

EMPLOYEE MANAGEMENT SYSTEM

PROJECT REPORT

Submitted by

AVULA SOWMYA(B200444)

GANGINENI ANUSHA(B200816)

KANUKUNTLA NAVYA(B201082)

Of

Bachelor of Technology

Under the guidance of

Mrs.NAGAMANI

Asst. Prof. CSE, RGUKT BASAR



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES
BASAR, NIRMAL (DIST.),
TELANGANA – 504107

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1 OVERVIEW

1.1 PURPOSE

The EMS aims to reduce manual efforts and errors in managing employee data, provide performance and also record maintenance.. It will enhance productivity and data transparency across the organization.

1.2 SCOPE

The Employee Management System (EMS) is a web-based solution designed to simplify and automate employee-related processes, including..

EMPLOYEE PROFILES:

- Employees will have access to their personal profiles and will be able to edit their details.

PROJECT AND TASK MANAGEMENT:

- Assigns tasks and projects to Employees assign a project team and keep track of the progress.

RECRUITMENT PROCESS:

- The admin will add an employee and a default password and Employee id will generated and sent to the new employees email the HR manager will then have the ability to add an employees information to the Database

1.3 INTENDED AUDIENCE

- **HR Department:** To manage employee data and processes.
- **Employees:** To update their details, view taskrecords, and get notification about tasks.

1.4 REFERENCES

Organizational requirements specification document. Software requirements specification (SRS) for EMS. Industry standards for HR management systems.

2 DEFINITIONS

- **CRUD:** Create, Read, Update, Delete - Basic operations for managing records.
- **Role-based Access:** Different levels of access for admins and employees.
- **MySQL:** Database system used for storing and managing data.
- **EMS:** Employee Management System
- **HR:** Human Resources
- **UI/UX:** User Interface/User Experience

3 CONCEPTUAL MODEL FOR SOFTWARE DESIGN DESCRIPTION

3.1 software design in context

- The system integrates with existing IT infrastructure, including a MySQL database and an Apache or Nginx web server. It uses PHP for back-end processing, HTML and CSS for front-end design, and JavaScript for interactivity.

3.2 software design description within the life cycle

The SDD will serve as a guide during the following stages:

- **Requirements Analysis:** Validate requirements against design specifications.
- **Development:** Use the document to implement modules and interfaces.
Testing: Verify that the design fulfills requirements and expectations

4 DESIGN DESCRIPTION INFORMATION CONTENT

4.1 INTRODUCTION

The Employee Management System's design includes a detailed explanation of its architecture, components, and functionality to ensure developers and stakeholders share a common understanding.

4.2 SDD IDENTIFICATION

This SDD outlines the EMS for an organization with up to 500 employees. It is identified as version 1.0.

4.3 DESIGN STAKEHOLDERS AND THEIR CONCERNS

- **Developers:** Need clarity on system components and interactions.
- **HR Managers:** Require efficient workflows for employee operations.
- **Management:** Need robust reporting for decision-making.
- **IT Team:** Require maintainability and scalability.

4.4 DESIGN VIEWS

The design includes:

- **Logical View:** System structure and relationships.
- **Interface View:** User and system interfaces.
- **Dynamic View:** Interaction between components during runtime.

4.5 DESIGN ELEMENTS

- user
- admin
- view
- update
- attendance
- add employee
- salary
- logout

TableName	Description
User	Allows employees to securely access their accounts.
Admin	Allows the admin to securely access the system.
view	Allows the admin to view key data in the system.
update	Allows the admin to make updates to various entities in the system.
attendance	Allows the admin to manage attendance records.
add	Allows the admin to onboard new employees.
salary	Manages employee payroll processing.

4.5.1 Design Attributes

Attributes and attributes types of the entities can be seen at entity-relationship diagram in section 5.4. Information Viewpoint.

4.5.2 Design Constraints

The Employee Management System faces constraints in terms of regulatory compliance, reliability of operations, data safety, and information security. These constraints are manageable through proactive measures such as aligning with local laws, ensuring high server uptime, adopting robust data protection practices, and regularly updating the system to address emerging risks. By addressing these constraints, the system can maintain reliability, safety, and trustworthiness, ultimately meeting the organization's and employees' expectations.

