

Software Requirements Specification

Online Payroll Management System	Version 2.0
Software Requirements Specification	Date: 25th Jun 2021

REVISION HISTORY

Date	Version	Description
9th Feb 2021	1.0	Software Requirements Specification Document Initial Release.
25th Jun 2021	2.0	Software Requirements Specification Document Final Release.

1. INTRODUCTION

The proposed project “ **Payroll Management System**” has been developed to overcome the problems faced in the practice of manual systems. Payroll Management System is designed to make the existing manual system automatic with the help of computerised equipment and full-edged computer software, fulfilling their requirements, so that their valuable data and information can be stored for a longer period with easy access and manipulation of the same. This software is built to eliminate and in some cases reduce the hardships faced by the existing system. Moreover this system is designed for particular needs of the company to carry out its operations in a smooth and effective manner. This web

application is reduced as much as possible to avoid errors while entering data. It also provides error messages while entering invalid data.

It is user-friendly as no formal knowledge is required to use the system. Human resource challenges are faced by every organization which has to be overcome by the organization. Every organization has different employee and payroll management needs. The required software is easily available and easy to work with. This web application can maintain and view computerised records without getting redundant entries. The project describes how to manage user data for good performance and provide better services for the client. Therefore we have designed an exclusive payroll Management System that is adapted to the organization's Managerial Requirement.

1.1. Purpose

The purpose of this document is to describe the functionality and specifications of the design of a web application for Managing Employees and their payroll. The expected audiences of this document are the developers and the admin of the web application. Now with the help of this system the admin has the information on his finger tips and can easily prepare a good record based on their requirements. Finally, we can say that this system will not only automate the process but save the valuable time of the manager or the admin, which can be well utilized by his institute. This will be an additional advantage and management of power based on their free time from his normal duty.

1.2. Scope

➤ Recurring payroll services:

- Gross pay calculation(basic salary,wage supplement,occasional payments,cost reimbursement, etc.)

- Preparation of payroll slips and other outputs broken down by employees or by cost centers for managerial and operational use.
 - Recording of wage and labor-related data (registration of personnel information, holiday and sick leave balances).
 - Providing data and information for posting into the General Ledger.
 - Data reports and certificates related to payroll processing.
- Payroll disbursement services:
- Movement of all payments, calculated during the pay processing cycle.
 - Specified data reports for the client's accounting.

1.3. Overview

This SRS will provide detailed description about payroll management system. This document will provide the outline of the requirements, overview of the characteristics and constraints of the system. It deals with the financial aspects of employer's salary, allowances, deductions, gross pay, net pay etc and generation of pay-slips for a specific period. Payroll Management is a distributed application, developed to evaluate the performance of employees working in any organization. It maintains the information about a company, personal details of their employees, also the project details assigned to particular developers. This project basically deals with four modules and their further sub modules. First module is the employee module into which we can enter employee details such as his name,

address, phone number, his basic salary and many more. After that we can view the details further by using the employee id, and we can modify the details.

1.4. Reference

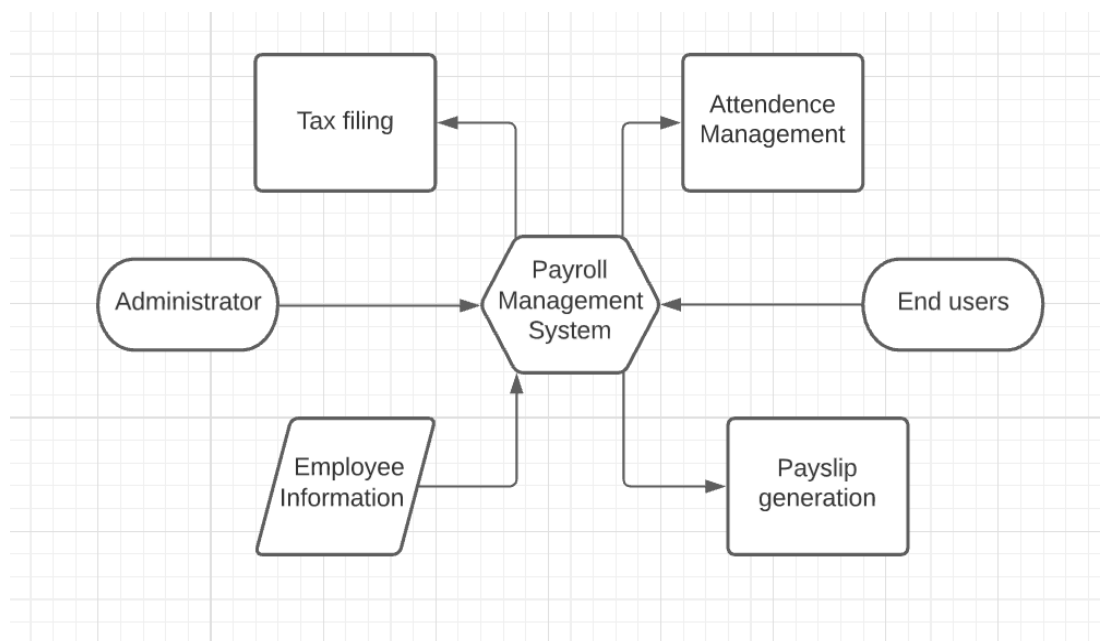
- I. [IEEE] The applicable IEEE standards are published in “IEEE Standards Collection,” 2001 edition.

