PES UNIVERSITY

EC -Campus

Subject: Software Engineering

Subject Code: UE20CS303

GROUP NUMBER-8

Submitted by:

Name	**SRN**
Shubhangi Sadhwani	PES2UG20CS406
Chaitra B N	PES2UG20CS424
Jigya Taneja	PES2UG20CS435
Nidhi Torvi	PES2UG20CS445

Software Requirements Specification

for

Employee Management System

Prepared by:

Shubhangi Sadhwani

Chaitra B N

Jigya Taneja

Nidhi Torvi

Date: 09:09:2022

Table of Contents

1. Introduction ..... Error! Bookmark not defined.

1.1 Purpose ..... Error! Bookmark not defined.

1.2 Intended Audience and Reading Suggestions ..... Error! Bookmark not defined.

1.3 Product Scope ..... Error! Bookmark not defined.

1.4 References ..... Error! Bookmark not defined.

2. Overall Description ..... Error! Bookmark not defined.

2.1 Product Perspective ..... Error! Bookmark not defined.

2.2 Product Functions ..... Error! Bookmark not defined.

2.3 User Classes and Characteristics ..... Error! Bookmark not defined.

2.4 Operating Environment ..... Error! Bookmark not defined.

2.5 Design and Implementation Constraints ..... Error! Bookmark not defined.

2.6 Assumptions and Dependencies ..... Error! Bookmark not defined.

3. External Interface Requirements ..... Error! Bookmark not defined.

3.1 User Interfaces ..... Error! Bookmark not defined.

3.2 Software Interfaces ..... Error! Bookmark not defined.

3.3 Communications Interfaces ..... Error! Bookmark not defined.

4. Analysis Models

5. System Features ..... Error! Bookmark not defined.

5.1 System Feature 1 ..... Error! Bookmark not defined.

6. Other Nonfunctional Requirements ... Error! Bookmark not defined.

6.1 Performance Requirements ..... Error! Bookmark not defined.

6.2 Safety Requirements ..... Error! Bookmark not defined.

6.3 Security Requirements ..... Error! Bookmark not defined.

6.4 Software Quality Attributes ..... Error! Bookmark not defined.

7. Other Requirements ..... Error! Bookmark not defined.

Appendix A: Glossary ..... Error! Bookmark not defined.

Appendix B: Field Layouts ..... Error! Bookmark not defined.

Appendix C: Requirement Traceability matrix ..... Error! Bookmark not defined.

1.INTRODUCTION:

1.1 Purpose:

Employees are the backbone of any company therefore their management plays a major role in deciding the success of an organization. Employees Management System makes it easy for the employer and an administration to keep track of all records. It helps them from the manual work from which it is very difficult to find the record of the credited salary and the information about those who had taken the cash advance before.

Identification of the problems of the existing payroll management leads to the development of computerized solution that will be compatible to the existing payroll management with the solution which is more users friendly and more GUI oriented, thus overcome the drawbacks of the existing management.

Keeping track of employee attendance is time consuming and tedious. Any errors can lead to inaccurate payroll, costing a company thousands of dollars every pay period. By ensuring your employees get paid on time for the exact hours they worked, you will keep them happy and productive and minimize the number of instances your managers and HR staff have to deal with time and attendance issues.

Organizations that use the absence and leave management features of their employee management software can reap many benefits. These include easy access to leave details that help employees plan their time off. Employee

management software lets employees get all the information they need about absence and leave policies and request time off. Their requests can even be categorized as vacation days, leave for family emergencies, etc. Employers can be automatically notified of any such requests and easily approve or deny them.

Food ordering system helps you manage orders easily across all platforms. It records orders received online as well as offline. Every update is reflected on your system and you get notifications constantly too. The entire process becomes easy and you can check the order status at any given point.

1.2 Intended Audience and Reading Suggestions

Audience such as:

- Employee.
- Organisation.
- Admin.
- HR.
- Backend department.

For an overview of the document and description of the project ,the document is organised into 5 major parts .

- Introduction
- Overall Description
- External Interface Requirements
- System Features
- Functional and Non functional requirements

1.3 Product Scope

The scope of this project will be limited to the following:

- Employees will have access to their personal profiles and will be able to edit their details.
- Complete elimination of paperwork in leave management by enabling an employee apply for leave as well as check their leave status through the system. This will also enable the HR manager to accept/reject leave application through the system
- Here Employee can get complete details about their salary description and deduction in the salary if that particular person has taken any amount in advance.
- An Employee can order food and snacks from the provided menu for the day. Respected amount will be deducted in the salary by the end of the month.

