NATIONAL ACADEMY OF SCIENCE AND TECHNOLOGY

(Affiliated to Pokhara University)

Accredited by University Grants Commission (UGC), Nepal 2022

Uttar Behadi-04, Dhangadhi, Kailali, Sudurpaschim Province, Nepal

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

Er. Harendra Bikram Shah
Lecturer
Department of Bachelor of Computer Engineering

SUBMITTED BY

Abishek Khadka	21070001
Anuska Bhandari	21070002
Bikash Sunar	21070005
Bimal Bhandari	21070006

BE Computer, 4th Semester
2023

ACKNOWLEDGEMENT

Any achievement, be it scholastic or otherwise does not depend solely on the individual efforts but on the guidance, encouragement and cooperation of intellectuals, elders and friends. We would like to take this opportunity to thank them all.

First of all, we would like to thank the NAST for providing us with all the necessary requirements for our project.

We are grateful to acknowledge the guidance and encouragement that has been given to us by **Er. Harendra Bikram Shah, Lecturer**, Department of Computer Engineering, NAST, Dhangadhi, who has rendered a valuable assistance and guidance.

We also extend our thanks to the entire faculty of the **Department of Computer Engineering,** NAST, Dhangadhi, who have encouraged us throughout the course of the project.

Last, but not the least, we would like to thank our family and friends for their inputs to improve the project.

Abishek Khadka	21070001
Anuska Bhandari	21070002
Bikash Sunar	21070005
Bimal Bhandari	21070006

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.

…… ……..

(Abishek Khadka) (Anuska Bhandari)

Date: Date:

…… ……..,..

(Bikash Sunar) (Bimal Bhandari)

Date: Date:

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.

.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

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:

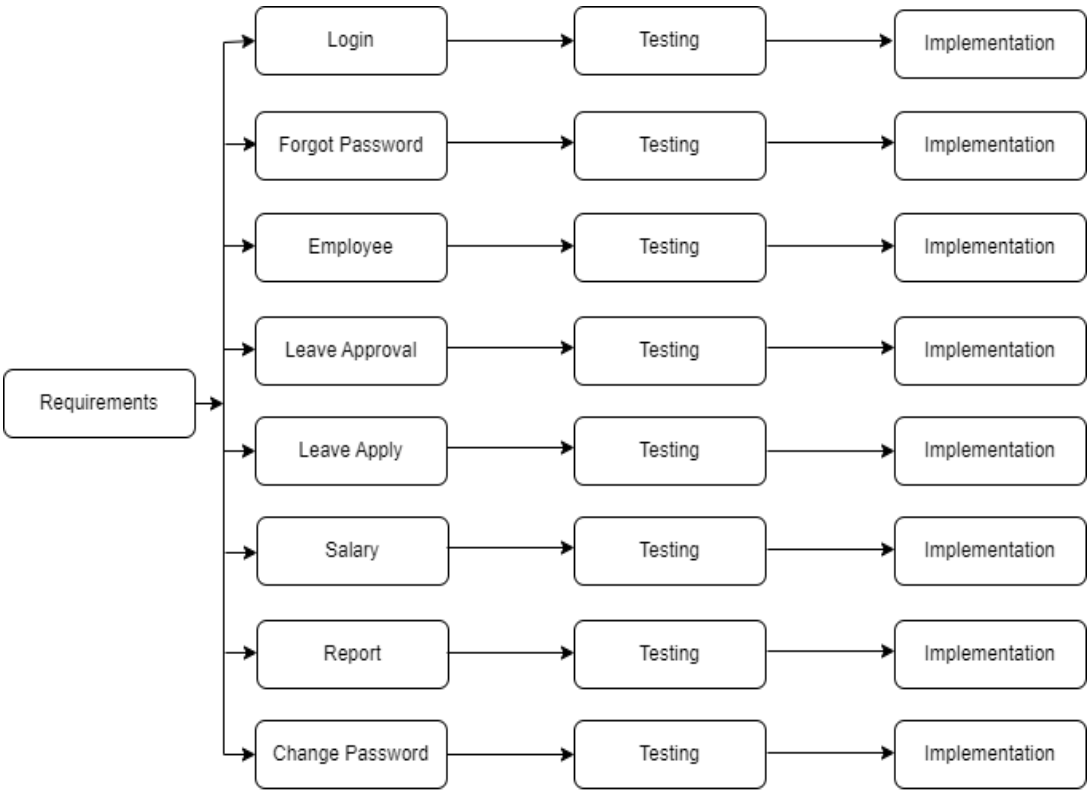

Fig. Incremental Model

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 an analyzed of our system.