2. OVERALL DESCRIPTION

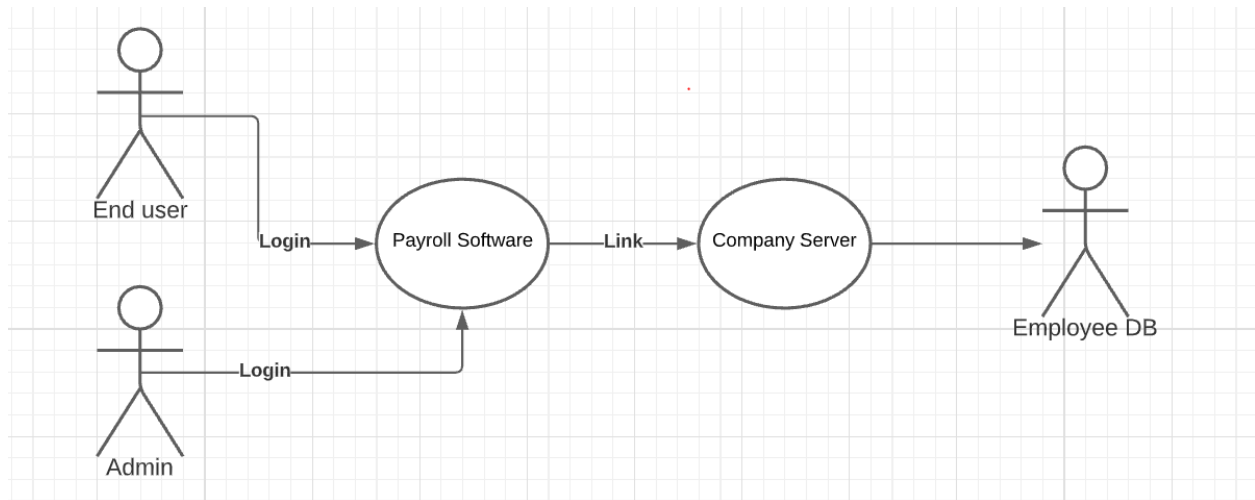
2.1. Product Perspective

This software is developed specifically to cater the company employees leave and payslip management, is totally self contained and works efficiently. It provides a simple database rather than complex one for high requirements and it provides a good and easy graphical user interface to both new as well as experienced users of the computer.

Block diagram:



System Design Diagram:



2.2. Product Features

- **Integrated Accounting**

The human resources team and the accounting department can save time for managing every payroll detail manually. Thus, the payroll software can eliminate the scope of miscalculation and placement of the critical data in a wrong file.

- **Recording files and payslips**

The software can generate reports including leave summary, salary benefits, and salary statements. By using the digital platform, the software can print payslip.

- **Attendance Management**

The Payroll management system helps to keep track of the number of days an employee worked, the number of leave

of absence which is useful to calculate the salary.

- **Employee Information**

Employee management feature is inbuilt in the software which saves the company from adding another layer of software to store the employee information separately. It saves time and effort for the company when retrieving information.