1.4 References:

www.python.com

www.google.com

2.Overall Description

2.1 Product perceptive:

It is aimed at replacing the tedious paper works that some companies currently use. The system will collect data and store it for the fast and easy references. The system will provide the users with complete record of attendance and leaves, payroll.

It will also provide details about amount for the food he/she ordered in that particular day. The system is thus helpful to reduce the time and complexity of maintaining the records.

2.2 Product functions:

Some of the major product functionalities of the system are as follows:

- ✓ Information about the employee.
- ✓ Attendance Record of all Employees.
- ✓ Designation of all Employees.
- ✓ Salary Calculation of the Employees.
- ✓ Display notices of food orders.
- ✓ Maintain employee leave record.

2.3 User classes and Characteristics:

Primary users of the system will be employees working in the company, manager, Admin. Very little technical expertise is required for reading the outputted data since it is tabular form.

2.4 Operating Environment:

- Distributed database
- Client/Server system
- Operating system: Windows.
- Database: MySQL database
- Platform: PHP/Python

2.5 Design and Implementation Constraints

- ✓ High performance.
- ✓ User friendly.
- ✓ Security based System.
- ✓ Fast response time.

- ✓ Validation of users.

2.6 Assumptions and Dependencies

Assume that all the information entered by the user will be correct. If any wrong information found then system will notify an alert. The system is required to save the generated reports.

3. External Interface Requirements

3.1 User Interfaces:

Front-end: - HTML, CSS, PYTHON

Back-end: - MYSQL

Name	Description
Login	Login to the system.
Profile	Display complete information of the employee.
Apply for leave	Display leave availability, application for the leave, add or update leave allotment records.
Payroll	Description of the salary.
Food order	Display orders made by the person.

3.2 Software Interfaces:

Software used	Description
Operating system	We have chosen Windows operating system for its best support and user-friendliness.

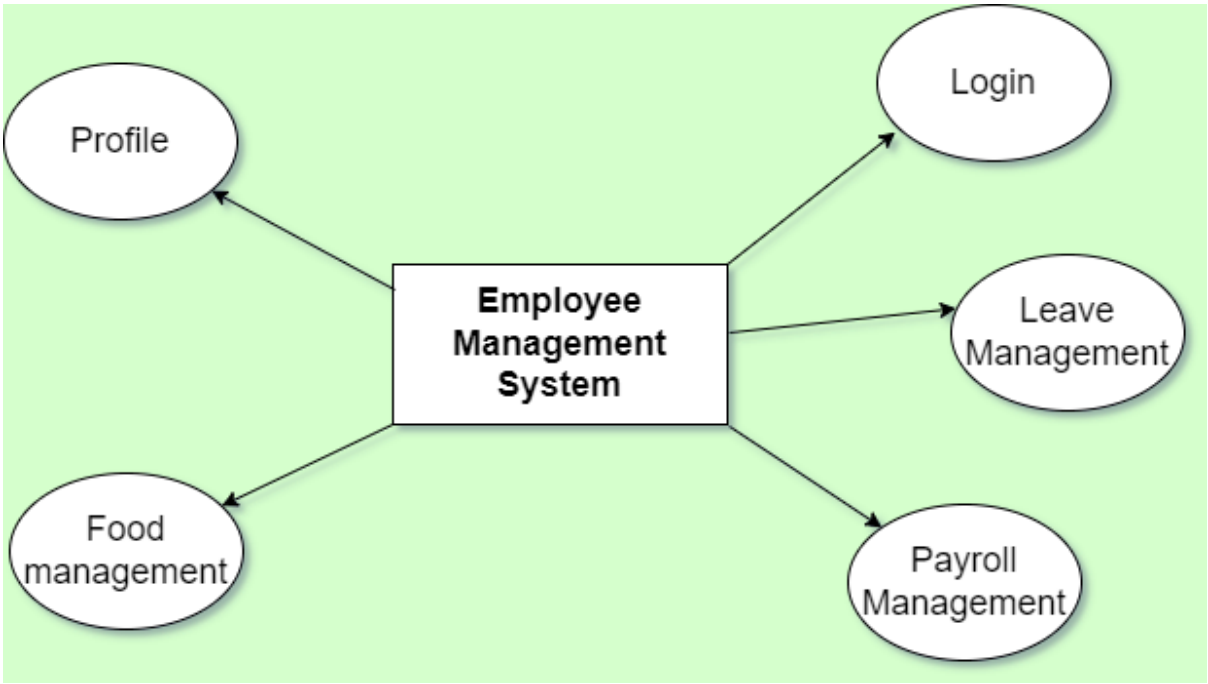
Database	To save the Employee records, payment records we have chosen MYSQL database.
Web browsers	Google chrome

