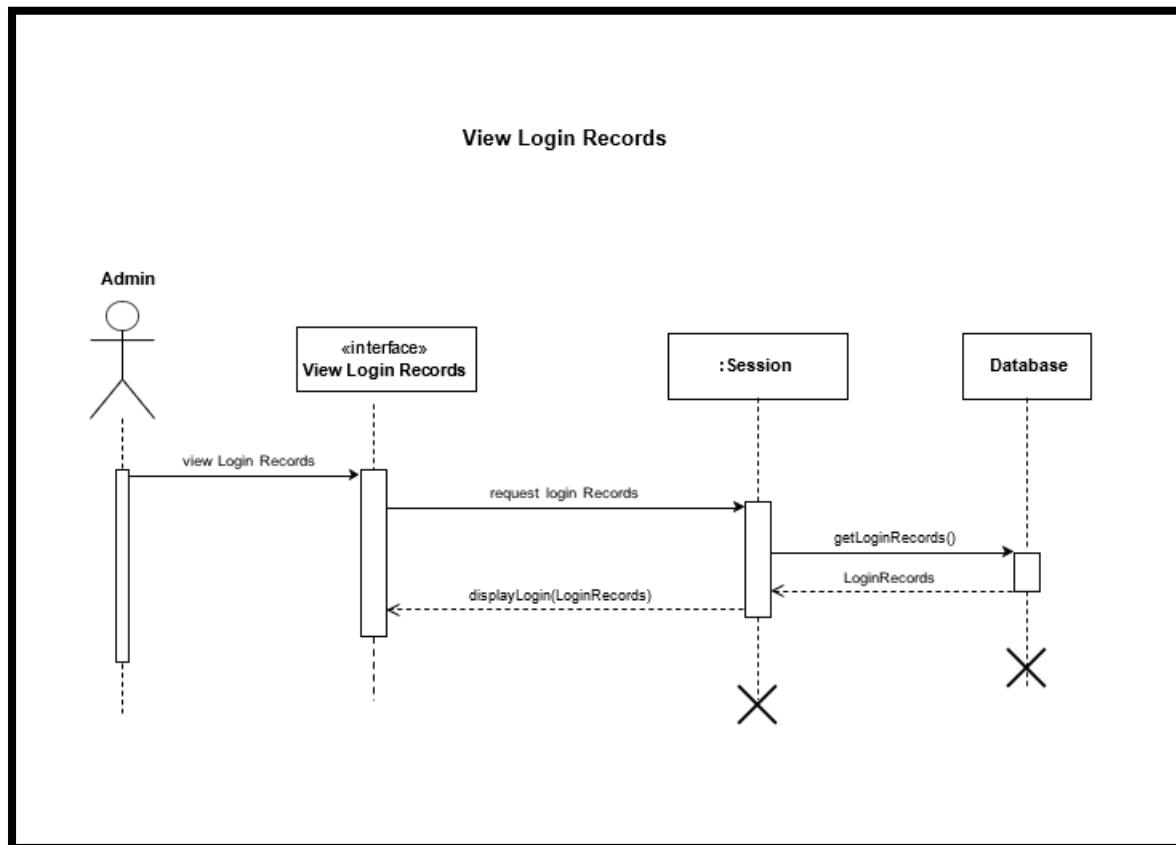
Sequence Diagram Description: Displays the flow of information when logging out of the system.



## Sequence Diagram No: 05

Sequence Diagram Name: View login Records

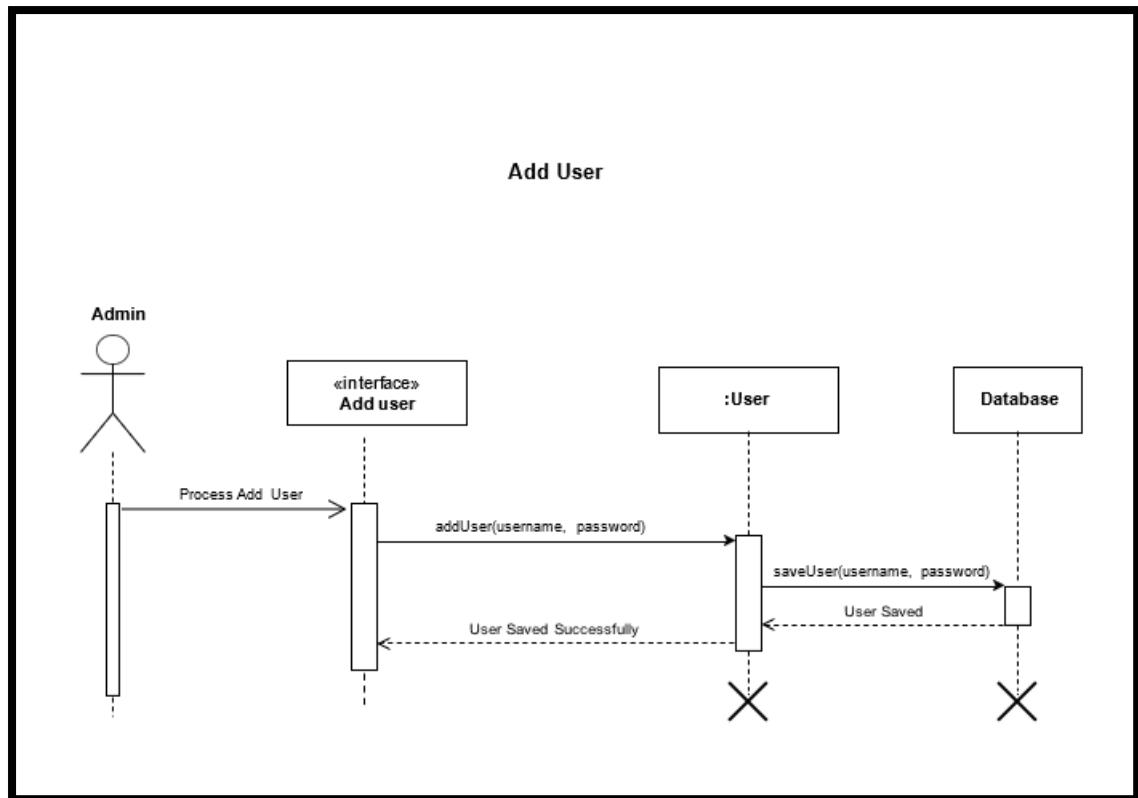
Sequence Diagram Description: Displays the flow of information when requesting to view login information.



## Sequence Diagram No: 06

Sequence Diagram Name: Add users

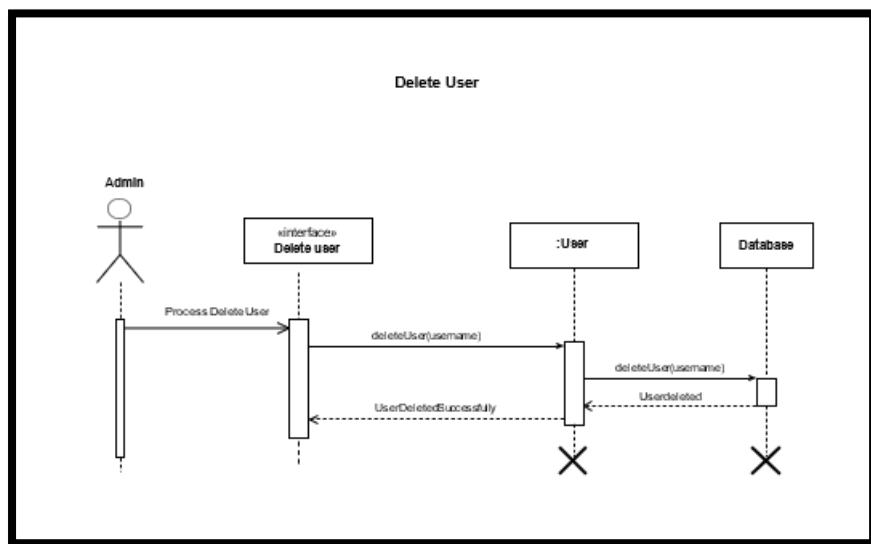
Sequence Diagram Description: Displays the flow of information when adding a user to the system.



## Sequence Diagram No: 07

Sequence Diagram Name: Delete user

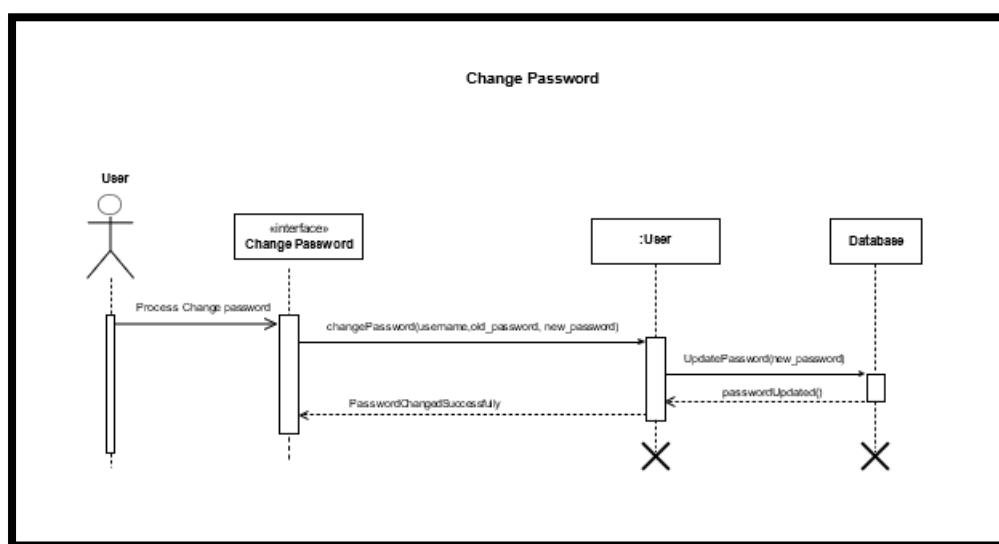
Sequence Diagram Description: Displays the flow of information when deleting a user from the system.



## Sequence Diagram No: 09

Sequence Diagram Name: Change password

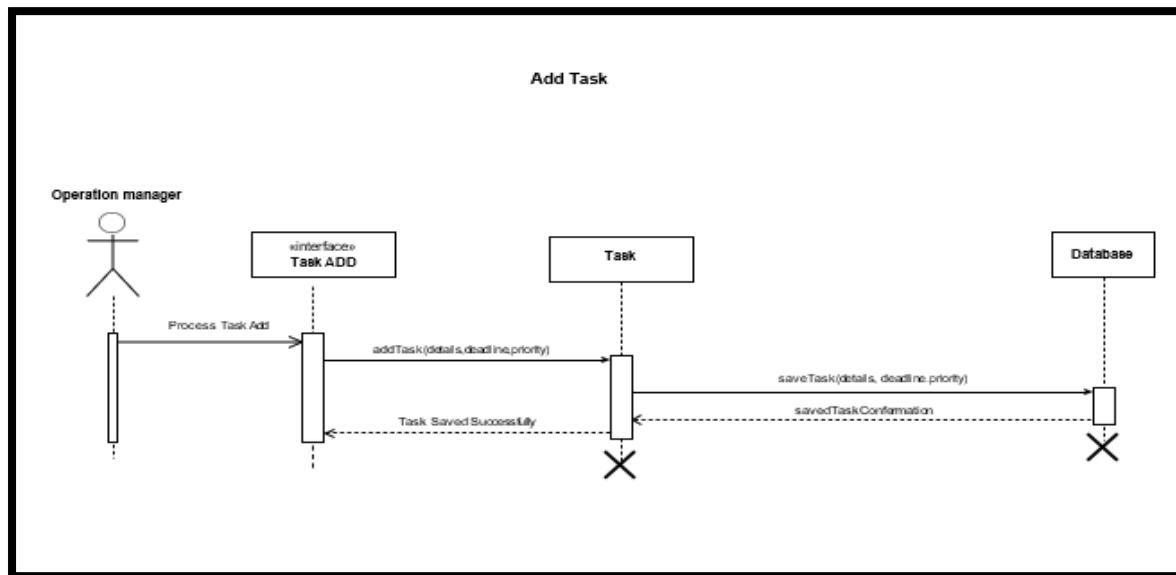
Sequence Diagram Description: Displays the flow of information when requesting to change password



## Sequence Diagram No: 08

Sequence Diagram Name: Add task

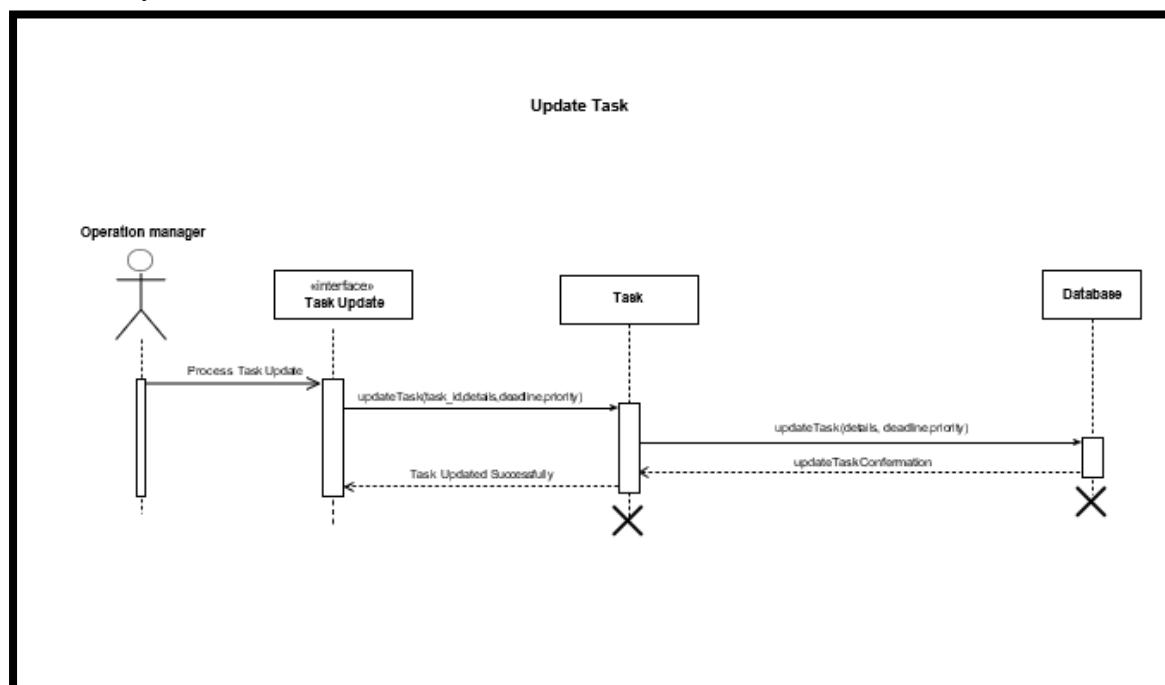
Sequence Diagram Description: Displays the flow of information when adding a task to the system.



## Sequence Diagram No: 10

Sequence Diagram Name: Update task

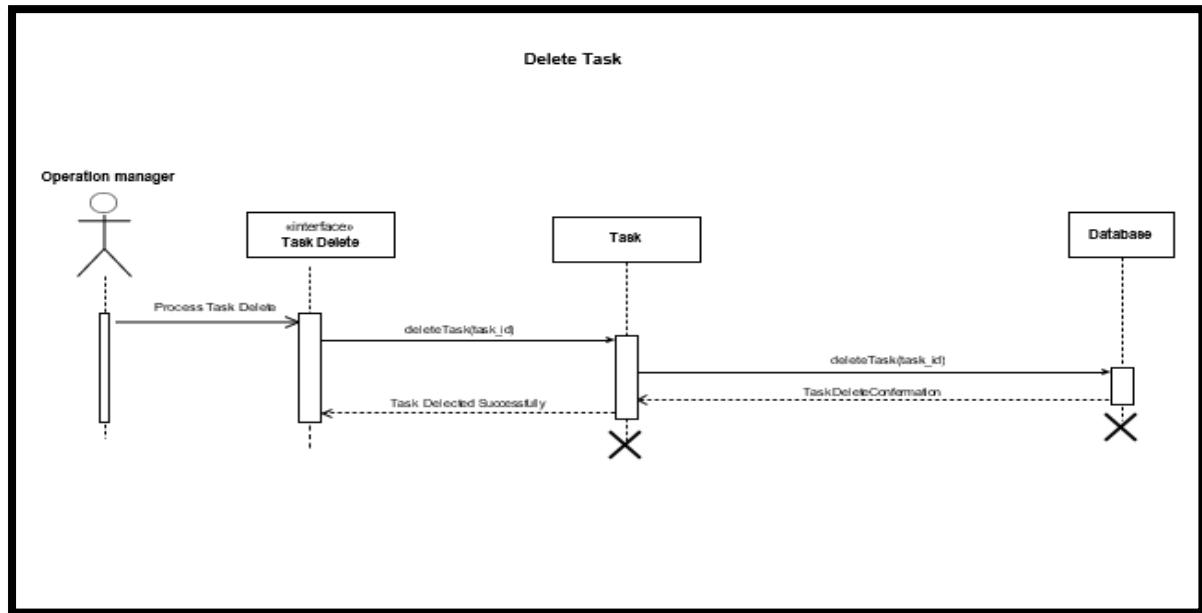
Sequence Diagram Description: Displays the flow of information when updating an existing task in the system.



## Sequence Diagram No: 11

Sequence Diagram Name: Delete task

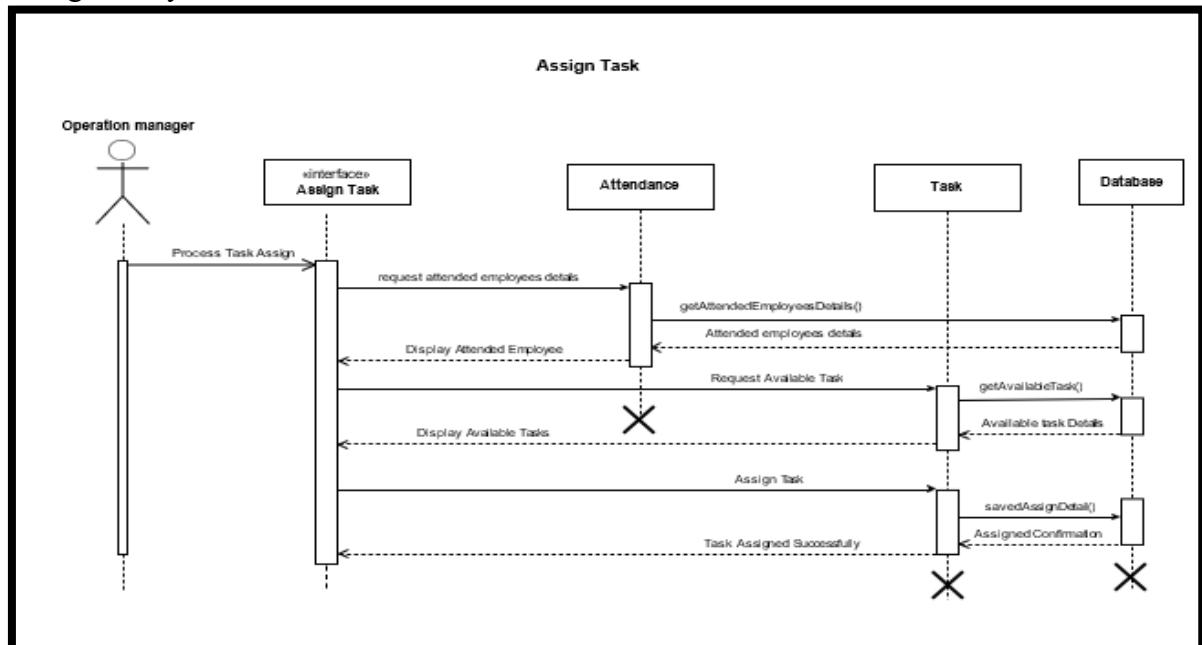
Sequence Diagram Description: Displays the flow of information when requesting to delete a task from the system.



## Sequence Diagram: 13

Sequence Diagram Name: Assign task

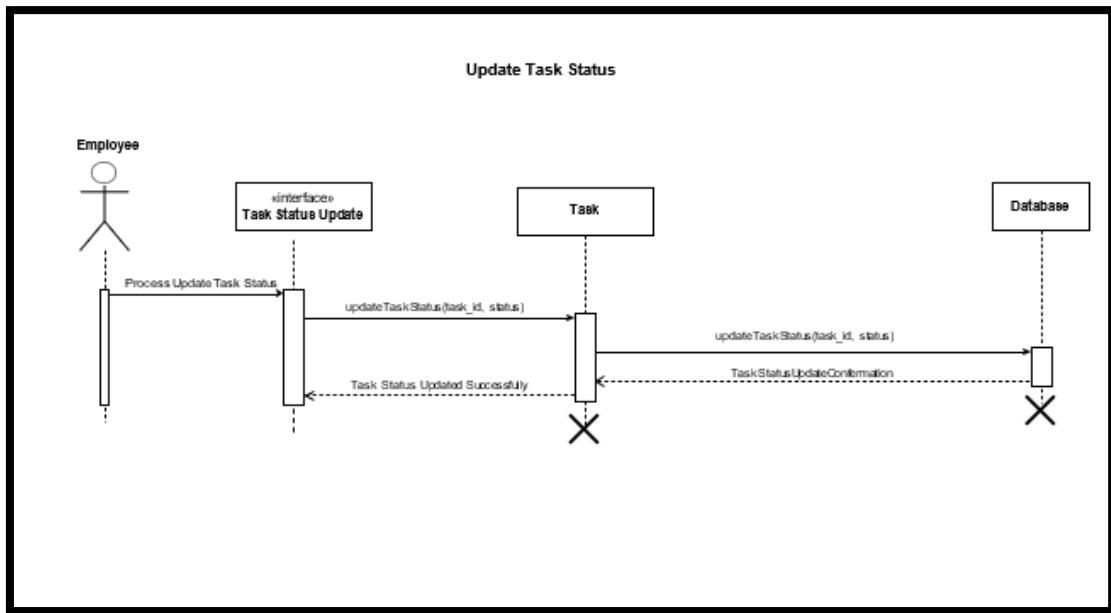
Sequence Diagram Description: Displays the flow of information when assigning a task through the system.