- **Payslip generation**

Each month the salary of employees is directly deposited into their bank account which saves time and effort. The employee can view his payslip through the software once he logs in to the system and types his account details. The payslip gives detailed information about the amount the employee has received in the month.

2.3. User Characteristics

2.3.1 End Users

- No specific knowledge or skills are required from the end user.
- End users should have a basic idea about computer operations and databases.

2.3.2 Administrator

- Administrator must have good knowledge of database management systems.
- Administrator must be capable of managing user rights.
- Recovery of data after a system crash will be possible

only if backups are taken at regular intervals.

2.4. Assumptions and Dependencies

- The code should be free from compilation errors/syntax errors.
- The product must have an interface which is simple enough to understand.
- All necessary hardware and software are available for implementing and use of the tool.
- The proposed system would be designed, developed and implemented based on the software requirements specifications document.
- End users should have a basic idea about computer operations and databases.

3. REQUIREMENTS

3.1. Functional Requirements

S. No	Requirement	Description	Essential/ Desirable
RS1	The system should have a login for employee and admin separately.	A login box should appear when the system is invoked.	Essential
RS2	The system should allow the employee only to view his details and should prevent any updates.	The user will be able to view his pay slip.	Essential

RS3	The system should allow admin to add and delete employees.	Admin will add or remove employees from database as per the availability of the employee	Essential
RS4	The system should allow the admin to search for employees	Admin is allowed to search for employees.	Essential
RS5	The system allows the admin to update the details of employees.	Admin updates the employee records.	Essential
RS6	User friendly messages should come up ,all the messages should be pop-ups	This will improve the usability of the system	Desirable
RS7	Look and feel screens should be Consistent for the application.	This will improve the look and feel more user friendly.	Desirable

3.2. Non-Functional Requirements

3.2.1. Safety and Security Requirements

S. No	Requirement	Description	Essential/Desirable
RS1	Safety issues and safety attributes are addressed as part of the software testing effort at all levels.	Safety Requirement	Essential
RS2	Software with safety-critical functionality must be thoroughly verified with objective analysis and preferably test evidence that all safety requirements have been met per established criteria.	Safety Requirement	Essential
RS3	The number and complexity of security critical interfaces is minimized	Security Requirement	Desirable

RS4	Precautions to avoid third parties accessing the data.	Security Requirement	Essential
RS5	Unique credentials provided to the administrator and the users for data privacy.	Security Requirement	Essential

3.2.2. Hardware and Software Requirements *

S. No	Requirement	Description	Essential/Desirable
RS1	Processor	Minimum 1 GHz; Recommended 2GHz or more	Essential
RS2	Hard Drive	Minimum 32 GB; Recommended 64 GB or more	Essential
RS3	Internet	Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)	Essential
RS4	Memory (RAM)	Minimum 1 GB; Recommended 4 GB or above	Essential
RS5	Operating System	Windows: 7 or newer MAC: OS X v10.7 or higher Linux: Ubuntu	Essential

*to be finalized

4. USE CASES

4.1. Employee Details

4.1.1. User side view

Use case name :	Employee Details
Priority :	Essential
Trigger :	Employees login to the software
Description:	The employee's name, ID, position in the company, number of years worked.
Basic path :	<ol style="list-style-type: none">1. Employee login through his unique credentials.2. The employee details are shown upon login.

4.1.2. Admin Side view

Use case name :	Employee Details
Priority :	Essential
Trigger :	Admin logs in to software
Description:	Administrator's name, ID, position in the company
Basic path :	<ol style="list-style-type: none">1. Admin login through his unique credentials.2. Admin can add, update/delete employee records.

4.2. Attendance Management

Use case name :	Attendance Management
Priority :	Essential
Trigger :	Employees apply for holidays through their unique identification.
Description:	Reduction of salary based on the number of leaves taken above the threshold.
Basic path :	<ol style="list-style-type: none">1. Employee login through his unique credentials.2. Applies for leave which is later sanctioned by the admin.3. Status is updated accordingly,4. Reduction of salary based on the number of leaves applied by the employee.5. Display the message on the screen.