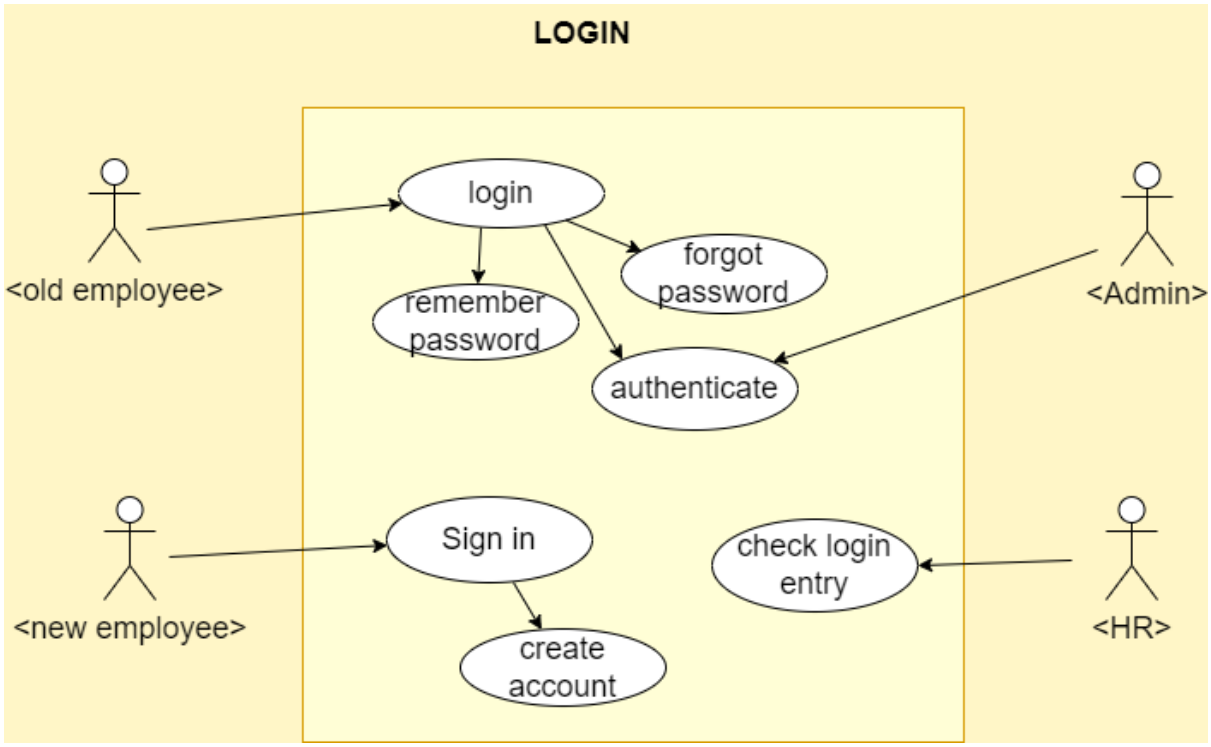
3.3 Communication Interfaces:

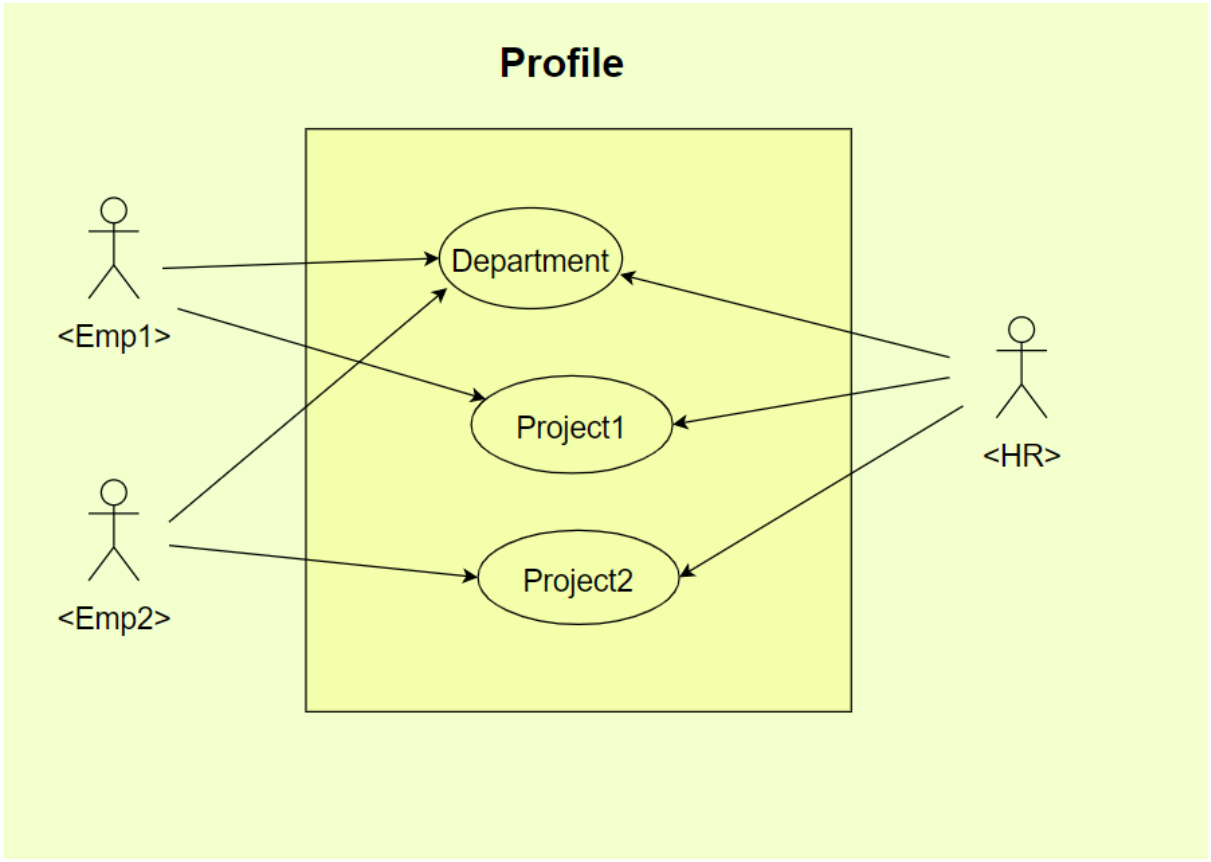
This project supports all types of web browsers. We are using simple forms to store the details of each employee or admin etc.