## Sequence Diagram No: 12

Sequence Diagram Name: Update task status

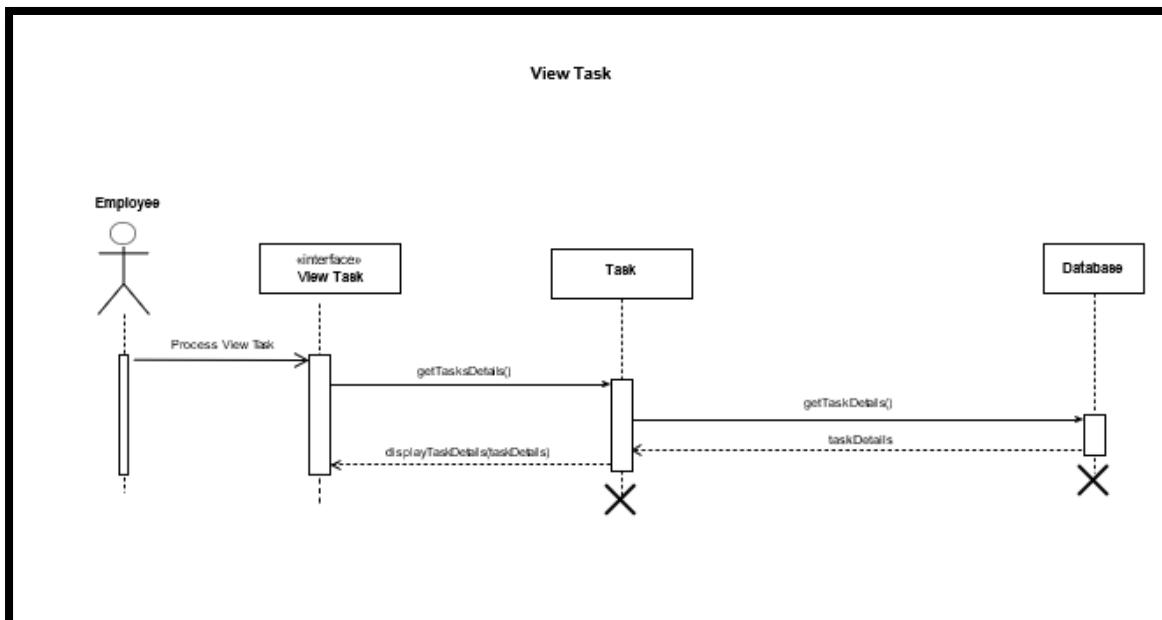
Sequence Diagram Description: Displays the flow of information when updating task status through the system.



## Sequence Diagram No: 14

Sequence Diagram Name: View task

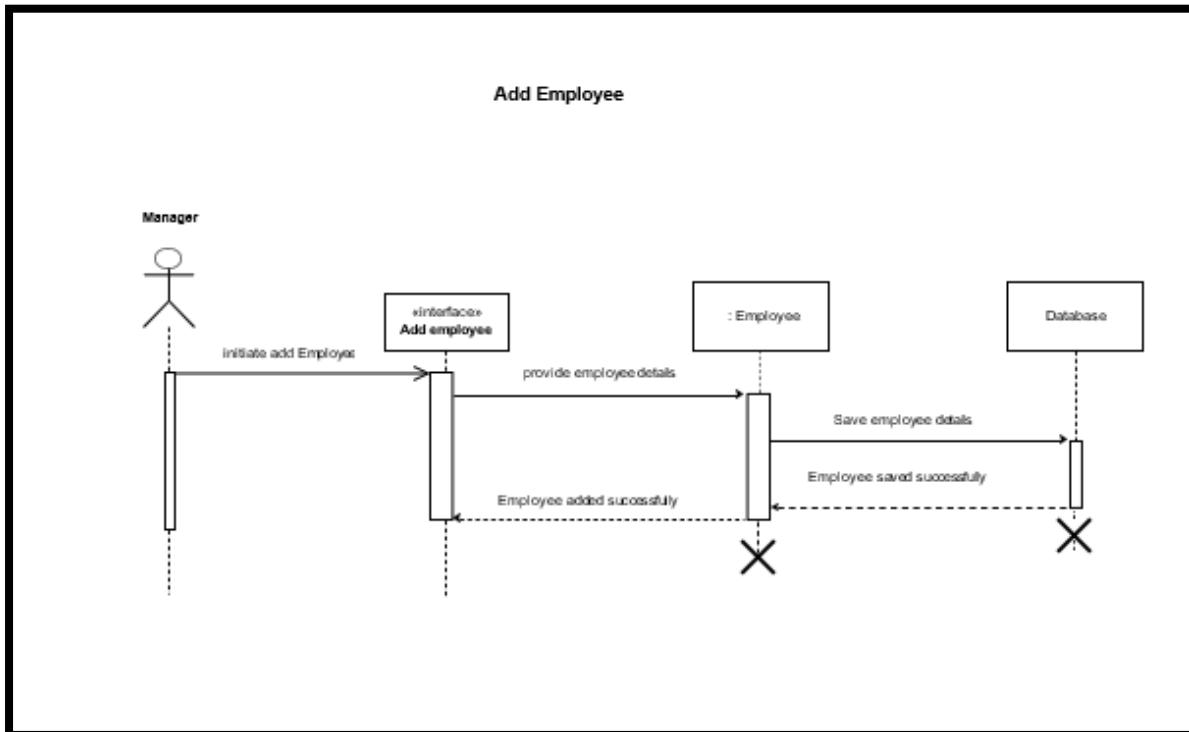
Sequence Diagram Description: Displays the flow of information when requesting to view tasks in the system.



## Sequence Diagram No: 15

Sequence Diagram Name: Add employee

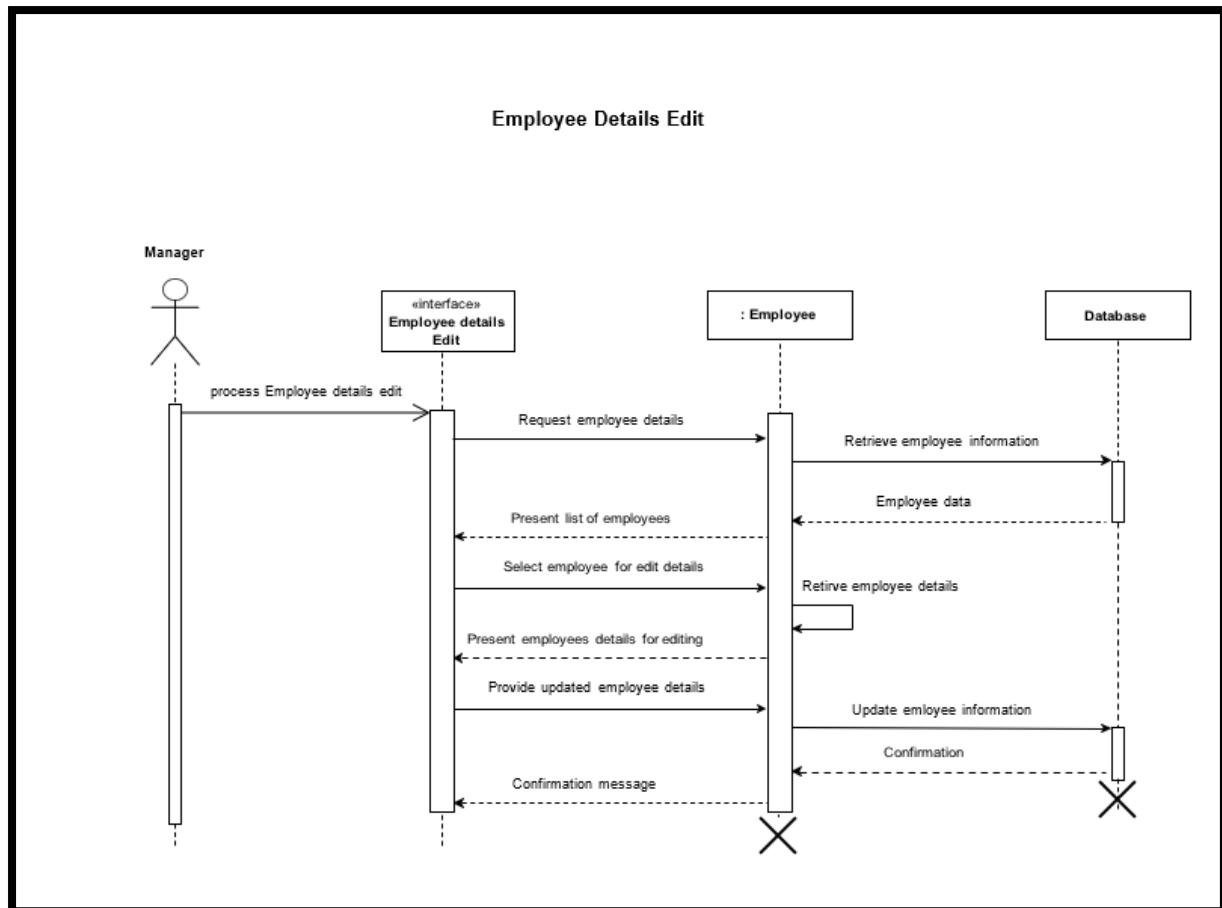
Sequence Diagram Description: Displays the flow of information when adding an employee to the system.



## Sequence Diagram No: 16

Sequence Diagram Name: Edit Employee details

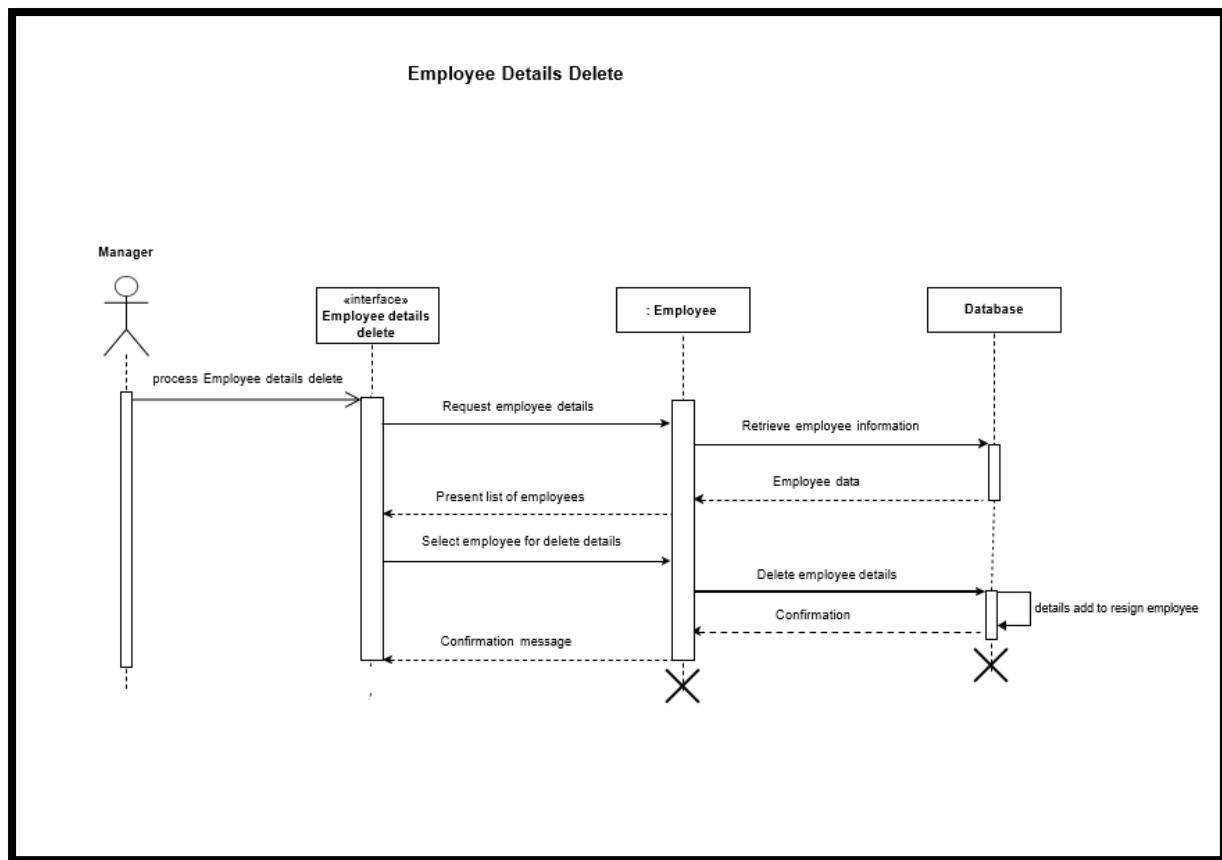
Sequence Diagram Description: Displays the flow of information when editing employee details using the system.



## Sequence Diagram No: 17

Sequence Diagram Name: Delete employee details.

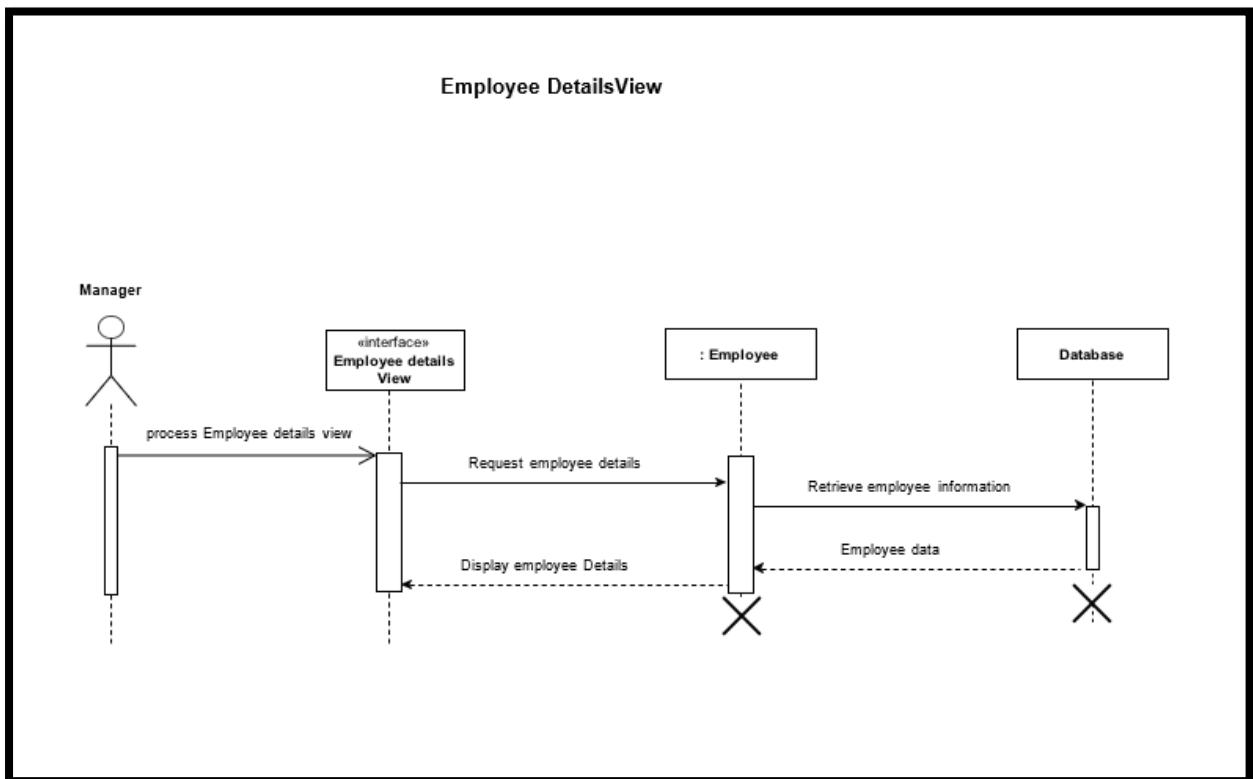
Sequence Diagram Description: Displays the flow of information when deleting employee details.



## Sequence Diagram No: 18

Sequence Diagram Name: View employee details

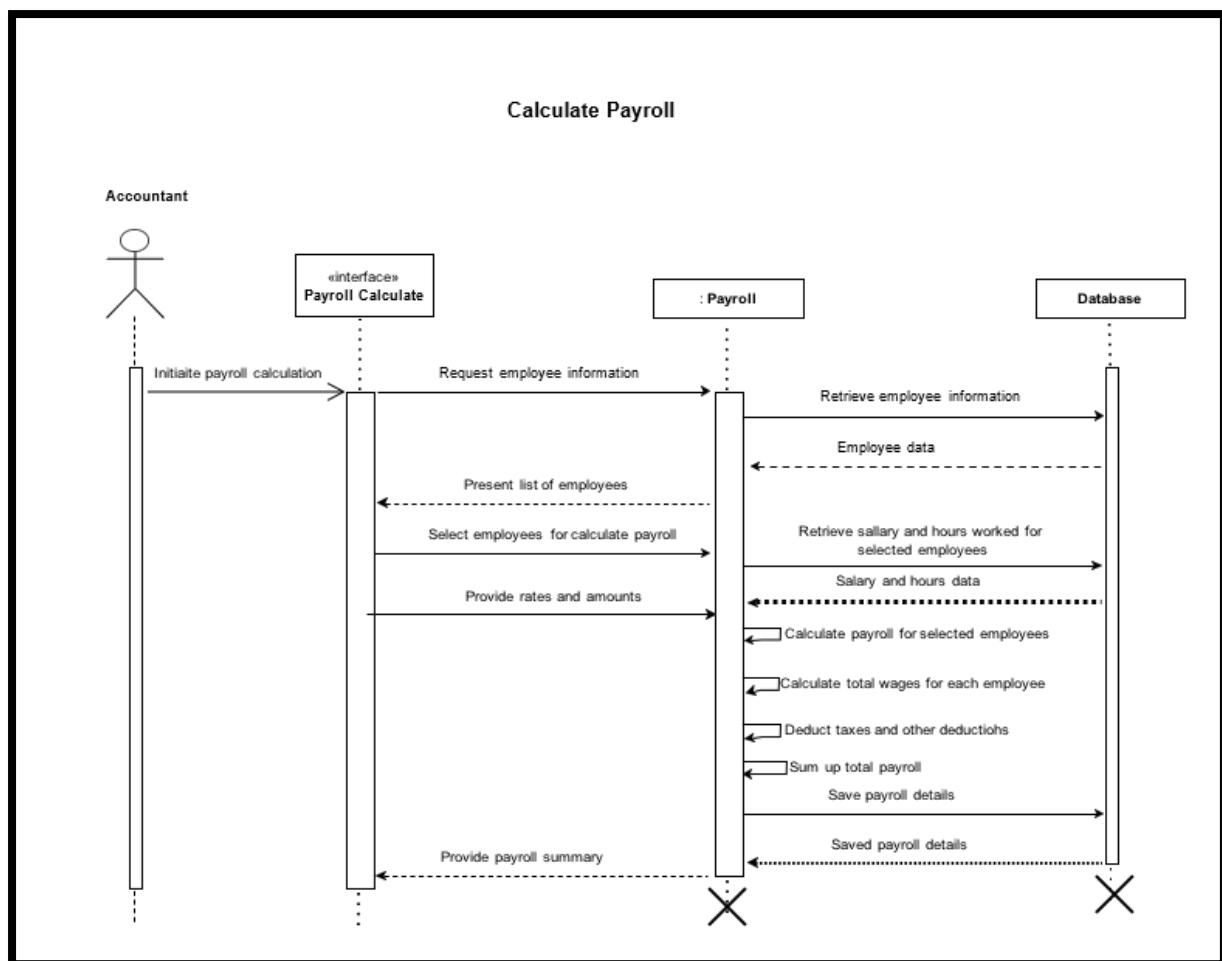
Sequence Diagram Description: Displays the flow of information when viewing employee details.



## Sequence Diagram No: 19

Sequence Diagram Name: Calculate payroll

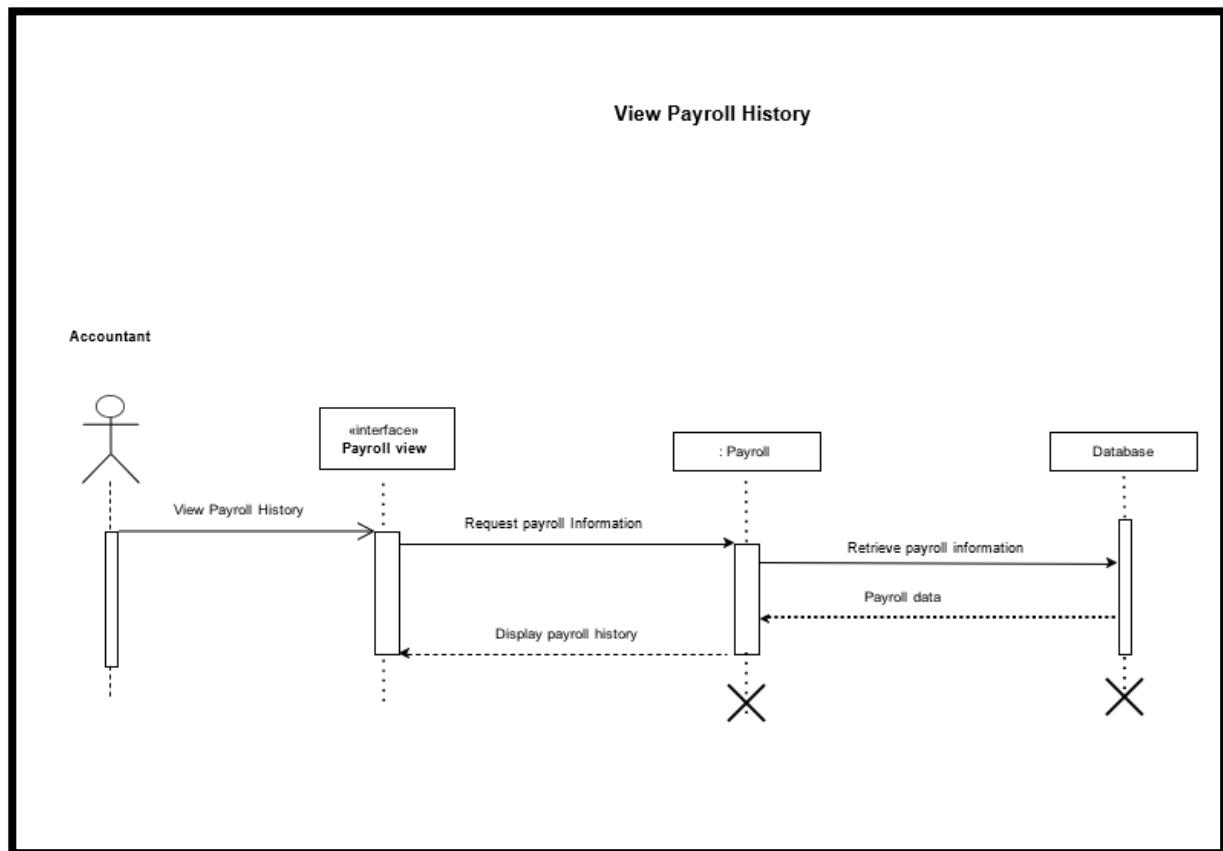
Sequence Diagram Description: Displays the flow of information when calculating payroll through the system.



