

***International Islamic University Chittagong***



***Department of Computer Science and Engineering***

***Project Report***

*Course CODE : CSE-2322*

*Course Title : Data structurs lab*

*Date of Submission* : 27/06/2024

Submitted To:

Prof. Mohammad Shamsul Alam.

Professor

Department of CSE

IIUC

Submitted by:

Id: C231104  
Name: Abdul Latif Sayam

Id: C231111

Name: Walid

Id: C231112

Name: Sayeed Saadman Saad

Section : 3cm

1.Introduction

The Employee Management System (EMS) is a console-based application developed in C++ to streamline the management of employee information. This system allows administrators to efficiently perform various operations such as adding, editing, deleting, and searching employee records. The EMS also includes user authentication to ensure secure access to the system.

2.Features

#**User Authentication:** Secure login and registration system to manage access.

#**Add Employee:** Functionality to add new employee records.

#**Edit Employee:** Modify existing employee information.

#**Delete Employee:** Remove employee records from the system.

#**Search Employee:** Find and display employee details by ID.

#**Display All Employees:** List all employee records.

#**Salary Slip Generation:** Create salary slips for employees.

#**Data Persistence:** Save and load employee records and user credentials from files.

3.Implementations

\*Flow Charts

\*Function Used

->gotoxy(int x, int y): Positions the cursor at the specified coordinates in the console.

->intro():Displays the introduction screen of the EMS.

->save\_to\_file():Saves all employee records to a file.

->load\_from\_file()Loads employee records from a file into the linked list.

->save\_registration\_to\_file():Saves user credentials to a file.

->load\_registration\_from\_file():Loads user credentials from a file.

->admin\_panel():Displays the admin panel with options for user registration and login.

->registerUser(): Handles user registration by collecting username and password, and saving them to a file.

->login():Handles user login by validating the entered credentials against the stored credentials.

->Control\_Menu():Displays the main menu for managing employee records.

->insert\_employee():Inserts a new employee record into the linked list.

->edit():Edits an existing employee record.

->delete\_employee(): Deletes an employee record from the linked list.

->display(): Displays all employee records.

->searching\_id(): Searches for an employee record by ID.

->salarySlip():Generates a salary slip for a specific employee.

4.Possible extensions

#Include Data Base: Integrating a database management system like MySQL or SQLite for storing employee records would improve data management, allow for more complex queries, and ensure data integrity.

#Employee Self-Service Portal: Developing a self-service portal where employees can log in to view their own records, update personal information, and access salary slips.

#Performance Tracking and Evaluation: Adding features to track employee performance metrics and conduct evaluations based on predefined criteria.

#Automated Reports: Adding functionality to generate automated reports on employee data, such as performance reports, payroll summaries, and attendance records.

5.Conclusion

The Employee Management System (EMS) is a robust and efficient tool for managing employee information within an organization. By providing functionalities such as user authentication, adding and editing employee records, searching, and generating salary slips, the EMS streamlines administrative tasks and enhances productivity.

The current implementation, while functional, lays the groundwork for further enhancements. The potential extensions, such as incorporating a graphical user interface, database integration, role-based access control, and cloud integration, would significantly improve the system's usability, scalability, and security. These future plans aim to transform the EMS into a comprehensive solution that can adapt to the evolving needs of modern organizations.

In conclusion, the EMS represents a significant step towards efficient employee management. With continued development and the integration of advanced features, it has the potential to become an indispensable tool for organizations of all sizes.