2.1.4System design

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

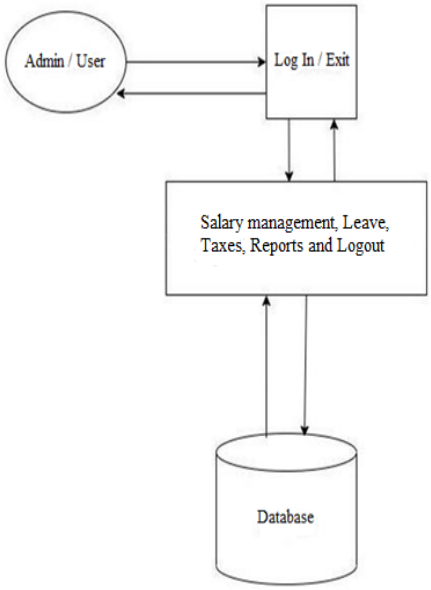

Fig 2.1.4: System Design

2.1.4.1 System Flowchart

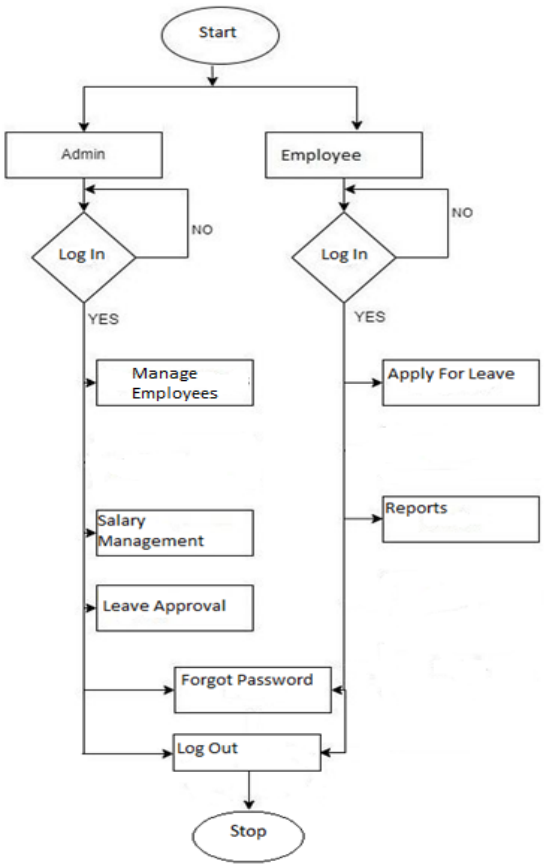

Fig 2.1.4.1: System Flowchart

2.1.4.2 ER Diagram

