EMPLOYEE MANAGEMENT SYSTEM

Employee Management System project developed using C.

CODE 1- SOURCE CODE

```
main.c
 1 #include <stdio.h>
 3 // Defining the Date structure
 4 - struct Date {
        int dd, mm, yy;
 6 };
 8 // Defining the Employee structure
 9 - struct Employee {
10
        int Empno;
        char EmpName[50];
11
12
        struct Date hiredate:
13
        float BasicSalary;
14
        float NetSalary;
15 };
16
17 // Function to calculate Netsalary
18 * void calculateNetSalary(struct Employee *emp) {
        float DA = 0.4 * emp->BasicSalary;
20
        float TA = 0.1 * emp->BasicSalary;
        float PF = 0.05 * emp->BasicSalary;
21
22
23
        emp->NetSalary = emp->BasicSalary + DA + TA - PF;
24 }
25
```

```
26 // Function to accept employee data
27 * void AcceptEmployeeData(struct Employee *emp) {
        printf("Please Enter Employee Number: ");
28
29
        scanf("%d", &emp->Empno);
30
        printf("Please Enter Employee Name: ");
31
        scanf("%s", emp->EmpName);
32
33
34
        printf("Please Enter Hire Date (DD MM YY): ");
        scanf("%d %d %d", &emp->hiredate.dd, &emp->hiredate.mm, &emp->hiredate.yy);
35
36
37
        printf("Please Enter Basic Salary: ");
        scanf("%f", &emp->BasicSalary);
38
39
        calculateNetSalary(emp);
41 }
42
43 // Function to display employee data
44 - void DisplayEmployeeData(struct Employee emp) {
        printf("\nEmployee Number: %d\n", emp.Empno);
45
        printf("Employee Name: %s\n", emp.EmpName);
46
47
        printf("Hire Date: %02d/%02d/n", emp.hiredate.dd, emp.hiredate.mm, emp.hiredate
            · vv);
48
        printf("Basic Salary: %.2f\n", emp.BasicSalary);
49
        printf("Net Salary: %.2f\n", emp.NetSalary);
50 }
```

```
51
52 * int main() {
53
        int n;
54
        printf("Please Enter the number of employees: ");
55
        scanf("%d", &n);
56
57
        struct Employee emp[n];
58
59 +
        for (int i = 0; i < n; i++) {
60
            printf("\nPlease Enter details for Employee %d:\n", i + 1);
61
            AcceptEmployeeData(&emp[i]);
62
63
64
        printf("\nBelow are the Employee Details:\n");
        for (int i = 0; i < n; i++) {
65 +
66
            DisplayEmployeeData(emp[i]);
67
```

68 69

70 }

return 0;

CODE 1-OUTPUT

Net Salary: 101500.00

Output /tmp/LZBvHIYILo.o Please Enter the number of employees: 3 Please Enter details for Employee 1: Please Enter Employee Number: 1001 Please Enter Employee Name: gagan Please Enter Hire Date (DD MM YY): 12 12 20 Please Enter Basic Salary: 70000 Please Enter details for Employee 2: Please Enter Employee Number: 1002 Please Enter Employee Name: darshan Please Enter Hire Date (DD MM YY): 23 07 18 Please Enter Basic Salary: 120000 Please Enter details for Employee 3: Please Enter Employee Number: 1003 Please Enter Employee Name: salman Please Enter Hire Date (DD MM YY): 23 05 19 Please Enter Basic Salary: 110000 Below are the Employee Details: Employee Number: 1001 Employee Name: gagan Hire Date: 12/12/20 Basic Salary: 70000.00