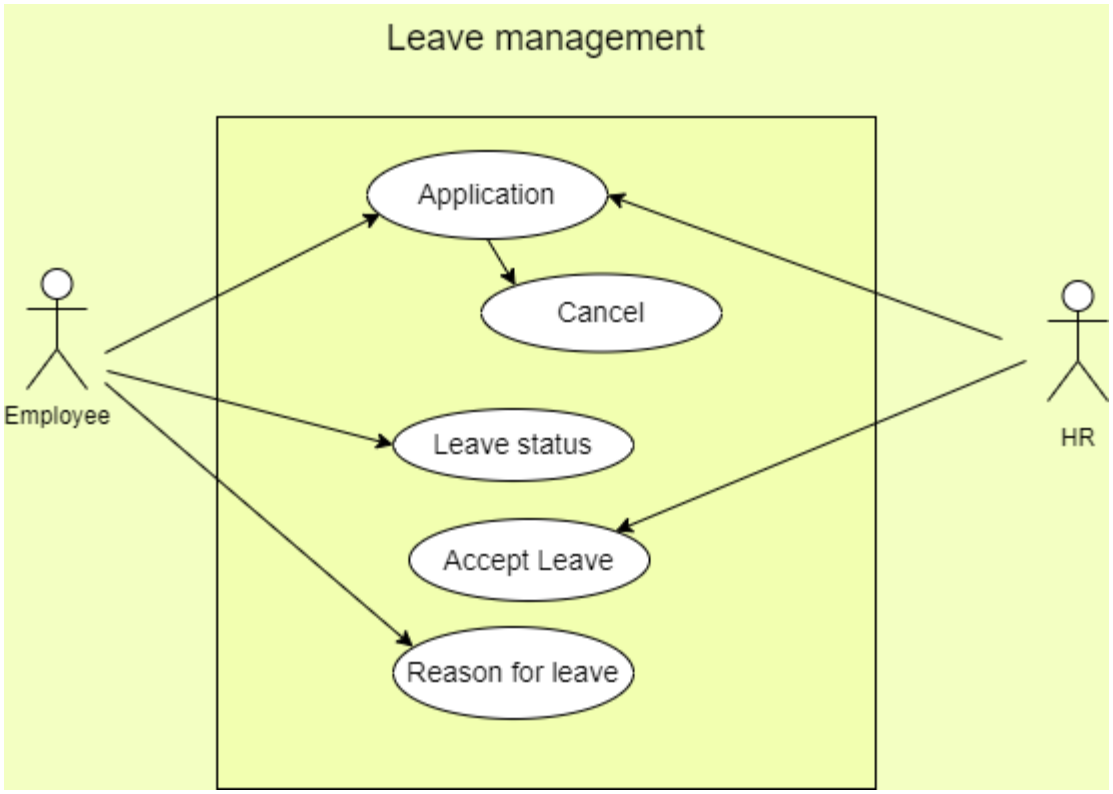
4. Analysis Models

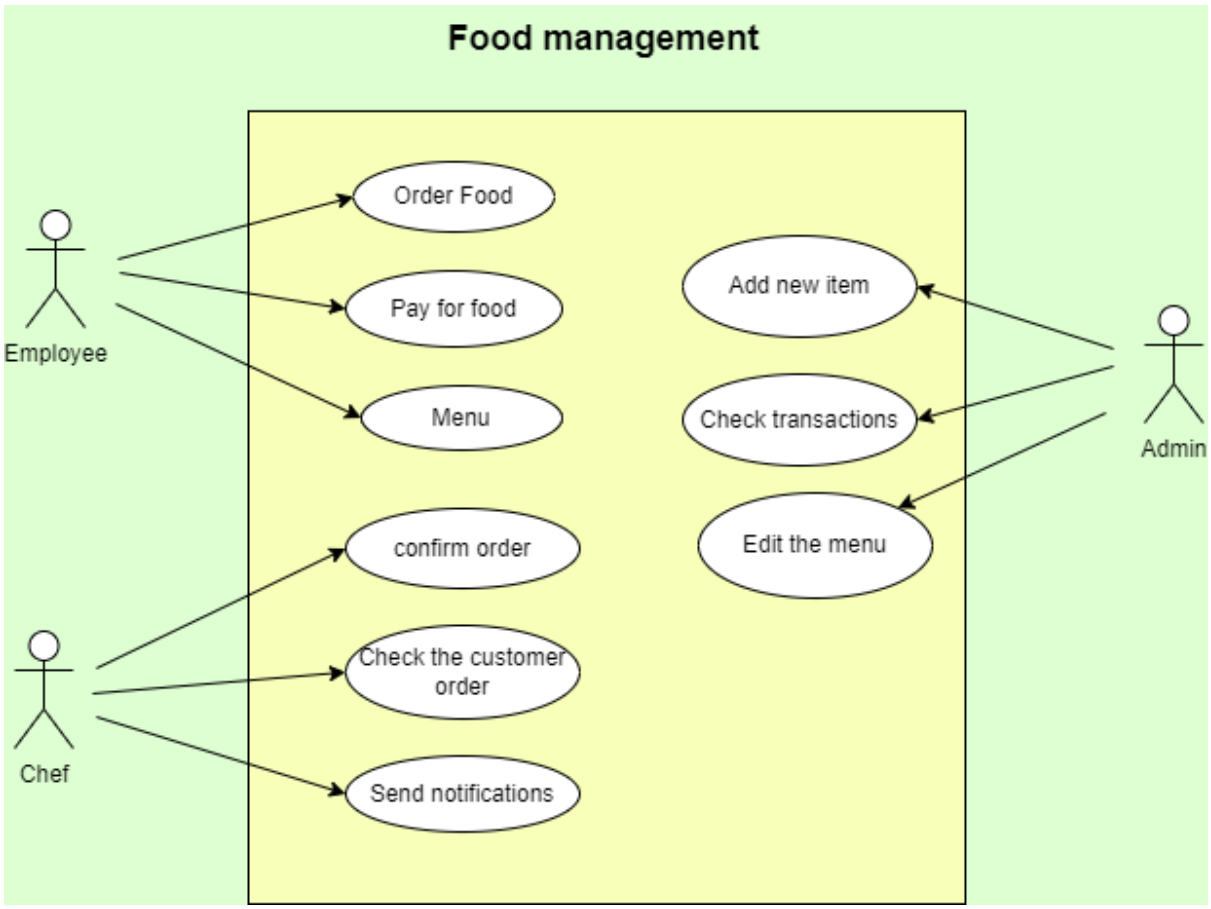
Data Modelling is the process of analysing the data objects and their relationship to the other objects. It is used to analyse the data requirements that are required for the business processes. The data models are created for the data to be stored in a database