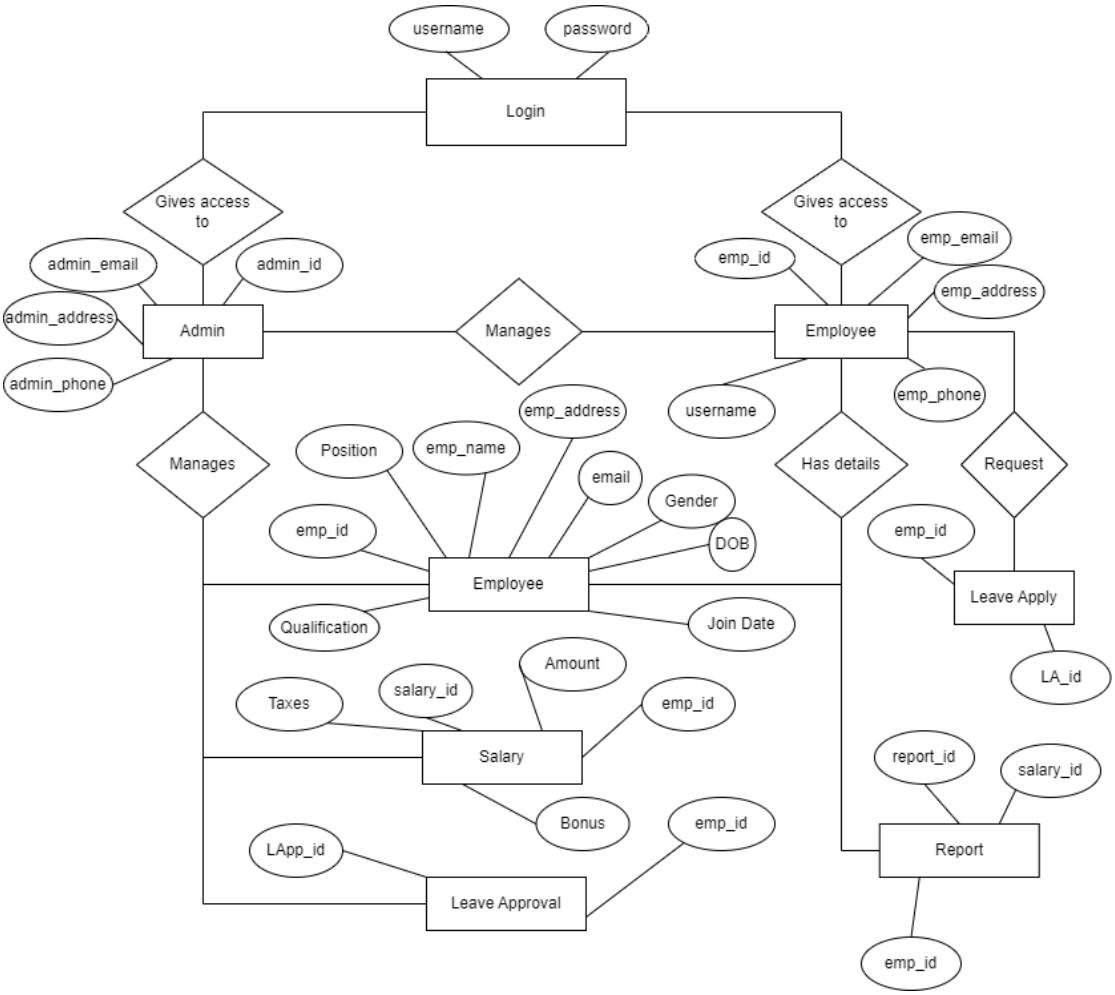

Fig 2.1.4.2: ER Diagram

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

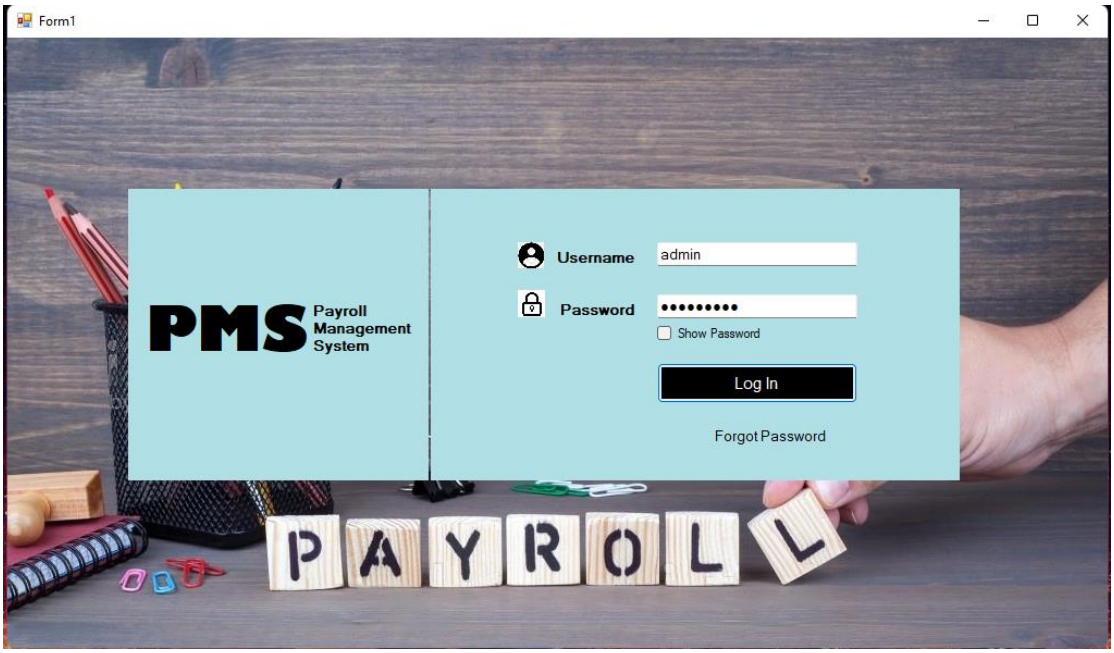

Fig 2.1.4.3.1. Login Module

2.1.4.3.2 Email Verification Module

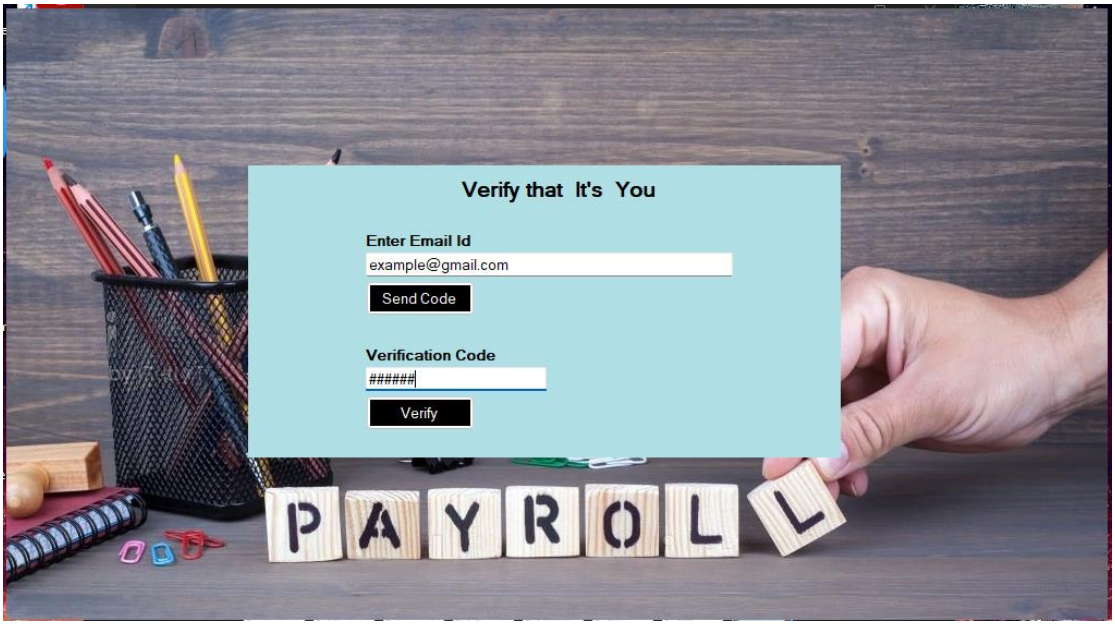

