# Software Requirements Specification (SRS)

Project Title: Payroll Management System

## 1. Introduction

### 1.1 Purpose

The Software Requirements Specification (SRS) document will enumerate and discuss the functional and non-functional requirements for the Payroll Management System. The system aims at recording daily employee attendance and automatically calculating the monthly salaries based on attendance records.

### 1.2 Scope

The payroll system provides an interface through which the HR department or payroll authorities can:

- Register and manage employee details.
- Enter and manage attendance on a daily basis.
- Calculate monthly salaries automatically according to actual days worked.
- Generate payroll reports and individual pay slips.

The system will eliminate mathematical errors and reduce manpower effort and time.

### 1.3 Intended Audience

- HR: For managing employee attendance and salary disbursement.
- Payroll: For generating and vetting of payrolls.
- Software Developers: For the realization of technical requirements during development.
- QA: For the validation of system functionality and performance.

### 1.4 Definitions, Acronyms, and Abbreviations

- SRS: Software Requirements Specification
- HR: Human Resources
- GUI: Graphical User Interface
- DBMS: Database Management System
- CSV: Comma-Separated Values

## 2. General Description

# Software Requirements Specification (SRS)

## 2.1 Product Overview

Payroll Management System will be a desktop or web application program that runs independently. It will interact with a secure relational database to store employee and attendance data. The user interface must be simple, responsive, and easy to use, even for a non-technical user.

## 2.2 Product Features

The system will offer the following primary features:

- Secure user login and role-based access.
- CRUD operations on employee data.
- Logging of daily attendance with timestamp verification.
- Monthly salary calculation from daily wage and running days.
- Exportable payroll reports in different formats (PDF, CSV).

## 2.3 User Classes and Characteristics

- Administrator: Privilege to all of the system; administers all the records and users.
- HR Executive: Administers employee records and attendance; able to view payroll reports and generate them.

## 2.4 Operating Environment

- Platform: Windows/Linux
- Backend Technologies: PHP
- Frontend Technologies: HTML, CSS, JavaScript
- Database: MySQL

## 2.5 Design and Implementation Constraints

- The system has to be based on a relational database.
- The application must be based on a modular, scalable architecture.
- Responsive design for use on multiple devices.

## 2.6 Assumptions and Dependencies

- The attendance is marked daily.

- Employees have a fixed number of working days in a month.
- The salary calculation is done based on a pre-defined daily wage.
- Internet connectivity might be needed for cloud-based deployments.

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Employee Management
- Add, update, and delete employee records.
- Display detailed employee profiles.

3.1.2 Attendance Management
- Take attendance date-wise and time-wise on a daily basis.
- Edit and audit the attendance records.
- View employee-wise and department-wise attendance reports.

3.1.3 Salary Calculation
- Compute salary as: Salary = Present Days × Daily Wage
- Print itemized salary slips.
- Store salary history for audit and review purposes.

3.1.4 Reporting
- Create monthly payroll summaries.
- Export reports in PDF and CSV formats.
- Print salary slips with company branding.

3.1.5 User Authentication and Roles
- Secure login mechanism.
- Role-based access control (Admin, HR Executive).
- Password recovery and locking functionality for accounts.

3.2 Non-Functional Requirements

3.2.1 Performance

- Support up to 1,000 concurrent employee records in the system.
- Logging of attendance must take 2 seconds per request.

3.2.2 Usability

- Easy-to-use, intuitive GUI with consistent design.
- Least amount of training required for HR personnel.

3.2.3 Reliability and Availability

- 99.9% availability for cloud deployments.
- Data integrity verification on every transaction.

3.2.4 Security

- Password encryption (bcrypt or equivalent).
- Role-based access control and access auditing.
- Secure database connections (SSL/TLS).

3.2.5 Maintainability and Scalability

- Modular codebase, best practices.
- Scalable architecture for future expansions (e.g., biometric integration).

