// 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 <cstring>
#include <fstream>
#include <iostream>
   using namespace std;
class tel {

public:
 int rollNo, roll1;
 char name[10];
 char div;
 char address[20];
 void accept() {
  cout << "\tEnter Roll Number : ";
  cin >> rollNo;
  cout << "\tEnter the Name : ";
  cin >> name;
  cout << "\tEnter the Division:";
  cin >> div;
  cout << "\tEnter the Address:";
  cin >> address;
 }
 void accept2() {
  cout << "\n\tEnter the Roll No. to modify : ";
  cin >> rollNo;
 }
 void accept3() {
  cout << "\n\tEnter the name to modify : ";
  cin >> name;
 }
 int getRollNo() { return rollNo; }
 void show() {

  cout << "\n\t" << rollNo << "\t\t" << name << "\t\t" << div << "\t\t"
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        << address;
  }
};
int main() {
  int i, n, ch, ch1, rec, start, count, add, n1, add2, start2, n2, y, a, b, on,
     oname, add3, start3, n3, y1, add4, start4, n4;
  char name[20], name2[20];
  tel t1;
  count = 0;
  fstream g, f;
  do {
    cout <<
"\n>>>>>>>>>>>>>>>>>>>>>>>MENU<<<<<<<<<<<<<<<<<<<<";
    cout << "\n1.Insert and overwrite\n2.Show\n3.Search & "
          "Edit(number)\n4.Search & Edit(name)\n5.Search & "
          "Edit(onlynumber)\n6.Search & edit(only name)\n 7.Delete a
Student "
          "Record\n 8.Exit\n\tEnter the Choice\t:";
    cin >> ch;
    switch (ch) {
    case 1:
      f.open("StuRecord.txt", ios::out);
    x:
      t1.accept();
      f.write((char *)&t1, (sizeof(t1)));
      cout << "\nDo you want to enter more records?\n1.Yes\n2.No";
      cin >> ch1;
      if (ch1 == 1)
        goto x;
      else {
        f.close();
        break;
      }

    case 2:
      f.open("StuRecord.txt", ios::in);
      f.read((char *)&t1, (sizeof(t1)));
      // cout<<"\n\tRoll No.\t\tName \t\t Division \t\t Address";
      while (f) {
        t1.show();
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    f.read((char *)&t1, (sizeof(t1)));
  }
  f.close();
  break;
case 3:
  cout << "\nEnter the roll number you want to find";
  cin >> rec;
  f.open("StuRecord.txt", ios::in | ios::out);
  f.read((char *)&t1, (sizeof(t1)));
  while (f) {
    if (rec == t1.rollNo) {
      cout << "\nRecord found";
      add = f.tellg();
      f.seekg(0, ios::beg);
      start = f.tellg();
      n1 = (add - start) / (sizeof(t1));
      f.seekp((n1 - 1) * sizeof(t1), ios::beg);
      t1.accept();
      f.write((char *)&t1, (sizeof(t1)));
      f.close();
      count++;
      break;
    }
    f.read((char *)&t1, (sizeof(t1)));
  }
  if (count == 0)
    cout << "\nRecord not found";
  f.close();
  break;

case 4:
  cout << "\nEnter the name you want to find and edit";
  cin >> name;
  f.open("StuRecord.txt", ios::in | ios::out);
  f.read((char *)&t1, (sizeof(t1)));
  while (f) {
    y = (strcmp(name, t1.name));
    if (y == 0) {
      cout << "\nName found";
      add2 = f.tellg();
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      f.seekg(0, ios::beg);
      start2 = f.tellg();
      n2 = (add2 - start2) / (sizeof(t1));
      f.seekp((n2 - 1) * sizeof(t1), ios::beg);
      t1.accept();
      f.write((char *)&t1, (sizeof(t1)));
      f.close();
      break;
    }
    f.read((char *)&t1, (sizeof(t1)));
  }
  break;
case 5:
  cout << "\n\tEnter the roll number you want to modify";
  cin >> on;
  f.open("StuRecord.txt", ios::in | ios::out);
  f.read((char *)&t1, (sizeof(t1)));
  while (f) {
    if (on == t1.rollNo) {
      cout << "\n\tNumber found";
      add3 = f.tellg();
      f.seekg(0, ios::beg);
      start3 = f.tellg();
      n3 = (add3 - start3) / (sizeof(t1));
      f.seekp((n3 - 1) * (sizeof(t1)), ios::beg);
      t1.accept2();
      f.write((char *)&t1, (sizeof(t1)));
      f.close();
      break;
    }
    f.read((char *)&t1, (sizeof(t1)));
  }
  break;
case 6:
  cout << "\nEnter the name you want to find and edit";
  cin >> name2;
  f.open("StuRecord.txt", ios::in | ios::out);
  f.read((char *)&t1, (sizeof(t1)));
  while (f) {
    y1 = (strcmp(name2, t1.name));
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      if (y1 == 0) {
        cout << "\nName found";
        add4 = f.tellg();
        f.seekg(0, ios::beg);
        start4 = f.tellg();
        n4 = (add4 - start4) / (sizeof(t1));
        f.seekp((n4 - 1) * sizeof(t1), ios::beg);
        t1.accept3();
        f.write((char *)&t1, (sizeof(t1)));
        f.close();
        break;
      }
      f.read((char *)&t1, (sizeof(t1)));
    }
    break;
  case 7:
    int roll;
    cout << "Please Enter the Roll No. of Student Whose Info You Want to
"
         "Delete: ";
    cin >> roll;
    f.open("StuRecord.txt", ios::in);
    g.open("temp.txt", ios::out);
    f.read((char *)&t1, sizeof(t1));
    while (!f.eof()) {
      if (t1.getRollNo() != roll)
        g.write((char *)&t1, sizeof(t1));
      f.read((char *)&t1, sizeof(t1));
    }
    cout << "The record with the roll no. " << roll << " has been deleted "
       << endl;
    f.close();
    g.close();
    remove("StuRecord.txt");
    rename("temp.txt", "StuRecord.txt");
    break;
  case 8:
    cout << "\n\tThank you";
    break;
  }
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  } while (ch != 8);
}
```