# 第三中学学籍信息管理系统代码

#include<iostream>

#include <cstring>

#include<cstdlib>

#include <iomanip>

#include<ctime>

#include<fstream>

#include<cstdio>

#include<windows.h>

#define N 50

using namespace std;

void menu()//导航界面

{

cout << "\t\t\t\t第三中学学籍信息管理系统" << endl;

cout << "\t\t\t\t制作人：强海燕\t学号:112104550504 班级：软件1211" << endl;

cout << "\t\t\t\t目录功能导航:" << endl;

cout << "\t\t\t\t1 :输入学生信息 " << endl;

cout << "\t\t\t\t2 :输出学生信息" << endl;

cout << "\t\t\t\t3 :删除学生信息" << endl;

cout << "\t\t\t\t4 :查找学生信息" << endl;

cout << "\t\t\t\t5 :改动学生信息" << endl;

cout << "\t\t\t\t6:保存学生信息" << endl;

cout << "\t\t\t\t7:查看统计信息" << endl;

cout << "\t\t\t\t0:安全退出系统" << endl;

cout << "\t\t\t\t请输入您所需要的功能序号" << endl;//选择序号

}

class Student

{

public:

void print();//显示学生信息

~Student() {};

friend class Studentmu;

private:

string grade;//年级

string name;//姓名

string address;//籍贯

string num;//学号

int zhonghe; //综合素质

};

class Studentmu :Student

{

public:

void add();//增加输入学生信息

void delet();//删除学生信息

void findstudent();//查找学生信息

void changestudent();//改动学生信息

void keepstudent();//保存学生信息

void printstudent();//输出学生信息

void tongji();//统计数据

Studentmu()

{

\_num = 0;

count = 0;

}

private:

Student w[N];

int \_num;//计算学生数量

int count;//用来暂时记录当前操作第几个学生

};

void Studentmu::add() //1 :输入学生信息

{

cout << "请按照提示依次输入学生信息:" << endl;

cout << "依次输入学生学号，姓名，年级，籍贯，体育成绩，综合素质成绩，其中综合素质成绩是百分制" << endl;

cout << "学号:";

cin >> num;

for (int i = 0; i < \_num; i++)

while (num == w[i].num)//判断学号是否存在

{

cout << "此学生编号已存在，请重新输入：" << endl;

cout << "学号:";

cin >> num;

}

w[\_num].num = num;

cout << "姓名:"; cin >> w[\_num].name;

cout << "年级"; cin >> w[\_num].grade;

cout << "籍贯:"; cin >> w[\_num].address;

cout << "综合素质成绩：";

int z;

cin >> z;

if (z < 00 || z>100)//判断

{

cout << "请按照要求重新输入" << endl;

cin >> z;

}

w[\_num].zhonghe = z;

++\_num;

count = \_num;

}

void Studentmu::tongji()//7 统计学生信息

{

if (\_num <= 0)

{

cout << "\n没有学生信息存入，请返回主导航界面" << endl;

Sleep(1500);//等待1.5S

}

else if (\_num >= 0)

{

int i;

double z1 = 0, z2 = 0;

double z3;

cout << "选择功能" << endl;

cout << "1.查看学生综合素质成绩情况" << endl;

cout << "0.返回导航界面" << endl;

cin >> i;

while (!(i >= 0 && i <= 1))//输入范围，防止输入错误序号

{

cout << "请重新输入您所需要的功能序号" << endl;

cin >> i;

}

switch (i)

{

case 1:

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

{

int z = w[j].zhonghe;

if (z >= 60)

z1 = z1 + 1;

else if (z < 60)

z2 = z2 + 1;

}

cout << "及格" << z1 << endl;

cout << "不及格" << z2 << endl;

z3 = z1 + z2;

cout << "及格率" <<z1/z3<< endl;

break;

case 0:

break;

default:

break;

}

}

}

void Student::print()

{

cout << "学号:" << num << endl;

cout << "姓名:" << name << endl;

cout << "年级:" << grade << endl;

cout << "籍贯:" << address << endl;

cout << "综合素质成绩" << zhonghe<< endl;

cout << endl;

}

void Studentmu::changestudent()//5.改动学生信息

{

if (\_num <= 0)

{

cout << "没有学生信息存入，请返回导航界面！" << endl;

}

else if (\_num >= 0)

{

cout << "请输入需要修改信息学生的学号：" << endl;

string num1;

cin >> num1;

int j = 0, k;

int flag = 1;

while (flag)

{

for (; j < count; j++)

{

if (num1 == w[j].num)

{

flag = 0;

k = j;

break;

}

}

if (flag)

{

cout << "不存在此学生，请重新输入：" << endl;

j = 0;

cin >> num1;

