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Assessing Effectiveness of Employee Management System for Enhancing Organization Productivity

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ABSTRACT - This project proposes an "Employee Management System" designed to streamline HR operations by centralizing employee data, automating processes like attendance tracking, leave management, and payroll calculations, enabling efficient access to employee information, and facilitating data-driven decision making for improved workforce productivity and engagement, ultimately reducing administrative burdens for HR personnel within an organization. It aims to digitize and automate critical HR functions by providing a web-based platform to store, manage, and access employee data including personal details, attendance records, leave requests, and performance evaluation.

Key Words: Attendance records, leave requests, real time reporting, performance, tracking of employees.

1.INTRODUCTION

The Employee Management System is a comprehensive desktop application designed to streamline employee data management, attendance tracking, and performance evaluation for small to medium-sized organizations. Developed using Visual Basic .NET and Microsoft SQL Server, the system provides a user-friendly interface for HR administrators to perform various tasks, such as adding and removing employees, tracking attendance, and generating reports. The system consists of several modules, including employee information management, attendance tracking, performance management, and reporting. The database design includes tables for employees, attendance, performance, and users, ensuring secure and efficient data storage and retrieval. The code establishes a connection to the SQL Server database, binds data to user interface controls, performs CRUD operations, and includes error handling mechanisms.

2. BODY OF THE PAPER

I. STATEMENT OF PROBLEM

The existing manual processes for managing employee data, attendance, and performance are inefficient, error-prone, and time-consuming, resulting in inaccurate records, poor communication, and limited visibility for decision-making, highlighting the need for a centralized and automated Employee Management System.

II.OBJECTIVES

To streamline employee data management and automate the process and enhance the productivity of the employees. It also provides real-time insights and analytics for informed decision-making.

III. METHODOLOGY

Planning: Planning plays an important role in the implementation. The planning should face any practical problems of controlling various activities of people out their own data processing department. This can be achieved easily with the co-operation of the members of the concern.

Training: Successful needs trained computer staff. So some staff can teach them about the computer implementation, which only then become a well-designed system.

Maintenance: Maintenance involves recovery on crash such as the backups and the end. Users should be given only the executable format of the system.

IV. REVIEW OF LITERATURE

- In terms of technology, Employee Management Systems (EMS) have been recognized as a key tool for improving HR efficiency and effectiveness. A study by Kovach and Cathcart (1999) found that EMS can help organizations streamline HR processes, reduce administrative burdens, and improve employee satisfaction.

- Recent research has also highlighted the importance of integrating EMS with other business systems, such as enterprise resource planning (ERP) and customer relationship management (CRM) systems. A study by Ngai and Wat (2006) found that integrating EMS with ERP systems can lead to improved HR data management and reduced errors.
- Various studies have emphasized the importance of effective employee management in organizations. According to Armstrong (2006), employee management involves the strategic use of HR practices to improve organizational performance. A study by Huselid (1995) found that high-performance work systems, which include employee management practices, can lead to improved organizational outcomes.

V.ANALYSIS AND INTERPRETATION

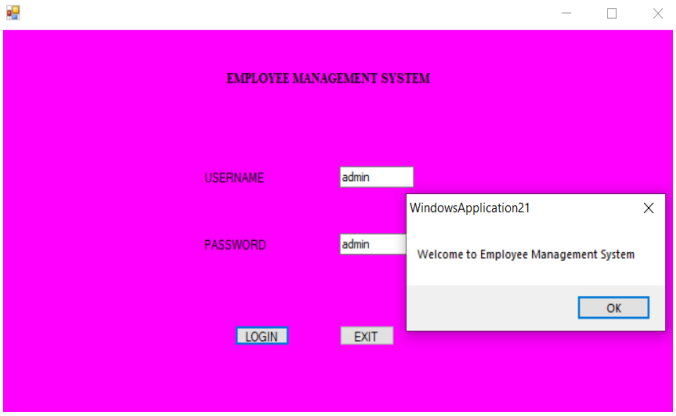
Unit Testing: Focuses on testing individual modules in isolation to identify errors in logic or code. It ensures that each component functions correctly before being integrated with others. Developers typically use automated testing frameworks to perform unit tests.

Integration Testing: Examines how different modules interact when combined. It identifies issues related to data exchange, communication, and dependencies between components. This testing follows structured approaches like top-down, bottom-up, or big bang integration.

User Acceptance Testing (UAT): Validates whether the system meets user requirements and is ready for deployment. End-users test the application in real-world scenarios, providing feedback for any necessary refinements before the final release.