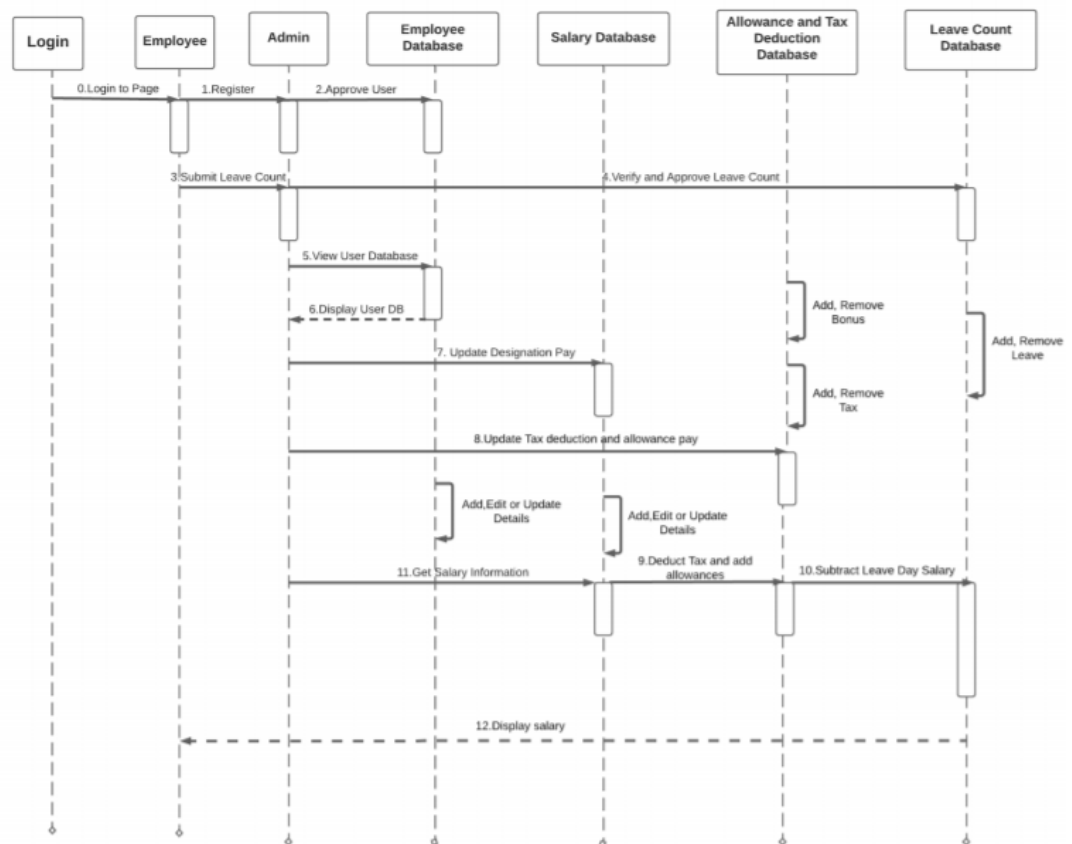
4.3. Payment Slip Generation

Use case name :	Pay slip generation
Priority :	Essential
Trigger :	Employee requests for payslip to know the details of payment received
Description:	Note given to employee when they have been paid , detailing amount of payment given

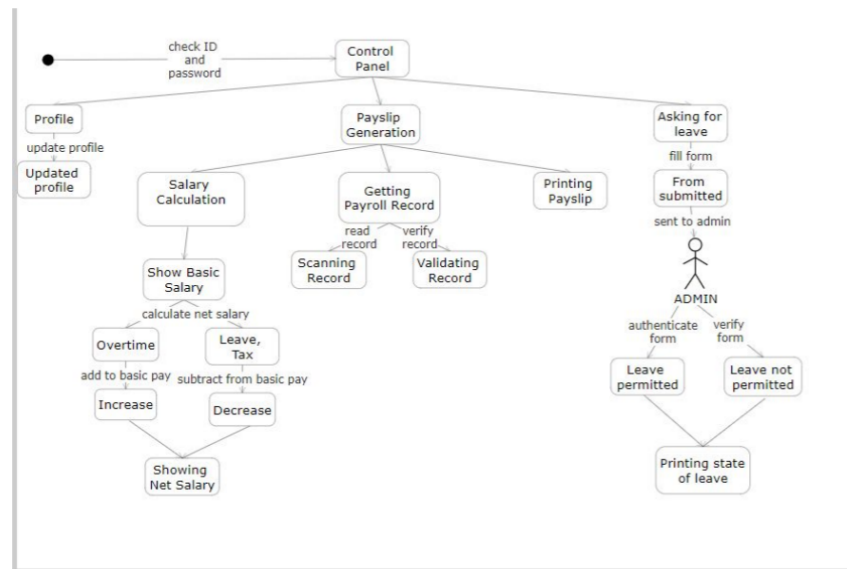
Basic path :	<ol style="list-style-type: none"> 1. Employee logs in through unique credentials. 2. Requests for Payslip display. 3. Payslip is rendered to the user.
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5. Diagrams