Fig 2.1.4.3.2. Email Verification Module

2.1.4.3.3 Update Password Module

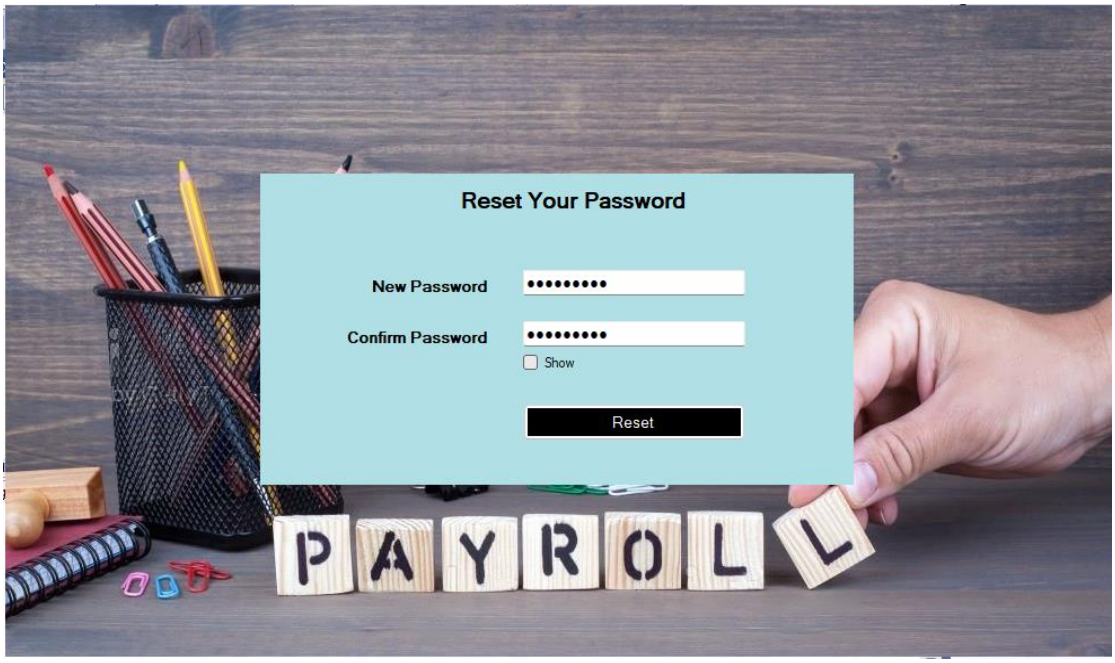

Fig 2.1.4.3.3. Update Password Module

2.1.4.3.4 Admin Dashboard Module

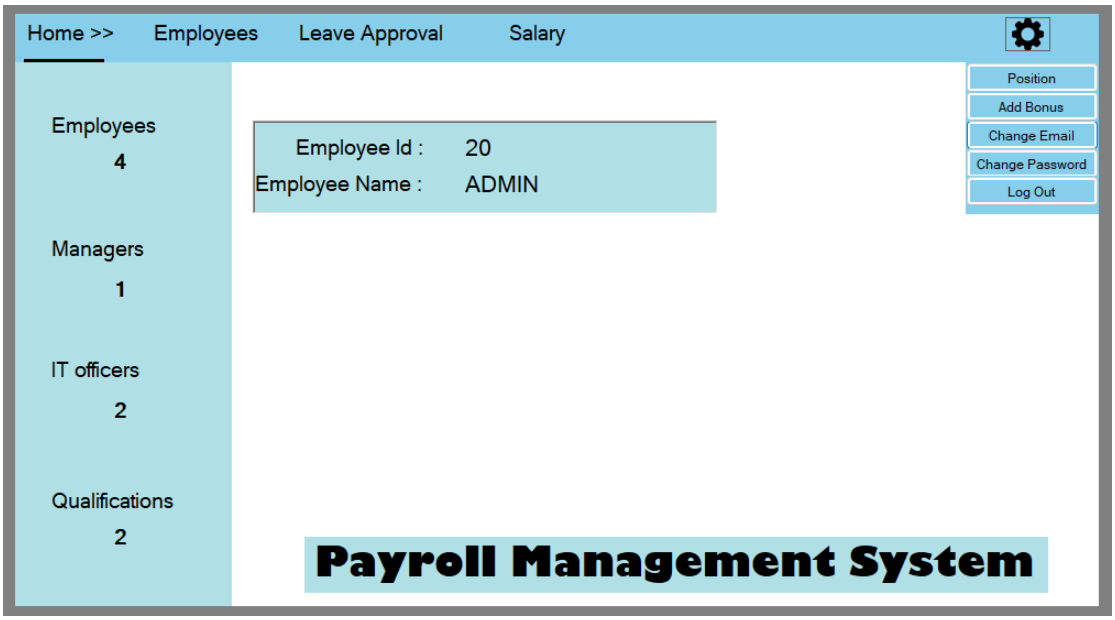

