Payroll Management System

A Mini Project

Submitted by

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1.ABSTRACT

This Payroll Management System is designed to streamline and automate the payroll process within an organization, providing distinct roles for HR, Accounts, and Employees. The system ensures accurate and timely payroll processing, reduces administrative workload, and minimizes human error.

The HR role encompasses employee management, including adding and updating employee records, handling role assignments, and managing attendance data. The Accounts role is responsible for calculating salaries based on attendance, leave, and applicable deductions, generating payslips, and maintaining records for financial reporting and audits.

With a user-friendly interface and secure access control, this system aims to improve payroll accuracy, facilitate efficient data management, and ensure transparency across departments.

2. INTRODUCTION

A Payroll Management System is a software solution designed to handle all aspects of employee compensation, from salary calculations to tax deductions. It automates payroll processes, making them faster, more accurate, and less prone to human error.

With features like attendance tracking, salary computation, the system simplifies payroll tasks for HR and accounting teams. It also offers secure access and user-friendly interfaces to make the process efficient and transparent for everyone involved.

The Payroll Management System is designed to make managing payroll easier and more efficient. It gives different roles to HR, Accounts, and Employees, so each person has specific tasks to handle. This helps reduce mistakes and makes sure everything is done according to rules and regulations. HR manages employee details and attendance, while Accounts calculates salaries and keeps financial records. With secure login access and an easy-to-use interface, the system improves payroll accuracy, makes data management smoother, and ensures transparency across departments.

2.1 Scope

- HR Role: HR professionals can manage employee profiles, handle recruitment data, assign roles, update payroll information, and oversee attendance tracking. This module supports efficient employee data management and facilitates smooth payroll adjustments.
- Accounts Role: The accounts team handles salary computations and final payroll generation. Accounts personnel can also access reports for audits, manage deductions, and ensure compliance with financial regulations. This module is geared toward maintaining accurate payroll calculations and simplifying payroll-related accounting tasks.
- Employee Role: Each employee can access their individual portal to view salary details, download payslips, submit leave applications, and monitor attendance records. This feature empowers employees to manage their payroll-related queries independently and ensures transparency**.**

2.2 Requirement Analysis

Employee Management

- Add/Edit Employee Information: HR can add new employees, update their information, and delete records when necessary.

- Role Assignment: Assign roles and permissions based on department (HR, Accounts, Employee).

- Attendance Tracking: Manage and record attendance data for each employee, linking it to payroll calculations.

Payroll Processing

- Salary Calculation: Calculate salaries based on employee attendance, leave days, and predefined deductions.

- Deductions and Allowances: Process statutory deductions and include allowances (e.g., bonuses).

- Payroll Generation: Generate monthly payroll with itemized details on deductions, gross pay, and net pay.

2.3 Software And Hardware Details

Software Requirements:

- Operating System: Windows/Linux/macOS

- Database: Oracle SQL
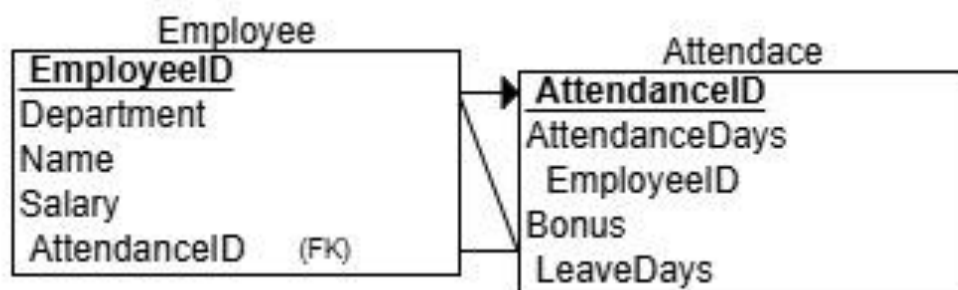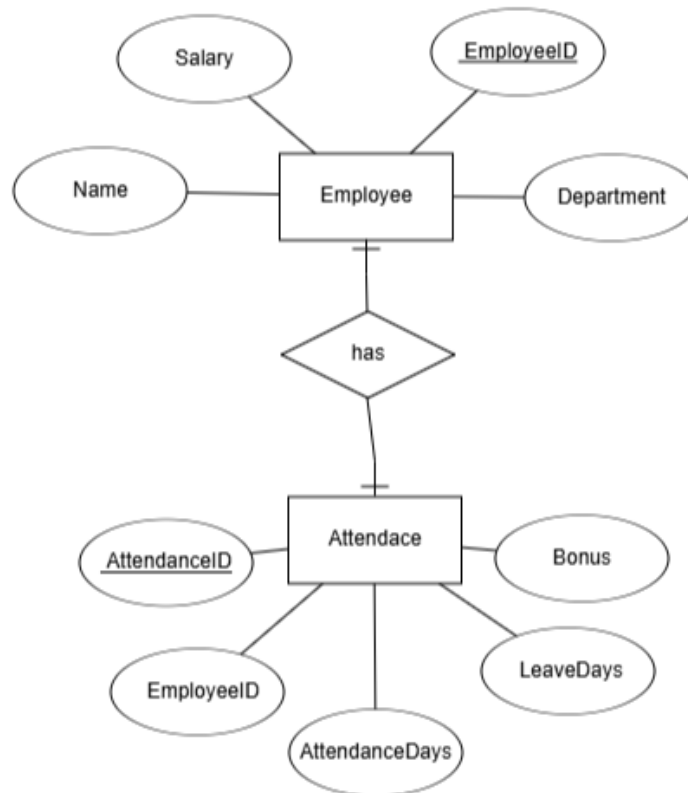
- Programming Language: Python

Hardware Requirements:

- Processor: Minimum Intel i3 or equivalent

- RAM: 4GB or higher

- Storage: Minimum 50GB of available space

2.4 Libraries/Packages Used

- Python(flask)
- CX_Oracle
- Web Development: html, css

3.DATABASE DESIGN

3.1 Data Modeling (E-R Diagram and Relational Diagram)

4. Graphical User Interface (Screenshots of UI)

HR - Employee List

Employee ID	Name	Department	Attendance Days	Leave Days	Bonus	Action			
1	shrushti bhosikar	HR	20	2	500	20	2	500	Update Delete
2	shreya bhondawe	Accounting	22	1	300	22	1	300	Update Delete
3	aditi jadkar	Employee	22	3	223	22	3	223	Update Delete
4	prajakta bhapkar	Employee	5	5	5	5	5	5	Update Delete

Add New Employee

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Add Employee

Accountant - Employee Salary Details

Employee ID	Name	Attendance Days	Leave Days	Bonus	Salary
1	shrushti bhosikar	20	2	500	6300
2	shreya bhondawe	22	1	300	6800
3	aditi jadkar	22	3	223	6523
4	prajakta bhapkar	5	5	5	1005
5	mansi d	5	34	3	-1897

5.Conclusion

Payroll Management System effectively simplifies and automates payroll processes, bringing structure and efficiency to employee and salary management within an organization. By assigning distinct roles to HR, Accounts, and Employees, the system ensures that each department can carry out its responsibilities accurately and securely. This approach minimizes human error, reduces administrative workload, and enhances compliance with regulatory standards, ultimately leading to smoother operations and improved transparency. With its user-friendly interface and secure access controls, the system not only strengthens payroll accuracy but also fosters a reliable framework for data management, supporting the organization's broader financial and operational goals.