5 DESIGN VIEWPOINTS

5.1 INTRODUCTION

In this document, five viewpoint are designed for the system as listed below:

- Context Viewpoint
- Logical Viewpoint
- Information Viewpoint
- Interface Viewpoint
- Interaction Viewpoint
- State Dynamic Viewpoint

5.2 CONTEXT VIEWPOINT

In this system involving two actors—User (e.g., administrator) and Employee—here’s a breakdown of the interaction and functionalities in the Employee Management System:

Actors:

User (e.g., Administrator/HR Manager):

Responsible for managing employees

Key Use Cases:

User (Administrator):

- Add Employee
- Update Employee
- Delete Employee
- View Employee Records
- Assign Task
- View Reports

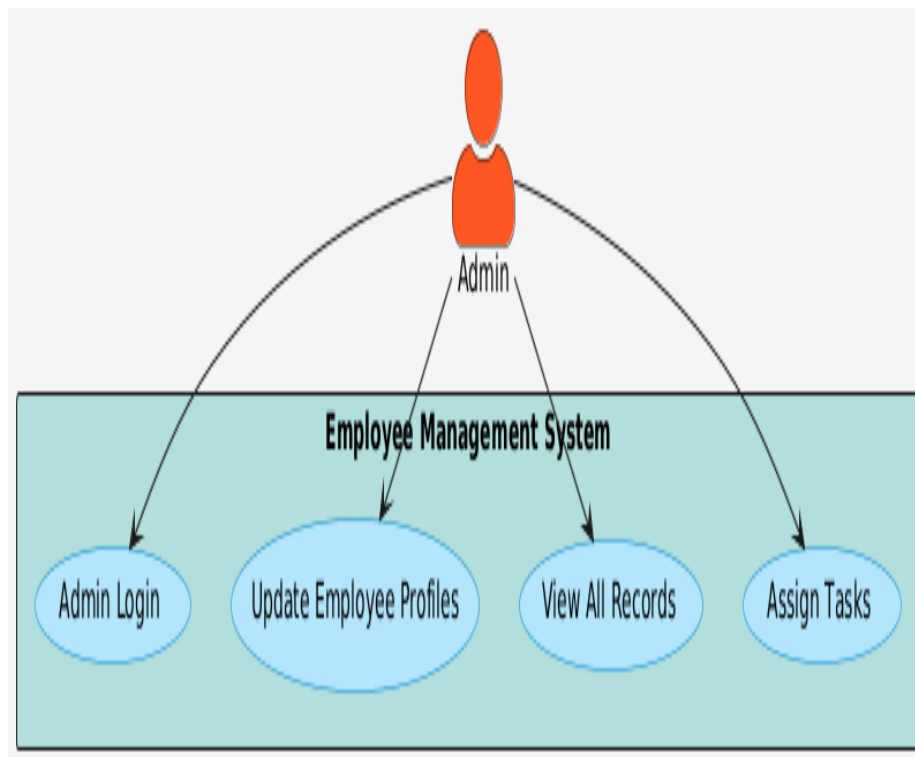


Figure 1: Use Case Diagram

Key Use Cases for employee:

Employee:
employee can view their profile and check status of give tasks ect...

- Update Profile
- they get notification whenever the admin assign the task to him.

