

# **Employee Management System**

## **INTRODUCTION**

- ❖ **Employee Record System is software built to handle the primary housekeeping functions of a company. ERS helps companies keep track of all the employees and their records. It is used to manage the company using a computerized system. This software built to handle the records of employees of any company. It will help companies to keep track of all the employees' records in a file.**

### **What is EMS?**

**Employee Management System is a distributed application.**

- **developed to maintain the details of employees working in any**
- **organization.**
- **The EMS has been developed to override the problems prevailing**
- **in the practicing manual system.**
- **It maintains the information about the personal and official**
- **details of the employees:**

### **Aim of the Employee's Record System:**

- ❖ **The user will be provided with 5 options:**
- **Add a new record**
- **Delete a record**
- **Modify a record**
- **View all the records**
- **Exit**

### **Data of the Employees:**

- **Name**
- **Age**
- **Salary**
- **Employee ID**

### **Approach:**

- **All the functions will be provided under switch cases. The idea is to use the concepts of File Handling to write the data in a text file and read the written data as well. We need to add a data.txt file in the same folder as well.**
- **The opening frame consists of the name of the application and the developer: It is created using some printf statements and a predefined function called system(). The system() function is a part of the C/C++ standard library. It is used to pass the commands that can be executed in the command processor or the terminal of the operating system and finally returns the command after it has been completed.**
- **system("Color 3F") will change the color of the console i.e. background (3) and the text on the console i.e. foreground (F).**
- **system("pause") will pause the screen, so the user will get a message: Press any key to continue . . .**
- **gotoxy() function: It will help to set the coordinates of the displayed data.**
- **Switch Case: The required function under the switch cases will be executed as per the input of the user. Simple file handling concepts like opening a file, closing a file, writing in a file, and reading the file, etc. are used to develop the code.**

## **OBJECTIVES OF OUR PROJECT:**

- This project aims to simplify the task of maintaining records of
- the employees of Company.
- To develop an well-designed database to store employee
- information.
- Provides full functional reports to management of Company.
- The objective of this project is to provide a comprehensive
- approach towards the management of employee information.

#### FEATURES:

- Proper Login Screen (Invisible Password Typing).
- Password Protected.
- Encrypted File (Binary).
- Easily Add, Delete, Modify Records.
- Various Essential Queries.

Below is the C program for the Employee record system:

```
// C program for the Employee Management System
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <windows.h>

// structure of Employee
struct emp {
    char name[100];
    float salary;
    int age;
    int id;
};

struct emp E;

// size of the structure
long int size = sizeof(E);

// In the start coordinates, will be 0, 0

COORD cord = { 0, 0 };

// function to set the coordinates
void gotoxy(int a, int b)
{
    cord.X = a;
    cord.Y = b;
    SetConsoleCursorPosition(
        GetStdHandle(STD_OUTPUT_HANDLE),
        cord);
}

FILE *fp, *ft;

// Function to add the records
void addrecord0
{
    system("cls");
```

```

fseek(fp, 0, SEEK_END);
char another = 'b';

while (another == 'b') {
    printf("\nEnter Name : ");
    scanf("%s", E.name);

    printf("\nEnter Age : ");
    scanf("%d", &E.age);

    printf("\nEnter Salary : ");
    scanf("%f", &E.salary);

    printf("\nEnter EMP-ID : ");
    scanf("%d", &E.id);

    fwrite(&E, size, 1, fp);

    printf("\nWant to add another"
           " record (Yes/No) : ");
    fflush(stdin);

    scanf("%c", &another);
}

// Function to delete the records
void deleterecord()
{
    system("cls");
    char empname[100];
    char another = 'b';

    while (another == 'b') {
        printf("\nEnter employee "
               "name to delete : ");
        scanf("%s", empname);

        ft = fopen("temp.txt", "wb");
        rewind(ft);

        while (fread(&E, size,
                     1, fp)
               == 1) {
            if (strcmp(E.name,
                       empname)
                != 0)
                fwrite(&E, size, 1, ft);
        }

        fclose(fp);
        fclose(ft);
        remove("data.txt");
        rename("temp.txt", "data.txt");
        fp = fopen("data.txt", "rb+");

        printf("\nWant to delete another"

```

```

        " record (Yes/No) :");
        fflush(stdin);
        another = getche0;
    }
}

// Function to display the record
void displayrecord()
{
    system("cls");

    // sets pointer to start of the file
    rewind(fp);

    printf("\n=====
    "=====
    "====");
    printf("\nNAME\t\tAGE\t\tSALARY\t\t
    \tID\n",
        E.name, E.age,
        E.salary, E.id);
    printf("=====
    "=====
    "====\n");

    while (fread(&E, size, 1, fp) == 1)
        printf("\n%s\t\t%d\t\t%.2f\t\t%d",
            E.name, E.age, E.salary, E.id);

    printf("\n\n\n\t");
    system("pause");
}

// Function to modify the record
void modifyrecord()
{
    system("cls");
    char empname[100];
    char another = 'b';

    while (another == 'b') {
        printf("\nEnter employee name
        " to modify : ");
        scanf("%s", empname);

        rewind(fp);

        // While File is open
        while (fread(&E, size, 1, fp) == 1) {
            // Compare the employee name with ename
            if (strcmp(E.name, empname) == 0) {
                printf("\nEnter new name:");
                scanf("%s", E.name);
                printf("\nEnter new age :");
                scanf("%d", &E.age);
                printf("\nEnter new salary :");
                scanf("%f", &E.salary);
            }
        }
    }
}