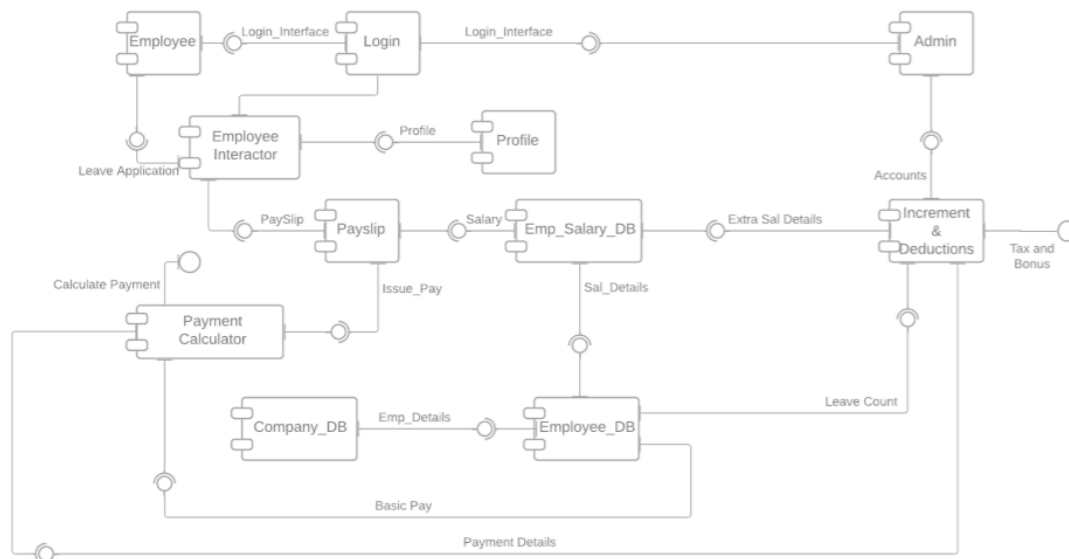
5.1. Interaction Diagram



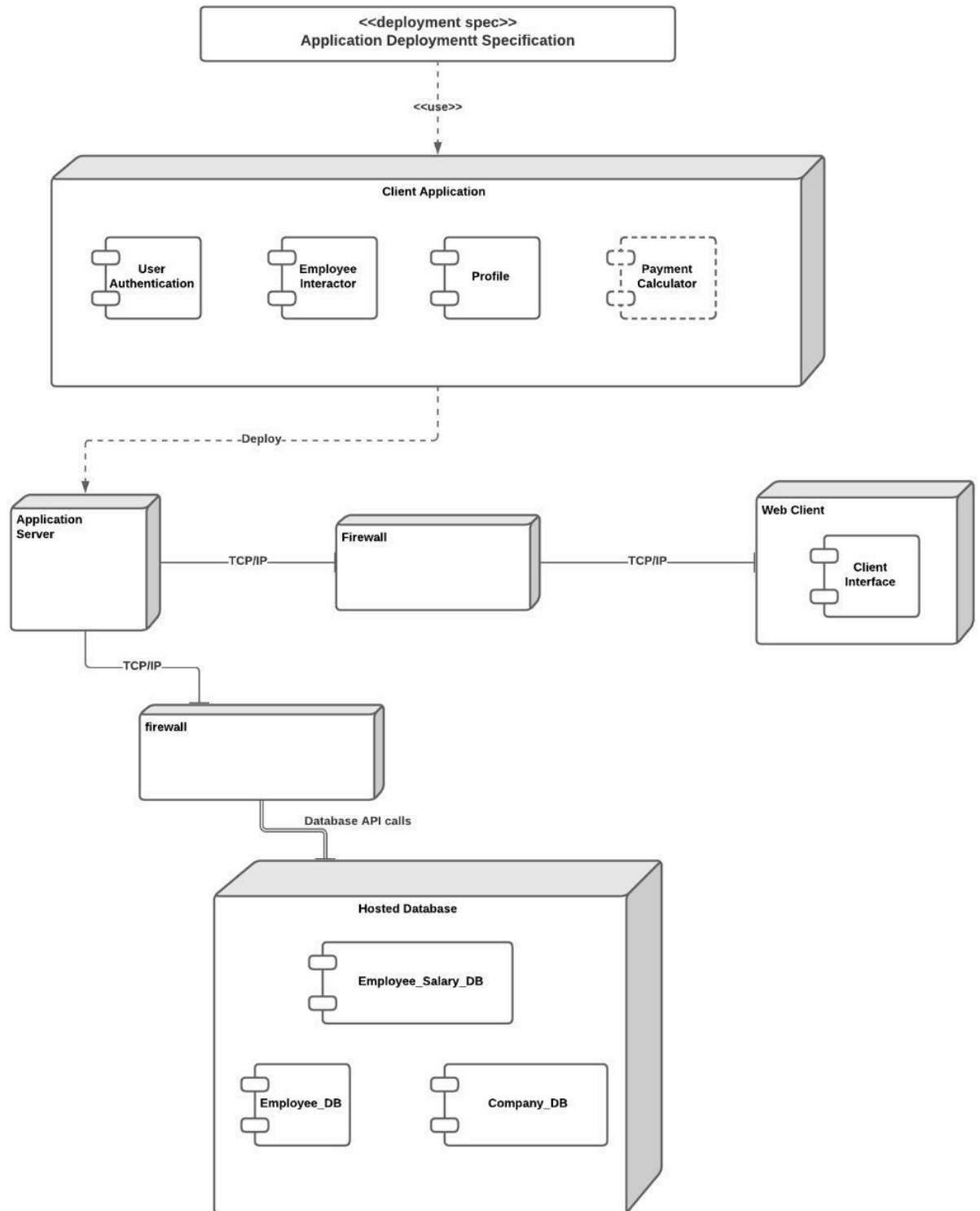
5.2. State Chart Diagram



