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A
Project Report
On

“Payroll Management System”

Submitted in partial fulfillment for the requirements for the Award of Degree of
Bachelor of Computer Engineering
Under Pokhara University

SUBMITTED TO
Department of Bachelor of Computer Engineering
National Academy of Science and Technology

UNDER THE GUIDANCE OF
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DECLARATION

We, Abishek Khadka (21070001), Anuska Bhandari (21070002), Bikash Sunar (21070005), Bimal Bhandari (21070006), students of Computer Engineering, semester 4th, NAST affiliated to Pokhara University, hereby declare that the work undertaken in this minor project entitled “Payroll Management System” is the outcome of our own effort and is correct to the best of our knowledge. This work has been accomplished by obeying the engineering ethics; and it contains neither materials published earlier or written by another person/people nor materials which has been accepted for the award of any other degree or diploma of the university or other institution, except where due acknowledgement has been made in the document.

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ABSTRACT

The Payroll Management System is software solutions which is designed and develop to streamline the process of managing employee salaries and related tasks for any organizations. This project aims to provide an efficient and reliable solution for businesses to manage their payroll activities.

The system offers a range of features including employee record management, salary processing, tax management, leave tracking, and benefits administration. It can provide comprehensive reports for payroll analytics and compliance purposes. The software is built with modern technology and programming languages, making it highly scalable and customizable to suit the specific needs of different businesses. It is user friendly and intuitive with a simple interface that allows users to perform tasks quickly and efficiently. The system will be developed using a programming language C#, and a database like MySQL to store the data.

In summary, by implementing this Payroll Management System, organizations can automate their payroll process, minimize errors, and reduce the time and effort required for manual payroll management. This will result in increased productivity, cost savings, and improved employee satisfaction.

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CHAPTER 1

INTRODUCTION

1.1Introduction

The Payroll Management System is software developed to help businesses manage their employee salaries and related tasks. It is an efficient and reliable solution that automates the payroll process, reduces errors, and saves time and effort.

The software is built with modern technology and programming languages to make it scalable and customizable to meet the unique needs of different businesses. It is user-friendly and has a simple interface that allows users to easily perform tasks such as processing employee salaries, managing taxes, tracking leave, and administering benefits.

By implementing the Payroll Management System, organizations can streamline their payroll activities, minimize errors, and improve employee satisfaction. The system provides comprehensive reports for payroll analytics and compliance purposes, helping businesses stay on top of their finances and regulatory requirements.

In summary, the Payroll Management System is an essential tool for businesses of all sizes, providing a reliable and efficient solution for managing employee salaries and related tasks.

1.2 Problem specification:

1. Manual processes are time-consuming, error-prone, and difficult to scale.
2. Need for an integrated system to simplify payroll management and provide real-time data.

1.3 Objective

- To Digitalize a Payroll Management.

CHAPTER 2

METHODOLOGY

2.1 Introduction of Methodology

We follow the waterfall model for development of our Payroll Management System which is a software development approach that consists of sequential and linear progression of phases. When adopting the incremental model to develop the system, following processes were followed:

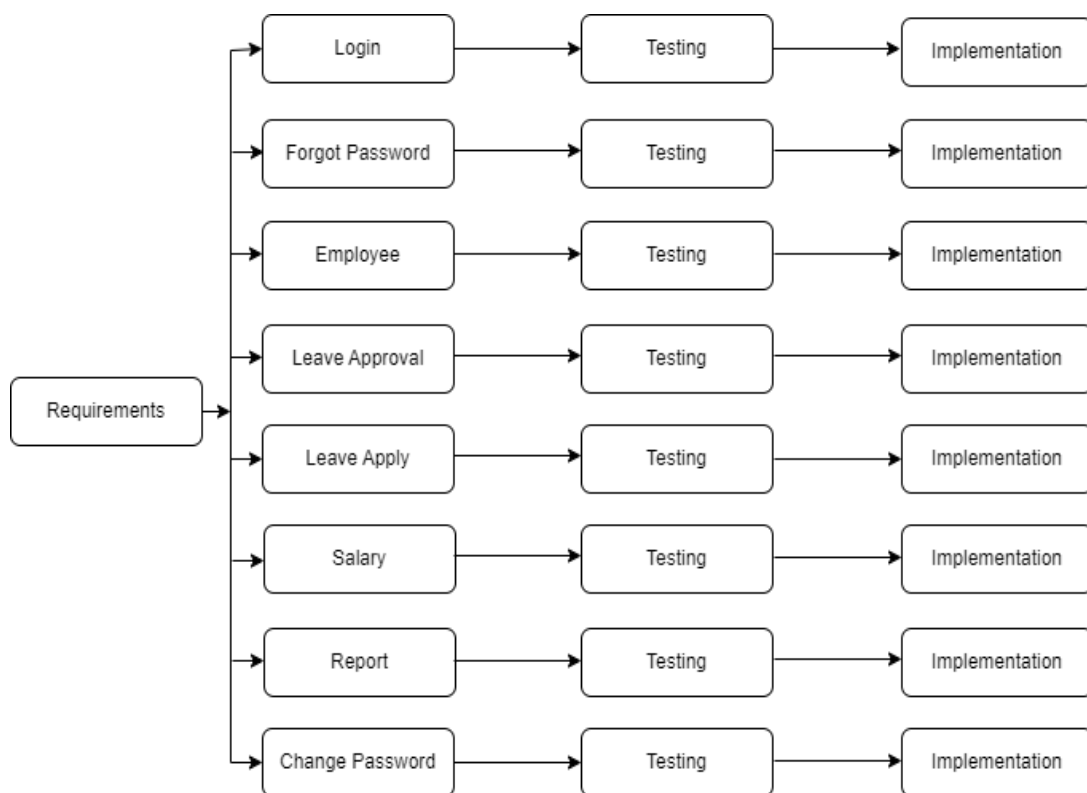


Fig. Incremental Model

2.1.2 Feasibility Study

The feasibility study is the initial stage of any project, which brings together the elements of knowledge that indicate if a project is possible or not. As the name implies, a feasibility analysis is used to determine the visibility of an idea, such as ensuring a project is legally and technically feasible as well as economically justifiable. So, in this phase, we study economic feasibility, technical feasibility, schedule feasibility and we also study legal feasibility.

2.1.2.1 Economic Feasibility

Economic feasibility involves analyzing the project's potential cost, benefits and estimating its financial performance over time. In this phase, we estimated the cost needed to develop this project to be Rs. 4300.

S.N.	Components	Price
1.	Planning and Research	1000
2.	Pen drive	800
3.	Internet	1500
4.	Documentation	1000
Total cost		4300

Table 2.1.2.1: Economical Feasibility

2.1.2.2 Technical Feasibility

Technical feasibility is concerned with the technical area of the system. The technical area can be classified into two section-hardware and software. To decide the technical feasibility, we use the hardware and software components as follows:

2.1.2.2.1 Requirement for development of project

2.1.2.2.1.1 Hardware Requirement

- Processor Intel CPU.
- RAM: At least 8 GB RAM.
- Hard Disk: At least 20 GB.

2.1.2.2.1.2 Software Requirement

- Visual studio community with VB.net platform.
- SQL Server express (any version).
- SQL Server Management.

2.1.2.2.2 Requirement for installing the project

- Processor Intel CPU.
- RAM: At least 8 GB RAM.
- Hard Disk: At least 20 GB.

2.1.2.5 Schedule Feasibility

ACTIVITIES	Week 1-2	week 3	week 4	week 5-7	week 8	week 9	week 10	week 11	week 12
Project analysis									
Proposal submission									
proposal defence									
Feasibility study									
Designing									
Coding									
midterm defence									
Testing									
Integration									
Final testing									
Documentation									
Final Defence									

Table 2.1.2.5: Schedule Feasibility

2.1.3 System analysis

In this phase, we analyzed the system in the field of the Payroll management system, and we have seen some drawbacks in this system.

So, to overcome the drawbacks of this system and to add some new features, we have analyzed our system.

2.1.4 System design

In this phase, we now designed the general concept or flow of our system. The conceptual design of this system is as below:

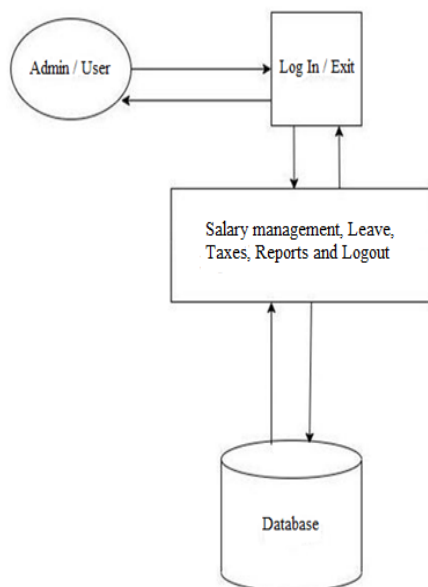


Fig 2.1.4: System Design

2.1.4.1 System Flowchart

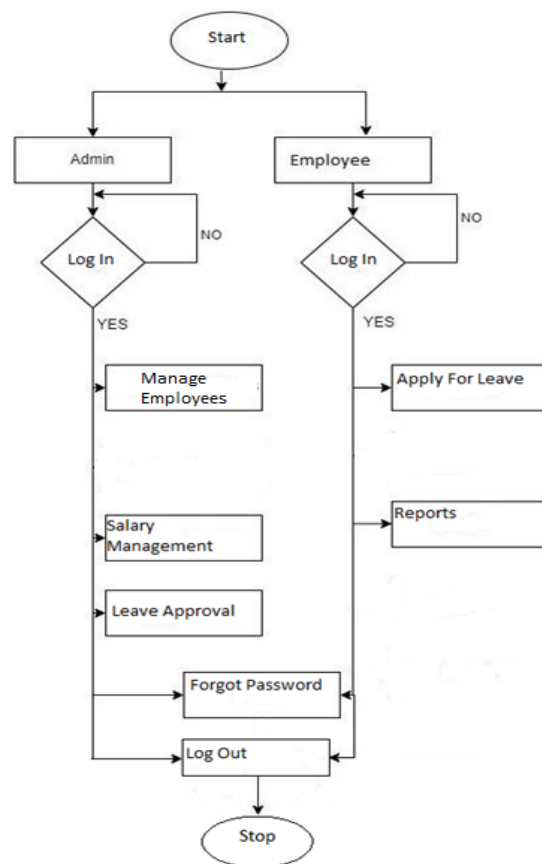


Fig 2.1.4.1: System Flowchart

2.1.4.2 ER Diagram

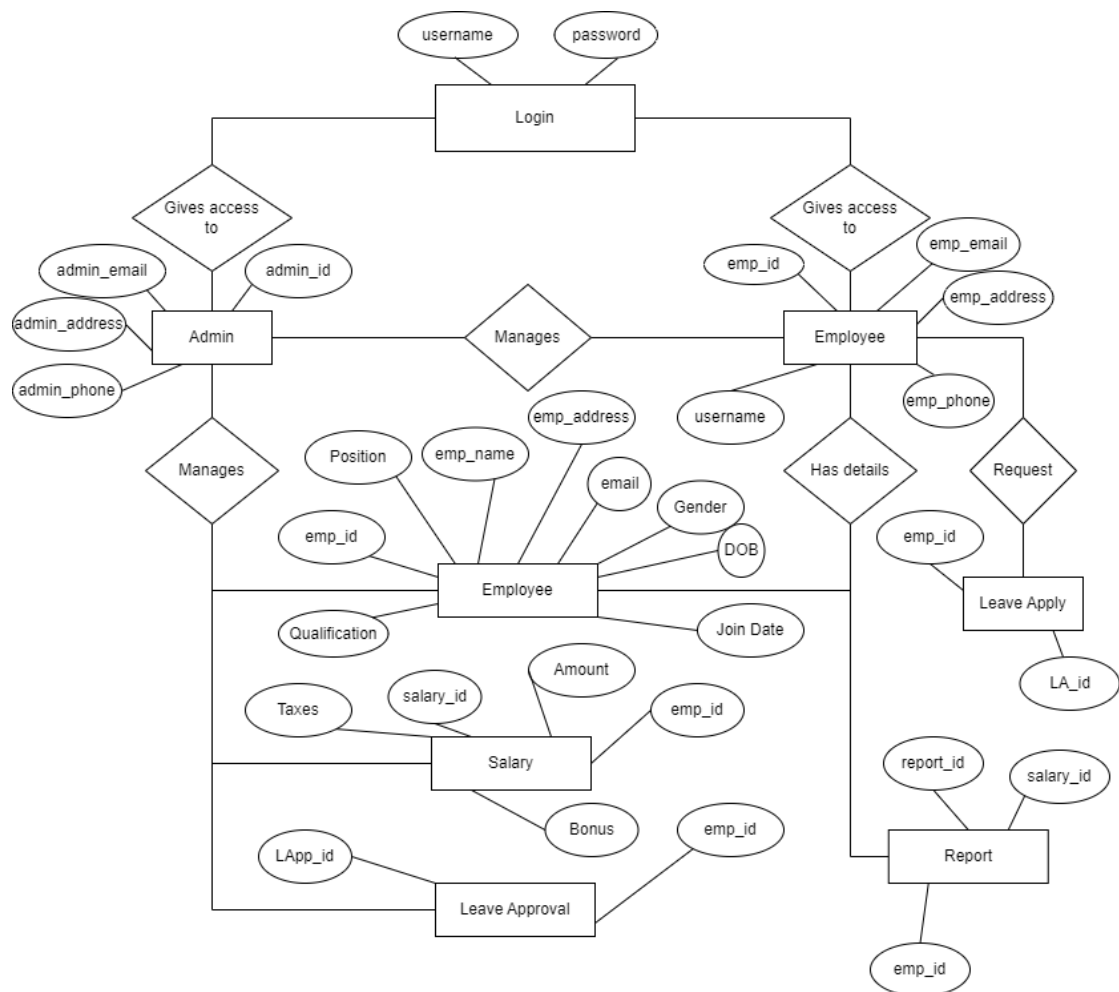
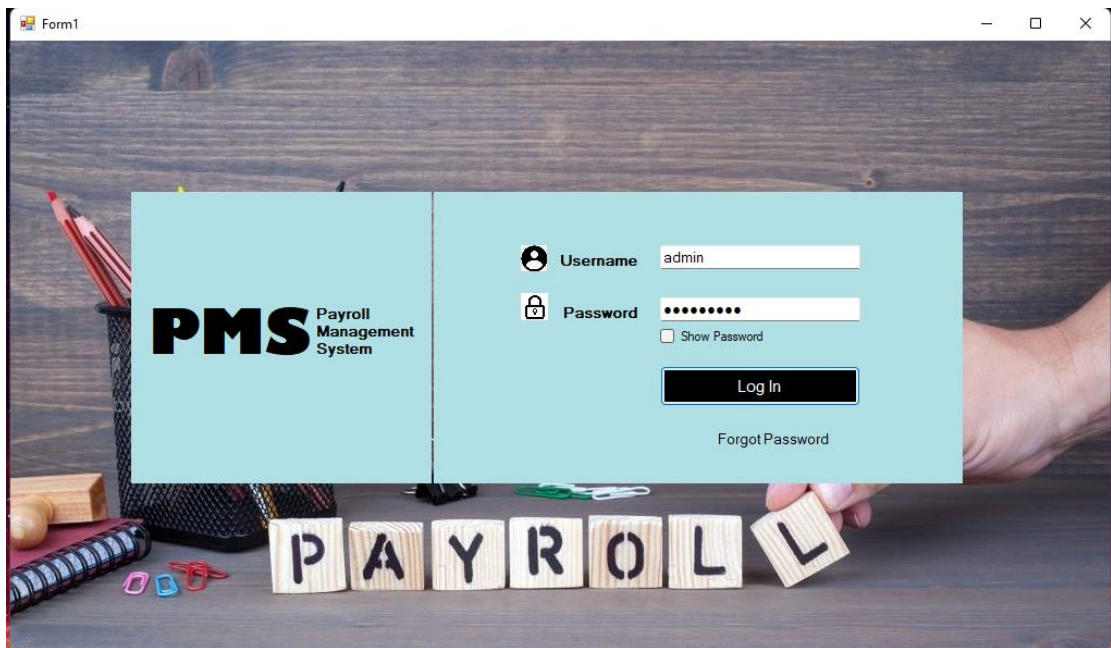


Fig 2.1.4.2: ER Diagram

2.1.4.3 System Modules

We have developed various system modules for different aspects, each representing different functionalities that enhance the efficiency of our Payroll Management System. In this section, we will introduce some of the modules we have developed for different functionalities, as shown below

2.1.4.3.1 Login Module



The screenshot shows a web application window titled 'Form1' with a login interface for the 'PMS Payroll Management System'. The interface is overlaid on a background image of a desk with a pen holder, a notebook, and wooden blocks spelling 'PAYROLL'. The login form is divided into two main sections. The left section contains the 'PMS Payroll Management System' logo. The right section contains the login fields: a 'Username' field with the value 'admin', a 'Password' field with masked characters '.....', a 'Show Password' checkbox, a 'Log In' button, and a 'Forgot Password' link.