Employee Number: 1002 Employee Name: darshan Hire Date: 23/07/18

Basic Salary: 120000.00 Net Salary: 174000.00

Employee Number: 1003 Employee Name: salman Hire Date: 23/05/19

Basic Salary: 110000.00 Net Salary: 159500.00

CODE 2-SOURCE CODE

main.c

```
1 #include <stdio.h>
                                                         26 // Function to accept employee data
                                                         27 * struct Employee acceptEmployeeData() {
 3 // Defining the Date structure
                                                                  struct Employee emp;
                                                         28
 4 * struct Date {
                                                         29
       int dd, mm, yy;
                                                         30
                                                                  printf("Please Enter Employee Number: ");
 6 };
                                                         31
                                                                  scanf("%d", &emp.Empno);
 8 // Defining the Employee structure
                                                         32
9 - struct Employee {
                                                         33
                                                                  printf("Please Enter Employee Name: ");
10
       int Empno;
                                                                  scanf("%s", emp.EmpName);
                                                         34
       char EmpName[50];
11
                                                         35
12
       struct Date hiredate:
                                                         36
                                                                  printf("Please Enter Hire Date (DD MM YY): ");
13
       float BasicSalary;
                                                         37
                                                                  scanf("%d %d %d", &emp.hiredate.dd, &emp.hiredate.mm, &emp.hiredate.yy);
14
       float NetSalary;
                                                         38
15 };
                                                         39
                                                                  printf("Please Enter Basic Salary: ");
16
                                                         40
                                                                  scanf("%f", &emp.BasicSalary);
   // Function to calculate Netsalary
                                                         41
18 - float calculateNetSalary(float basicSalary) {
19
       float DA = 0.4 * basicSalary;
                                                         42
                                                                  emp.NetSalary = calculateNetSalary(emp.BasicSalary);
20
       float TA = 0.1 * basicSalary;
                                                         43
21
       float PF = 0.05 * basicSalary;
                                                         44
                                                                  return emp;
22
                                                         45 }
23
       return basicSalary + DA + TA - PF;
                                                         46
24 }
25
```

```
47 // Function to display employee data
48 - void displayEmployeeData(struct Employee emp) {
       printf("\nEmployee Number: %d\n", emp.Empno);
       printf("Employee Name: %s\n", emp.EmpName);
50
51
       printf("Hire Date: %02d/%02d/%02d\n", emp.hiredate.dd, emp.hiredate.mm, emp.hiredate
            .yy);
       printf("Basic Salary: %.2f\n", emp.BasicSalary);
52
53
       printf("Net Salary: %.2f\n", emp.NetSalary);
54 }
55
56 - int main() {
57
       int n;
58
       printf("Please Enter the number of employees: ");
       scanf("%d", &n);
59
60
61
       struct Employee emp[n];
62
63 -
       for (int i = 0; i < n; i++) {
64
           printf("\nPlease Enter details for Employee %d:\n", i + 1);
65
           emp[i] = acceptEmployeeData();
66
67
68
       printf("\nBelow are the Employee Details:\n");
69 -
       for (int i = 0; i < n; i++) {
            displayEmployeeData(emp[i]);
70
71
72
```

73

return 0;

CODE 2-OUTPUT

Hire Date: 12/12/20 Basic Salary: 70000.00 Net Salary: 101500.00

Output /tmp/uKtawwyT3T.o Please Enter the number of employees: 3 Please Enter details for Employee 1: Please Enter Employee Number: 1001 Please Enter Employee Name: gagan Please Enter Hire Date (DD MM YY): 12 12 20 Please Enter Basic Salary: 70000 Please Enter details for Employee 2: Please Enter Employee Number: 1002 Please Enter Employee Name: darshan Please Enter Hire Date (DD MM YY): 23 07 18 Please Enter Basic Salary: 120000 Please Enter details for Employee 3: Please Enter Employee Number: 1003 Please Enter Employee Name: salman Please Enter Hire Date (DD MM YY): 23 05 19 Please Enter Basic Salary: 110000 Below are the Employee Details: Employee Number: 1001 Employee Name: gagan

Employee Number: 1002 Employee Name: darshan Hire Date: 23/07/18 Basic Salary: 120000.00 Net Salary: 174000.00

Employee Number: 1003 Employee Name: salman Hire Date: 23/05/19 Basic Salary: 110000.00

Net Salary: 159500.00

CONCLUSION

The development of the Employee Management System project has achieved the following key points and goals:

- Efficiently manages employee records by storing essential information.
- Implements modular functionalities for input, calculation, and display of employee data.
- Enhances code reusability and maintainability through the use of composition for date handling.
- Provides flexibility in module design by supporting both "pass by value" and "pass by reference" mechanisms.
- In conclusion, the Employee Management System project is a versatile and efficient solution for managing employee records and performing essential operations on them, ensuring data accuracy and code maintainability.