

PROJECT REPORT

Employee Management System



GROUP : 07

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Abstract:

The Employee Management System is a comprehensive software solution designed to streamline and enhance the management of staff within organizations. It serves as an integrated platform for efficiently handling various aspects of employee data, HR administration, and communication. This project offers numerous features, including adding, deleting, modifying, and displaying employee records, as well as specialized lists such as male and female employees, employees from different locations, and those from specific branches. The system emphasizes data security, integrity, and accessibility by employing robust authentication methods and data encryption standards. With user-friendly interfaces and flexible modules, This project facilitates seamless communication between management, HR departments, and employees, fostering collaboration through tools for scheduling, leave management, and performance evaluation. Additionally, This project leverages analytics and reporting capabilities to derive insights from employee data, supporting data-driven decision-making and strategic resource allocation. By automating routine HR tasks and enhancing organizational efficiency, This project is an essential tool in modern workforce management, enabling companies to optimize their human resources and focus on achieving their core objectives.

Project Overview:

The Employee Management System is a comprehensive software tool developed using the C language on the CodeBlocks platform, aimed at transforming how businesses manage their workforce. Meticulously designed, This project efficiently handles various employee-related tasks such as data storage, retrieval, and modification. Leveraging the powerful capabilities of C, This project delivers high performance and a suite of features that streamline human resources (HR) processes. Built on the CodeBlocks platform, This project includes modules specifically designed for managing employee information. These modules support profile creation,

attendance tracking, performance evaluation, and payroll management. The system's architecture is scalable, allowing for easy integration of new features and customization to meet diverse business requirements. This project is distinguished by its intuitive user interface, simplifying navigation for both managers and employees. It offers a convenient platform for managing leave requests, assigning tasks, and facilitating communication. With a strong emphasis on data security and integrity, This project employs robust encryption and authentication measures to protect sensitive employee information. Developed using the C language on the CodeBlocks platform, this project is an invaluable resource for businesses seeking to optimize their HR operations, providing a cohesive and efficient tool for improving staff management and overall organizational productivity.

Obstacles:

Developing an Employee Management System in the C language presents several challenges throughout the development process. A major obstacle is managing data structures and memory efficiently. Implementing features such as storing employee information, managing records, and performing operations like adding, deleting, or modifying entries requires careful data organization and manipulation. Additionally, ensuring the system's robustness and security is another significant challenge. Preventing vulnerabilities such as buffer overflows or unauthorized access necessitates rigorous validation and error handling. Furthermore, integrating a user-friendly interface within the constraints of a console-based application in C adds complexity, as the language lacks built-in support for graphical elements, making user interaction less intuitive. Balancing functionality, efficiency, and security within the limitations of the C language is indeed a challenging yet rewarding aspect of developing an Employee Management System.

Functionalities:

The project's first page functions as the Employee Management System logo screen. When users access this page, the EMS logo is prominently displayed. To proceed to the home page, users need to press any key following the prompt, "Enter any key to continue...".

Logo Screen Page:

Upon accessing the home page, HR Administrators are greeted and asked to enter their **username** (admin) and **password** (pass) for authentication and system access.

Log in Page Screen:

The Employee Management System features a secure login page, requiring a unique ID(admin) and password(pass) for individual access. This streamlined platform centralizes administrative tasks, improving efficiency in managing employee records, scheduling, and performance tracking. The login process ensures data confidentiality and maintains the integrity of the This project for seamless and secure functionality.

Home Page Screen:

Upon successful login, users are directed to the Main Menu, which includes the following options:

01. Add Employee
02. Delete Employee
03. Modify Employee
04. Display Employee List
05. Search Record
06. Display Basic Info
07. Display Basic Contact Info
08. List of Male Employees
09. List of Female Employees
10. List of Employees from Dhaka
11. List of Employees from Other Districts
12. List of Employees of Main Branch
13. List of Employees of Other Branches
14. About
00. EXIT

Please input your selection: ->

Within this project system, the HR Administrator function allows for the management of employee information through various options, enabling the addition, removal, or modification of employee details as needed. Option 14 provides comprehensive project information, including the project's name, details about the developer (such as their name and relevant particulars), and the identity and pertinent information of the project approver. Upon accessing the HR Administrator panel, the user will be presented with a menu of options.

