using System;

using System.Collections;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApplication4

{

class Program

{

static void Main(string[] args)

{

char ch = 'y';

do

{

Console.Clear();

int choice = 0, search = 0;

int id = 0, sem = 0;

double cgpa = 0;

string name = "", uni = "", dept = "";

Console.WriteLine("1. Create Student Profile");

Console.WriteLine("2. Search Student");

Console.WriteLine("3. Delete Student Record");

Console.WriteLine("4. List top 03 of Class");

Console.WriteLine("5. Mark Students Attendance");

Console.WriteLine("6. View Attendance");

Console.Write("\nPlease type option to perform action: ");

choice = Convert.ToInt32(Console.ReadLine());

Student s = new Student();

if (choice == 1)

{

Console.Write("Enter Students ID: ");

id = Convert.ToInt32(Console.ReadLine());

Console.Write("Enter Name of Student: ");

name = Console.ReadLine();

Console.Write("Enter Semester: ");

sem = Convert.ToInt32(Console.ReadLine());

Console.Write("Enter CGPA: ");

cgpa = Convert.ToDouble(Console.ReadLine());

Console.Write("Enter Department: ");

dept = Console.ReadLine();

Console.Write("Enter University: ");

uni = Console.ReadLine();

s.getData(id, sem, cgpa, name, dept, uni);

}

else if (choice == 2)

{

Console.Clear();

Console.WriteLine("1. Search by ID");

Console.WriteLine("2. Search by Name");

Console.WriteLine("3. Show List of all students");

Console.Write("\nPlease type option to perform action: ");

search = Convert.ToInt32(Console.ReadLine());

if (search == 1)

{

Console.Write("Enter ID: ");

id = Convert.ToInt32(Console.ReadLine());

s.searchByid(id);

}

else if (search == 2)

{

Console.Write("Enter Name: ");

name = Console.ReadLine();

s.searchByname(name);

}

else if (search == 3)

{

s.List();

}

else

{

Console.WriteLine("Invalid Input");

}

}

else if (choice == 3)

{

Console.Write("Enter Name: ");

name = Console.ReadLine();

s.delete(name);

}

else if (choice == 4)

{

s.highest();

}

else if (choice == 5)

{

s.attendance();

}

else if (choice == 6)

{

s.viewAttendance();

}

else

{

Console.WriteLine("Invalid Input");

}

Console.WriteLine("\n\nPress y/Y to Continue");

Console.Write("OR Any Other Key to Exit: ");

ch = Convert.ToChar(Console.ReadLine());

Console.ReadKey();

} while (ch == 'y' || ch == 'Y');

}

}

}

Class Student:

using System;

using System.IO;

using System.Collections;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApplication4

{

class Student

{

Nullable<int>[] id = new int?[50];

string[] name = new string[50];

Nullable<int>[] sem = new int?[50];

Nullable<double>[] cgpa = new double?[50];

string[] dept = new string[50];

string[] uni = new string[50];

string[] attnd = new string[50];

public void getData(int id, int sem, double cgpa, string name, string dept, string uni)

{

try

{

using (StreamWriter file = new StreamWriter("C:/Users/Abu Horara/Desktop/assign.txt", append: true))

{

file.WriteLine(id);

file.WriteLine(name);

file.WriteLine(sem);

file.WriteLine(cgpa);

file.WriteLine(dept);

file.WriteLine(uni);

file.Close();

}

}

catch

{

Console.WriteLine("Error in File Writing");

}

}

public void searchByid(int id1)

{

try

{

using (StreamReader file1 = new StreamReader("C:/Users/Abu Horara/Desktop/assign.txt"))

{

int count = 0, flag = 0;

count = File.ReadAllLines("C:/Users/Abu Horara/Desktop/assign.txt").Length;

for (int i = 0; i <= count; i++)

{

id[i] = Convert.ToInt32(file1.ReadLine());

name[i] = file1.ReadLine();

sem[i] = Convert.ToInt32(file1.ReadLine());

cgpa[i] = Convert.ToDouble(file1.ReadLine());

dept[i] = file1.ReadLine();

uni[i] = file1.ReadLine();

