

# Abstract

## (Payroll Management System)

**Course Code:** CS254

**Course Title:** DBMS LAB

**Semester:** B. Tech 4<sup>th</sup> Sem

**Section:** S2

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### Brief Description:

Payroll Management System is an important area of any business. It allows for a company to manage employee's expenses, salary, gross salary, deduction, tax and other things for a given time period. The two essential components of this system are management and accounting. Payroll is a major concern for any company since it is mandatory to pay every employee according to the governments rules and regulations otherwise there would be serious financial and legal consequences. This system facilitates a company to handle all the legal processes and an employee's expenditure in a systematic manner.

This payroll system is designed to perform all tasks of employee payment and filing of the required taxes. These tasks include keeping track of leaves, calculating wages, taxes, deduction and bonuses, as well as printing and delivering cheques to employees. This system does not require too much input from the user (the administrator) since once the details like base salary, department, grade etc. have been entered, the system automatically calculates all other information.

The purpose of the system is to implement the following:

- Manage employee information efficiently
- Define the salary, deductions, leaves etc.

- Conveniently generate payslips
- Generate and manage salary structure of employees
- Generate reports related to employees

The only users authorized to access this system are administrators and this is done using a valid username and password. Admins can add new employees, departments and pay grades. They also control the duration of time for which employees have been employed under specific pay grades. Apart from this, they can also view past data of any employee and generate their monthly salaries via an automated process.

Some of the advantages of this system are:

1. It saves time and speeds up virtually every aspect through a range of automated services
2. It is secure as only admins are authorized to access and modify the information
3. It is user friendly, the admins need not know the technicalities of the payroll since it is automatically calculated and no former knowledge is required due to the intuitive user interface
4. There is very little scope for any errors in processing since it is fully automated

Overall, this software has been designed specifically to cater to a company's employee management, is self contained and works efficiently. It uses a simple database so the requirements are feasible and provides an intuitive graphical user interface for easy accessibility. Finally, automating this process saves the admin or manager a lot of time and resources.

### **Key Features:**

1. Login facility
2. Add new employee
3. Add new department
4. Add new pay grades
5. Manage employee grade and department

6. Manage employee salary details
7. Generate payroll

### **Software Specifications:**

- Frontend: HTML, CSS, JavaScript(React Framework)
- Backend: Node.js, MySQL

### **References:**

1. [Sample code base for frontend](#)
2. [Sample Code base for backend](#)
3. [Sample code base using create react app](#)
4. [REST Api to connect frontend to backend](#)
5. [React API tutorial](#)
6. [Connecting MySQL using Node.js](#)
7. [Node.js tutorial](#)

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