**EXPERIMENT 13**

**INPUT:-**

#include<iostream>

#include<iomanip>

using namespace std;

#define max 10

// Structure of Employee

struct employee {

    string name;

    long int employee\_id;

    string designation;

    int salary;

};

int num = -1;

employee emp[max];

// Function to insert the data into

// the array of structures

void insert() {

    if (num >= max - 1) {

        cout << "Employee Table Full\n";

        return;

    }

    long int temp\_id;

    cout << "Enter the Employee ID: ";

    cin >> temp\_id;

    // Check for duplicate ID

    for (int i = 0; i <= num; i++) {

        if (emp[i].employee\_id == temp\_id) {

            cout << "Employee ID already exists!\n";

            return;

        }

    }

    num++;

    emp[num].employee\_id = temp\_id;

    cout << "Enter Name: ";

    cin.ignore(); // Clear newline before getline

    getline(cin, emp[num].name);

    cout << "Enter Designation: ";

    getline(cin, emp[num].designation);

    cout << "Enter Salary: ";

    cin >> emp[num].salary;

    cout << "Employee record added successfully!\n";

}

// Function to delete record at index i

void deleteIndex(int i) {

    for (int j = i; j < num; j++) {

        emp[j] = emp[j + 1];

    }

}

// Function to display all records

void displayAllRecords() {

    if (num == -1) {

        cout << "No records present!\n";

        return;

    }

    cout << endl << setw(5) << "ID" << setw(15) << "NAME"

         << setw(20) << "DESIGNATION" << setw(10) << "SALARY\n";

    for (int i = 0; i <= num; i++) {

        cout << setw(5) << emp[i].employee\_id

             << setw(15) << emp[i].name

             << setw(20) << emp[i].designation

             << setw(10) << emp[i].salary << endl;

    }

}

// Function to delete a record

void deleteRecord() {

    int employee\_id;

    cout << "Enter the Employee ID to Delete Record: ";

    cin >> employee\_id;

    for (int i = 0; i <= num; i++) {

        if (emp[i].employee\_id == employee\_id) {

            deleteIndex(i);

            num--;

            cout << "Record deleted successfully.\n";

            return;

        }

    }

    cout << "Employee ID not found.\n";

}

// Function to search for a record

void searchRecord() {

    int employee\_id;

    cout << "Enter the Employee ID to Search Record: ";

    cin >> employee\_id;

    for (int i = 0; i <= num; i++) {

        if (emp[i].employee\_id == employee\_id) {

            cout << endl << setw(5) << "ID" << setw(15) << "NAME"

                 << setw(20) << "DESIGNATION" << setw(10) << "SALARY\n";

            cout << setw(5) << emp[i].employee\_id

                 << setw(15) << emp[i].name

                 << setw(20) << emp[i].designation

                 << setw(10) << emp[i].salary << endl;

            return;

        }

    }

    cout << "Employee record not found.\n";

}

// Driver Code

int main() {

    int option = 0;

    while (option != 5) {

        cout << "\n----- Employee Management System -----\n";

        cout << "1. Insert New Record\n";

        cout << "2. Display All Records\n";

        cout << "3. Delete Record\n";

        cout << "4. Search Record by Employee ID\n";

        cout << "5. Exit\n";

        cout << "Enter your choice: ";

        cin >> option;

        switch (option) {

            case 1:

                insert();

                break;

            case 2:

                displayAllRecords();

                break;

            case 3:

                deleteRecord();

                break;

            case 4:

                searchRecord();

                break;

            case 5:

                cout << "\n\*\*\*\*\* You have exited \*\*\*\*\*\n";

                break;

            default:

                cout << "Enter valid option!\n";

                break;

        }

    }

    return 0;

}

**OUTPUT:-**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 1**

**Enter the Employee ID: 123**

**Enter Name: Virat**

**Enter Designation: Founder**

**Enter Salary: 1000000**

**Employee record added successfully!**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 1**

**Enter the Employee ID: 456**

**Enter Name: Anushka**

**Enter Designation: CEO**

**Enter Salary: 234567**

**Employee record added successfully!**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 1**

**Enter the Employee ID: 789**

**Enter Name: Vamika**

**Enter Designation: President**

**Enter Salary: 246804567**

**Employee record added successfully!**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 1**

**Enter the Employee ID: 190**

**Enter Name: Akaay**

**Enter Designation: Director**

**Enter Salary: 1234567890**

**Employee record added successfully!**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 1**

**Enter the Employee ID: 123**

**Employee ID already exists!**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 2**

**ID NAME DESIGNATION SALARY**

**123 Virat Founder1000000**

**456 Anushka CEO 234567**

**789 Vamika President 246804567**

**190 Akaay Director1234567890**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 3**

**Enter the Employee ID to Delete Record: 789**

**Record deleted successfully.**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 2**

**ID NAME DESIGNATION SALARY**

**123 Virat Founder1000000**

**456 Anushka CEO 234567**

**190 Akaay Director1234567890**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 4**

**Enter the Employee ID to Search Record: 123**

**ID NAME DESIGNATION SALARY**

**123 Virat Founder1000000**

**----- Employee Management System -----**

**1. Insert New Record**

**2. Display All Records**

**3. Delete Record**

**4. Search Record by Employee ID**

**5. Exit**

**Enter your choice: 5**

**\*\*\*\*\* You have exited \*\*\*\*\***