Fig 2.1.4.3.4. Admin Dashboard Module

2.1.4.3.5 User Dashboard Module

Fig 2.1.4.3.5. User Dashboard Module

2.1.4.3.6 Employee Module

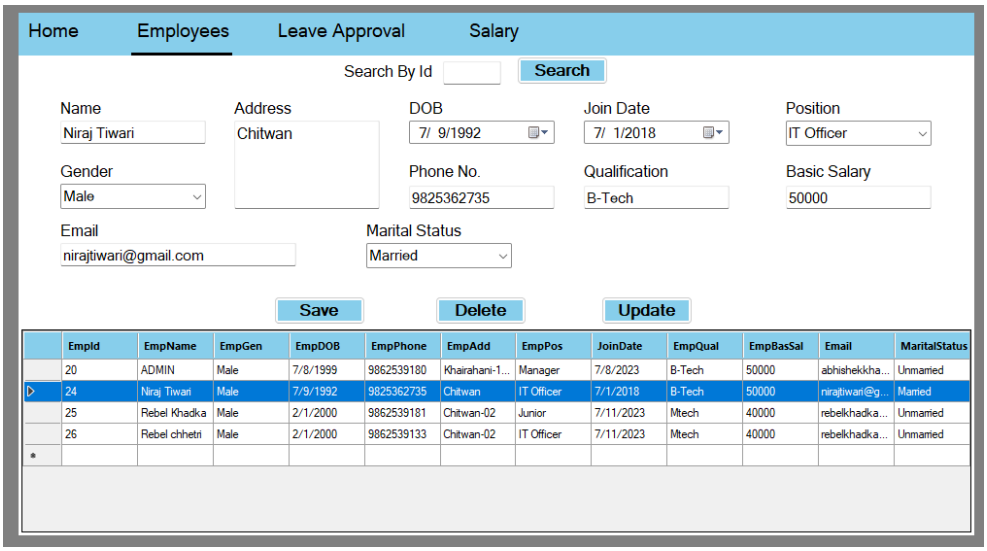

Fig 2.1.4.3.6. Employee Module

2.1.4.3.7 Leave Approval Module

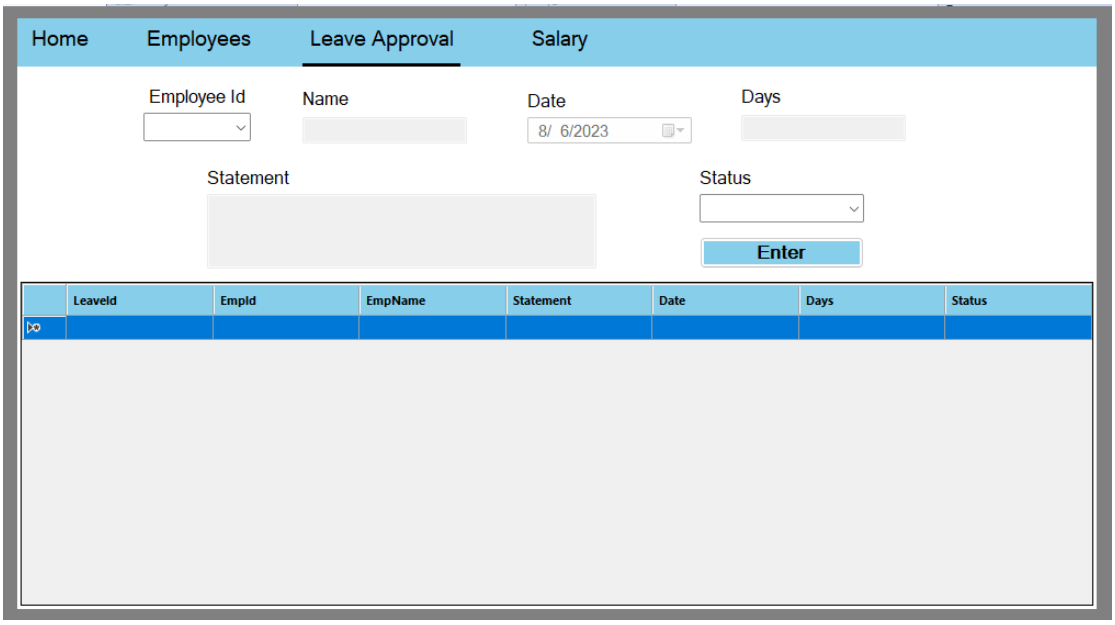