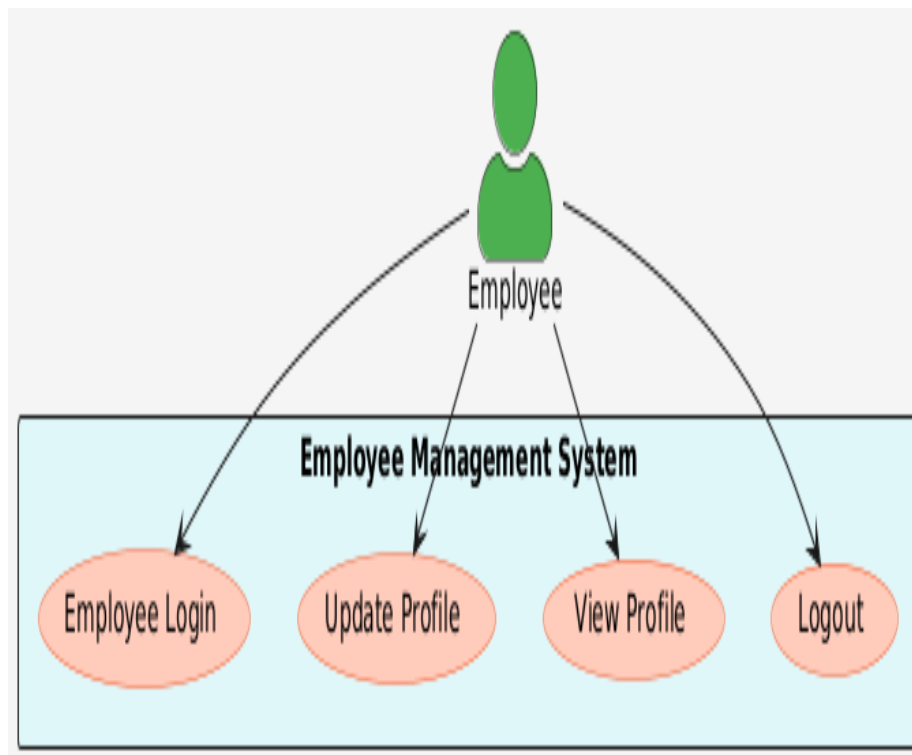


Figure 2: Use Case Diagram for employee

5.3 LOGICAL VIEWPOINT

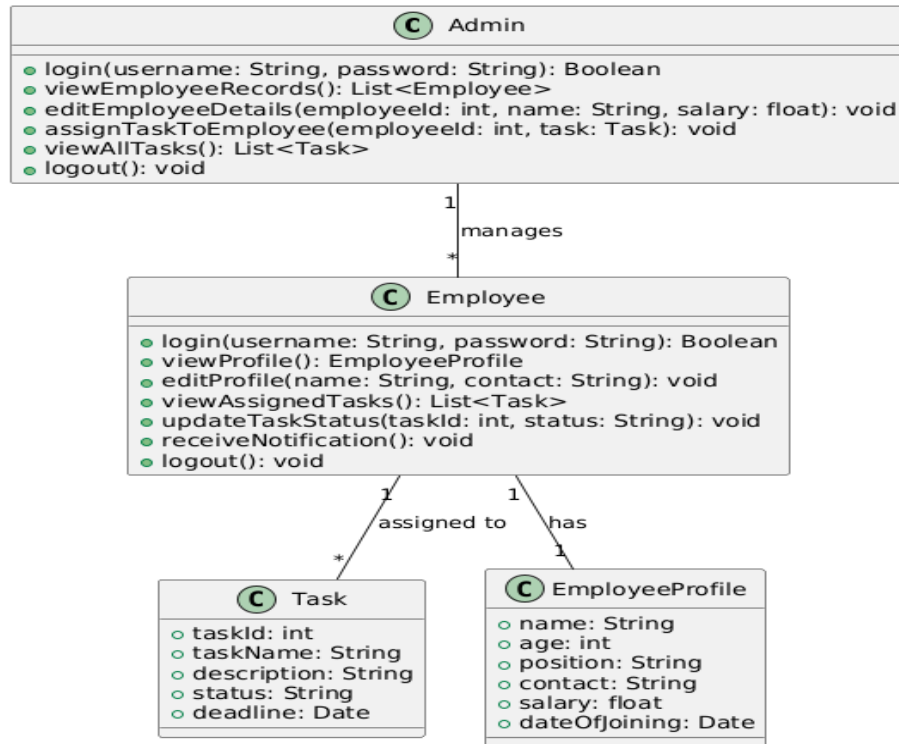


Figure 3: class Diagram

5.4 INFORMATION VIEWPOINT

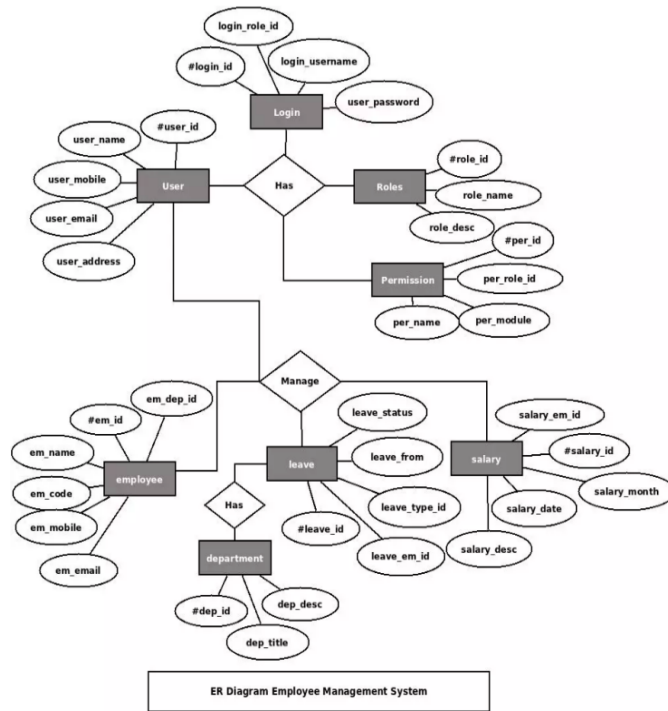
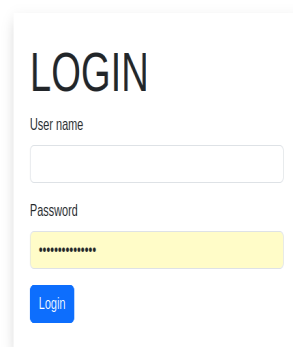


Figure 4: ER diagram

5.5 INTERFACE VIEWPOINTS



The image shows a login interface. At the top, the word "LOGIN" is displayed in a large, bold, black font. Below it, the text "User name" is followed by a white rectangular input field with a thin grey border. Underneath that, the text "Password" is followed by a yellow rectangular input field containing ten asterisks. At the bottom left of the form is a blue rectangular button with the word "Login" in white text.