PMS Payroll Management System

Username: admin

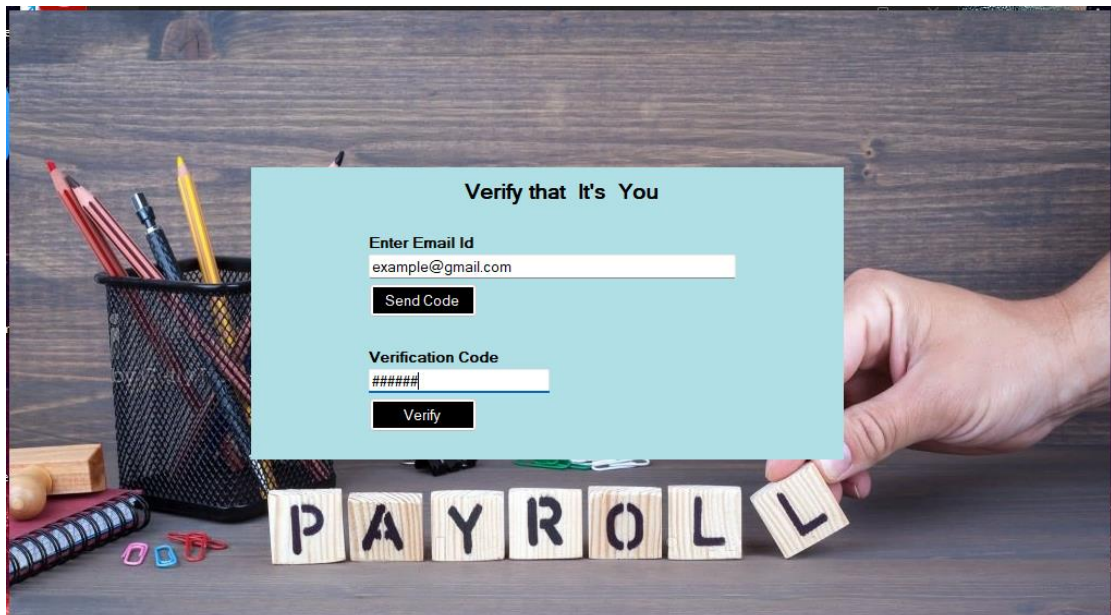
Password:
☐ Show Password

Log In

[Forgot Password](#)

Fig 2.1.4.3.1. Login Module

2.1.4.3.2 Email Verification Module



The screenshot shows the email verification interface of the PMS system. The form is titled 'Verify that It's You' and is overlaid on the same background image as the login module. It contains two main sections: 'Enter Email Id' and 'Verification Code'. The 'Enter Email Id' section has a text input field with the value 'example@gmail.com' and a 'Send Code' button. The 'Verification Code' section has a text input field with masked characters '#####' and a 'Verify' button.