Fig 2.1.4.3.7. Leave Approval Module

2.1.4.3.8 Salary Module

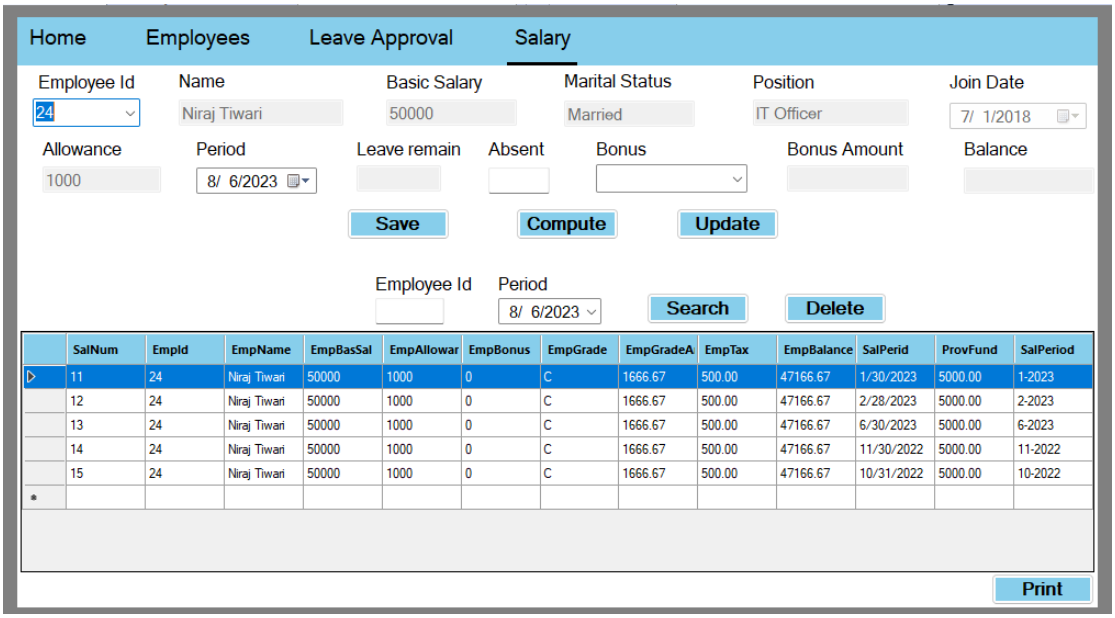

Fig 2.1.4.3.8. Salary Module

2.1.4.3.8 Leave Apply Module

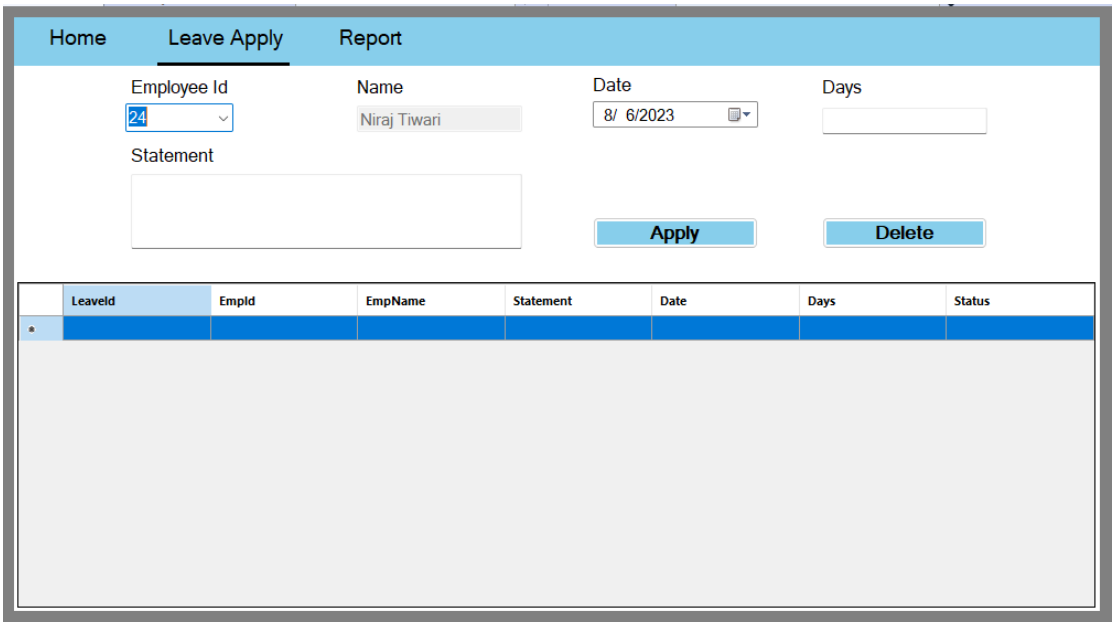

Fig 2.1.4.3.9. Leave Apply Module