}

for (int i = 0; i <= count; i++)

{

if (id[i] == id1)

{

Console.WriteLine("ID: " + id[i]);

Console.WriteLine("Name: " + name[i]);

Console.WriteLine("Semester: " + sem[i]);

Console.WriteLine("Cgpa: " + cgpa[i]);

Console.WriteLine("Department: " + dept[i]);

Console.WriteLine("University: " + uni[i]);

flag = 1;

break;

}

}

if (flag == 0)

{

Console.WriteLine("Record Not Found");

}

}

}

catch

{

Console.WriteLine("Error in File Reading");

}

}

public void searchByname(string name1)

{

try

{

using (StreamReader file1 = new StreamReader("C:/Users/Abu Horara/Desktop/assign.txt"))

{

int count = 0, flag = 0;

count = File.ReadAllLines("C:/Users/Abu Horara/Desktop/assign.txt").Length;

for (int i = 0; i <= count; i++)

{

id[i] = Convert.ToInt32(file1.ReadLine());

name[i] = file1.ReadLine();

sem[i] = Convert.ToInt32(file1.ReadLine());

cgpa[i] = Convert.ToDouble(file1.ReadLine());

dept[i] = file1.ReadLine();

uni[i] = file1.ReadLine();

}

for (int i = 0; i <= count; i++)

{

if (name[i] == name1)

{

Console.WriteLine("ID: " + id[i]);

Console.WriteLine("Name: " + name[i]);

Console.WriteLine("Semester: " + sem[i]);

Console.WriteLine("Cgpa: " + cgpa[i]);

Console.WriteLine("Department: " + dept[i]);

Console.WriteLine("University: " + uni[i]);

flag = 1;

break;

}

}

if (flag == 0)

{

Console.WriteLine("Record Not Found");

}

}

}

catch

{

Console.WriteLine("Error in File Reading");

}

}

public void List()

{

try

{

using (StreamReader file1 = new StreamReader("C:/Users/Abu Horara/Desktop/assign.txt"))

{

int count = 0;

count = File.ReadAllLines("C:/Users/Abu Horara/Desktop/assign.txt").Length;

for (int i = 0; i < count / 6; i++)

{

id[i] = Convert.ToInt32(file1.ReadLine());

name[i] = file1.ReadLine();

sem[i] = Convert.ToInt32(file1.ReadLine());

cgpa[i] = Convert.ToDouble(file1.ReadLine());

dept[i] = file1.ReadLine();

uni[i] = file1.ReadLine();

}

for (int i = 0; i < count / 6; i++)

{

Console.WriteLine("ID: " + id[i]);

Console.WriteLine("Name: " + name[i]);

Console.WriteLine("Semester: " + sem[i]);

Console.WriteLine("Cgpa: " + cgpa[i]);

Console.WriteLine("Department: " + dept[i]);

Console.WriteLine("University: " + uni[i]);

}

file1.Close();

}

}

catch

{

Console.WriteLine("Error in File Reading");

}

}

public void highest()

{

int count = 0;

count = File.ReadAllLines("C:/Users/Abu Horara/Desktop/assign.txt").Length;

for(int i=0;i<count/6;i++)

{

for(int j=0;j<count;j++)

{

if(cgpa[i]<cgpa[i])

{

double ? tem = 0;

tem = cgpa[i];

cgpa[i] = cgpa[j];

cgpa[j] = cgpa[i];

string temp;

temp= name[i];

name[i] = name[j];

name[j] = name[i];

temp = dept[i];

dept[i] = dept[j];

dept[j] = dept[i];

temp = uni[i];

uni[i] = uni[j];

uni[j] = uni[i];

int ? temp1;

temp1 = sem[i];

sem[i] = sem[j];

sem[j] = sem[i];

temp1 = id[i];

id[i] = id[j];

id[j] =id[i];

}

}

}

Console.WriteLine("ID: " + id[0]);

Console.WriteLine("Name: " + name[0]);