Verify that It's You

Enter Email Id
example@gmail.com
Send Code

Verification Code

Verify

Fig 2.1.4.3.2. Email Verification Module

2.1.4.3.3 Update Password Module

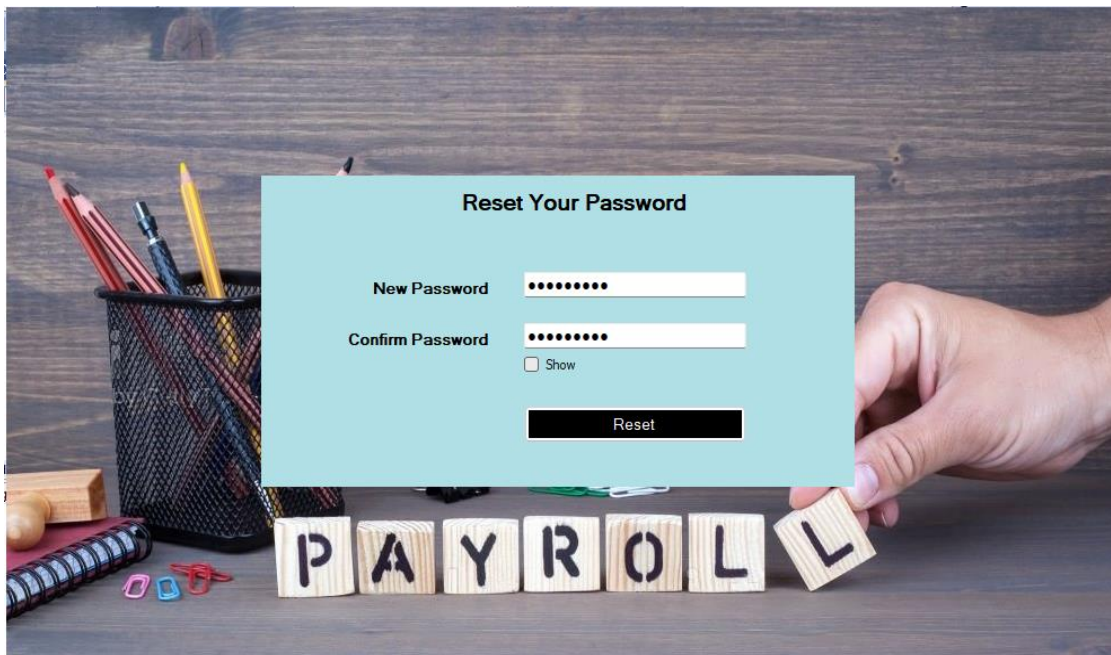


Fig 2.1.4.3.3. Update Password Module

2.1.4.3.4 Admin Dashboard Module

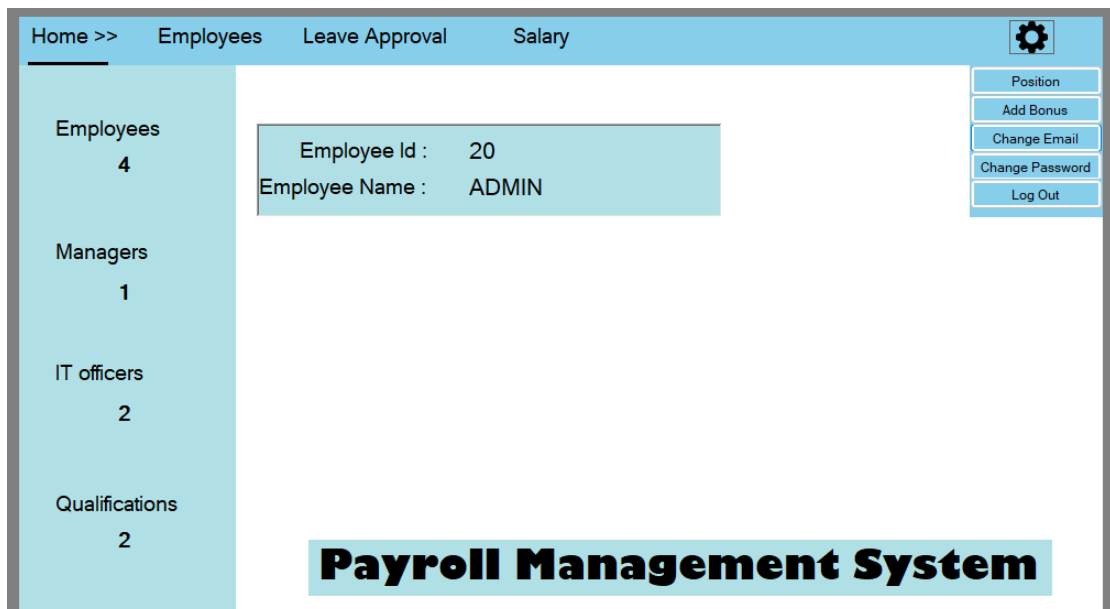


Fig 2.1.4.3.4. Admin Dashboard Module

2.1.4.3.5 User Dashboard Module

Fig 2.1.4.3.5. User Dashboard Module

2.1.4.3.6 Employee Module

	EmpId	EmpName	EmpGen	EmpDOB	EmpPhone	EmpAdd	EmpPos	JoinDate	EmpQual	EmpBasSal	Email	MaritalStatus
	20	ADMIN	Male	7/8/1999	9862539180	Khairahani-1...	Manager	7/8/2023	B-Tech	50000	abhishekkha...	Unmarried
>	24	Niraj Tiwari	Male	7/9/1992	9825362735	Chitwan	IT Officer	7/1/2018	B-Tech	50000	nirajtiwari@g...	Married
	25	Rebel Khadka	Male	2/1/2000	9862539181	Chitwan-02	Junior	7/11/2023	Mech	40000	rebelkhadka...	Unmarried
	26	Rebel chhetri	Male	2/1/2000	9862539133	Chitwan-02	IT Officer	7/11/2023	Mech	40000	rebelkhadka...	Unmarried
*												