## Sequence Diagram No: 20

Sequence Diagram Name: View payroll history

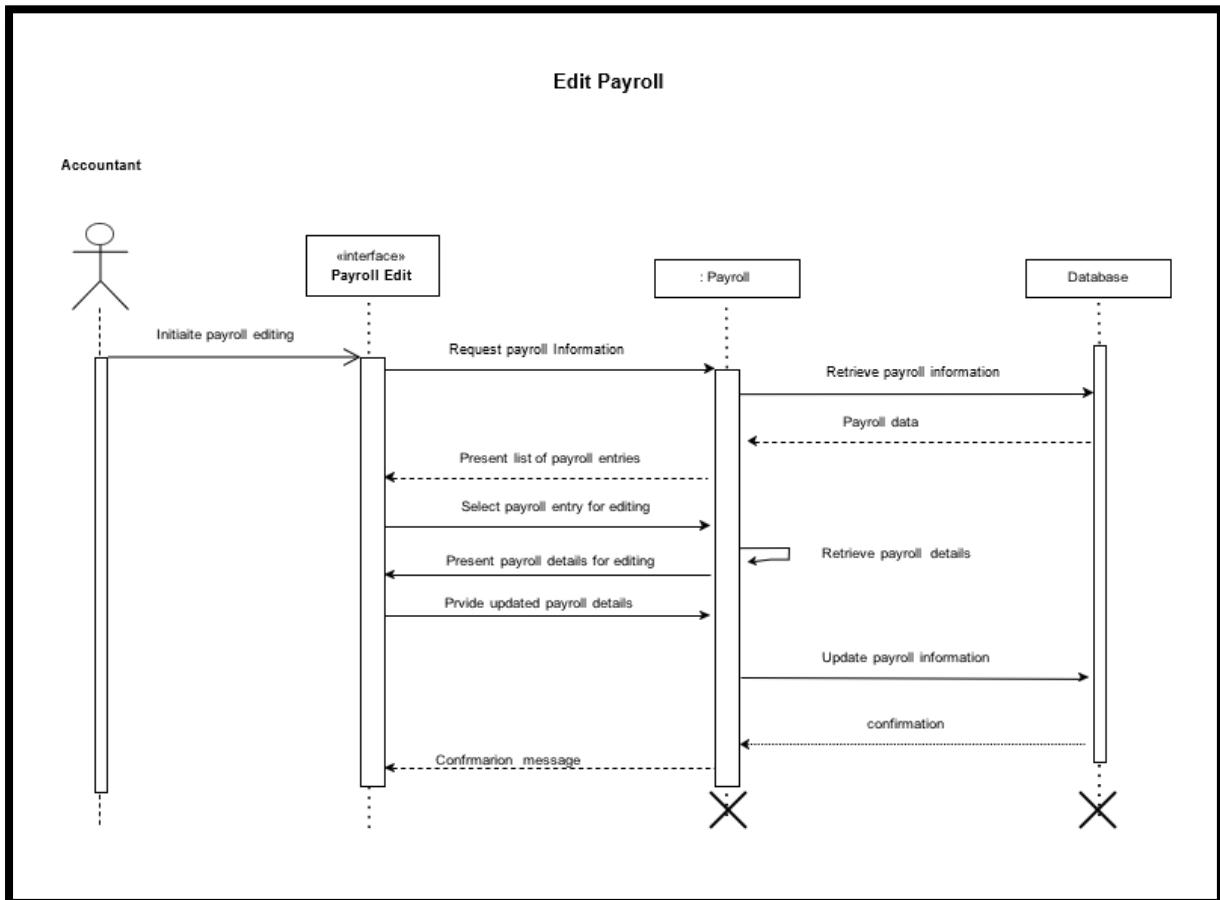
Sequence Diagram Description: Displays the flow of information when requesting payroll history.



## Sequence Diagram No: 21

Sequence Diagram Name: Edit payroll

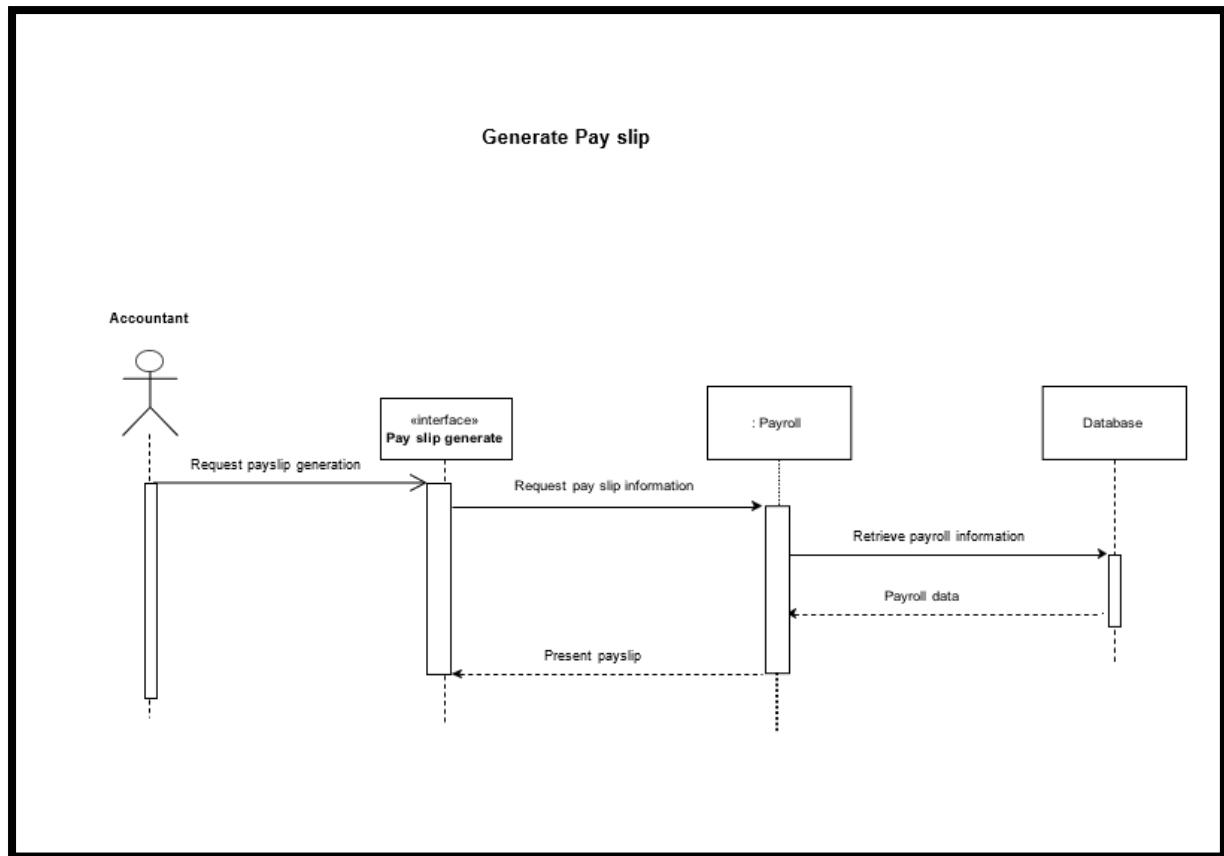
Sequence Diagram Description: Displays the flow information when editing payroll information through the system.



## Sequence Diagram No: 22

Sequence Diagram Name: Generate pay slip

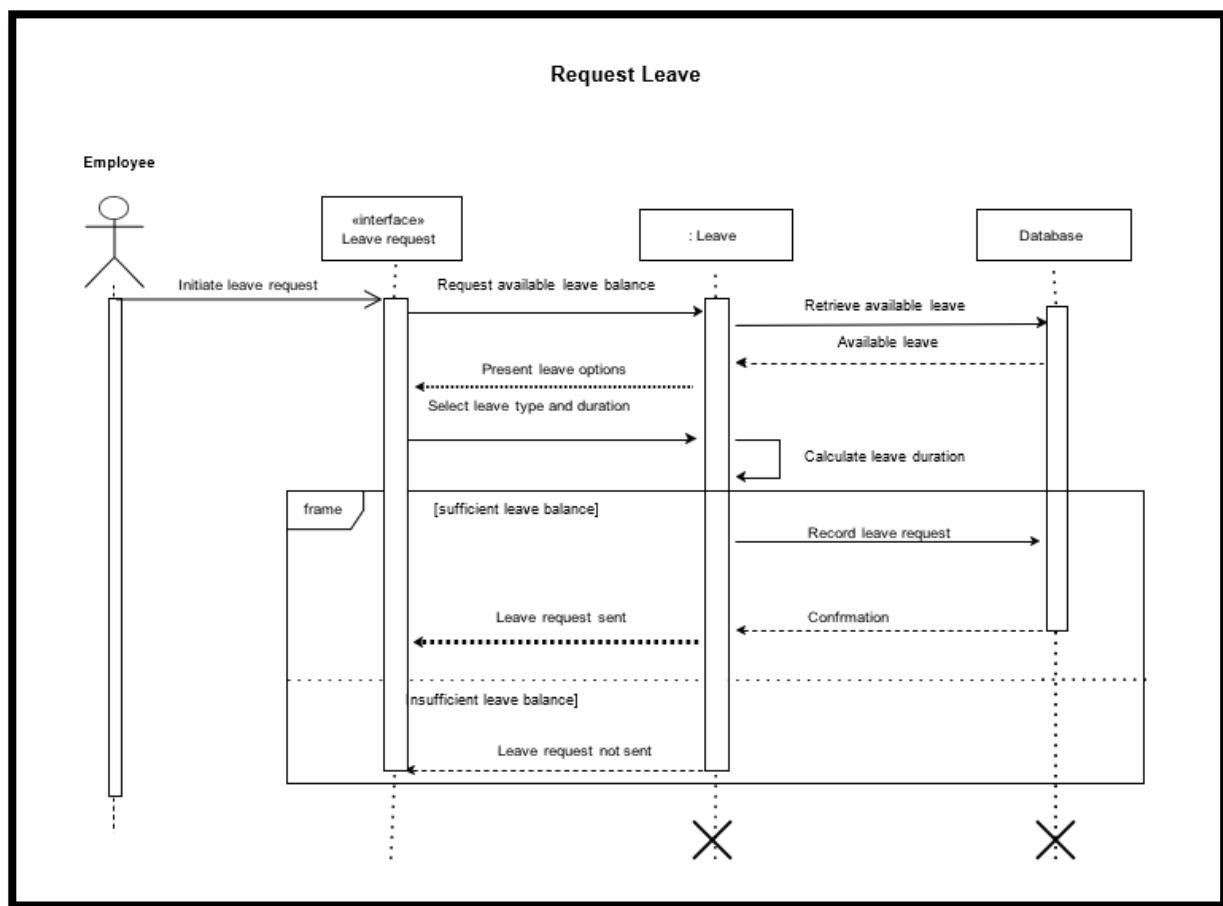
Sequence Diagram Description: Displays the flow of information when generating pay slips through the system.



## Sequence Diagram No: 23

Sequence Diagram Name: Request leave

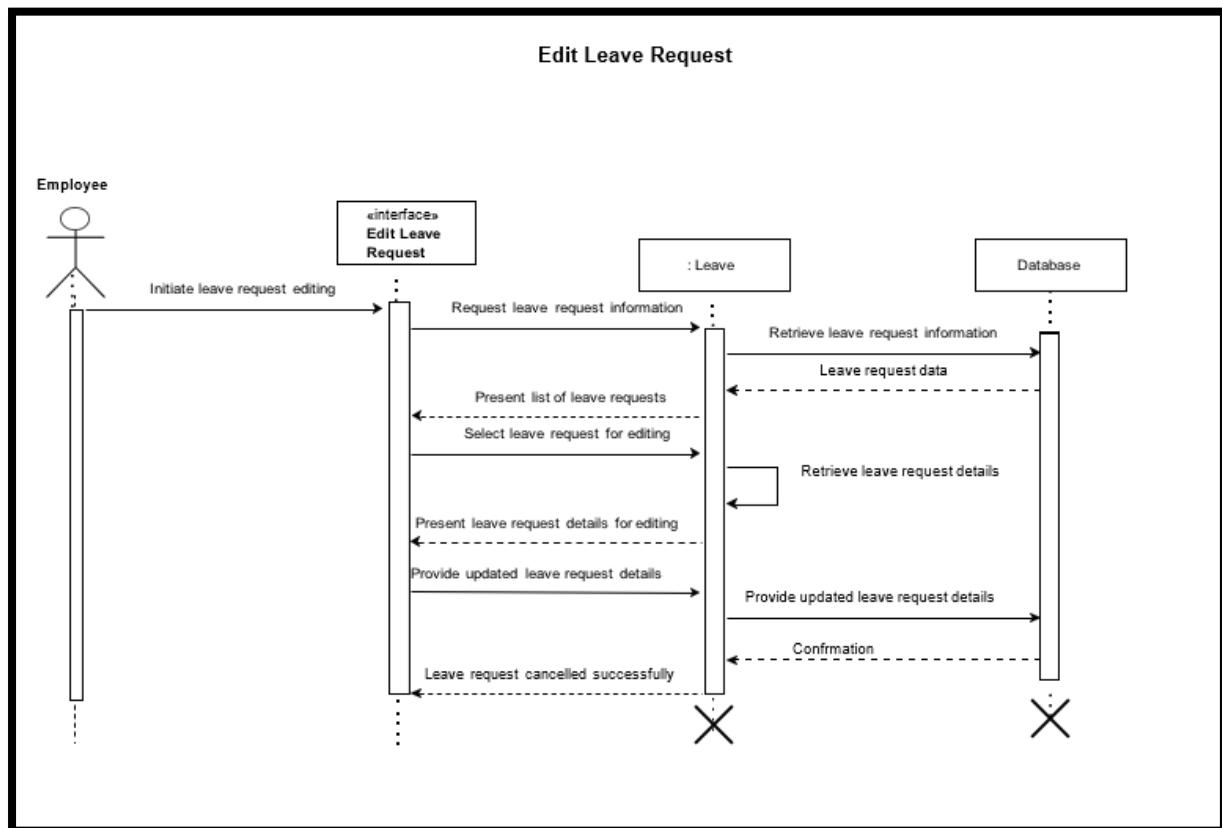
Sequence Diagram Description: Displays the flow of information when requesting leave through the system.



## Sequence Diagram No: 24

Sequence Diagram Name: Edit leave request

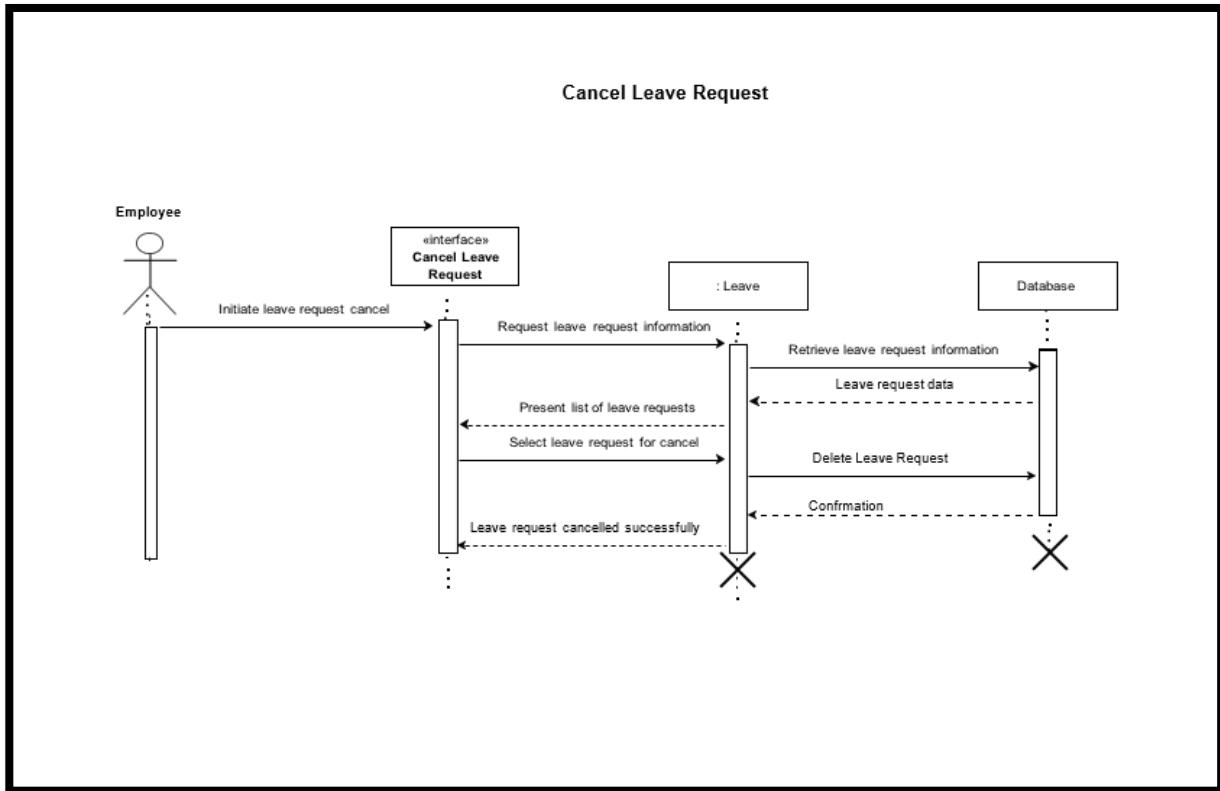
Sequence Diagram Description: Displays the flow of information when editing a leave request through the system.



## Sequence Diagram No: 25

Sequence Diagram Name: Cancel leave request

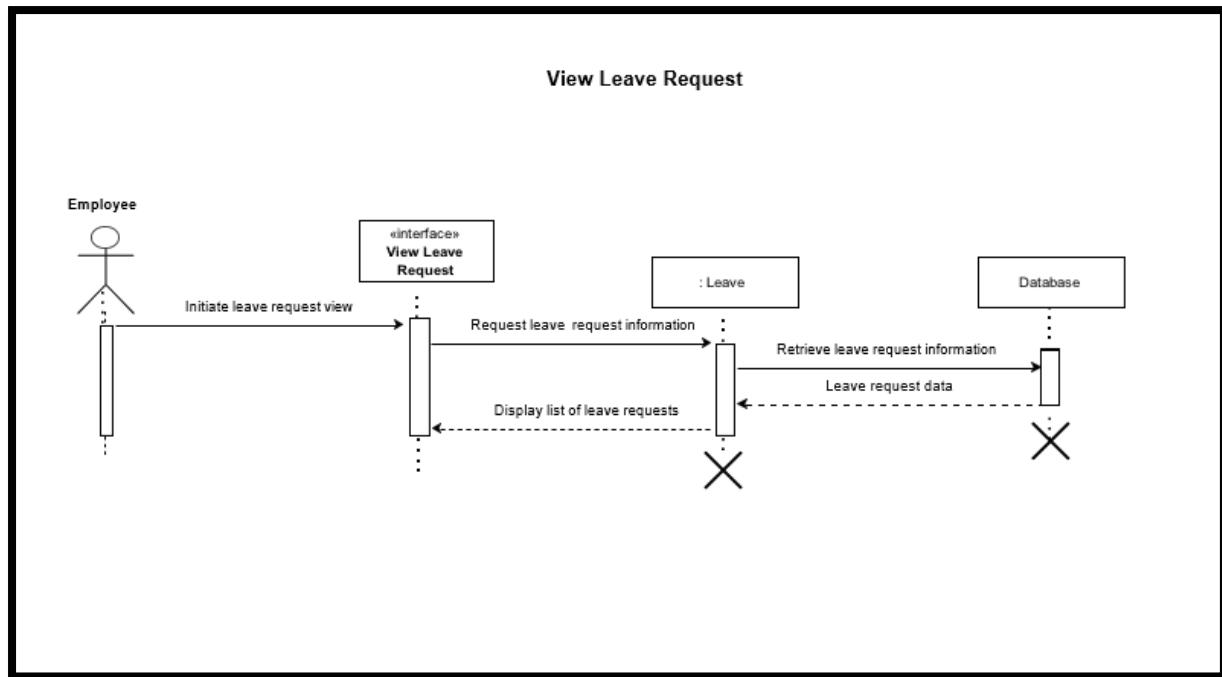
Sequence Diagram Description: Displays the flow of information when cancelling a leave request through the system.



## Sequence Diagram No: 26

Sequence Diagram Name: View leave request

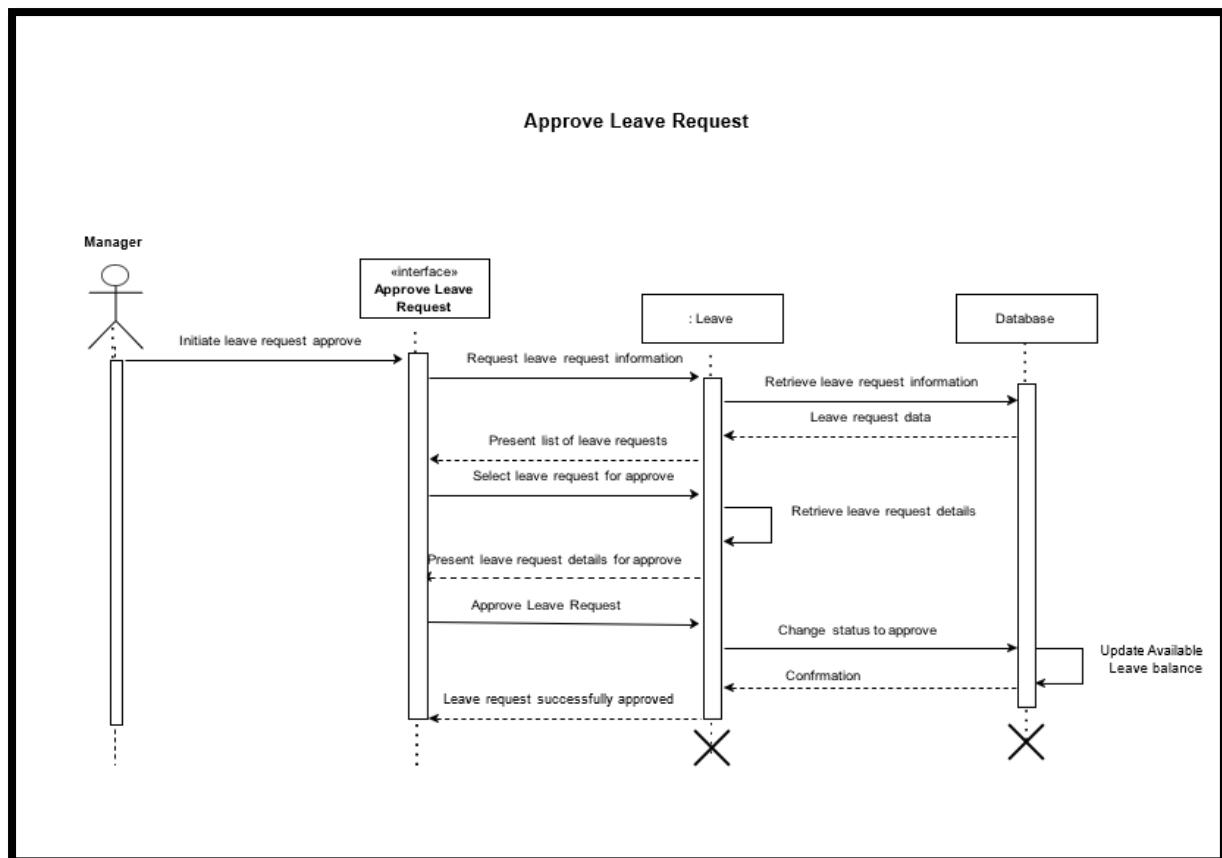
Sequence Diagram Description: Displays the flow of information when viewing the requested leaves.