Console.WriteLine("Semester: " + sem[0]);

Console.WriteLine("CGPA: " + cgpa[0]);

Console.WriteLine("Department: " + dept[0]);

Console.WriteLine("University: " + uni[0]);

Console.WriteLine("ID: " + id[1]);

Console.WriteLine("Name: " + name[1]);

Console.WriteLine("Semester: " + sem[1]);

Console.WriteLine("CGPA: " + cgpa[1]);

Console.WriteLine("Department: " + dept[1]);

Console.WriteLine("University: " + uni[1]);

Console.WriteLine("ID: " + id[2]);

Console.WriteLine("Name: " + name[2]);

Console.WriteLine("Semester: " + sem[2]);

Console.WriteLine("CGPA: " + cgpa[2]);

Console.WriteLine("Department: " + dept[2]);

Console.WriteLine("University: " + uni[2]);

}

public void delete(string name1)

{

try

{

using (StreamReader file1 = new StreamReader("C:/Users/Abu Horara/Desktop/assign.txt"))

{

int count = 0, flag = 0;

count = File.ReadAllLines("C:/Users/Abu Horara/Desktop/assign.txt").Length;

for (int i = 0; i < count; i++)

{

id[i] = Convert.ToInt32(file1.ReadLine());

name[i] = file1.ReadLine();

sem[i] = Convert.ToInt32(file1.ReadLine());

cgpa[i] = Convert.ToDouble(file1.ReadLine());

dept[i] = file1.ReadLine();

uni[i] = file1.ReadLine();

}

using (StreamWriter file = new StreamWriter("C:/Users/Abu Horara/Desktop/assign.txt", append: true))

{

for (int i = 0; i <= count; i++)

{

if (name[i] == name1)

{

id[i] = null;

name[i] = null;

sem[i] = null;

cgpa[i] = null;

dept[i] = null;

uni[i] = null;

file.WriteLine(id[i]);

file.WriteLine(name[i]);

file.WriteLine(sem[i]);

file.WriteLine(cgpa[i]);

file.WriteLine(dept[i]);

file.WriteLine(uni[i]);

flag = 1;

break;

}

}

file.Close();

}

if (flag == 0)

{

Console.WriteLine("Record Not Found");

}

else

{

Console.WriteLine("Data Deleted Successfully");

}

file1.Close();

}

}

catch

{

Console.WriteLine("Error in File Reading");

}

}

public void attendance()

{

try

{

using (StreamReader file2 = new StreamReader("C:/Users/Abu Horara/Desktop/assign2.txt"))

{

id[0] = Convert.ToInt32(file2.ReadLine());

name[0] = file2.ReadLine();

attnd[0] = file2.ReadLine();

file2.Close();

}

Console.WriteLine("ID: " + id[0]);

Console.WriteLine("Name: " + name[0]);

Console.WriteLine("Mark Attendance");

attnd[0] = Console.ReadLine();

using (StreamWriter file2 = new StreamWriter("C:/Users/Abu Horara/Desktop/assign2.txt"))

{

file2.WriteLine(id[0]);

file2.WriteLine(name[0]);

file2.WriteLine(attnd[0]);

file2.Close();

}

}

catch

{

Console.WriteLine("Error in File Reading");

}

}

public void viewAttendance()

{

try

{

int count = 0, flag = 0;

count = File.ReadAllLines("C:/Users/Abu Horara/Desktop/assign2.txt").Length;

using (StreamReader file1 = new StreamReader("C:/Users/Abu Horara/Desktop/assign2.txt"))

{

id[0] = Convert.ToInt32(file1.ReadLine());

name[0] = file1.ReadLine();

attnd[0] = file1.ReadLine();

Console.WriteLine("ID: " + id[0]);

Console.WriteLine("Name: " + name[0]);

Console.WriteLine("Attendance: " + attnd[0]);

flag = 1;

}

if (flag == 0)

{

Console.WriteLine("Record Not Found");

}

}

catch

{

Console.WriteLine("Error in File Reading");

}

}

}

}