Figure 5: login page

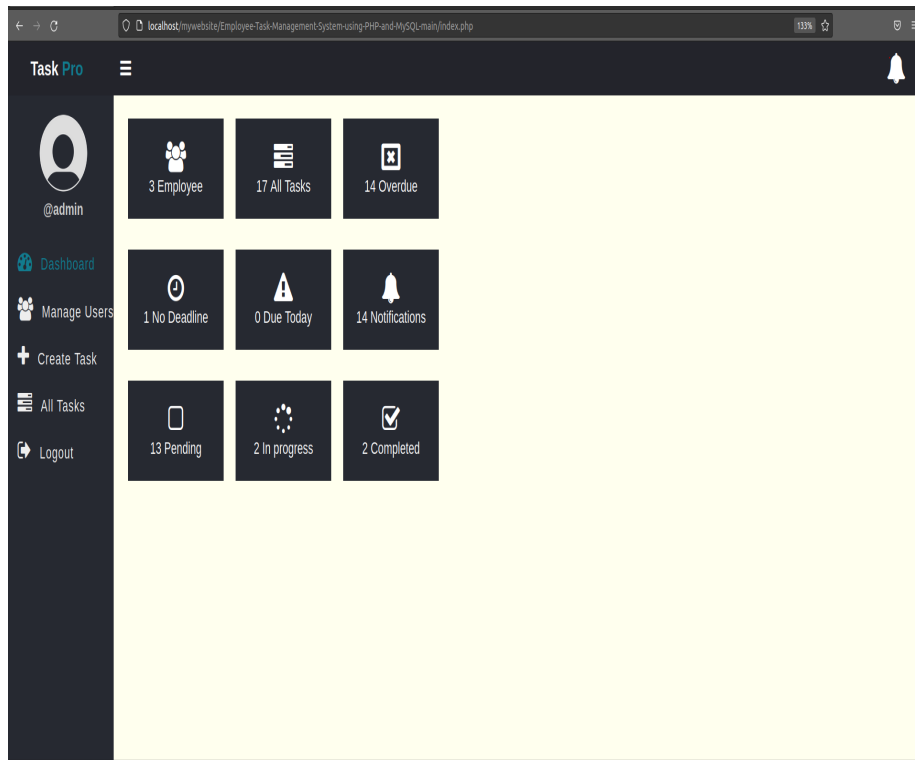


Figure 6: Dashboard

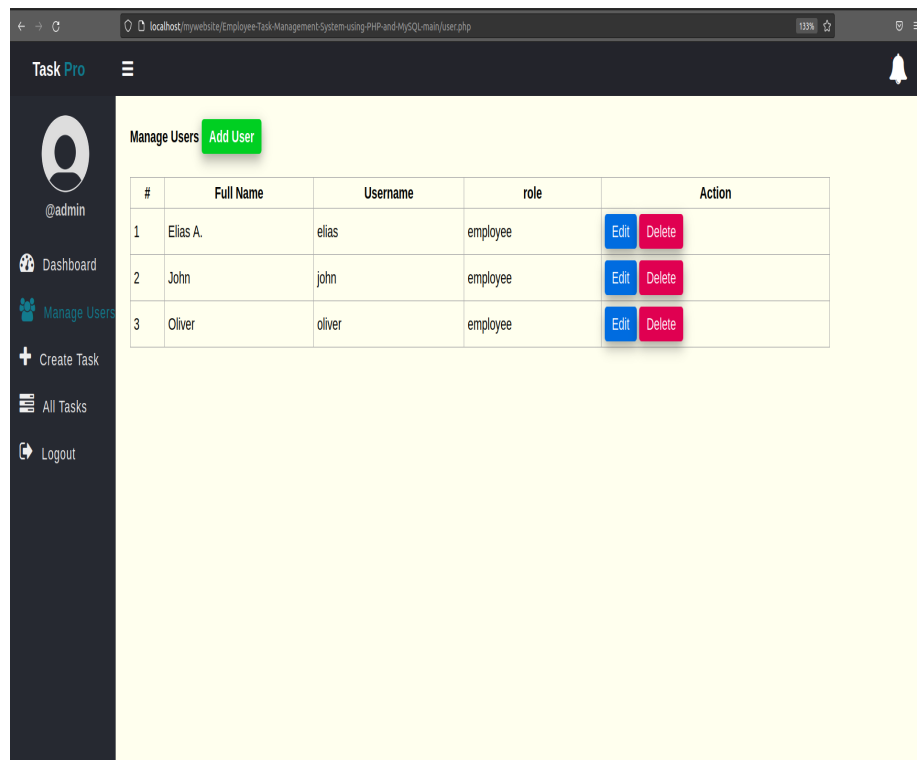


Figure 7: Manage Users

The screenshot shows a web browser window with the URL `localhost/mywebsite/Employee-Task-Management-System-using-PHP-and-MYSQL-main/create_task.php`. The application is titled "Task Pro". The sidebar on the left contains the following items:

- Profile icon and `@admin`
- Dashboard
- Manage Users
- Create Task** (highlighted with a blue plus icon)
- All Tasks
- Logout

The main content area, titled "Create Task", contains the following form fields:

- Title**: A text input field with the placeholder "Title".
- Description**: A text area with the placeholder "Description".
- Due Date**: A text input field with the placeholder "dd/mm/yyyy".
- Assigned to**: A dropdown menu with the text "Select employee".

A blue button labeled "Create Task" is positioned below the form fields.

Figure 8: Create Task

Task Pro

@admin

Dashboard

Manage Users

Create Task

All Tasks

Logout

Create Task

Due Today

Overdue

No Deadline

All Tasks

All Task (17)