## Sequence Diagram No: 27

Sequence Diagram Name: Approve leave request

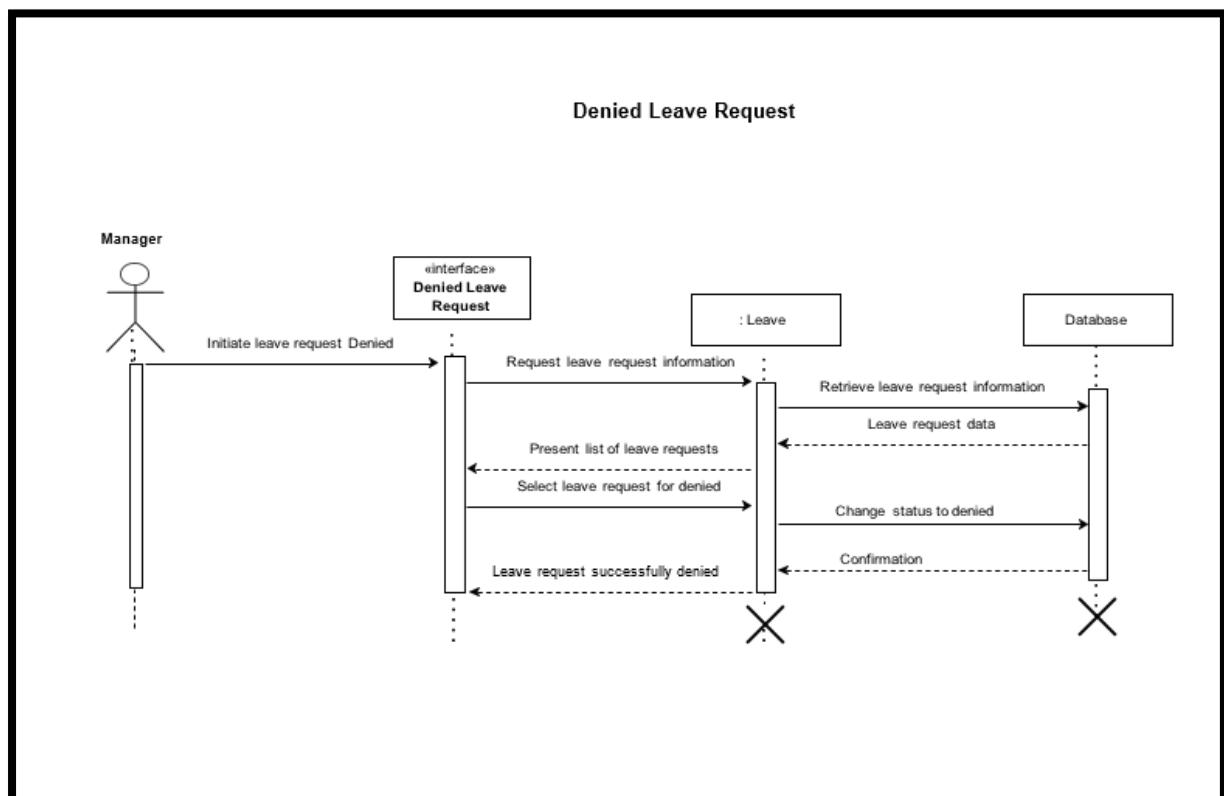
Sequence Diagram Description: Displays the flow of information when approving leave requests.



## Sequence Diagram No: 28

Sequence Diagram Name: Deny leave request.

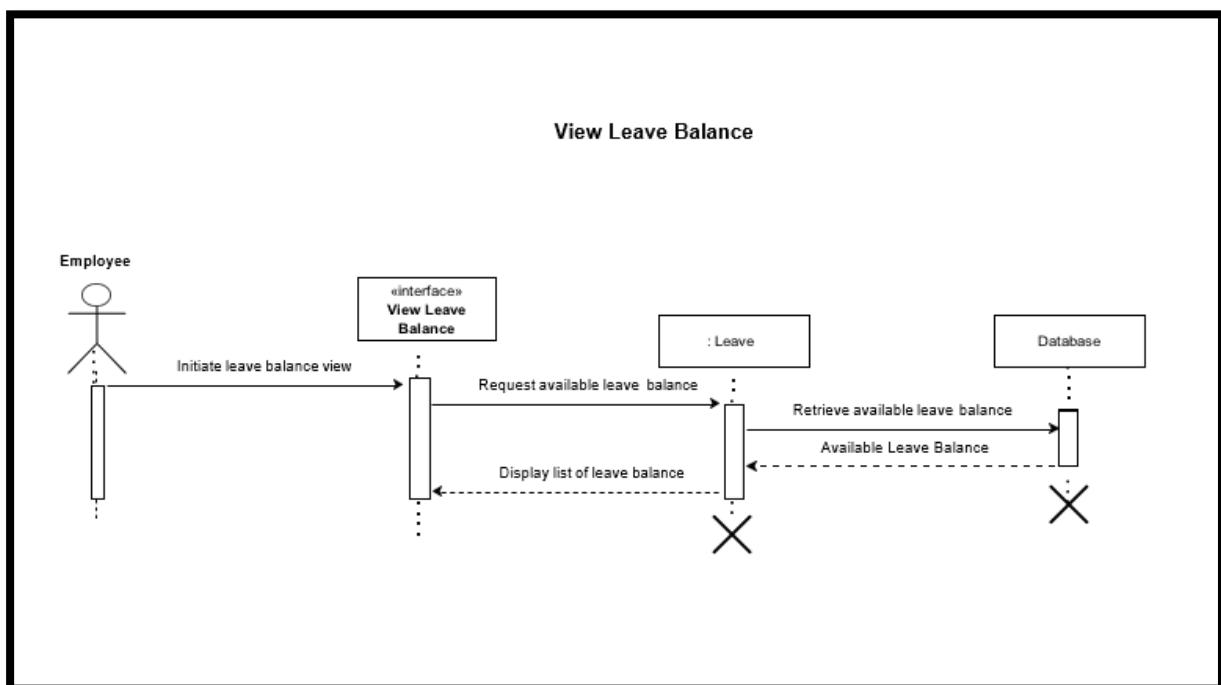
Sequence Diagram Description: Displays the flow of information when denying leave requests.



## Sequence Diagram No: 29

Sequence Diagram Name: View leave balance

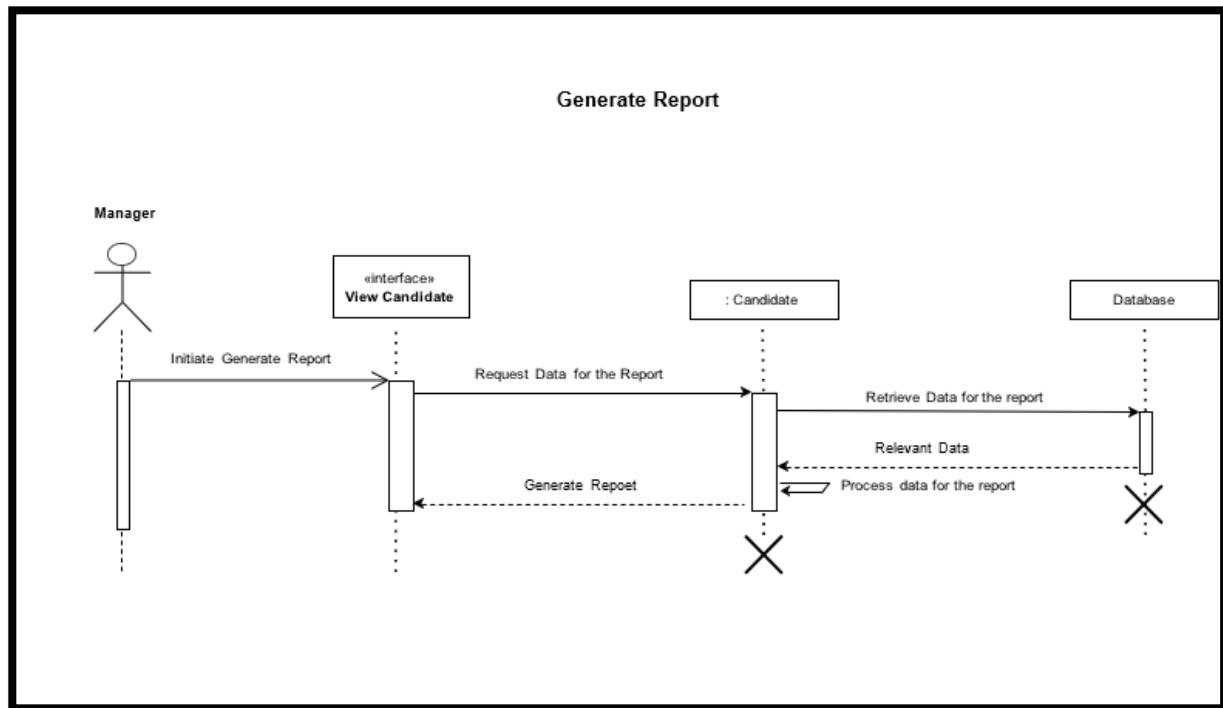
Sequence Diagram Description: Displays the flow of information when requesting leave balance



## Sequence Diagram No: 30

Sequence Diagram Name: Generate report

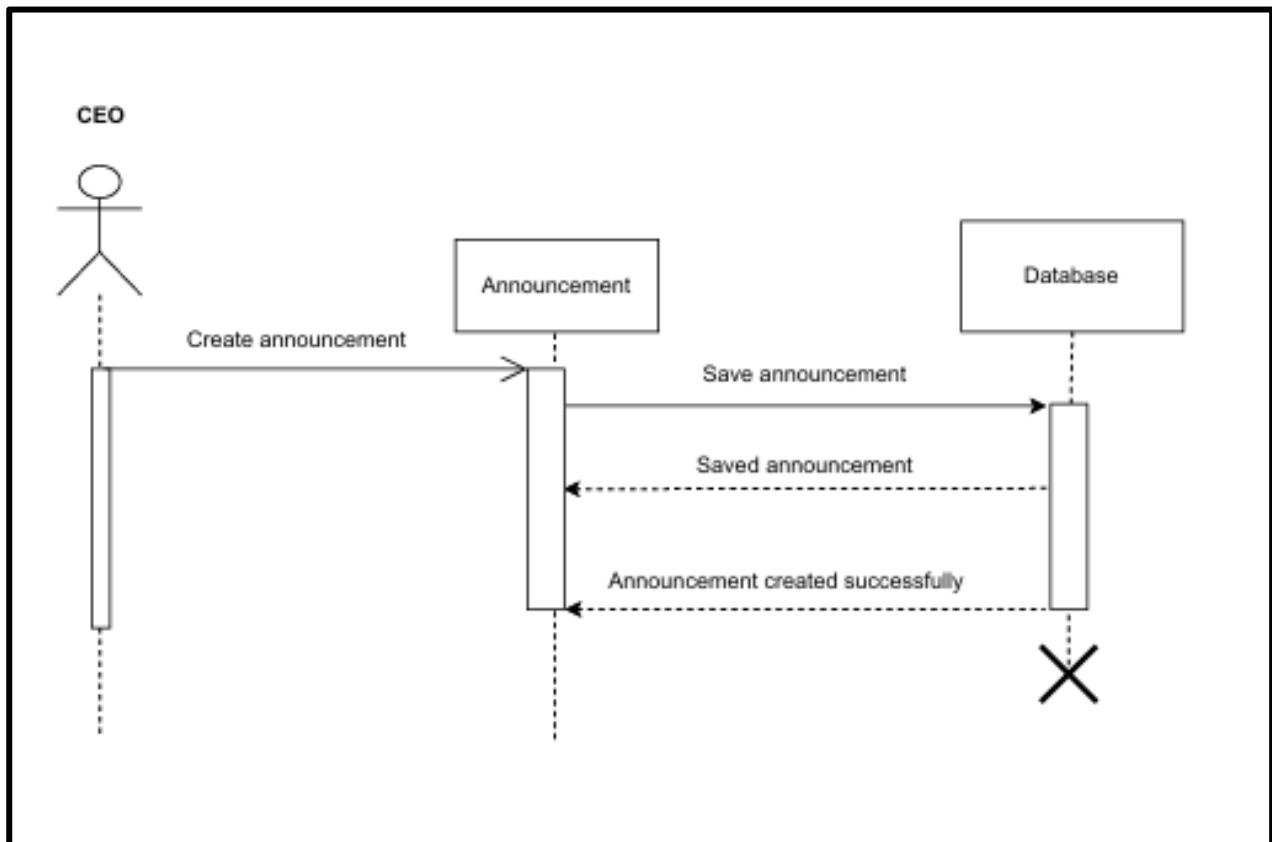
Sequence Diagram Description: Displays the flow of information when requesting to generate a report through the system.



## Sequence Diagram No: 31

Sequence Diagram Name: create Announcement

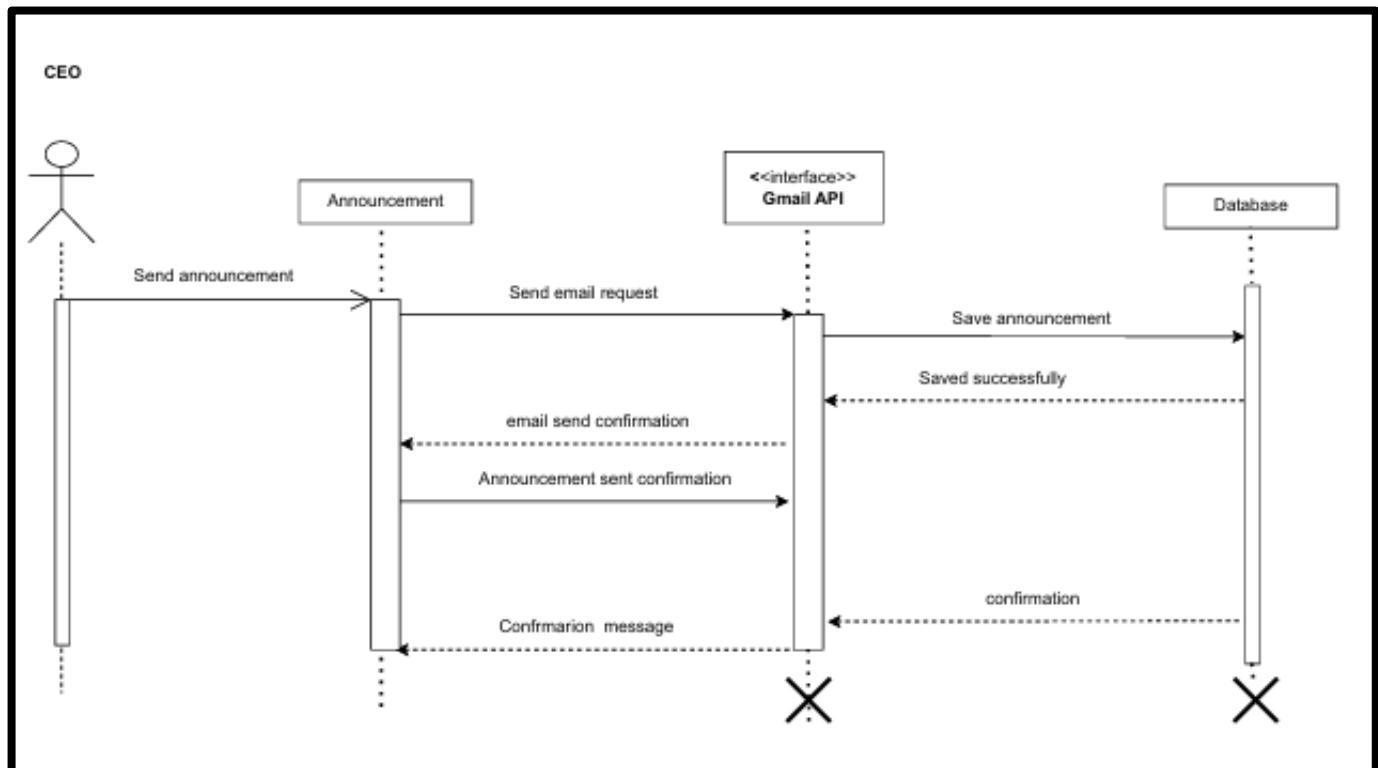
Sequence Diagram Description: Displays the how create a announcement and save it in database



## Sequence Diagram No: 32

Sequence Diagram Name: Broadcast announcement

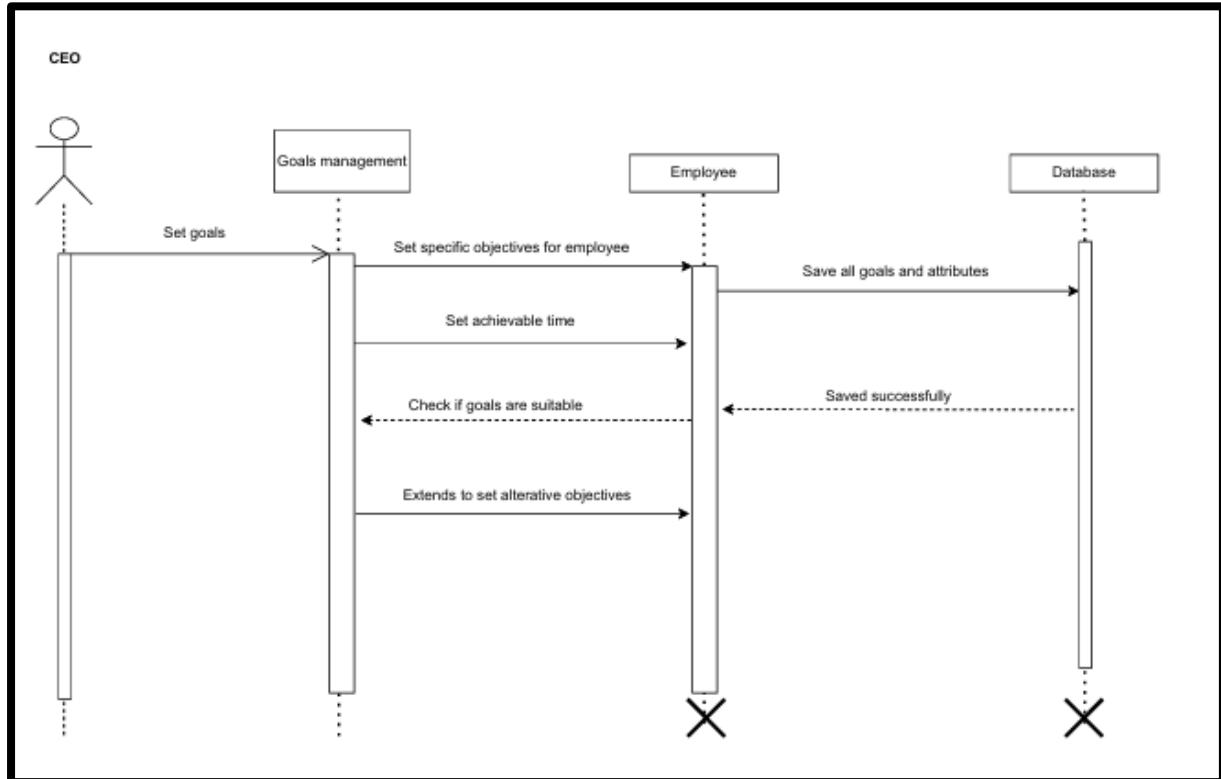
Sequence Diagram Description: Displays the flow sending announcements.



## Sequence Diagram No: 33

Sequence Diagram Name: Set goals

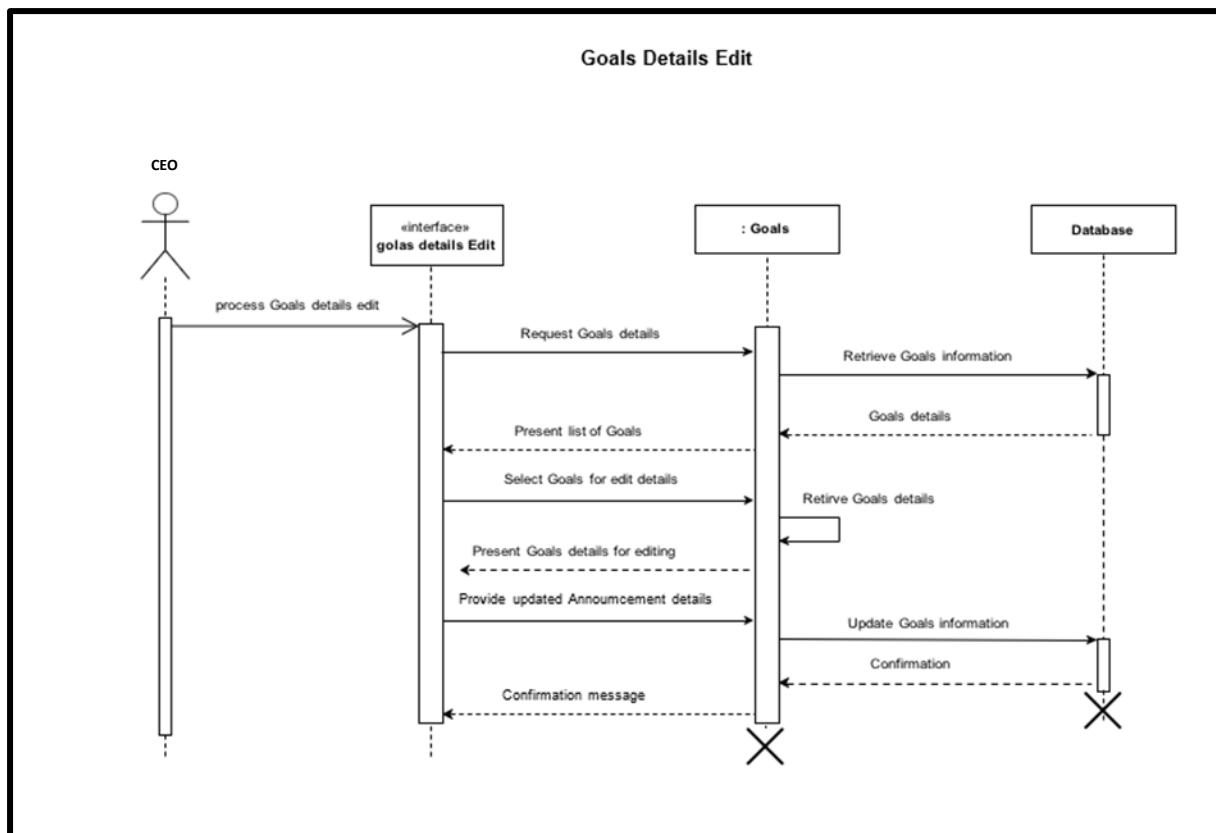
Sequence Diagram Description: Displays the flow of information when setting goals through the system.