4. External Interface Requirements

4.1 User Interfaces

- Login screen with CAPTCHA
- Dashboard with eye-catching payroll statistics
- Employee and attendance management forms
- Report viewer with print and export options

4.2 Hardware Interfaces

- Fundamental desktop/laptop with internet connectivity
- Optional: biometric reader for future expansions

4.3 Software Interfaces

- Backend stack (PHP)
- Database (MySQL)
- PDF/CSV export libraries

4.4 Communications Interfaces

- HTTP/HTTPS for web accessibility
- SMTP server for email notifications (optional)

5. Appendices

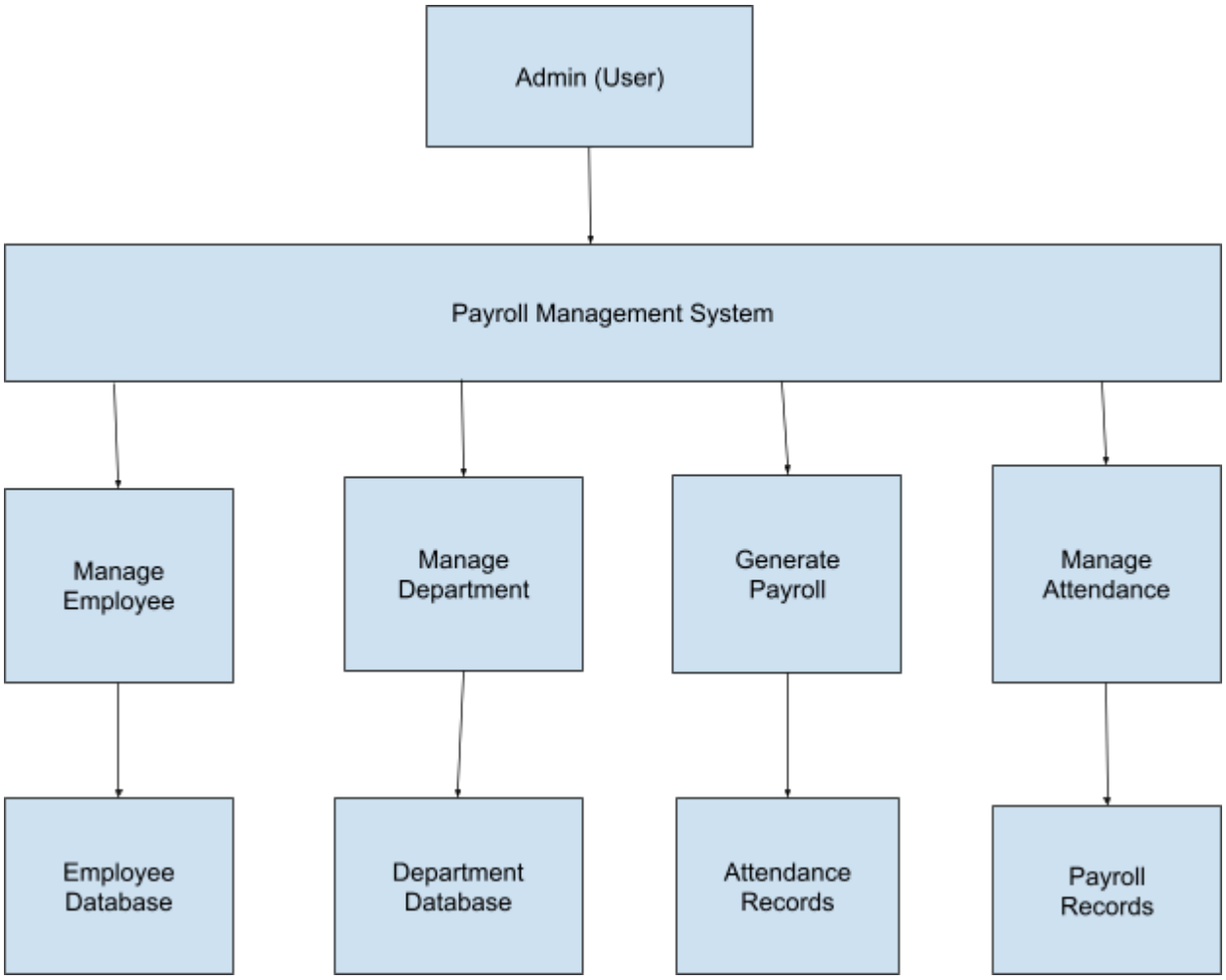
5.1 Future Enhancements

- Biometric device integration for logging attendance.
- Email notification for salary payment.
- Cell phone application for remote access.