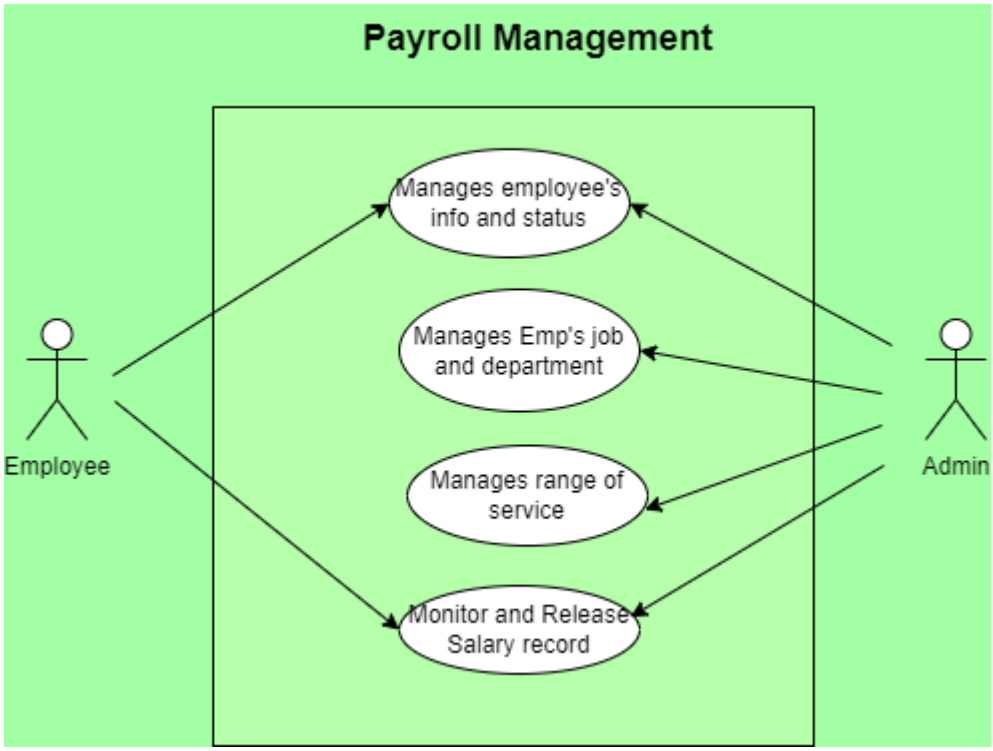



LOGIN
login
forgot password
remember password
authenticate
<old employee>
<Admin>
Sign in
create account
check login entry
<new employee>
<HR>


Profile
Department
Project1
Project2
<Emp1>
<Emp2>
<HR>


Leave management
Application
Cancel
Leave status
Accept Leave
Reason for leave
Employee
HR


Food management
Order Food
Pay for food
Menu
confirm order
Check the customer order
Send notifications
Add new item
Check transactions
Edit the menu
Employee
Chef
Admin



5.System Features

5.1 Functional requirements

Employee profiles:

Every member (employs) unique id is created when the registration (verified) is done by a company management creating the user profile stores the information provided in the database authentication and availability of the resources will differ for every employ according to their designations and ids.

This functionality includes the view of different users

- Employs – will be able to see their profiles, order food, and post queries and contact the officials through portal

- Hr and manager – will be able to update and manage the data related to people's work and their bio
- Canteen manager: will have accesses to things related everyday menu and orders of employs
- Accounts people:will be access to update the payment details

Leave Management:

- Complete elimination of paperwork in leave management by enabling an employee apply for leave as well as check their leave status through the system.
- Employees can apply for leave through the portal.
- The attendance is generated (consideration of all the holidays and leaves taken), This will also enable the HR manager to accept/reject leave application through the system
- Employee systems can provide functionality for scheduling shifts and attendance to ensure compliance with staffing needs.

