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COMPUTER SCIENCE
WITH SPECIALIZATION IN
BLOCKCHAIN TECHNOLOGY

SECTION - Q1

EMPLOYEE RECORD SYSTEM

Description:

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 is 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.

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

COMPLETE PROGRAM:

```
// C program for the above approach
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <windows.h>

// Structure of the employee
struct emp {
        char name[50];
        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 x, int y)
{
	cord.X = x;
	cord.Y = y;
	SetConsoleCursorPosition(
		GetStdHandle(STD_OUTPUT_HANDLE),
		cord);
}

FILE *fp, *ft;

// Function to add the records
void addrecord()
{
	system("cls");
	fseek(fp, 0, SEEK_END);
	char another = 'y';

	while (another == 'y') {
		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 (Y/N) : ");
		fflush(stdin);

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

```
}

// Function to delete the records
void deleterecord()
{
	system("cls");
	char empname[50];
	char another = 'y';

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

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

		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 (Y/N) :");
		fflush(stdin);
		another = getche();
	}
}

// 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%10d",
			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[50];
	char another = 'y';

	while (another == 'y') {
		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);
                                printf("\nEnter new EMP-ID :");
                                scanf("%d", &e.id);

                                fseek(fp, -size, SEEK_CUR);
                                fwrite(&e, size, 1, fp);
                                break;
                        }
                }

                // Ask for modifying another record
                printf("\nWant to modify another"
                        " record (Y/N) :");
                fflush(stdin);
                scanf("%c", &another);
        }
}

// Driver code
int main()
{
        int choice;

        // opening the file
        fp = fopen("data.txt", "rb+");

        // showing error if file is
        // unable to open.
        if (fp == NULL) {
                fp = fopen("data.txt", "wb+");
                if (fp == NULL) {
                        printf("\nCannot open file...");
                        exit(1);
                }
        }

        system("Color 3F");
        printf("\n\n\n\n\t\t\t\t=============="
                "============================="
                "===========");
        printf("\n\t\t\t\t~~~~~~~~~~~~~~~~~~~~"
```

```
        "~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~"
        "~~~~~");
printf("\n\t\t\t\t==================="
        "============================="
        "=====");
printf("\n\t\t\t\t[|:::>:::>:::>::> "
        "EMPLOYEE RECORD <::<:::<:::"
        "<:::|]\t");
printf("\n\t\t\t\t==================="
        "============================="
        "=====");
printf("\n\t\t\t\t~~~~~~~~~~~~~~~~~~~"
        "~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~"
        "~~~");
printf("\n\t\t\t\t====================="
        "==============================\n");
printf("\n\n\n\t\t\t\t\t\t\t\t\t\t\t\t"
        "Developer : @Sushant_Gaurav"
        "\n\n\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
                addrecord();
                break;

        case 2:

                // Delete the records
                deleterecord();
                break;

        case 3:

                // Display the records
                displayrecord();
                break;

        case 4:

                // Modify the records
                modifyrecord();
                break;

        case 5:
                fclose(fp);
                exit(0);
                break;

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

    return 0;
}
```

OUTPUT:

First displaying the name of the software:

Displaying all the options:

Adding Records:

```
Enter Name : Aman

Enter Age : 18

Enter Salary : 50000

Enter EMP-ID : 1

Want to add another record (Y/N) : y

Enter Name : Aditya

Enter Age : 19

Enter Salary : 49000

Enter EMP-ID : 2

Want to add another record (Y/N) : n
```

Displaying Records:

```
==================================================
NAME            AGE             SALARY          ID
==================================================

Amann           18              51000.00                1
Aditya          19              49000.00                2
Gaurav          18              50000.00                3


        Press any key to continue . . .
```

Delete a Record:

```
Enter employee name to delete : Gaurav

Want to delete another record (Y/N) :
```

Record After Deletion:

```
==================================================
NAME            AGE             SALARY          ID
==================================================

Amann           18              51000.00            1
Aditya          19              49000.00            2


        Press any key to continue . . .
```

Modifying or Editing a record:

```
Enter employee name to modify : Aman

Enter new name:Amann

Enter new age :18

Enter new salary :51000

Enter new EMP-ID :1

Want to modify another record (Y/N) :n
```

Record after Modification:

```
==================================================
NAME            AGE             SALARY          ID
==================================================

Amann           18              51000.00                1
Aditya          19              49000.00                2


       Press any key to continue . . .
```