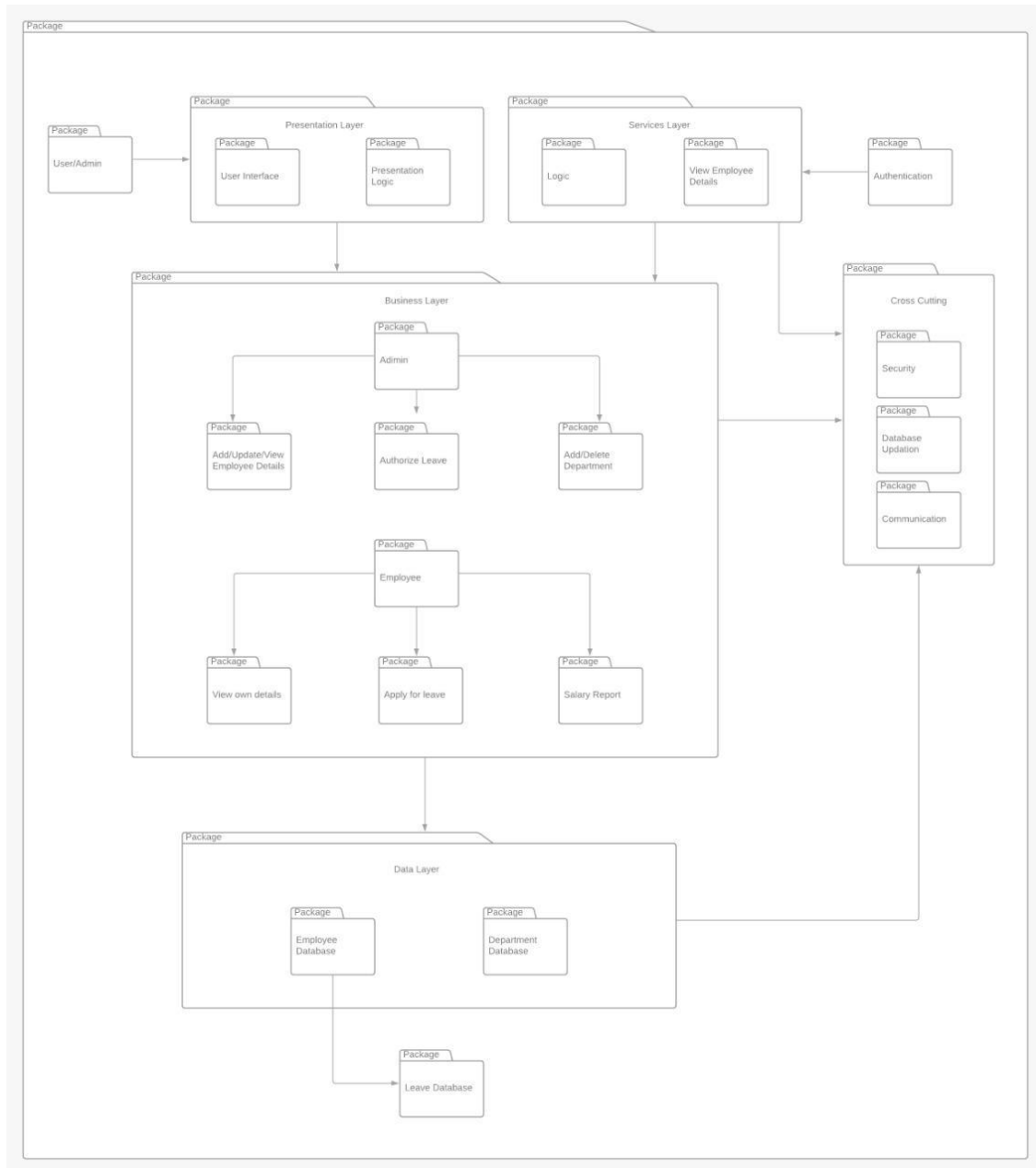
5.3. Component Diagram



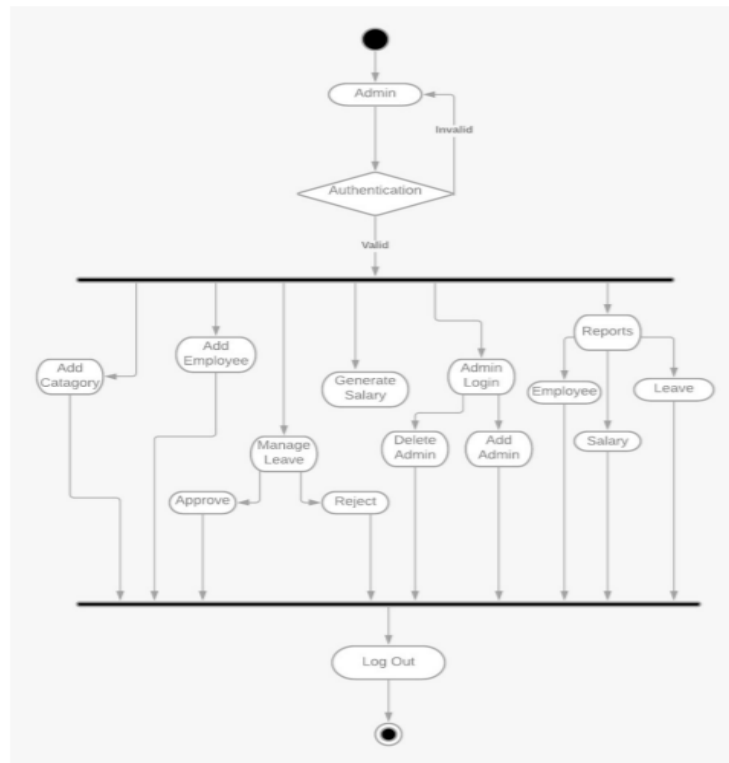
5.4. Deployment Diagram



5.5. Package Diagram



5.6. Activity Diagram



6. SUPPORT INFORMATION

The software has been implemented, tested and deployed.