#	Title	Description	Assigned To	Due Date	Status	Action
1	Renew software license	Ensure all software licenses are renewed and up to date	Elias A.	2024-09-06	pending	<div>Edit</div> <div>Delete</div>
2	Write blog post on industry trend	Draft and publish a blog post about current industry trend	John	2024-09-07	pending	<div>Edit</div> <div>Delete</div>
3	Prepare budget for Q4	Create and review the budget for the upcoming quarter	John	2024-09-07	pending	<div>Edit</div> <div>Delete</div>
4	Schedule team meeting	Organize a meeting to discuss project updates	Elias A.	2024-09-07	pending	<div>Edit</div> <div>Delete</div>
5	Conduct software testing	Run tests on the latest software release to identify bugs	John	2024-09-07	pending	<div>Edit</div> <div>Delete</div>
6	Design new company website	Create wireframes and mockups for the new website design	Elias A.	2024-09-06	pending	<div>Edit</div> <div>Delete</div>

Figure 9: All Tasks

← → ↻ localhost/mywebsite/EmployeeTaskManagementSystem-using-PHP-and-MYSQL-main/edit-task.php?id=27 133%

Task Pro

@admin

Dashboard

Manage Users

+ Create Task

All Tasks

Logout

Edit Task Tasks

Title

Renew software license

Description

Ensure all software licenses are renewed and up to date

Snooze

06/09/2024

Assigned to

Elias A.