## Sequence Diagram No: 34

Sequence Diagram Name: Edit goal details

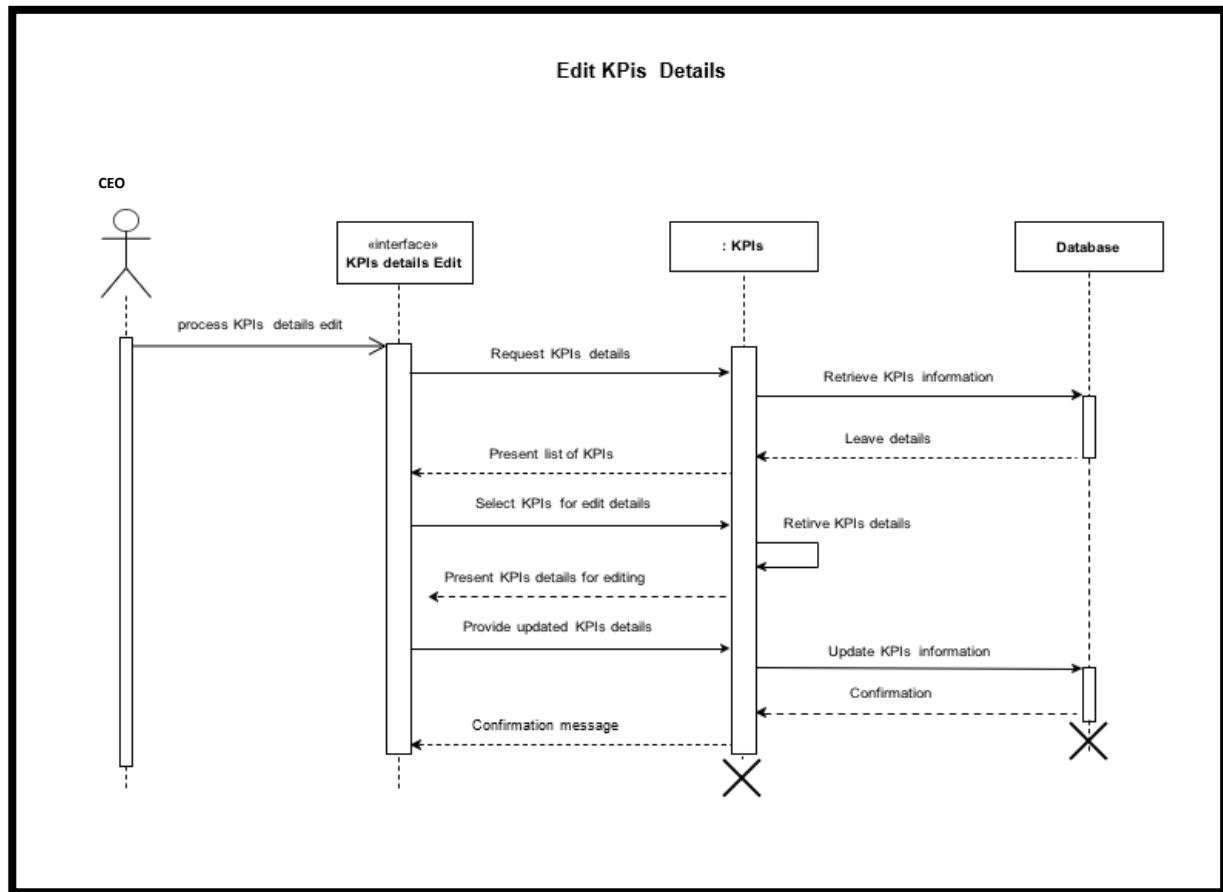
Sequence Diagram Description: Displays the flow of information when editing goals through the system.



## Sequence Diagram No: 35

Sequence Diagram Name: Edit KPI details

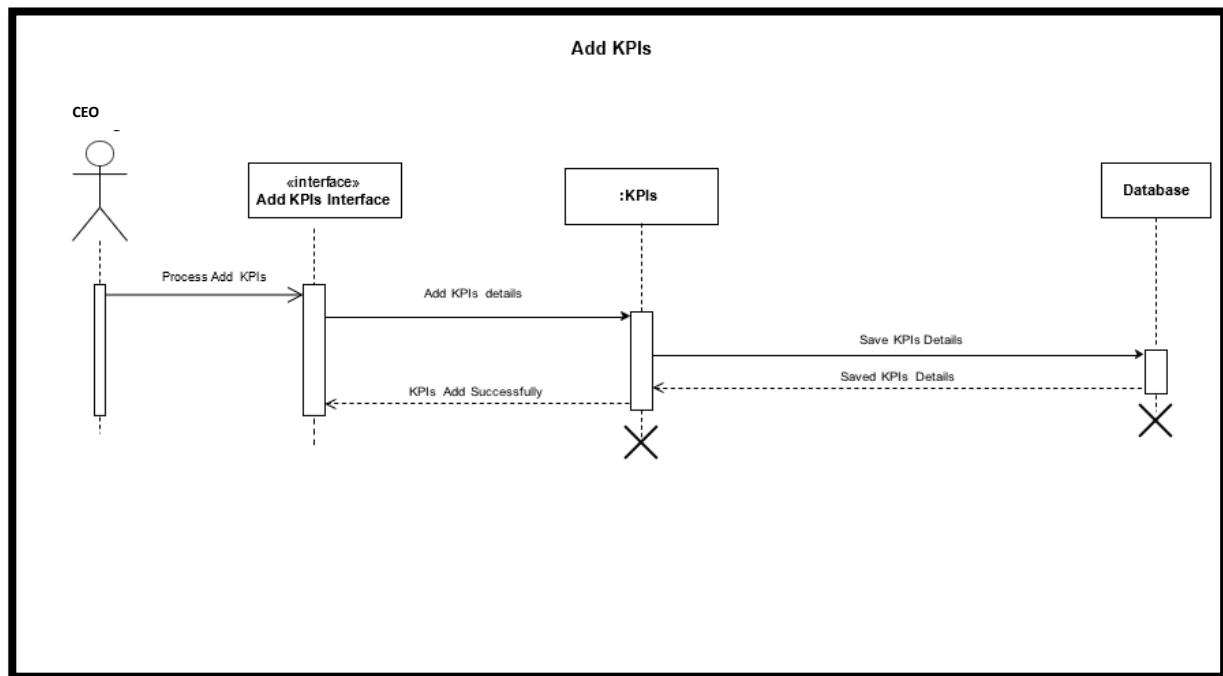
Sequence Diagram Description: Displays the flow of information when editing KPI details.



## Sequence Diagram No: 36

Sequence Diagram Name: Add KPI

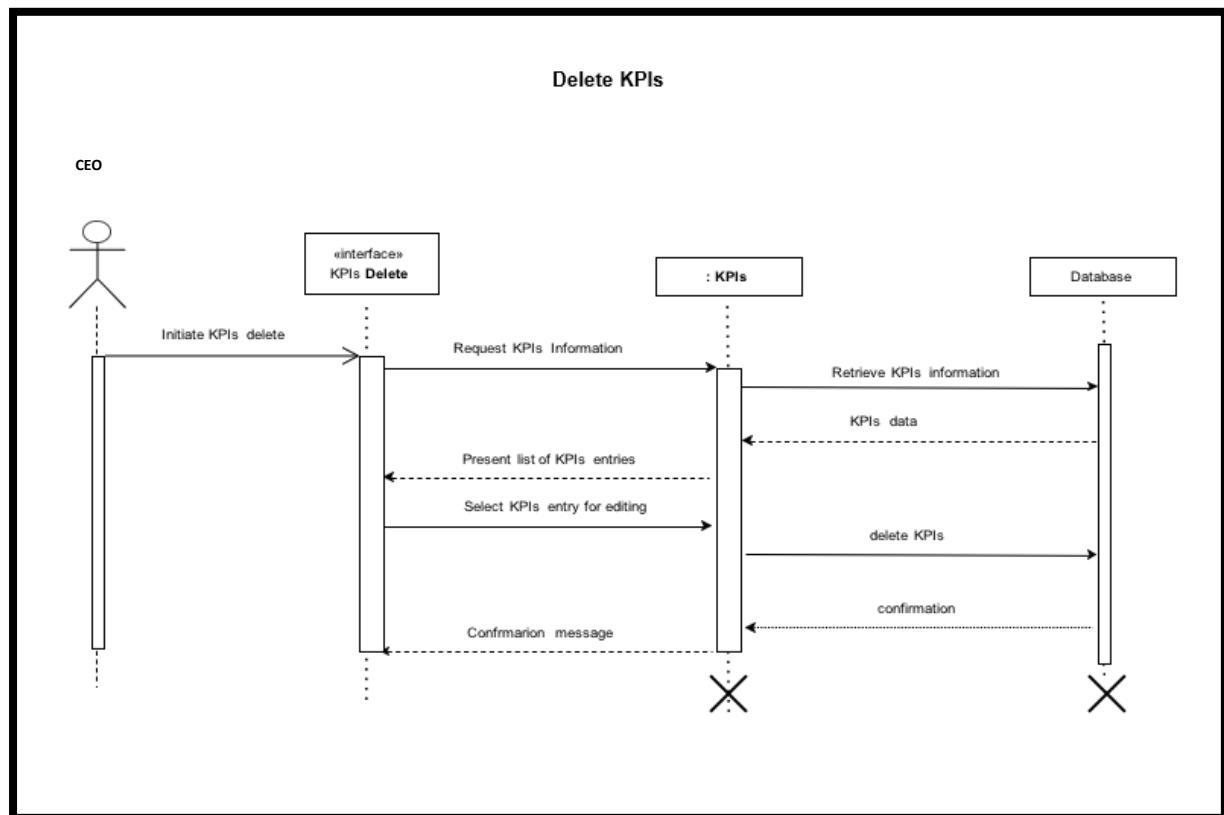
Sequence Diagram Description: Displays the flow of information when adding kpi details to the system.



## Sequence Diagram No: 37

Sequence Diagram Name: Delete KPI

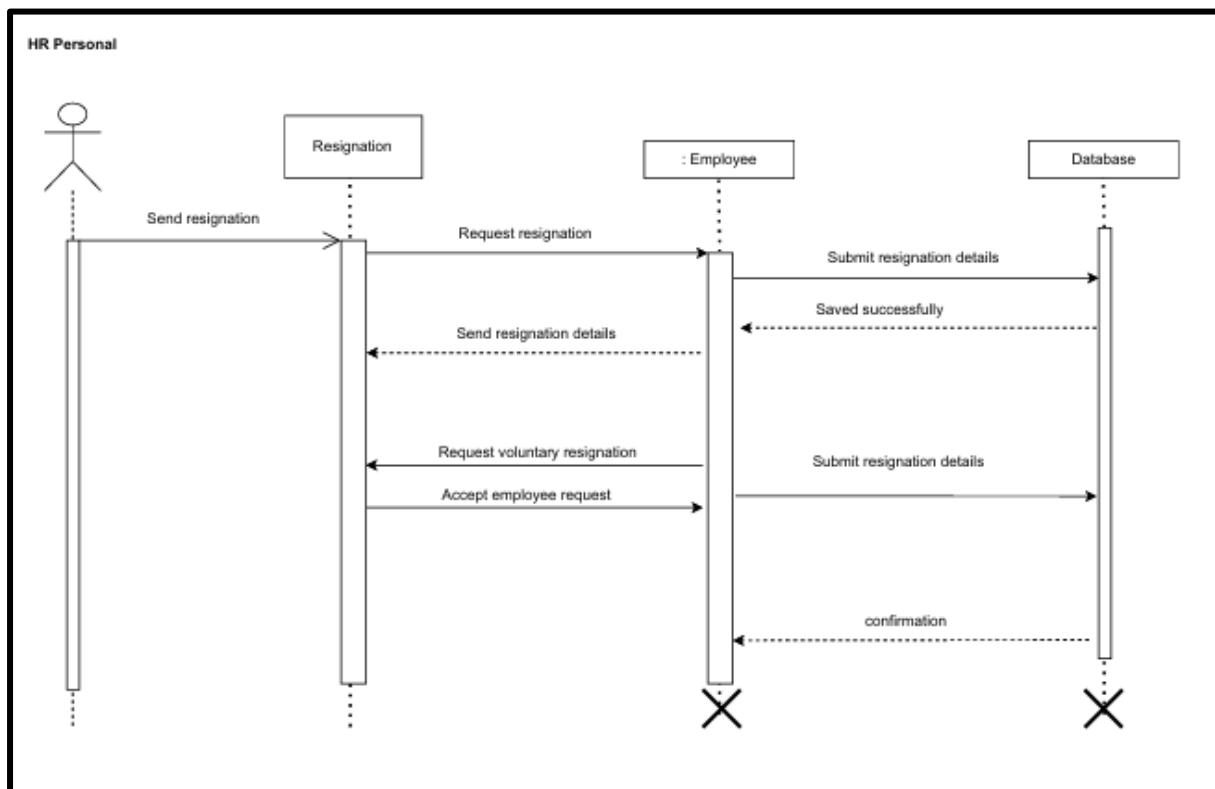
Sequence Diagram Description: Displays the flow of information when deleting KPI information from the system



## Sequence Diagram No: 38

Sequence Diagram Name: Manage Resignation

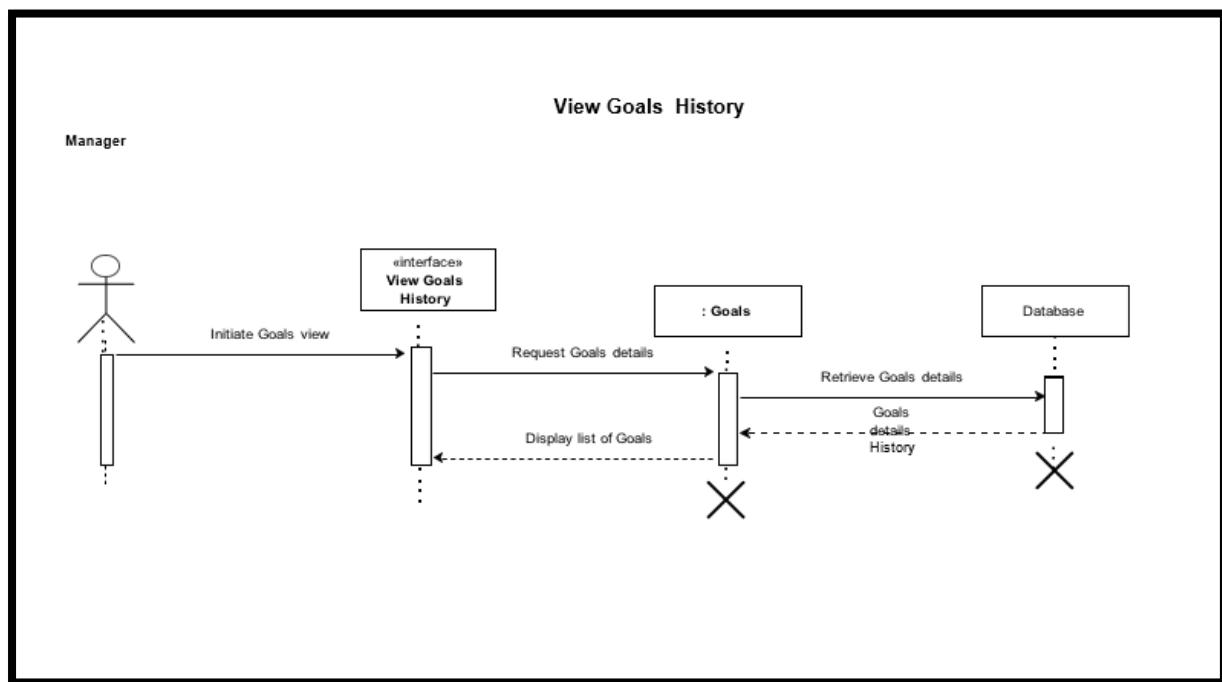
Sequence Diagram Description: Displays the flow of information when requesting resignation.



## Sequence Diagram No: 39

Sequence Diagram Name: View goal history

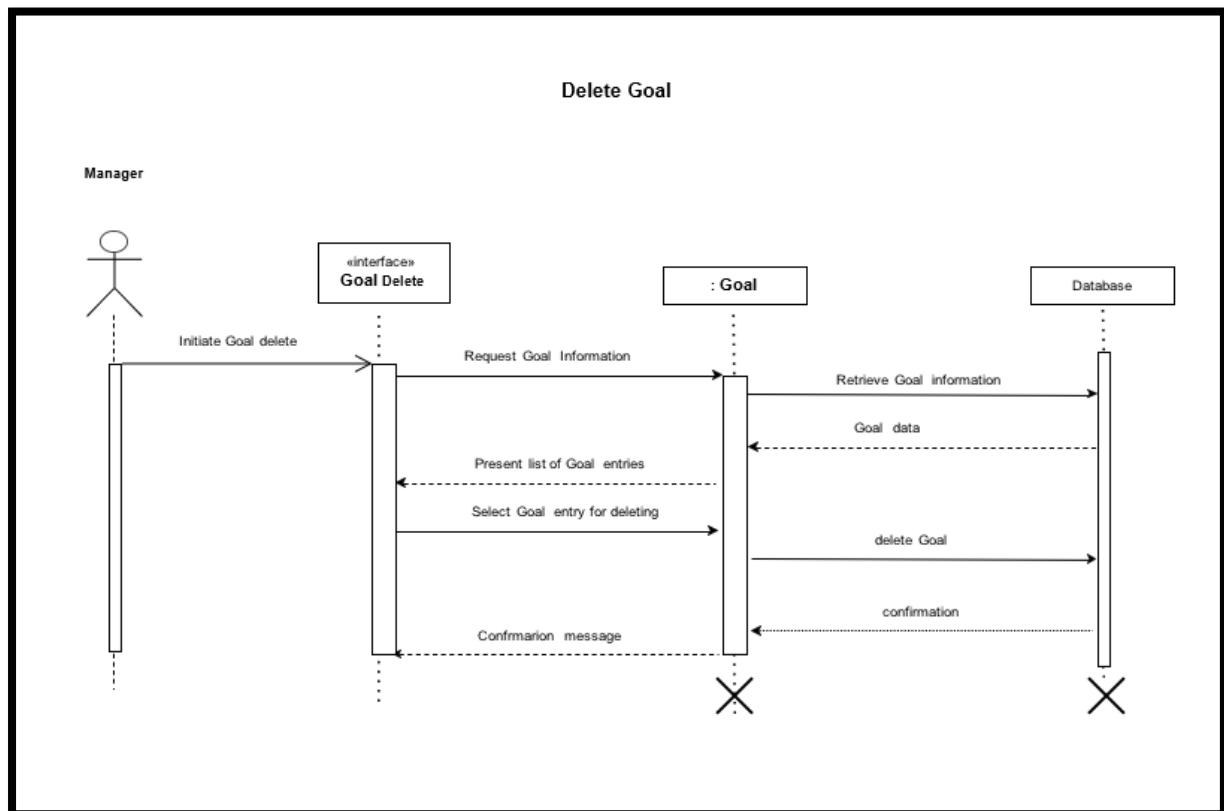
Sequence Diagram Description: Displays the flow of information when requesting goal history date.



## Sequence Diagram No: 40

Sequence Diagram Name: Delete goal

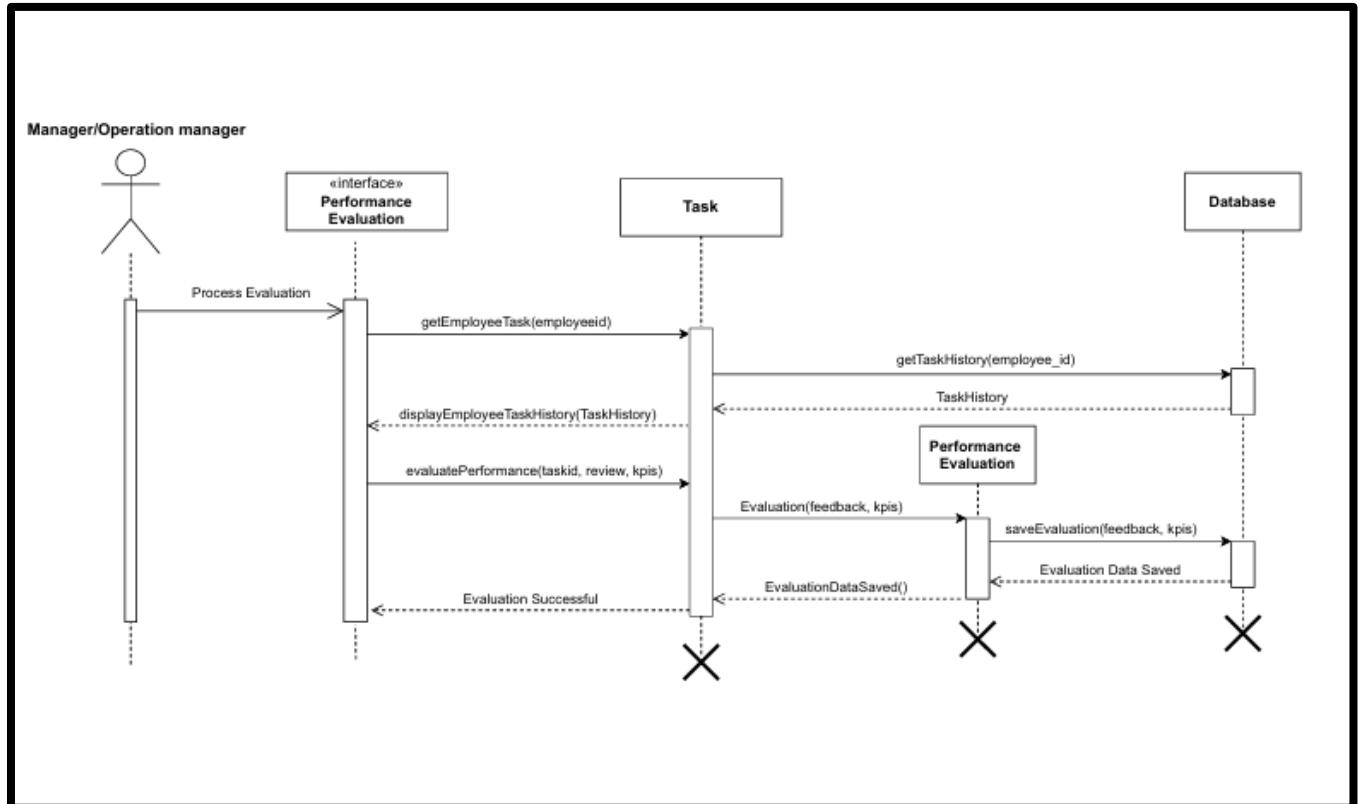
Sequence Diagram Description: Displays the flow of information when deleting goal information through the system.