Add Employee:

Selecting "Add Employee" by choosing option No. 1 will initiate the process. Once selected and confirmed, a series of prompts will appear sequentially, requesting the following information:

- - Enter ID Number
- - Enter Full Name of Employee
- - Enter Designation
- - Enter Gender
- - Enter Branch
- - Enter Salary
- - Enter Present Address
- - Enter Permanent Address
- - Enter Phone
- - Enter E-mail Address

For the first employee, the system starts assigning ID numbers, beginning with 1.

After entering all required details, a prompt will appear asking, "Want to enter another employee's info? (Y/N)." If the HR Administrator selects 'Y,' the system will repeat the options for entering employee information. Selecting 'N' will automatically return the user to the home page.

Delete Employee: To remove an employee's information, select option number 2, "Delete Employee." Then, enter the employee's ID number to delete their data.

Modify Employee: Employee details like salary, job title, address, or workplace can change over time. To update this information, select option 3, "Modify Employee," and enter the employee's ID number to make the necessary changes.

Display Employee List: To view all employees' information, the HR Administrator can choose option 4, "Display Employee List." This will display details for all employees, organized by their ID numbers.

Search Record: To find details about a specific employee, select option 5, "Search Record," and enter the employee's ID number. This will display all the information for that particular employee.

Display Basic Info: This feature provides a summary of essential employee details, such as names, job titles, departmental affiliations, and unique identification numbers. It offers a quick reference to key employee data for managerial or HR administrative purposes.

Display Basic Contact Info: This function provides access to the primary contact details of all employees, including phone numbers, email addresses, and possibly office locations. It streamlines communication processes within the organization.

List of Male Employees: This option generates a categorized list of male employees, aiding in analyzing and understanding the male demographic within the workforce, including roles and departmental distribution.

List of Female Employees: Similar to the male employees list, this option organizes a list of female employees, providing an overview of their roles, departments, and unique identifiers.

List of Employees from Dhaka: This option filters and presents a list of employees based in Dhaka, offering detailed information about roles, departments, and demographics specific to this area.

List of Employees from Other Districts: This feature compiles a list of employees located in districts outside Dhaka, helping to understand the organization's geographical spread and presenting employee details from diverse locations.

List of Employees from Main Branch: This functionality provides a compilation of employee details specifically for those stationed at the main branch, offering insights into the workforce concentration at the primary location.

List of Employees from Other Branches: This feature generates an overview of employees stationed at branches other than the main one, providing details about roles, departments, and specific identifiers for employees across various branch locations.

About: The "About" option offers comprehensive insights into the This project's essence and functionality. It details the system's purpose, capabilities, and features, guiding users through its components, such as employee data management tools and display options. It also serves as a user guide, providing instructions for navigating the interface, utilizing functionalities, and accessing support channels. Additionally, it emphasizes security measures and keeps users informed about updates and version details.

Exit: The "Exit" option allows users to smoothly conclude their interactions within the This project, ensuring a seamless transition back to their primary environment while preserving data integrity and security protocols.

Contributions:

Sumit Saha 1931415042	<ol style="list-style-type: none">1. int MaximizeOutputWindow(void);2. int SetConsoleSize(void);3. void about();4. void logo();5. void welcome();6. void printChar(char ch, int n);7. void printHead();8. void add(FILE *fp);9. FILE *del(FILE *fp);10. void modify(FILE *fp);11. void displayList(FILE *fp);12. void searchRecord(FILE *fp);13. void maleemp(FILE *fp);14. void femaleemp(FILE *fp);15. void frmdhaka(FILE *fp);16. void frmors(FILE *fp);17. void displaybasic(FILE *fp);18. void basiccontact(FILE *fp);19. void mainbr(FILE *fp);20. void otherbr(FILE *fp);21. int main() <p>22. Report writing.</p>
Fariha Akhtar Titly 2233242642	Login system and displaying records.
S.M.Shahrier Islam 2232567043	Adding and Deleting records.

REFERENCES :

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2. Human Resource Management by Gary Dessler, Robert S. Goebel, and Theodore J. Purcell (15th Edition)
3. Managing Human Resources by Sean Duffy, Brian Bachrach, and David Wayne (12th Edition)

