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Problem Statement:

Department maintains a student information. The file contains roll number, name, division and address. Allow user to add, delete information of student.

Display information of particular employee. If record of student does not exist an appropriate message is displayed. If it is,

then the system displays the student details. Use sequential file to main the data.

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#include<bits/stdc++.h>

#include <iostream>

#include <fstream>

#include <iomanip>

using namespace std;

void addStudent()

{

    ofstream f("db.txt", ios::app);

    string rn, name, div, add;

    cout << "Enter Student Roll No.: ";

    cin >> rn;

    cout << "Enter Student Name: ";

    cin >> name;

    cout << "Enter Student Division: ";

    cin >> div;

    cout << "Enter Student Address: ";

    cin >> add;

    f << left << setw(20) << rn << setw(20) << name << setw(20) << div << setw(20) << add << endl;

    f.close();

    cout << "Student Added Sucessfully.\n";

}

void deleteStudent()

{

    ifstream f("db.txt");

    string line;

    string rn;

    cout << "Enter Student Roll No. To Delete: ";

    cin >> rn;

    string fileData;

    while (getline(f, line))

    {

        if (line.find(rn) == string::npos)

        {

            fileData += line;

            fileData += "\n";

        }

    }

    f.close();

    ofstream f1("db.txt", ios::out);

    f1 << fileData;

    f1.close();

}

void searchStudent()

{

    ifstream f("db.txt");

    string line;

    string rn;

    cout << "Enter Student Roll No. To Search: ";

    cin >> rn;

    bool found = false;

    while (getline(f, line))

    {

        if (line.find(rn) != string::npos)

        {

            cout << "Student Details:" << endl;

            cout << line << endl;

            found = true;

            break;

        }

    }

    f.close();

    if (!found)

    {

        cout << "Student Doesn't Exist!" << endl;

    }

}

void printStudent()

{

    ifstream f("db.txt");

    string line;

    cout << "\nPrinting File Data..." << endl;

    while (getline(f, line))

    {

        cout << line << endl;

    }

    cout << "Printing Complete!\n";

    f.close();

}

int main()

{

    ofstream f("db.txt", ios::out);

    f << left << setw(20) << "Roll No." << setw(20) << "Name" << setw(20) << "Division" << setw(20) << "Address" << endl;

    f.close();

    int choice;

    do

    {

        cout << "\nEnter your choice\n1. Add Student\n2. Delete Student\n3. Search Student\n4. Print Data\n5. Exit\n---> ";

        cin >> choice;

        switch (choice)

        {

        case 1:

            addStudent();

            break;

        case 2:

            deleteStudent();

            break;

        case 3:

            searchStudent();

            break;

        case 4:

            printStudent();

            break;

        case 5:

            return 0;

            break;

        default:

            cout << "Please ReEnter your Choice.";

            break;

        }

    } while (choice!=5);

         return 0;

}