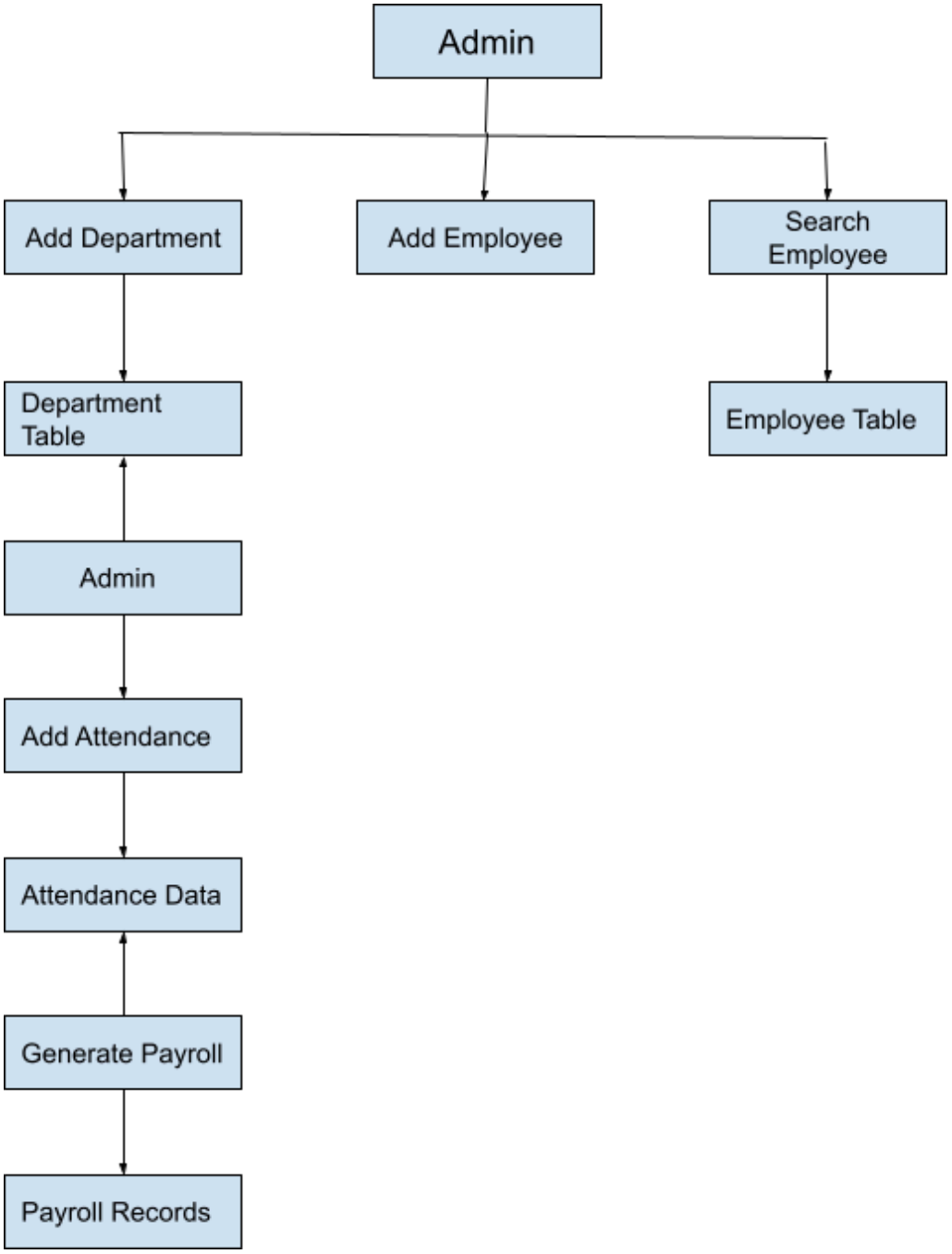
5.2 References

- IEEE Standard for Software Requirements Specifications
- Project-specific business rules and HR procedures