Payroll Management:

- Here Employee can get complete details about their salary description and deduction in the salary if that particular person has taken any amount in advance.
- Also a person can check his payment status when paying the amount for food. Keep the record of it
- Accountants have the access to these details if there are queries. and employees can only view this page to avoid dishonesty and maintain integrity

Food Management:

- An Employee can order food and snacks from the provided menu for the day. These entities are added / updates on the dialy basis.
- The access to these details can be updated or changes by the canteen manager
- The employees can view ,order and pay through this portal or wish to deduct the money from their salary, Respected amount will be deducted in the salary by the end of the month.

6. Other Nonfunctional Requirements

6.1 Performance Requirements

- Transactions for ordering food will be done within 15 seconds
- The platform will not take more than 10 seconds to load

6.2 Safety Requirements

- The details of the employee are safe and secured, while making online transactions for ordering food.
- The login password will be encrypted.
- A log file about server activity must be maintained for better crash recovery and security.
- Unauthorized access will be prevented
- software will be protected from virus

6.3 Security Requirements

The software will be built on a popular python or HTML and CSS based framework. Different versions of software will be easy to maintain. For development it will be easy to add code to the existing system navigation will be simple and it will be user-friendly.

6.4 Software Quality Attributes

The software will be built on a popular python or HTML and CSS based framework. Different versions of software will be easy to maintain. For development it will be easy to add code to the existing system.Navigation will be simple and it will be user-friendly.

- **Availability**: The system shall be available 24*7.
- **Maintainability:** Employee management system will be developed in python.
- **Portability**: The Employee Management System shall run in any Microsoft windows environment the contains python runtime and access to database

Our system will be able to handle 10 million users without performance deterioration.

7.Other Requirements

- All employees will be able to see general information about office, any events etc.
- we will follow the agile method to complete this task
- we use flat structure to increase the efficiency and productivity
- **Compliance to laws or regulations:** To maintain the integrity there should be limited resources provided for every user to stick to the company ethics and regulations
- **Usability:** The company can update the schedule and announcements of important issues to the employs on urgent notices
- **Security:** The web must be designed in such a way that only the company members can access it with their unique ssn given when joined

Appendix A: Glossary

1	Employee	An employee is **someone who gets paid to work for a person or company**.
2	GUI	A graphical user interface (GUI) is an interface through which a user interacts with electronic devices such as computers and smartphones through the use of icons, menus and other visual indicators or representations (graphics).
3	HR	Human resources (HR) is **the department within a business that is responsible for all things worker-related**. That includes recruiting, vetting, selecting, hiring, onboarding, training, promoting, paying, and firing employees
4	Admin	the administration of a business, organization, etc.
5	Payroll	a list of a company's employees and the amount of money they are to be paid.
6	SRS	A **software requirements specification** (SRS) is a document that describes what the software will do and how it will be expected to perform.
7	Front-end	Front end development is **a style of computer programming that focuses on the coding and creation of elements and features of a website that will then be seen by the user**.

Appendix C: Requirement Traceability Matrix

Sl. No	Requirement ID	Brief Description of Requirement	Architecture Reference	Design Reference	Code File Reference	Test Case ID	System Test Case ID
1	REQ_01	Employee Login and Registration and their Profile	Login page will be created, after login employee can see their profile	In login page, password of the employee will be authenticated	-	TC_01	STC_01
2	REQ_02	Leave and Attendance Management	Application for the leave will be taken and showing their leave status	Number of days will be counted	-	TC_02	STC_02
3	REQ_03	Payroll Management	Employee can receive the salary and its details	Based on position of each employee salary will be given.	-	TC_03	STC_03
4	REQ_04	Canteen Management	Employee can order anything from the available list.	Respected amount of the particular order will be deducted.	-	TC_04	STC_04

Contribution:

Shubhangi Sadwani	Other Non-functional Requirements and Glossary
Chaitra BN	Overall Description and Analysis models and RTM
Jigya Taneja	Introduction and External Interface Requirements
Nidhi Torvi	System Features and Other requirements