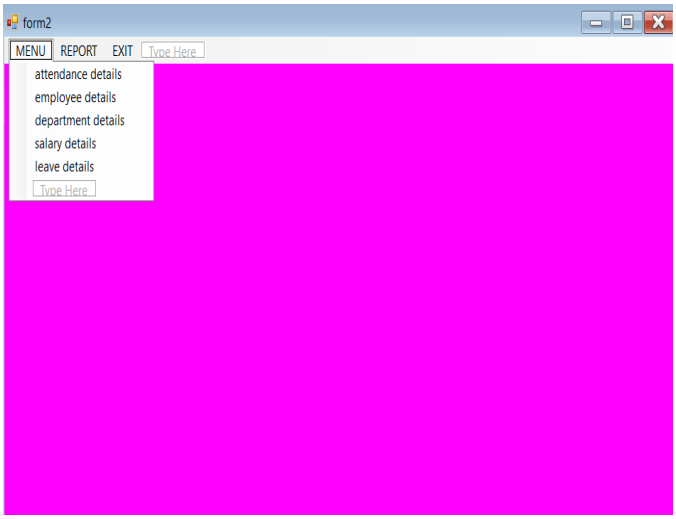
LOGIN MODULE

A Login Module for an Employee Management System (EMS) provides secure access to employees based on their roles, such as Admin, Manager, or Employee. It includes user authentication, where employees log in using their email and password, and authorization, ensuring access control based on predefined roles



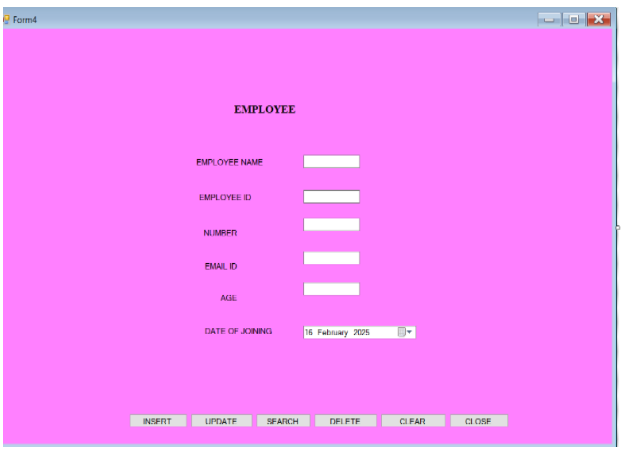
HOMEPAGE MODULE

It displays relevant information based on user roles, such as an admin dashboard with employee records, payroll management, and attendance tracking, while employees can view their profiles, leave balances



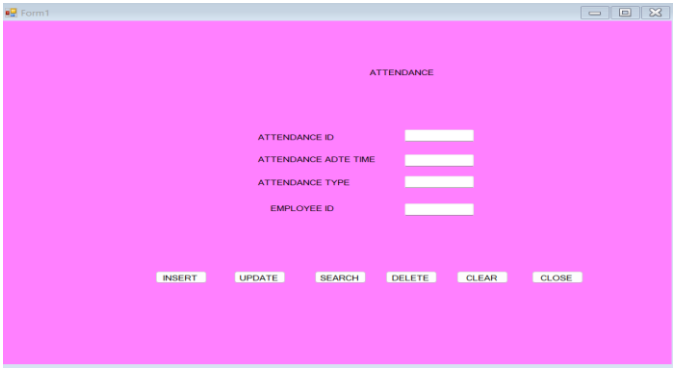
EMPLOYEE MODULE

The Employee Module maintains comprehensive employee records, including personal details, job roles, work history, skills, and documents. It facilitates onboarding, performance evaluation, promotions, and transfers



ATTENDANCE MODULE

The Attendance Module tracks employee working hours, leaves, and overtime. It integrates with biometric devices, RFID, or manual input to record check-in and check-out times.



VI.DATABASE DESIGN

TABLE: ATTENDANCE

FIELD NAME	DATA TYPE	DESCRIPTION
emp _ID	Int	Employee id
emp_ name	Varchar (50)	Employee name
dept_ name	Varchar (50)	Department name
Month	Varchar (50)	Month
Present	Varchar (50)	Present
Absent	Varchar (50)	Absent
No _of _working_ days	Varchar (50)	No of working days

TABLE: EMPLOYEE

FIELD NAME	DATA TYPE	DESCRIPTION
emp_ ID	Varchar (50)	Employee id
emp _name	Char (50)	Employee name
email _ID	Varchar (50)	Employee email id
emp _Number	Varchar (50)	Employee phone number
emp _age	Varchar (50)	Employee age
Doj	Varchar (50)	Date of joining

3.CONCLUSION

The main objective of the project is to make a clear and quick recording of the production. This proposed system is user friendly and enables the business to function as an independent system. This also helps in finding the drawbacks of existing system and helps in fixing the problems and gives the requirements. It also builds security featured by providing various privileges for accessing the data. Thus, the process is brief and flow of production which is done in the company for employee management system.

REFERENCES

1.JONATHAN MORRISON AND GARY CORNELL, “Programming VB.NET-A Guide for Experienced Programmers”.

2.SHIRISH CHARAN,” VB.NET Programming”.

3.ITZIK BEN-GAN,” Microsoft SQL server 2012 T-SQL Fundamentals”.

4.CHRIS FEHILY,”SQL Database Programming”, 2015 Edition.

5. "Building an Effective Data Layer with Visual Basic .NET and SQL Server 2000" by Donny Mack and Doug Seven.

WEBSITE REFERENCES

1. www.stackoverflow.com

2. www.wikipedia.com

3. http://www.freevbcode.com/vb-net-asp-n