Update

Figure 10: Edit Task

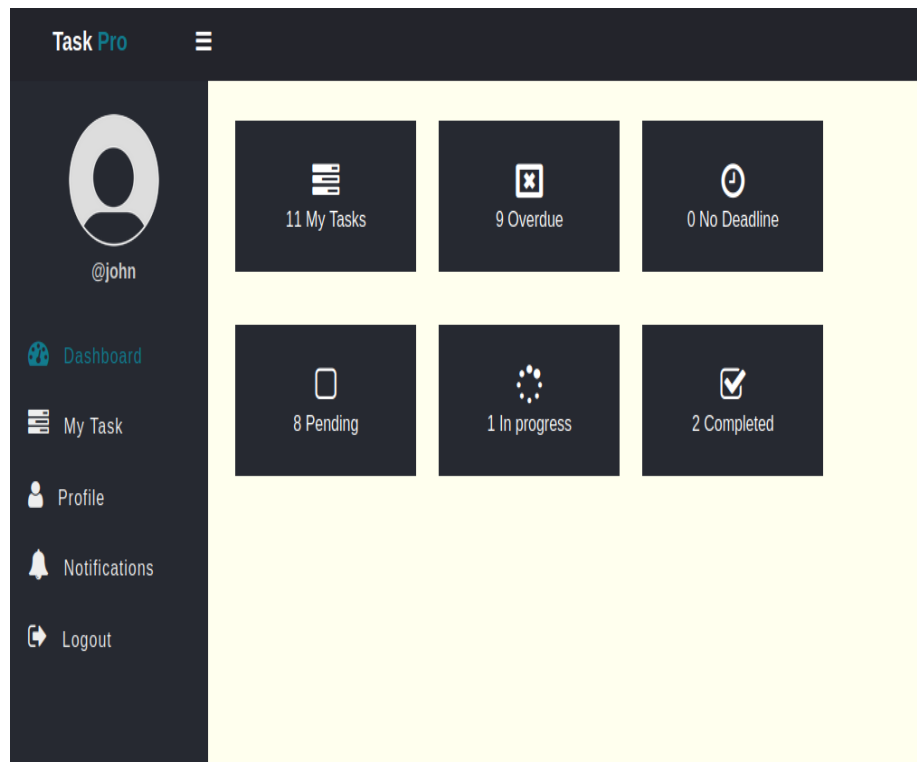


Figure 11: Employee Dashboard

5.6 INTERACTION VIEWPOINT

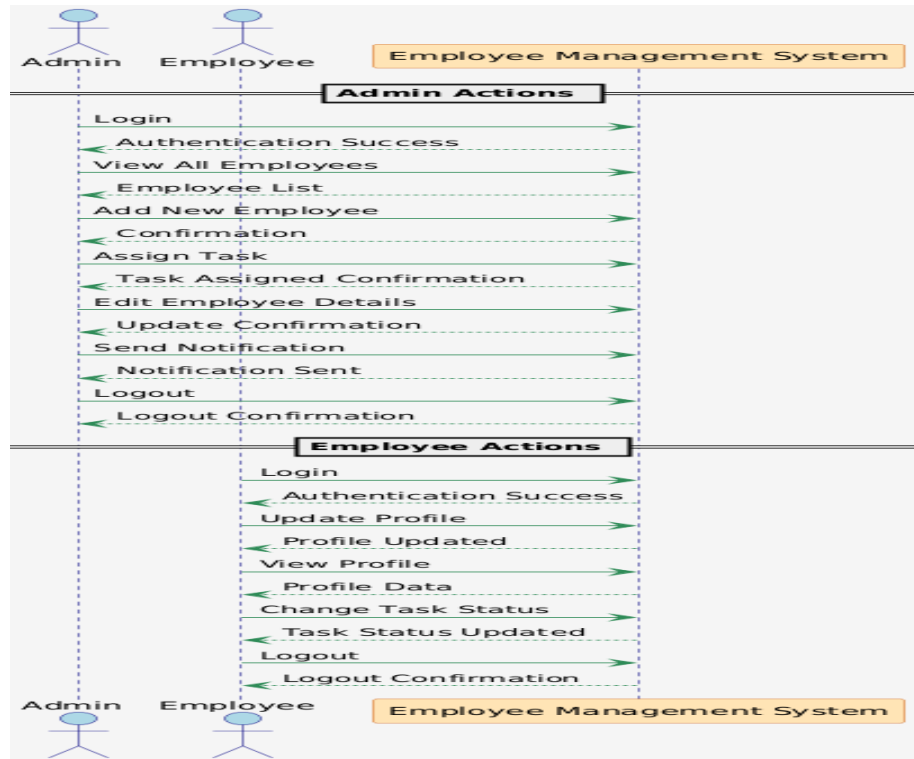


Figure 12: sequence diagram for employee

5.7 BEHAVIOURAL DIAGRAM

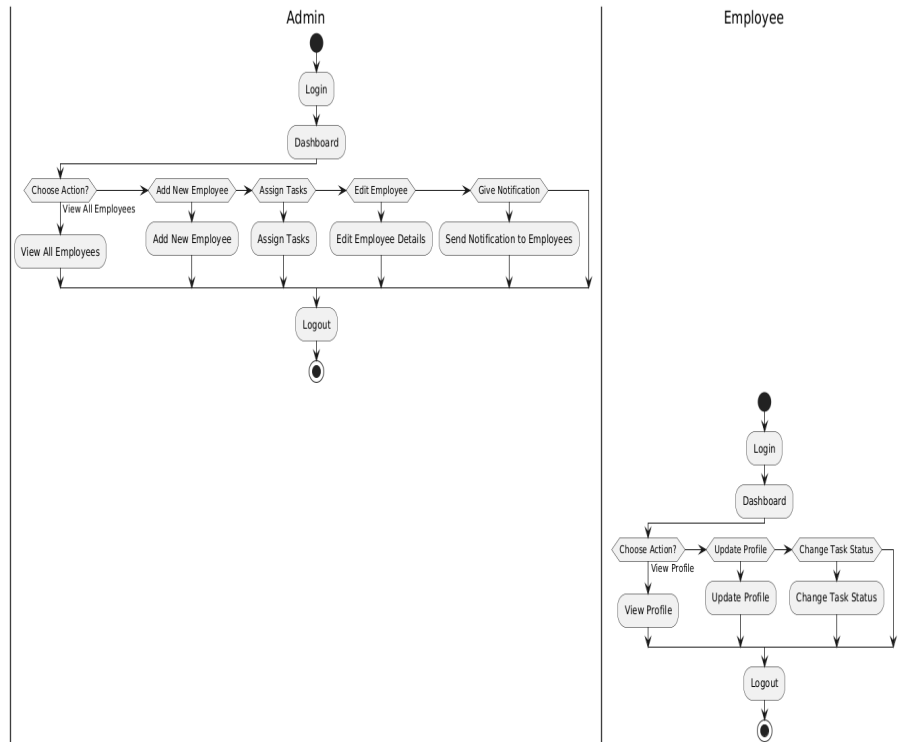


Figure 13: Activity diagram

6 CONCLUSION

The Employee Management System (EMS) outlined in this System Design Document is a robust and scalable solution aimed at streamlining employee data management, attendance tracking, and task allocation processes. Through the incorporation of key features such as user authentication, role-based access control, task management, and attendance tracking, the system ensures operational efficiency and data integrity.

The design ensures scalability to accommodate future enhancements, such as advanced reporting and analytics or integration with payroll systems. The system architecture prioritizes user experience, security, and maintainability, making it well-suited for deployment in dynamic organizational environments.

Upon implementation, the EMS is expected to significantly reduce manual administrative tasks, improve communication between employees and administrators, and provide valuable insights into employee performance and resource management.

By adhering to industry standards and leveraging a modular design approach, this system can evolve with organizational needs, serving as a vital tool for workforce management.