}

}

cout << "您选择的学生的信息如下：" << endl;//显示信息

cout << "学号" << w[k].num << endl;;

cout << "姓名" << w[k].name << endl;;

cout << "年级" << w[k].grade << endl;

cout << "籍贯" << w[k].address << endl;

cout << "综合素质成绩" << w[k].zhonghe << endl;

cout << endl;

cout << "\n\t\t\t\t修改选择导航:" << endl;

cout << "\n\t\t\t\t1 :修改学号 " << endl;

cout << "\n\t\t\t\t2 :修改姓名" << endl;

cout << "\n\t\t\t\t3 :修改年级" << endl;

cout << "\n\t\t\t\t4 :修改籍贯" << endl;

cout << "\n\t\t\t\t5:修改综合素质成绩" << endl;

cout << "\n\t\t\t\t0:返回导航界面" << endl;

cout << "\n\t\t\t\t请输入您所需要的功能序号" << endl;//选择序号

int c;

cin >> c;

while (!(c >= 0 && c <= 5))//输入范围，防止输入错误序号

{

cout << "请重新输入您所需要的功能序号" << endl;

cin >> c;

}

Sleep(1500);//等待1.5S

system("cls");//清屏

switch (c)

{

case 1://修改学号

{

cout << "请输入新的学号：" << endl;

cin >> w[k].num;

cout << "修改成功，请返回导航界面！" << endl;

}break;

case 2://修改名字

{

cout << "请输入新的姓名：" << endl;

cin >> w[k].name;

cout << "修改成功，请返回导航界面！" << endl;

}break;

case 3://修改年级

{

cout << "请输入新的年级：" << endl;

cin >> w[k].grade;

cout << "修改成功，请返回导航界面！" << endl;

}break;

case 4://修改籍贯

{

cout << "请输入新的籍贯：" << endl;

cin >> w[k].address;

cout << "修改成功，请返回导航界面！" << endl;

}break;

case 5://修改籍贯

{

cout << "请输入新的综合成绩：" << endl;

cin >> w[k].zhonghe;

cout << "修改成功，请返回导航界面！" << endl;

}break;

case 0:

{

cout << "请返回导航界面！" << endl;

}

default:

break;

}

}

}

void Studentmu::printstudent()//2.输出学生信息

{

if (\_num <= 0)

{

cout << "没有学生的信息录入！" << endl;

}

else

cout << "已经保存的学生信息如下：" << endl;

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

{

cout << "学号" << w[i].num << endl;;

cout << "姓名" << w[i].name << endl;;

cout << "年级" << w[i].grade << endl;

cout << "籍贯" << w[i].address << endl;

cout << "综合素质" << w[i].zhonghe << endl;

cout << endl;

}

}

void Studentmu::findstudent() //4.学生信息查询函数实现

{

if (\_num <= 0)

{

cout << "没有学生信息存入" << endl;

Sleep(1500);//等待1.5S

system("cls");//清屏

}

else if (\_num >= 0)

{

cout << "查找方式：" << endl;

cout << "\*\* 1.按学号查找 \*\*" << endl;

cout << "\*\* 2.按姓名查找 \*\*" << endl;

cout << "\*\* 3.按年级查找 \*\*" << endl;

cout << "\*\* 4.按籍贯 \*\*" << endl;

cout << "\*\* 5.按综合素质成绩 \*\*" << endl;

cout << "\*\* 0.返回主菜单 \*\*" << endl;

cout << endl;

cout << "请选择数字编号" << endl;

int i4;

cin >> i4;

while (i4 < 0 || i4>5)

{

cout << "输入有误，请重新输入：" << endl;

cin >> i4;

}

if (i4 == 1)

{

string num2;

cout << "请输入要查询的学生的学号：" << endl;

cin >> num2;

int j = 0, k;

int flag = 1;

while (flag)

{

for (; j < count; j++)

{

if (num2 == w[j].num)

{

flag = 0;

k = j;

cout << "查询的学生信息如下：" << endl;

cout << " 学号:" << w[k].num << endl;

cout << " 姓名:" << w[k].name << endl;

cout << " 年级:" << w[k].grade << endl;

cout << " 籍贯:" << w[k].address << endl;

cout << "综合素质" << w[k].zhonghe << endl;

Sleep(1500);//等待1.5S

break;

}

}

if (flag)

{

flag = 0;

cout << "不存在此学生!" << endl;

break;

}

}

}

else if (i4 == 2)

{

string name2;

cout << "请输入要查询的学生的姓名：" << endl;

cin >> name2;

int j2 = 0, k2;

int flag2 = 1;

while (flag2)

{

for (; j2 < count; j2++)