## Sequence Diagram No:41

Sequence Diagram Name: Performance Evaluation

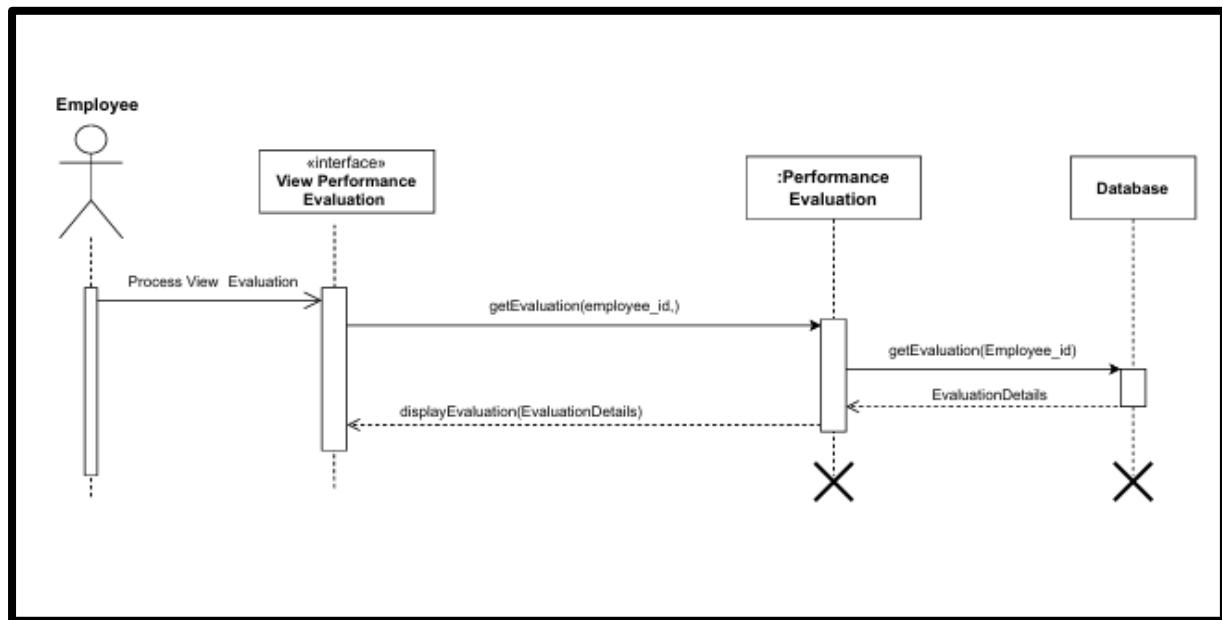
Sequence Diagram Description: Displays the flow performance evaluation of employees.



## Sequence Diagram No:42

Sequence Diagram Name: View Performance Evaluation

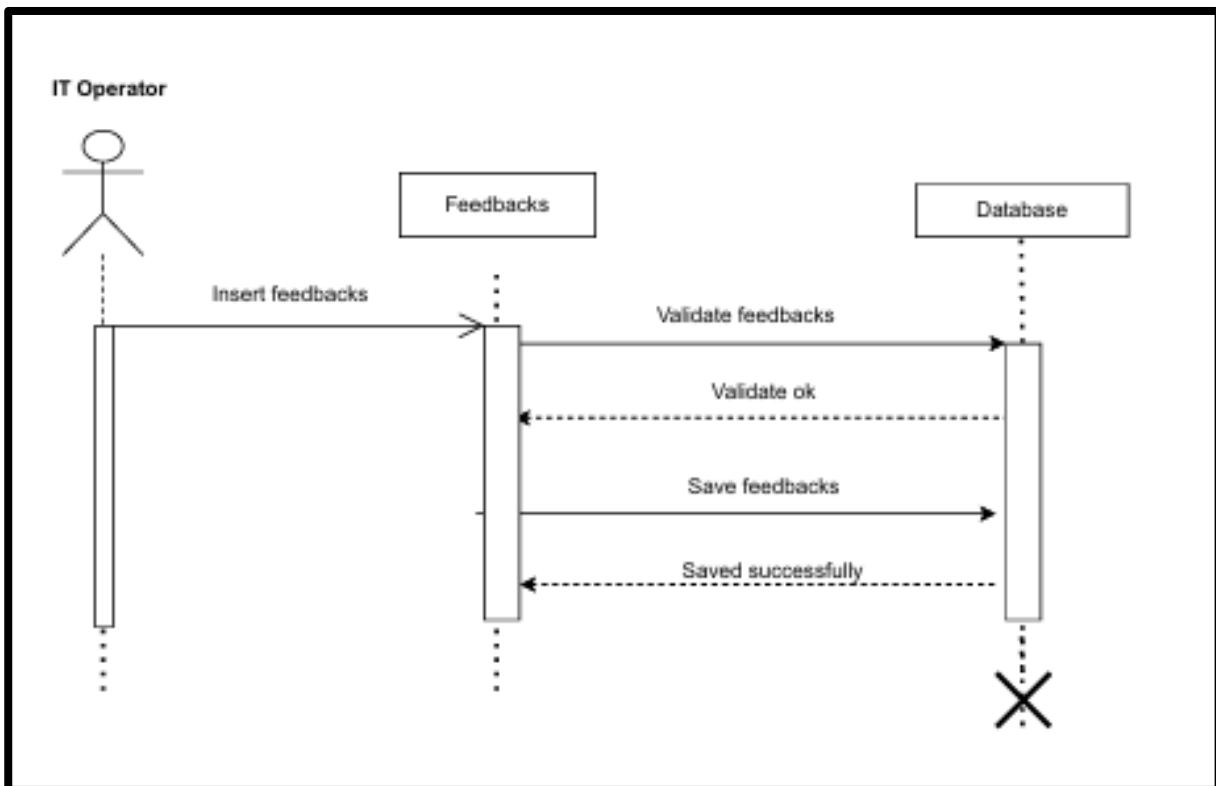
Sequence Diagram Description: Displays the flow of viewing performance evaluation of employees.



## Sequence Diagram No:43

Sequence Diagram Name: Insert Feedback

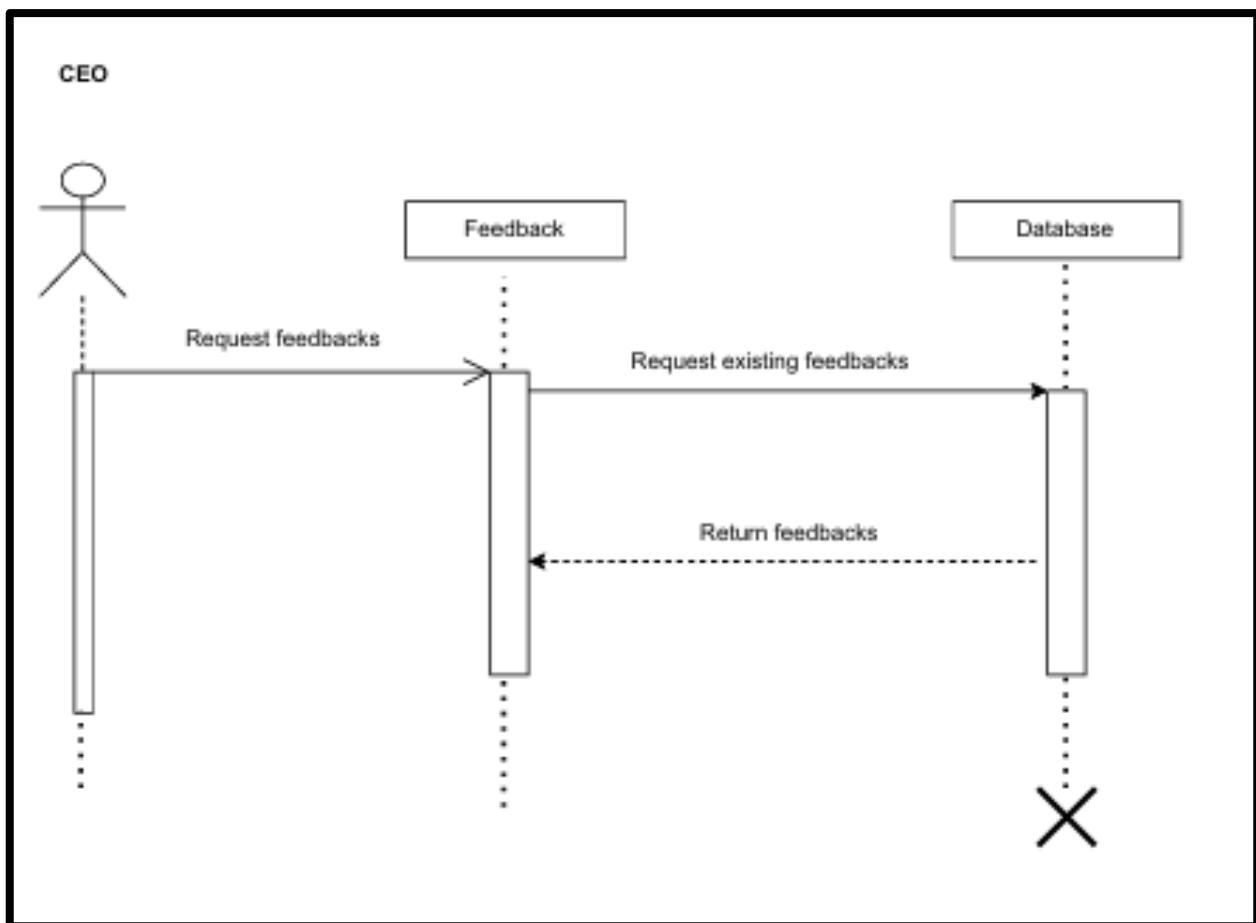
Sequence Diagram Description: Displays the flow of Insert Feedback.



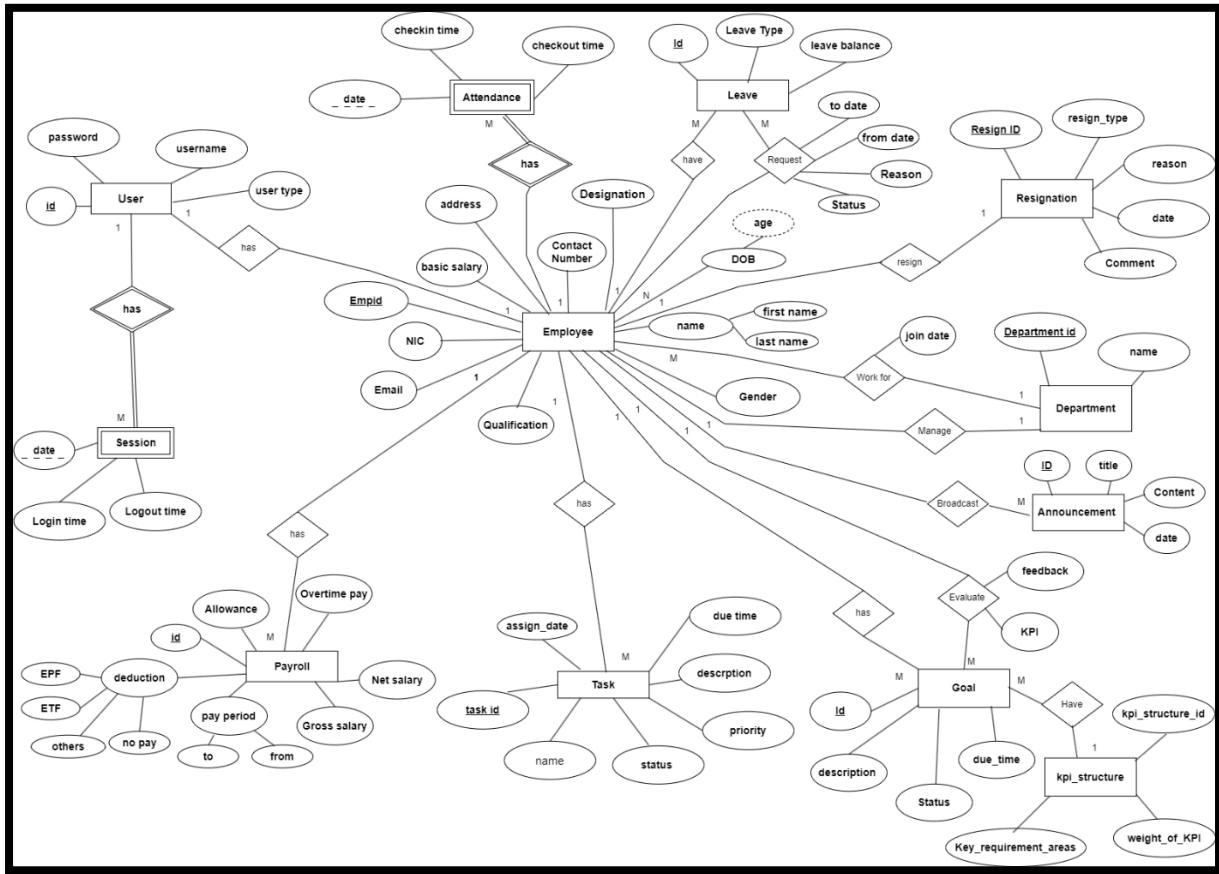
## Sequence Diagram No:44

Sequence Diagram Name: Collect Feedback

Sequence Diagram Description: Displays the flow of Collecting Feedbacks.



### 3.3 ER Diagram of the Proposed System.



### 3.4 Chapter Summary

This chapter highlights the logical design of the system. Diagrams have been created to easily understand the scope of the project. Use case diagrams display the interactions between users and the system. Class diagrams display the structure of the project and ER diagrams convey the relationship between entities which use database creation. Structural groundwork was laid in this chapter.

## **Chapter 4: Solution Design**

### **4.1 Introduction.**

This chapter focuses on the User interfaces, Reports and Data table design of the proposed system. User interfaces are designed to be easily navigated and important functions are separated visually for the ease of the user. Report layouts display the report structure generated by the system. Data tables provide an idea of the database design of such relationship between tables and data types used. These all contribute to taking correct business decisions which will propel the business in the proper direction.

## 4.1 Interface Design

Interface 1

Login Screen



**Welcome Back !**

Employee Login Panel

Username or Email

Password



**Sign In**

## Interface 2

### Admin Dashboard screen

The screenshot shows the Admin Dashboard for Samajaya Microcredit. The interface includes a sidebar with navigation links and a main dashboard area with various metrics and charts.

**Left Sidebar:**

- SAMAJAYA MICROCREDIT logo
- Employee Management
- Attendance Management
- Task Management
- Performance
- Payroll Management
- Announcements
- Reports

**Main Dashboard:**

- Top Header:** Search bar, notifications (bell icon), messages (envelope icon), user profile (Dinith Sonal), and a dropdown menu.
- Metric Cards:**
  - Pending Approvals: 20
  - Total Employees: 95
  - Recent Activities
- Notifications:** Three notification boxes indicating new tasks assigned to employees.
- Action Buttons:** A large button with a plus sign labeled "Add a New Employee".
- Employee Attendance Chart:** Bar chart titled "Employee Attendance" showing attendance levels for each day of the week (M, T, W, T, F, S, S). The Y-axis ranges from 0 to 400. The chart shows high attendance on Saturday (~400) and Sunday (~350), and lower attendance on Monday (~300) and Tuesday (~320).
- Employee Productivity Chart:** Bar chart titled "Employee Productivity" showing productivity levels for each day of the week (M, T, W, T, F, S, S). The Y-axis ranges from 0 to 400. The chart shows high productivity on Saturday (~400) and Sunday (~350), and lower productivity on Monday (~250) and Tuesday (~320).

**Bottom:** A red "Log Out" button.

## Interface 3

### Employee management panel

SAMAJAYA  
MICROCREDIT

Employee Management Panel

Search

Dinith Sonal

Employee Management

Attendance Management

Task Management

Performance

Payroll Management

Announcements

Reports

Log Out

95 Total Employee Count

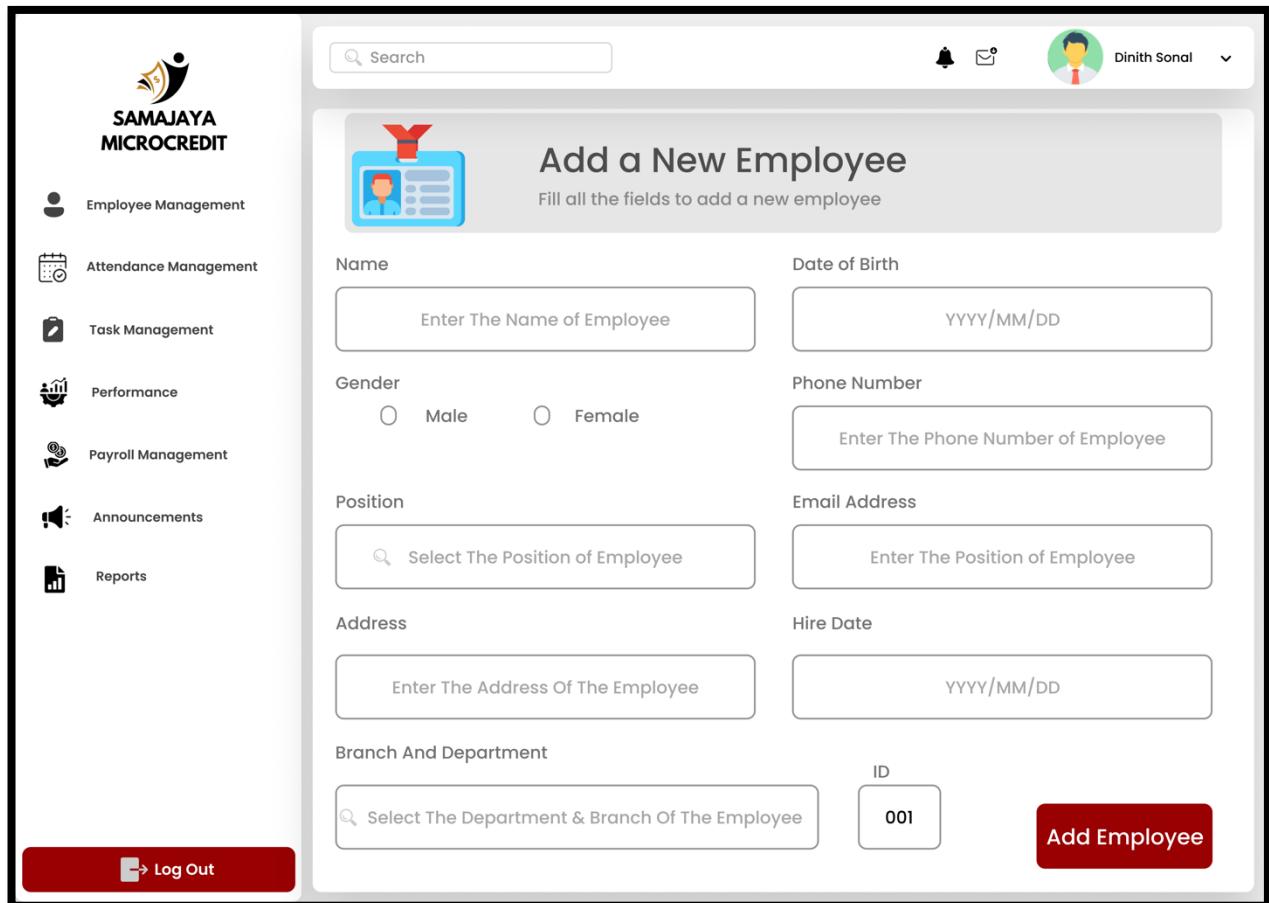
Add a New Employee

Employee Details

Emp ID	Name	Address	Position	Phone	Hire date	Email	Gender	DOB	Actions
001	Dinith sonal	Colombo	IT Operator	0772536 810	2023.04 .31	dinith@g mail.com	Male	2002/ 01/13	<button>Update</button> <button>Delete</button>
002	Induwar a Then uka	Kottawa	COO	076543 367	2021.06 .21	induwar a@gmail .com	Male	2005/ 08/12	<button>Update</button> <button>Delete</button>
003	Dumindu Vidura nga	Gampaha	CEO	0781919 929	2021.08 .12	dumindu @gmail. com	Male	2001/ 03/18	<button>Update</button> <button>Delete</button>

## Interface 4

### Employee Management screen



The screenshot shows the 'Add a New Employee' form within the SAMAJAYA MICROCREDIT application. The left sidebar contains navigation links for Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, and Reports. A red 'Log Out' button is at the bottom of the sidebar. The main header includes a search bar, notification icons, and a user profile for 'Dinith Sondal'. The form itself has a title 'Add a New Employee' with a sub-instruction 'Fill all the fields to add a new employee'. It features several input fields: Name (text box), Date of Birth (text box), Gender (radio buttons for Male and Female), Phone Number (text box), Position (text box), Email Address (text box), Address (text box), Hire Date (text box), Branch And Department (text box), ID (text box containing '001'), and an 'Add Employee' button.

## Interface 5

### Update employee details screen

The screenshot shows the 'Update Employee Info' screen. At the top right, there is a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header, there is a placeholder image of an ID card and the title 'Update Employee Info' followed by a sub-instruction 'Fill the required fields to update information'. The main form consists of several input fields arranged in a grid:

Name	Date of Birth
<input type="text" value="Enter The Name of Employee"/>	<input type="text" value="YYYY/MM/DD"/>
Gender	Phone Number
<input type="radio"/> Male <input type="radio"/> Female	<input type="text" value="Enter The Phone Number of Employee"/>
Position	Email Address
<input type="text" value="Select The Position of Employee"/>	<input type="text" value="Enter The Email of Employee"/>
Address	Hire Date
<input type="text" value="Enter The Address Of The Employee"/>	<input type="text" value="YYYY/MM/DD"/>
Department	ID
<input type="text" value="Select The Department Of The Employee"/>	<input type="text" value="000"/>

A large red 'Update' button is located at the bottom right of the form area. At the bottom left, there is a red 'Log Out' button.