2.1.4.3.8 Employee Report Module

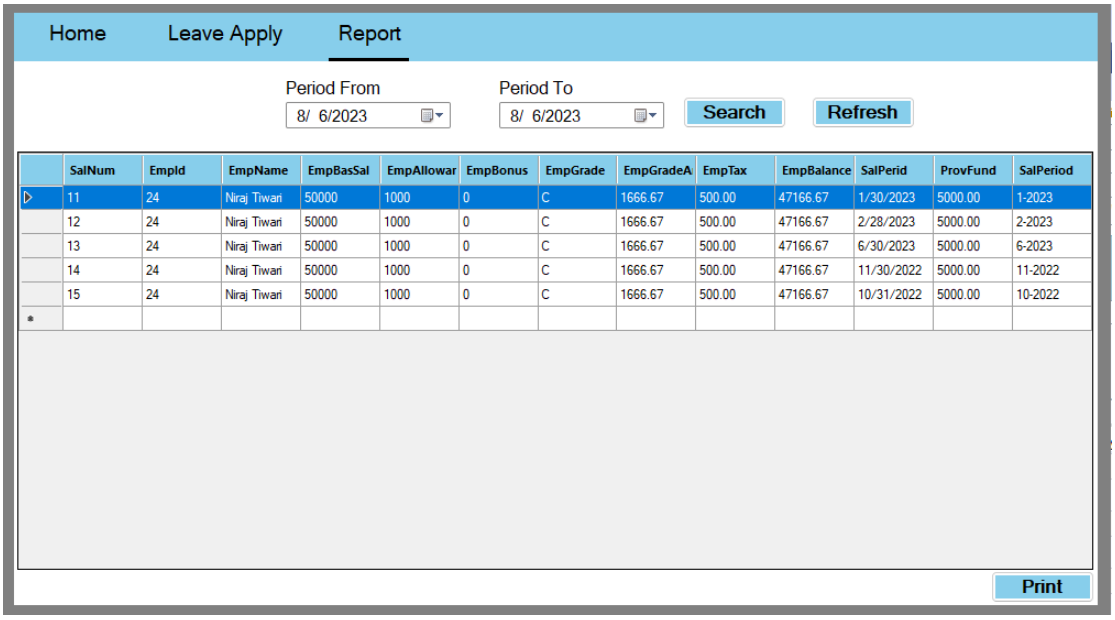

Fig 2.1.4.3.10. Employee Report Module

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 relatable 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.

REFERENCES

[1]. https://www.youtu.be/5p6pN5WFgWY/ (2 May 2023)

[2]. https://app.diagrams.net/ (10 May 2023)

[3]. https://www.freeprojectz.com (7 May 2023)

[4]. https://chat.openai.com/ (14 May 2023)

[5].https://www.tutorialspoint.com/csharp/csharp_regular_expressions.htm (4 June 2023)