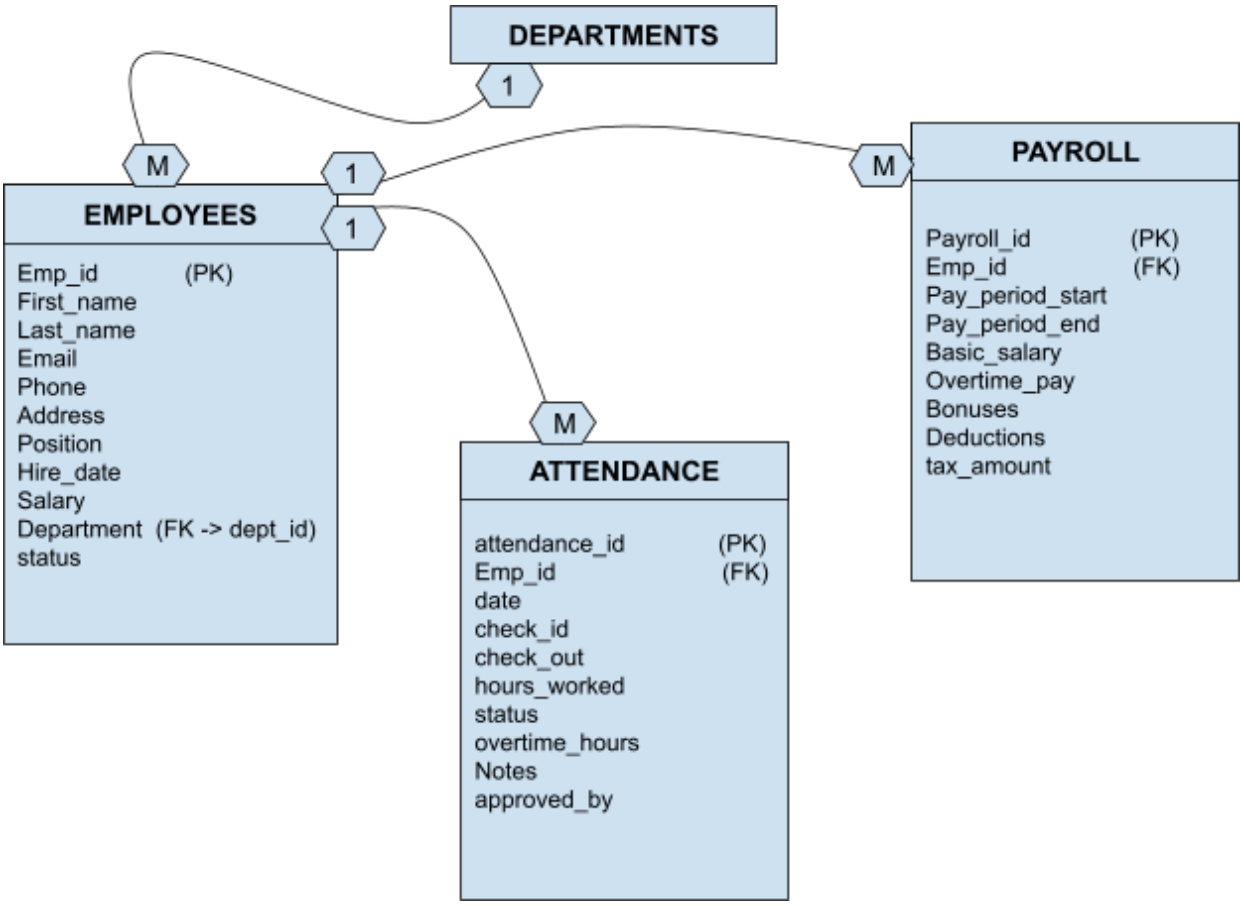
# Data Flow Diagram



# Use Case Diagram



# ER Diagram


DEPARTMENTS
1
M
1
M
PAYROLL
EMPLOYEES
1
Emp_id (PK)
First_name
Last_name
Email
Phone
Address
Position
Hire_date
Salary
Department (FK -> dept_id)
status
Payroll_id (PK)
Emp_id (FK)
Pay_period_start
Pay_period_end
Basic_salary
Overtime_pay
Bonuses
Deductions
tax_amount
M
ATTENDANCE
attendance_id (PK)
Emp_id (FK)
date
check_id
check_out
hours_worked
status
overtime_hours
Notes
approved_by