## Interface 6

### Leave balance screen

The screenshot shows the 'Leave Balance' screen of a web-based HR application. On the left is a sidebar with the 'SAMAJAYA MICROCREDIT' logo and a navigation menu:

- Employee Management
- Attendance Management
- Task Management
- Performance
- Payroll Management
- Announcements
- Reports

At the bottom of the sidebar is a red 'Log Out' button.

The main content area has a header with a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. The title 'Leave Balance' is centered above three summary boxes:

- Annual Leaves Left:** 20
- Medical Leaves Left:** 08
- Other Leaves Left:** 12

Below these boxes, the employee's name 'Dinith Sonal' is displayed.

## Interface 7

### Leave requests screen

The screenshot shows the 'Leave Requests' screen of a web application. On the left, there is a sidebar with the 'SAMAJAYA MICROCREDIT' logo and several management links: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, and Reports. At the bottom of the sidebar is a red 'Log Out' button. The main content area has a header with a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header is a sub-header with a 'LEAVE' icon and the text 'Leave Requests'. A search bar labeled 'search employee id' is also present. The central part of the screen is a table titled 'Leave Requests' with the following data:

Leave Id	Leave Type	Start Date	End Date	Employee ID	Actions
L001	Sick Leave	02/07/2024	07/07/2024	001	<button>Approve</button> <button>Deny</button>
L002	Sabbatical Leave	02/07/2024	07/07/2024	002	<button>Approve</button> <button>Deny</button>
L003	Sick Leave	02/07/2024	07/07/2024	003	<button>Approve</button> <button>Deny</button>
L023	Unpaid Leave	02/07/2024	07/07/2024	001	<button>Approve</button> <button>Deny</button>
L056	Casual Leave	02/07/2024	07/07/2024	002	<button>Approve</button> <button>Deny</button>

## Interface 8

### Payroll Management Screen

The screenshot shows a web-based payroll management system interface. On the left, there is a sidebar with the logo of SAMAJAYA MICROCREDIT and several navigation options: Employee Management, Attendance Management, Task Management, Performance, Payroll Management (which is selected), Announcements, and Reports. At the bottom of the sidebar is a red 'Log Out' button. The main content area has a header with a search bar, a notification bell, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header, the title 'Payroll Management' is displayed. A sub-header 'Payroll List' is followed by a table with the following data:

Payroll_id	Basic Salary	Allowances	Deductions	Net Salary	Emp_ID	Actions
P001	LKR35,000	LKR5,000	LKR5,000	LKR35,000	001	<button>Edit</button> <button>Delete</button>
P002	LKR40,000	LKR2,000	LKR5,000	LKR35,000	002	<button>Edit</button> <button>Delete</button>
P003	LKR25,000	LKR5,000	LKR2,000	LKR35,000	003	<button>Edit</button> <button>Delete</button>
P004	LKR50,000	LKR3,000	LKR5,000	LKR35,000	005	<button>Edit</button> <button>Delete</button>
P005	LKR35,000	LKR10,000	LKR3,000	LKR35,000	008	<button>Edit</button> <button>Delete</button>

Below the table is a large red button with a white plus sign and the text 'Define Pay Structure'. At the bottom left of the main content area is a red 'Log Out' button.

## Interface 9

### Manage Payroll Screen

The screenshot shows the 'Manage Payroll' screen for the SAMAJAYA MICROCREDIT application. The interface is divided into several sections:

- Left Sidebar:** Contains icons and labels for various management modules: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, and Reports.
- Header:** Includes a search bar, notification bell, email icon, and user profile for 'Dinith Sonal'.
- Section Headers:** 'Manage Payroll', 'Base Salary', 'No Pay', 'Allowance', 'EPF', 'OT Pay', 'ETF', 'Employee ID', 'Other Deduction', and 'Time Period'.
- Input Fields:** Text input fields for 'Enter The Base salary', 'Enter The No Pay', 'Enter The Allowance', 'Enter The EPF Rate', 'Enter The OT Pay', 'Enter The ETF Rate', 'Search Employee ID', 'Enter Other Deductions', and 'Select The Time Period'.
- Buttons:** A green 'Add' button and a red 'Clear' button.
- Footer:** A red 'Log Out' button.

## Interface 10

### Task Update Screen

The screenshot shows the Task Update screen for the SAMAJAYA MICROCREDIT application. The interface includes a sidebar with various management options and a main content area for task assignment and update.

**Sidebar:**

- Employee Management
- Attendance Management
- Task Management
- Performance
- Payroll Management
- Announcements
- Reports
- Other

**Main Content Area:**

**Header:** Search, Notifications, User Profile (Dinith Sonal), and a dropdown menu.

**Section:** Update Daily Task Progress

**Table:** Assigned Tasks

Task ID	Task Name	Due Date	Assigned To	Task Details	Actions
T001	Loan Processing	2024-04-15	Dinith Sonal, Dumindu Viduranga	Assist clients with loan applications and ensure proper documentation.	<button>Edit</button> <button>Delete</button>
T002	Staff Training	2024-04-20	Induwara Thenuka, Dinith Sonal	Conduct training sessions for new and existing staff on microfinance products and procedures.	<button>Edit</button> <button>Delete</button>
T003	System Maintenance	2024-04-25	Dinith Sonal	Maintain and support the institution's IT systems.	<button>Edit</button> <button>Delete</button>

**Task Update Modal:**

**Task Update** (Task ID: T004)

Task Name: Employee Survey Collection	Assign To: Dinith Sonal
Due Date: 2024/12/05	Priority Level: 4
Description: This is to collect data from employee who.....	
<button>Update</button>	<button>Cancel</button>

**Statistics:**

- 07 Total Pending Tasks
- Tasks Completion History

**Log Out:**

## Interface 11

### Create Tasks Screen

The screenshot shows the 'Create Task' interface. On the left is a sidebar with the SAMAJAYA MICROCREDIT logo and various management links: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. At the bottom of the sidebar is a red 'Log Out' button. The main area has a header with a search bar, notifications, and a user profile for 'Dinith Sona'. The central part is titled 'Create Task' with a clipboard icon. It contains fields for 'Task Name' (placeholder 'Enter The Task Name'), 'Priority' (placeholder 'Set Priority Level'), 'Assign To' (placeholder 'Select Employee'), 'Date' (placeholder 'DD/MM/YYYY'), 'Description' (placeholder 'Enter The Description'), and an 'ID' field containing 'T004'. At the bottom are 'Save' and 'Cancel' buttons.

## Interface 12

### Announcements Management Screen

The screenshot shows the 'Announcement Management' screen. At the top right is a search bar with a magnifying glass icon and the word 'Search'. To its right are icons for a bell (notifications), an envelope (messages), and a user profile (Dinith Sonal). The main title 'Announcement Management' is centered above a table. The table has a header row with columns for 'Announcement Id', 'Title', and 'Date'. Below the header are five rows of data. A large red button at the bottom right is labeled 'Create New Announcement' with a white plus sign icon.

Announcement Id	Title	Date
A001	Team Meeting	2024-07-01
A002	New Policy Update	2024-07-05
A003	Holiday Schedule	2024-07-10
A004	Office Renovation Notice	2024-07-15
A005	Employee Recognition Program	2024-07-20

Left sidebar menu:

- Employee Management
- Attendance Management
- Task Management
- Performance
- Payroll Management
- Announcements** (highlighted)
- Reports
- Other

Bottom navigation bar:

- Log Out

## Interface 13

### Announcement Details Screen

The screenshot shows the 'Announcement Details' screen of a web application. On the left is a sidebar with the 'SAMAJAYA MICROCREDIT' logo and a navigation menu:

- Employee Management
- Attendance Management
- Task Management
- Performance
- Payroll Management
- Announcements
- Reports
- Other

At the bottom of the sidebar is a red 'Log Out' button.

The main content area has a header with a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. The title of the page is 'Announcement Details'. It features a small illustration of a person holding a megaphone. Below the title are fields for 'Title' (containing 'Enter The Task Name') and 'ID' (containing 'A001'). A large text area for 'Content' is labeled 'Enter The Title Content'. At the bottom are two buttons: a green 'Send' button and a red 'Cancel' button.

## Interface 14

### Attendance Records Screen

The screenshot shows the Attendance Records screen of a web application. The header features the SAMAJAYA MICROCREDIT logo, a search bar, and a user profile for 'Dinith Sonal'. On the left, a sidebar lists various management modules: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. A red 'Log Out' button is at the bottom of the sidebar. The main content area has a title 'Attendance Records' with a small icon of a person at a desk. Below it is a table titled 'Attendance Records' showing employee attendance details. The table includes columns for Date, Employee id, Check-in Time, Check-out Time, Worked Hours, Overtime Hours, and Status. The data is as follows:

Date	Employee id	Check-in Time	Check-out Time	Worked Hours	Overtime Hours	Status
2024-11-21	001	9:00 AM	5:00 PM	8	1	Present
2024-11-21	002	9:15 AM	4:45 PM	7.5	0	Late
2024-11-21	003	-	-	-	-	Absent
2024-11-20	001	9:00 AM	5:30 PM	8.5	0.5	Present
2024-11-20	003	9:10 AM	4:40 PM	7.5	0	Late

## Interface 15

### Generate Report Screen

The screenshot shows the 'Report Details' section of the application. On the left sidebar, there are several menu items: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. The 'Reports' item is currently selected. At the top right, there is a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. The main area has a title 'Report Details' with a chart icon. It contains fields for 'Title' (placeholder 'Enter The Title'), 'Type' (placeholder 'Select The Type'), 'Start Date' (placeholder 'DD/MM/YYYY'), and 'End Date' (placeholder 'DD/MM/YYYY'). To the right, there is a 'Filters' section with dropdowns for 'Status', 'Branch', 'Department', and 'Rating', each with a 'Select' button. At the bottom are two large buttons: a green 'Generate' button and a red 'Cancel' button.

## Interface 16

### Resignation Management Screen

The screenshot shows the 'View Resignations' page. At the top right, there is a user profile for 'Dinith Sonal'. Below the header, there is a search bar and a small icon of a desk with a trash can. The main title 'View Resignations' is centered above a table. To the left of the table, there is a sidebar with various management links: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. A red 'Log Out' button is at the bottom of the sidebar. The table has columns for Resignation ID, Resignation Type, Date, Reason, Employee ID, and Actions. Each row contains a green 'Approve' button and a red 'Deny' button. The table data is as follows:

Resignation ID	Resignation Type	Date	Reason	Employee ID	Actions
R001	Immediate Resignation	02/07/2024	career growth	E001	<button>Approve</button> <button>Deny</button>
R002	Constructive Resignation	02/07/2024	toxic culture	E002	<button>Approve</button> <button>Deny</button>
R003	Retirement Resignation	02/07/2024	early retirement	E003	<button>Approve</button> <button>Deny</button>
R023	Voluntary Resignation	02/07/2024	personal reasons	E005	<button>Approve</button> <button>Deny</button>
R056	Immediate Resignation	02/07/2024	better opportunities	E023	<button>Approve</button> <button>Deny</button>

A green button labeled 'Forced Resignations' is located at the bottom right of the table area.

## Interface 17

### Forced Resignations Screen

The screenshot shows the 'Forced Resignations' screen of a web application. On the left, there is a vertical sidebar with icons and labels for various management modules: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. At the bottom of the sidebar is a red 'Log Out' button. The main content area has a header with a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header, there is a title 'Forced Resignations' next to an icon of a blue desk with a red 'X' on it. The main form fields include 'Employee' (with a search input), 'Resignation Type' (with a text input placeholder 'Enter The Resignation Type'), and 'Reason' (with a text input placeholder 'Enter The Reason'). A large green 'Resign Employee' button is at the bottom right of the form.

## Interface 18

### View Personal Attendance Records Screen

The screenshot shows a mobile application interface for viewing personal attendance records. At the top left is the SAMAJAYA MICROCREDIT logo. On the right, there is a header section with a user icon and the title "Attendance Records". Below this is a "Attendance Summary" table.

Date	Attendance id	Check-in Time	Check-out Time	Worked Hours
2024-11-21	001	9:00 AM	5:00 PM	8
2024-11-21	002	9:15 AM	4:45 PM	7.5
2024-11-21	003	-	-	-
2024-11-20	001	9:00 AM	5:30 PM	8.5
2024-11-20	003	9:10 AM	4:40 PM	7.5

On the left sidebar, there are several menu items with icons:

- View Attendance
- View Leave Balance
- Request Leave
- Resignation

At the bottom left is a red "Log Out" button.

## Interface 19

### Request Leave Screen



### Request Leave

Leave Type

Start Date

End Date

Reason

**Submit Leave** **Back**

**View Attendance**

**View Leave Balance**

**Request Leave**

**Resignation**

**Log Out**

## Interface 20

### Leave Summary Screen

The screenshot shows the Leave Summary screen for SAMAJAYA MICROCREDIT. The top left features the company logo and name. The top right displays the title "Leave Balance" with a small icon of a person pointing at a calendar.

Below the title, three cards show leave counts:

- Annual Leaves Left: 20
- Medical Leaves Left: 08
- Other Leaves Left: 12

The main area is titled "Leave Summary" and contains a table with the following data:

Date	Leave ID	Type	Status	Actions
2024-11-21	L001	Sick Leave	Approved	<button>Cancel Leave</button>
2024-11-21	L002	Sabbatical Leave	Rejected	<button>Cancel Leave</button>
2024-11-21	L003	Sick Leave	Rejected	<button>Cancel Leave</button>
2024-11-20	L009	Unpaid Leave	Approved	<button>Cancel Leave</button>
2024-11-20	L010	Unpaid Leave	Rejected	<button>Cancel Leave</button>

On the left sidebar, there are four buttons with icons and labels:

- View Attendance
- View Leave Balance
- Request Leave
- Resignation

## Interface 21

### Payslip Screen

The screenshot shows the Payroll screen for employee E001. The interface includes a sidebar with various management options and a main panel for generating a payslip.

**Employee Management**

**Attendance Management**

**Task Management**

**Performance**

**Payroll Management**

**Announcements**

**Reports**

**Log Out**

**Search**

**Dinith Sonal**

**Payroll**

**Time Period**

**Select The Time Period**

**Search**

**Employee ID : E001**

**Name: Dinith Sonal**

**Time Period : 2025/01/01-2025/02/01**

**Basic Salary: 100,000LKR**

**Overtime Pay: 15,000LKR**

**Allowances: 10,000LKR**

**Deductions**

**ETF: 4,000LKR**

**EPF: 8,000LKR**

**No Pay: 1,000LKR**

**Generate PaySlip**

**Net Salary: 112,000LKR**

## Interface 22

### Admin Registration Screen

The screenshot shows the 'Add a Employee to System' form. On the left sidebar, there are icons for Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, and Reports. At the top right, there is a search bar, a notification bell icon, an envelope icon, and a user profile for 'Dinith Sonal'. The main form has fields for Name, Role selection, Email Address, and Password, each with placeholder text. At the bottom are 'Register' and 'Cancel' buttons.

SAMAJAYA  
MICROCREDIT

Employee Management

Attendance Management

Task Management

Performance

Payroll Management

Announcements

Reports

Log Out

Search

Dinith Sonal

Add a Employee to System

Name

Enter The Name of Employee

Role selection

Select The Employee Position

Email Address

Enter The Position of Employee

Password

Enter a password

Register

Cancel

## Interface 23

### Request Leave



 Request Leave

Leave Type	Start Date
<input type="text" value="Select The Leave Type"/>	<input type="text" value="DD/MM/YYYY"/>
End Date	<input type="text" value="DD/MM/YYYY"/>
Reason	<input type="text" value="Enter the Reason"/>

**Submit Leave** **Back**

 View Attendance  
 View Leave Balance  
 Request Leave  
 Performance  
 Resignation

 Log Out

## Interface 24

Define a KPI value

The screenshot shows the SAMAJAYA MICROCREDIT software interface. On the left is a sidebar with various management options: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. At the bottom of the sidebar is a red 'Log Out' button. The main area has a header with a search bar, a notification bell, an envelope icon, a user profile for 'Dinith Sonal', and a dropdown arrow. Below the header is a 'Additional Functions' section with three buttons: 'KPI' (highlighted in red), 'Goals', and 'Evaluate'. The main content area is titled 'Goals'. It contains three input fields: 'KPI Structure ID', 'Weight', and 'Requirement'. Below these are three teal-colored buttons: 'Add', 'Update', and 'Clear'. At the bottom is a table with columns: 'KPI Structure ID', 'Key Requirement Areas', 'Weight', and 'Action'. The first row of the table is highlighted in light green. The 'Action' column for the first row contains a dark red 'DELETE' button.

KPI Structure ID	Key Requirement Areas	Weight	Action
			<button>DELETE</button>

## Interface 25

### Manage goals

The screenshot shows the SAMAJAYA MICROCREDIT application interface. On the left is a sidebar with various management options: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. At the bottom of the sidebar is a red 'Log Out' button. The main area has a header with a search bar, a notification bell, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header is a section titled 'Additional Functions' with three buttons: 'KPI', 'Goals' (which is highlighted in red), and 'Evaluate'. The central part of the screen is titled 'Goal' and 'Manage Goals'. It contains input fields for 'Goal ID', 'Employee ID', 'KPI Structure ID' (with a dropdown arrow), 'Due Time', and a large 'Description' text area. To the right of these fields are four buttons: 'Add', 'Update', 'Delete', and 'Clear'. At the bottom is a table with columns: Goal ID, Description, Due Time, Employee ID, KPI Structure ID, and Status. The table currently has no data.

## Interface 26

### View and Review goals

The screenshot shows the SAMAJAYA MICROCREDIT application interface. On the left is a vertical sidebar with icons and labels for various management functions: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. At the bottom of the sidebar is a red 'Log Out' button. The main area has a header with a search bar, a notification bell, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header is a section titled 'Additional Functions' with tabs for 'KPI', 'Goals' (which is selected), and 'Evaluate'. The 'Goals' tab displays a 'View and Review' section with fields for 'Goal ID' and 'Status', and buttons for 'Save' and 'Clear'. It also includes sections for 'KPI Structure ID', 'Key Requirement Areas', and 'Weight'. Below this is a table with columns: Goal ID, Description, Due Time, KPI Structure ID, Status, Evaluate ID, Goal ID, Description, KPI Structure ID, Weight, KPIs, and Feedback. A search bar is located at the bottom of this table.

## Interface 27

View performance reviews

 SAMAJAYA  
MICROCREDIT

 Evaluation Feedback

Select Review by Date **2025/01/12** 

Review Date **2025/01/12**

**Dinith Sonal**

Total points

The comment

 View Attendance

 View Leave Balance

 Request Leave

 Performance

 Resignation

 Log Out

## Interface 28

Evaluate employee performance with feedback

The screenshot shows the SAMAJAYA MICROCREDIT application interface. On the left is a sidebar with various management functions: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. A red 'Log Out' button is at the bottom of the sidebar. The main area has a header with a search bar, notifications, and a user profile for 'Dinith Sonal'. Below the header is a section titled 'Additional Functions' with tabs for 'KPI', 'Goals', and 'Evaluate'. The 'Evaluate' tab is selected, displaying a form with fields for 'Evaluate ID', 'Employee ID', 'Goal ID', 'Score', and 'Feedback', along with 'Add', 'Update', 'Delete', and 'Clear' buttons. Below the form is a table with columns: Goal ID, Description, Due Time, Employee ID, KPI Structure ID, and Status. At the bottom of the page is another table with columns: KPI Structure ID, Key Requirement Areas, and Weight.

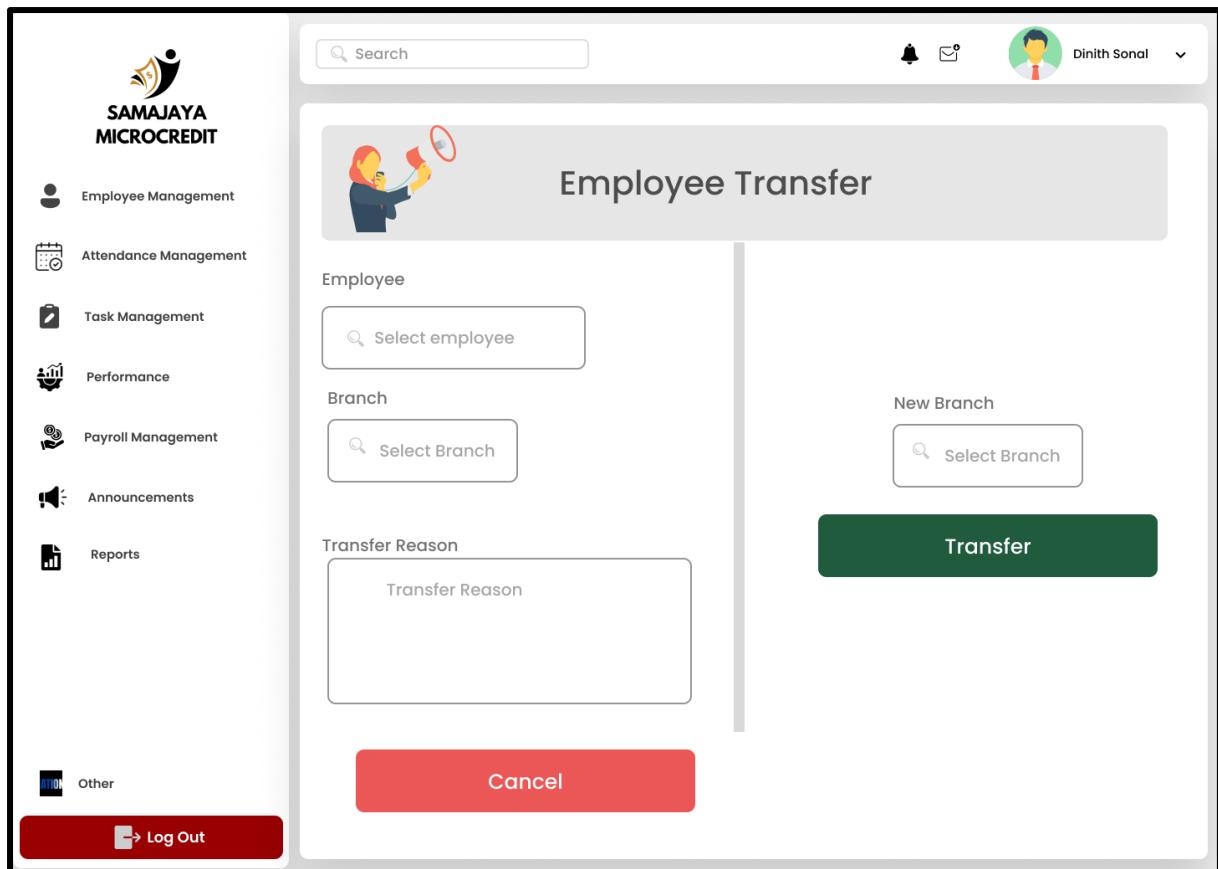
## Interface 29

Write a performance review

The screenshot shows a web-based application interface for performance management. On the left, a sidebar lists various modules: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. A red 'Log Out' button is at the bottom of the sidebar. The main area has a header with a search bar, a notification bell, an envelope icon, and a user profile for 'Dinith Sonal'. Below the header is a section titled 'Additional Functions' with three buttons: 'Goals', 'Evaluate', and 'Review'. The 'Evaluate' button is highlighted. The main content area is titled 'Review' and features a search bar for 'Employee'. A table below the search bar has columns for Evaluate ID, Goal ID, Description, KPI Structure ID, Weight, KPIs, and Feedback. At the bottom of the main content area are two input fields: 'Overall Score' and 'Final Comment'.