```

[illegible]

```

        "\n\n\t\t\t\t\t");

system("pause");

while (1) {
    // Clearing console and asking the user for input
    system("cls");
    gotoxy(30, 10);
    printf("\n1. ADD RECORD\n");
    gotoxy(30, 12);
    printf("\n2. DELETE RECORD\n");
    gotoxy(30, 14);
    printf("\n3. DISPLAY RECORDS\n");
    gotoxy(30, 16);
    printf("\n4. MODIFY RECORD\n");
    gotoxy(30, 18);
    printf("\n5. EXIT\n");
    gotoxy(30, 20);
    printf("\nEnter YOUR CHOICE...\n");
    fflush(stdin);
    scanf("%d", &choice);

    // Switch Case
    switch (choice) {
        case 1:

            // Add the records
            addrecord0;
            break;

        case 2:

            // Delete the records
            deleterecord0;
            break;

        case 3:

            // Display the records
            displayrecord0;
            break;

        case 4:

            // Modify the records
            modifyrecord0;
            break;

        case 5:

            fclose(fp);
            exit(0);
            break;

        default:
            printf("\nINVALID CHOICE...\n");
    }
}

```

```
        return 0;
    }
```

**Output:**

❖ **First displaying the name of software:**

```
=====
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
=====
[|::>::>::>::> EMPLOYEE RECORD <::<::<::<::<|]
=====
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
=====

Developer : @VRUSHABH_PADASALAGI

Press any key to continue . . .
```

❖ **Displaying all the options**

```
1. ADD RECORD
2. DELETE RECORD
3. DISPLAY RECORDS
4. MODIFY RECORD
5. EXIT
ENTER YOUR CHOICE...
```

❖ **Adding records**

```
Enter Name : vrushabh
Enter Age : 22
Enter Salary : 500000
Enter EMP-ID : vrushabh108
Want to add another record (Yes/No) :
```

#### ❖ **Displaying The records**

```
=====
NAME          AGE          SALARY          ID
=====
vrushabh      0          0.00          0
vrushabh      22         5000000.00      0
vrushabhp     22         400000.00      0
vrushabh      22         500000.00      0
Harikris      21         50000.00       0
vrushabh      0          0.00          0
vrushabh      22         500000.00      0

Press any key to continue . . .
```

#### ❖ **Delete record**

```
Enter employee name to delete : vrushabh
Want to delete another record (Yes/No) :
```



❖ **Record after deletion**

```
=====
NAME          AGE          SALARY          ID
=====
vrushabhp      22          400000.00        0
Harikris       21          50000.00         0

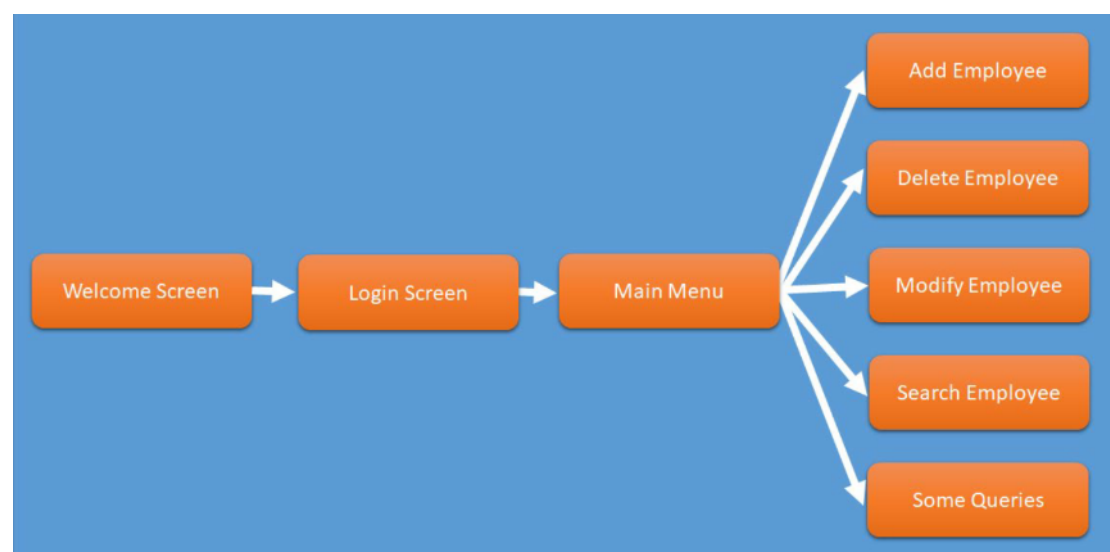
Press any key to continue . . .
```

❖ **Record after deletion**

```
=====
NAME          AGE          SALARY          ID
=====
vrushi         25          700000.00        0
Harikris       21          50000.00         0
vrushabh       22          500000.00        0
rishi          23          6000000.00       0

Press any key to continue . . .
```

❖ **Basic structure**



#### **FUTURE SCOPE:**

- **Add a system to create an account.**
- **Add printer in future.**
- **Give more advanced programs for the system**
- **including more facilities.**
- **Improve the program for more heavy Duties.**

#### **CONCLUSION:**

- **This project is strongly preferable for a proper management of Employees of an Organization. The security in this project is a very good point to be noted. The project is password protected, so that authorities can feel secure. We included several user friendly programs, features and operations in details in it. This Project is so user friendly. So, anyone can use this without any complexities. Finally, the system is implemented and tested according to test cases.**