Fig 2.1.4.3.6. Employee Module

2.1.4.3.7 Leave Approval Module

Home
Employees
Leave Approval
Salary

Employee Id
Name
Date
Days
Statement
Status
Enter

Leaveld	EmpId	EmpName	Statement	Date	Days	Status

Fig 2.1.4.3.7. Leave Approval Module

2.1.4.3.8 Salary Module

Home
Employees
Leave Approval
Salary

Employee Id
Name
Basic Salary
Marital Status
Position
Join Date
Allowance
Period
Leave remain
Absent
Bonus
Bonus Amount
Balance
Save
Compute
Update

Employee Id
Period
Search
Delete

SalNum	EmpId	EmpName	EmpBasSal	EmpAllowar	EmpBonus	EmpGrade	EmpGradeA	EmpTax	EmpBalance	SalPerid	ProvFund	SalPeriod
11	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	1/30/2023	5000.00	1-2023
12	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	2/28/2023	5000.00	2-2023
13	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	6/30/2023	5000.00	6-2023
14	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	11/30/2022	5000.00	11-2022
15	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	10/31/2022	5000.00	10-2022
*												

Print

Fig 2.1.4.3.8. Salary Module

2.1.4.3.8 Leave Apply Module

Home
Leave Apply
Report

Employee Id
24
Name
Niraj Tiwari
Date
8/ 6/2023
Days

Statement

Apply
Delete

	Leaveld	EmpId	EmpName	Statement	Date	Days	Status
*							

Fig 2.1.4.3.9. Leave Apply Module

2.1.4.3.8 Employee Report Module

Home
Leave Apply
Report

Period From
8/ 6/2023
Period To
8/ 6/2023
Search
Refresh

	SalNum	EmpId	EmpName	EmpBasSal	EmpAllowar	EmpBonus	EmpGrade	EmpGradeA	EmpTax	EmpBalance	SalPerid	ProvFund	SalPeriod
>	11	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	1/30/2023	5000.00	1-2023
	12	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	2/28/2023	5000.00	2-2023
	13	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	6/30/2023	5000.00	6-2023
	14	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	11/30/2022	5000.00	11-2022
	15	24	Niraj Tiwari	50000	1000	0	C	1666.67	500.00	47166.67	10/31/2022	5000.00	10-2022
*													

Print

Fig 2.1.4.3.10. Employee Report Module

2.1.5 System Testing

System testing for a payroll management system involves developing a test plan, creating test data, and conducting functional, integration, performance, security, and user acceptance testing. We have developed a comprehensive testing plan that includes unit testing, integration testing, and user acceptance testing. This will ensure that the system is thoroughly tested at each stage of development and meets all the required specifications.

2.1.6 System Implementation

System implementation for a payroll management system involves implementing the software system into the production environment, configuring it to meet the organization's requirements, and testing it for accuracy and reliability. We implemented our system in a reliable company of our area. End-users must be trained on how to use the system and IT staff must ensure that the system is secure.

2.1.7 System Maintenance

System maintenance for a payroll management system involves regularly checking and updating the software to keep it running smoothly and securely. The problems that arise were fixed to avoid delays in processing payroll. It's also important to continue training users and IT staff to ensure that the system performs well over time.

CHAPTER 3

ADVANTAGES

3.1 Advantages

- Easy to record and manage data.
- Increased productivity and better data analytics.
- User friendly and interactive interface.
- Secure and efficient data.

CONCLUSION

The Payroll Management System is an essential software solution for businesses of all sizes that need to manage their employee salaries and related tasks efficiently. The system automates the payroll process, reduces errors, saves time and effort, and improves the efficiency of payroll activities.

The software is scalable, customizable, user-friendly, secure, and compliant with legal and regulatory requirements. It provides comprehensive reports for payroll analytics and compliance purposes, helping businesses stay on top of their finances and legal obligations.

By implementing the Payroll Management System, businesses can improve employee satisfaction, increase productivity, and reduce costs associated with manual payroll processing. The system allows businesses to focus on core activities, such as growth and development, while leaving payroll management to the software.

In conclusion, the Payroll Management System is an efficient and reliable solution that meets the critical needs of businesses in managing their payroll process. Its benefits are clear, making it an essential tool for businesses that want to stay competitive and succeed in today's fast-paced environment.

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