## Interface 30

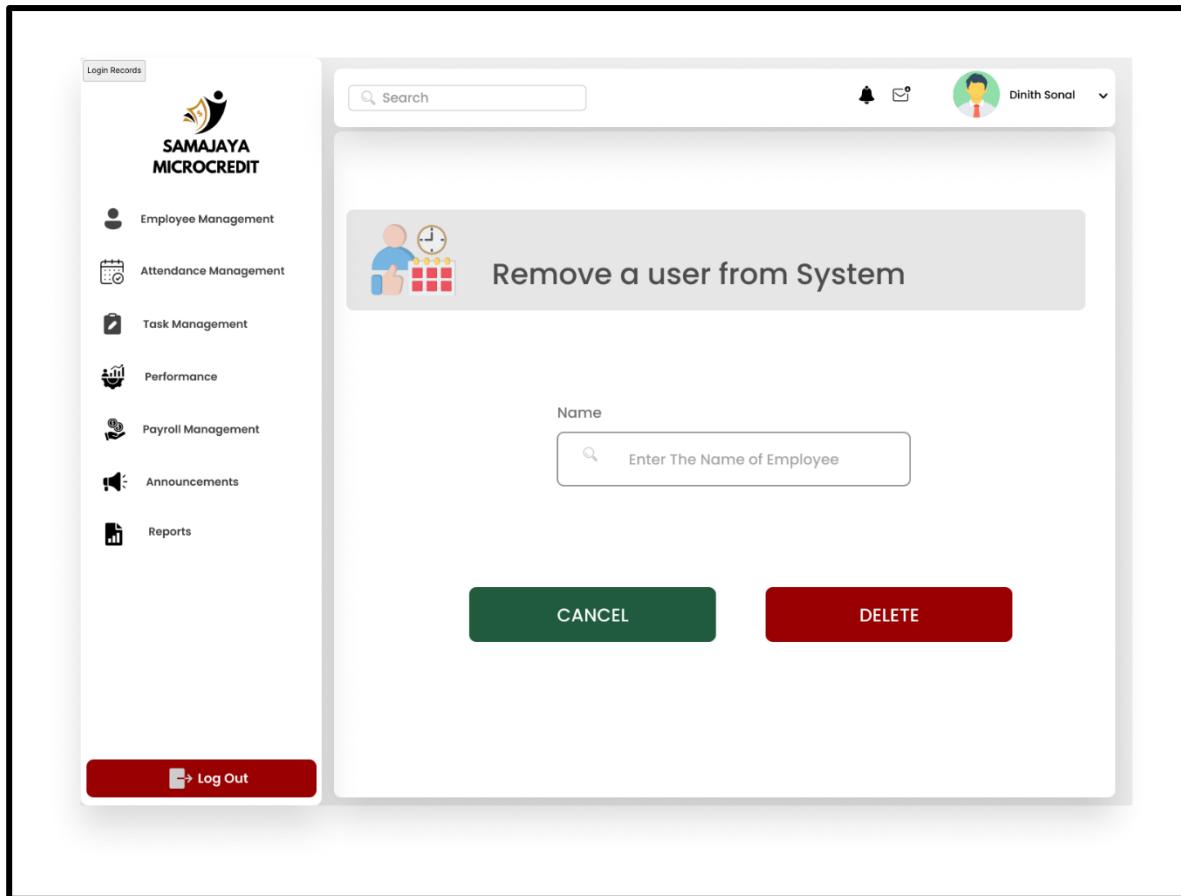
### Transfer a Employee



The screenshot shows the 'Employee Transfer' page of the SAMAJAYA MICROCREDIT application. The left sidebar contains navigation links: Employee Management, Attendance Management, Task Management, Performance, Payroll Management, Announcements, Reports, and Other. A 'Log Out' button is at the bottom of the sidebar. The main area has a header 'Employee Transfer' with an icon of a person holding a megaphone. It includes fields for 'Employee' (with a 'Select employee' search bar), 'Branch' (with a 'Select Branch' search bar), and 'New Branch' (with a 'Select Branch' search bar). A large green 'Transfer' button is positioned to the right of the branch selection. Below the transfer buttons are 'Cancel' and 'Transfer Reason' fields.

## Interface 31

Remove employee from the system



## 4.3 Database Design

### 1. Table Name: User Table

**Primary Key:** user\_id(Text)

**Foreign Key:** employee\_id(Text)

Column Name	Data Type	Size
user_id	Text	10
user_type	Text	20
user_name	Text	25
password	Text	25
employee_id	Text	10

### 2. Table Name: Session Table

**Primary Key:** session\_id(Text)

**Foreign Key:** user\_id(Text)

Column Name	Data Type	Size
session_id	Text	15
user_id	Text	10
date	Date	10
login_time	Time	10
logout_time	Time	10

**3. Name: Employee Table**

**Primary Key:** employee\_id(Text)

**Foreign Key:** department\_id, branch\_id

Column Name	Data Type	Size
employee_id	Text	10
first_name	Text	25
last_name	Text	25
dob	Date	10
address	Text	200
gender	Text	10
NIC	Text	12
designation	Text	15
email	Text	25
contact_number	Text	50
join_date	Text	10
annual_leave	Number	2
sick_leave	Number	2
casual_leave	Number	2
no_pay	Number	2
department_id	Number	10
branch_id	Text	10

**4. Table Name: Department Table**

**Primary Key:** department\_id (Text)

**Foreign Key:** branch\_id(Text)

Column Name	Data Type	Size
department_id	Text	10
name	Text	30
description	Text	50
branch_id	Text	10

**5. Table Name: Branch Table**

**Primary Key:** branch\_id (Text)

Column Name	Data Type	Size
branch_id	Text	15
Name	Text	100
Location	Text	100
Branch_Contact_info	Text	10

**6. Table Name: Attendance Table**

**Primary Key:** attendance\_id(Text)

**Foreign Key:** employee\_id(Text)

Column Name	Data Type	Size
attendance_id	Text	10
checkin_time	datetime	10
checkout-time	datetime	10
Date	Date	10
worked_hours	Number	10
OT_hours	Number	10
employee_id	Text	10

**7. Table Name: Leave Request Table**

**Primary Key:** request\_id(Text)

**Foreign Key:** employee\_id(Text)

Column Name	Data Type	Size
leave_id	Text	10
leave_type	Text	20
start_date	Date	10
end_date	Date	10
reason	Text	30
status	Text	20
request_at	Timestamp	-
approve_at	Timestamp	-
employee_id	Text	10

**8. Table Name: Pay Structure Table**

**Primary Key:** structure\_id(Text)

**Foreign Key:** employee\_id

Column Name	Data Type	Size
structure_id	Text	10
base_salary	Number	10
allowances	Number	10
OT_pay	Number	10
no_pay	Number	10
other_deduction	Number	10
EPF_rate	Number	10
ETF_rate	Number	10
effective_date	Date	10
employee_id	Text	10

**9. Table Name: Payroll Table**

**Primary Key:** pay\_id

**Foreign Key:** employee\_id(Text), leave\_id(Text)

Column Name	Data Type	Size
payroll_id	Text	10
pay_period	Text	10
base_salary	Number	10
allowances	Number	10
OT_pay	Number	10
Epf_deductions	Number	10
ETF_deductions	Number	10
No_pay_deduction	Number	10
Other_dedcution	Number	10
total_deductions	Number	10
gross_salary	Number	10
net_salary	Number	10
payment_date	Date	10
structure_id	Text	10
leave_id	Text	10
employee_id	Text	10

**10. Table Name: Task Table**

**Primary Key:** task\_id(Text)

**Foreign Key:** employee\_id(Text)

Column Name	Data Type	Size
task_id	Text	10
name	Text	30
description	Text	50
priority	Text	10
due_date	Date	10
assign_date	Date	10
assign_to	Text	10
employee_id	Text	10

**11. Table Name: Goal Table**

**Primary Key:** goal\_id(Text)

**Foreign Key:** employee\_id(Text), kpi\_structure\_id(Text)

Column Name	Data Type	Size
goal_id	Text	10
description	Text	50
due_date	Date	10
status	Text	10
employee_id	Text	10
kpi_structure_id	Text	10

**12. Table Name: KPI Structure Table**

**Primary Key:** kpi\_structure\_id(Text)

Column Name	Data Type	Size
kpi_structure_id	Text	10
key_requirement_areas	Text	100
weight_of_kpi	Number	3

**13. Table Name: Evaluate Table**

**Primary Key:** evaluate\_id (Text)

**Foreign Key:** employee\_id (Text), goal\_id (Text), kpi\_structure\_id (Text)

Column Name	Data Type	Size
evaluate_id	Text	10
feedback	Text	100
score	Number	3
date	Date	10
goal_id	Text	10
kpi_structure_id	Text	10

**14. Table Name: Performance Review Table**

**Primary Key:** review\_id

**Foreign Key:** employee\_id(Text), goal\_id(Text)

Column Name	Data Type	Size
review_id	Text	10
overall_score	Text	10
comment	Text	100
review_date	Date	10
Employee_id	Text	10
goal_id	Text	10

**15. Table Name: Announcement Table**

**Foreign Key:** announcement\_id(Text)

**Primary Key:** employee\_id(Text)

Column Name	Data Type	Size
announcement_id	Text	10
title	Text	30
content	Text	300
date	Date	10
Employee_id	Text	10

**16. Table Name: Transfer Table**

**Primary Key:** transfer\_id(Text)

**Foreign Key:** employee\_id(Text)

Column Name	Data Type	Size
transfer_id	Text	10
date	Date	10
current_branch	Text	30
current_department	Text	30
new_branch	Text	30
new_department	Text	30
reason	Text	100
Employee_id	Text	3

**17. Table Name: Resignation Table**

**Primary Key:** resignation\_id(Text)

**Foreign Key:** employee\_id(Text)

<b>Column Name</b>	<b>Data Type</b>	<b>Size</b>
resignation_id	Text	10
resignation_type	Text	20
reason	Text	60
date	Date	10
Employee_id	Text	10

## 4.4 Report Layout Design

Report Layout No: 01

Report Layout Name: Task Report

Description: Displays task report with details Task ID, Name, Assign date, End Date and status.



**Samajaya Micro Capital (Pvt) Ltd**

No.243/A,Gangarama Road,  
Thumbowila,Piliyandala.

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**From : 2024/12/1** **To :2024/12/5**

Generated Date : 4<sup>th</sup> February 2024

**Task Report**

**Status: Completed**  
**Branch: Colombo**

Task ID	Task Name	Assignee	Assigner	Completed on	Priority
T001	Prepare Financial Report	Amarasekara Kumara	IT Manager	2024-12-15	High
T002	System Maintenance	Nirmala Perera	HR Manager	2024-12-18	Medium
T003	System Maintenance	Namal Prasad	HR Manager	2024-12-18	Medium
T004	Finance Documentation	Dinith Sonaka	HR Manager	2024-12-18	Medium
T005	System Maintenance	Dumidu Weerasinghe	HR Manager	2024-12-18	Medium
T006	System Maintenance	Nirmala Perera	HR Manager	2024-12-18	Medium
T007	System Maintenance	Nirmala Perera	HR Manager	2024-12-18	Medium

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Report layout No: 02

Report Layout Name: Leave Report

Description: Displays leave employee and department, Shows leave type

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No.243/A,Gangarama Road,  
Thumbowila,Piliyandala.

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**From : 2024/12/1**      **To :2024/12/5**  
Generated Date : 4<sup>th</sup> February 2024

**Leave Report – All Branches**

Employee ID	Name	Branch	Department	Balance	Leave Type	Start Date	End Date	Reason	Status
E001	Amarasekara Kumara	Colombo	IT	4	Sick	2024-12-01	2024-12-03	Fever	Approved
E002	Nirmala Perera	Colombo	HR	1	Annual	2024-12-05	2024-12-10	Vacation with family	Pending
E003	Induwara Perea	Colombo	HR	5	Annual	2024-12-05	2024-12-10	Vacation with family	Pending
E004	Dinith Priyasad	Colombo	HR	5	Annual	2024-12-05	2024-12-10	Vacation with family	Pending
E005	Dinith Priyankara	Galle	HR	6	Annual	2024-12-05	2024-12-10	Vacation with family	Pending
E006	Gihan Kulasiri	Galle	HR	1	Annual	2024-12-05	2024-12-10	Vacation with family	Pending
E007	Dumindu Abeetha	Galle	HR	1	Annual	2024-12-05	2024-12-10	Vacation with family	Pending
E008	Chamaka Hansamali	Galle	HR	0	Annual	2024-12-05	2024-12-10	Vacation with family	Pending

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Report layout No: 03

Report Layout Name: Performance Report – Filtered by Positive Rating

Description: Displays Performance information related to employees with KPI details



**Samajaya Micro Capital (Pvt) Ltd**

No.243/A,Gangarama Road,  
Thumbowila,Piliyandala.

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From : 2024/12/1                          To :2024/12/5  
Generated Date : 4<sup>th</sup> February 2024

**Performance Status Report – Positive Rating - All Branches**

Employee ID	Name	Branch	Department	KPI	Feedback	Review Date
E001	Amarasekara Kumara	Colombo	IT	90%	Great performance!	2024-12-08
E002	Nirmala Perera	Colombo	IT	85%	Keep improving.	2024-12-09
E003	Dinith Sonal	Colombo	HR	85%	Keep improving.	2024-12-09
E004	Induwara Thenuka	Colombo	HR	80%	Keep improving.	2024-12-09
E005	Chamaka Perera	Galle	HR	80%	Keep improving.	2024-12-09
E006	Nirmal Perera	Galle	HR	80%	Keep improving.	2024-12-09
E007	Dumindu Perera	Galle	HR	80%	Keep improving.	2024-12-09
E008	Nirmala Perera	Galle	HR	80%	Keep improving.	2024-12-09

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Report Layout No: 04

Report Layout Name: Attendance Report

Description: Displays attendance information



**Samajaya Micro Capital (Pvt) Ltd**

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Thumbowila,Piliyandala.

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**From : 2024/12/1** **To : 2024/12/5**  
Generated Date : 4<sup>th</sup> February 2024

**Attendance Report – All Branches**

Employee ID	Name	Branch	Department	Check-In	Check-Out	Hours Worked	Overtime Hours
E001	Amarasekara Kumara	Colombo	IT	08:30 AM	05:30 PM	20	1.5
E002	Nirmala Perera	Galle	HR	08:45 AM	05:45 PM	20	0.5
E003	Jayantha Dharmadasa	Colombo	HR	-	-	-	-
E004	Shermila Perera	Kaluthara	Finance	08.30 AM	05.30 PM	19	1.5
E005	Pulasthi Perera	Gampaha	Finance	08.32 AM	05.00 PM	18	0.5
E006	Pulasthi Perera	Gampaha	Finance	08.32 AM	05.00 PM	18	0.5
E007	Pulasthi Perera	Gampaha	Finance	08.32 AM	05.00 PM	18	0.5
E008	Pulasthi Perera	Gampaha	Finance	08.32 AM	05.00 PM	18	0.5
E009	Pulasthi Perera	Gampaha	Finance	08.32 AM	05.00 PM	18	0.5
E010	Pulasthi Perera	Gampaha	Finance	08.32 AM	05.00 PM	17	0.5

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Report Layout No: 05

Report Layout Name: Payroll Report

Description: Displays payroll information issued to employees in a time period, filtered by department and employee



**Samajaya Micro Capital (Pvt) Ltd**

No.243/A,Gangarama Road,  
Thumbowila,Piliyandala.

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Generated Date : 4<sup>th</sup> February 2024

**Payroll Report - January 2024 - All Branches**

Employee ID	Name	Branch	Department	Base Salary	Allowances	Deductions	Tax Rate	Net Pays
E001	Amarasekara Kumara	Colombo	IT	150,000 LKR	10,000 LKR	5,000 LKR	10%	139,500 LKR
E002	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR
E003	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR
E004	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR
E005	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR
E006	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR
E007	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR
E008	Nirmala Perera	Galle	HR	120,000 LKR	8,000 LKR	4,000 LKR	8%	114,800 LKR

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Report Layout No: 06

Report Layout Name: Employee details Report

Description: Provides detailed report of currently employed employees of the organization



**Samajaya Micro Capital (Pvt) Ltd**

No.243/A,Gangarama Road,  
Thumboewila,Piliyandala.

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Generated Date : 4<sup>th</sup> February 2024

**Employee Details Report**

**Branch : Colombo**

Employee ID	Name	Department	DOB	Joined Date	Designation	Gender
E001	Amarasekara Kumara	IT	Sick	2024-12-01	IT Operator	Male
E002	Nirmala Perera	IT	Sick	2024-12-06	IT Assistant	Female
E003	Dinith Samare	HR	Annual	2024-12-07	Officer	Male
E004	Indu Thenuka	Sales	Annual	2024-12-05	Sales Assistant	Male
E005	Induwara Kanna	Sales	Annual	2024-12-03	Sales Assistant	Male
E006	Dumindu Abeetha	Sales	Annual	2024-12-05	Sales Assistant	Male
E007	Chamaka Thilkasiri	Sales	Annual	2024-12-05	2024-01-10	Female
E008	Nirmal Perera	Sales	Annual	2024-12-07	2024-01-10	Female

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Report Layout No: 07

Report Layout Name: Leave Report – Approved – Branch Wise

Description: Shows resignation details with details such as resignation type and reason



**Samajaya Micro Capital (Pvt) Ltd**

No.243/A,Gangarama Road,  
Thumbowila,Piliyandala.

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**From : 2024/12/1** **To :2025/01/01**

Generated Date : 4<sup>th</sup> February 2024

**Leave Report**

**Status: Approved**

**Branch : Galle**

Employee ID	Name	Department	Leave Type	Start Date	End Date	Reason
E001	Amarasekara Kumara	IT	Sick	2024-12-01	2024-12-03	Fever
E002	Nirmala Perera	IT	Sick	2024-12-06	2025-01-10	Fever
E003	Dinith Samare	HR	Annual	2024-12-07	2025-01-10	Vacation with family
E004	Indu Thenuka	HR	Annual	2024-12-05	2024-12-10	Alms Giving
E005	Induwara Kanna	HR	Annual	2024-12-03	2024-12-10	Family Gathering
E006	Dumindu Abeetha	HR	Annual	2024-12-05	2024-12-10	Vacation with family
E007	Chamaka Thilkasiri	HR	Annual	2024-12-05	2024-01-10	Birthday Party

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DIRECTOR

## **Chapter 5: Conclusion**

The Employee Management System digitizes the manual processes that are currently done in the business organization. These systems will increase efficiency and productivity in the work environment. Few benefits of the system are

Achievements:

- Automating HR processes such as employee management and defecting manual process.
- Secured business data through authentication and user-based access control.
- Automated payroll which calculates payroll and deductions and deficits and benefits,
- Accurate and transparent attendance tracking with biometrics systems in the premises.
- Implemented Performance evaluation function to assess employee performance.
- Report generation functionalities to represent accurate and current business data.

Weaknesses and Areas for Improvement:

- Parallel implementation might lead to using more resources than expected.
- Lack of remote access, users can only log into the system within the workplace.
- Payroll calculations are done automatically but the transaction must manually be requested to the bank to initiate the transaction.

## Appendices



### Samajaya Micro Capital (Pvt) Ltd

No.805/3, 1<sup>st</sup> Floor, Lake Road, Maharagama  
Telephone – 0117112442

Email – info@samajayacapital.com Web – www.samajayacapital.com Reg No : PV 229690

The Course Director,  
School of Computing,  
National School of Business Management,  
No 120/03,Wijerama Mawatha,  
Colombo 07.

Dear Sir/Madam,

#### SAMAJAYA CAPITAL Employee Attendance Management System

This is to inform you that our company has approved the solution which was given to the employee and leave management system by the four students of NIBM.

The current system is a manual system, which is a huge problem to manage the data of the employee attendance, leave & working hour process. Our company appreciate and approve the computerized system which was proposed by the students after studying our current system.

It is a new experience for our company to work with students, and we are pleased to help them throughout the project.

Yours faithfully,

Renuka Rathnayake

CEO/Director

SAMAJAYA CAPITAL

## Log Form

Date	Supervisor Comments	Indexes of Students (participated for each meeting)	Supervisor Signature
02/02/2024	New User for Country of <u>Japan</u> system	CODSE22-3F - 072 CODSC22-3F - 006 C0DSF22-3F - 022 C0DSF22-3F - 021	X
02/02/24	Con't on <u>Geo Shd</u> <u>for Japan</u> <u>Journey</u> <u>product</u> <u>class</u> <u>by</u> <u>for</u> <u>raw</u>	7 06 22 21	X
27/2/24	Initial class <u>for</u> <u>raw</u>	72 06 12 31	X
01/3/24	Re <u>make</u> <u>for</u> <u>raw</u> <u>to</u> <u>class</u> <u>by</u> <u>raw</u> & <u>bring</u>	706 12	X
	Sure <u>class</u> <u>raw</u>	72 —	

## Log Form

Date	Supervisor Comments	Indexes of Students (participated for each meeting)	Supervisor Signature
22/04/2024	Impose class dynm.	72 / 06	X
3/5/2024	Impose class dynm. Sync	F2 / -	X
30/5/2024	ER Sync & L. Table	F2 / 21	X
07/06/2024	UT dynm	CODSE22.3F - 072 CODSE22.3F - 006 CODSE22.3F - 091 CODSE22.3F - 022	X
24/10/2024	— Impose UTs — include cardinality	F2 / 06	X
13/12/2024	— on ER — Bring report layout	29 / 22	
	— Impose class dynm.		