{

if (name2 == w[j2].name)

{

flag2 = 0;

k2 = j2;

cout << "查询的学生信息如下：" << endl;

cout << " 学号:" << w[k2].num << endl;

cout << " 姓名:" << w[k2].name << endl;

cout << " 年级:" << w[k2].grade << endl;

cout << " 籍贯:" << w[k2].address << endl;

cout << "综合素质" << w[k2].zhonghe << endl;

Sleep(1500);//等待1.5S

break;

}

}

if (flag2)

{

flag2 = 0;

cout << "不存在此学生!!" << endl;

break;

}

}

}

else if (i4 == 3)

{

string name2;

cout << "请输入要查询的学生的年级：" << endl;

cin >> name2;

int j3 = 0, k3;

int flag3 = 1;

while (flag3)

{

for (; j3 < count; j3++)

{

if (name2 == w[j3].name)

{

flag3 = 0;

k3 = j3;

cout << "查询的学生信息如下：" << endl;

cout << " 学号:" << w[k3].num << endl;

cout << " 姓名:" << w[k3].name << endl;

cout << " 年级:" << w[k3].grade << endl;

cout << " 籍贯:" << w[k3].address << endl;

cout << "综合素质" << w[k3].zhonghe << endl;

Sleep(1500);//等待1.5S

break;

}

}

if (flag3)

{

flag3 = 0;

cout << "不存在此学生!!" << endl;

Sleep(1000);//等待1.5S

break;

}

}

}

else if (i4 == 4)

{

string name2;

cout << "请输入要查询的学生的籍贯：" << endl;

cin >> name2;

int j4 = 0, k4;

int flag4 = 1;

while (flag4)

{

for (; j4 < count; j4++)

{

if (name2 == w[j4].name)

{

flag4 = 0;

k4 = j4;

cout << "查询的学生信息如下：" << endl;

cout << " 学号:" << w[k4].num << endl;

cout << " 姓名:" << w[k4].name << endl;

cout << " 年级:" << w[k4].grade << endl;

cout << " 籍贯:" << w[k4].address << endl;

cout << "综合素质" << w[k4].zhonghe << endl;

Sleep(1500);//等待1.5S

break;

}

}

if (flag4)

{

flag4 = 0;

cout << "不存在此学生!!" << endl;

break;

}

}

}

else if (i4 == 5)

{

string name2;

cout << "按综合素质成绩查询：" << endl;

cin >> name2;

int j4 = 0, k4;

int flag4 = 1;

while (flag4)

{

for (; j4 < count; j4++)

{

if (name2 == w[j4].name)

{

flag4 = 0;

k4 = j4;

cout << "查询的学生信息如下：" << endl;

cout << " 学号:" << w[k4].num << endl;

cout << " 姓名:" << w[k4].name << endl;

cout << " 年级:" << w[k4].grade << endl;

cout << " 籍贯:" << w[k4].address << endl;

cout << "综合素质" << w[k4].zhonghe << endl;

Sleep(1500);//等待1.5S

break;

}

}

if (flag4)

{

flag4 = 0;

cout << "不存在此学生!!" << endl;

break;

}

}

}

else if (i4 == 0)

{

}

}

}

void Studentmu::delet() //3.学生信息删除函数实现

{

if (\_num <= 0)

{

cout << "没有学生信息存入" << endl;

}

else if (\_num >= 0)

{

cout << "请输入需要删除信息学生的学号：" << endl;

string num3;

cin >> num3;

int j = 0, k;

int flag = 1;

while (flag)

{

for (; j < count; j++)

{

if (num3 == w[j].num)

{

flag = 0;

k = j;

break;

}

}

if (flag)

{

cout << "不存在此学生，请重新输入：" << endl;

j = 0;

cin >> num3;

}

}

cout << "你选择的学生的信息为：" << endl;

cout << " 学号:" << w[k].num << endl;

cout << " 姓名:" << w[k].name << endl;

cout << " 年级" << w[k].grade << endl;

cout << " 籍贯:" << w[k].address << endl;

cout << "综合素质" << w[k].zhonghe << endl;

cout << endl;

cout << "确认删除请输入1，返回导航界面请输入0 " << endl;

int c;

cin >> c;

while (!(c >= 0 && c <= 1))//输入范围，防止输入错误序号

{

cout << "请重新输入您所需要的功能序号" << endl;

cin >> c;

}

if (c == 1)

{

cout << "学生信息已删除！" << endl;

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

if (w[i].num == num3)

int j = i;

for (; j <= count - 1; j++)

w[j] = w[j + 1];

count--;

}

else if (c=0)

{

}

}

}

void Studentmu::keepstudent()//6.保存学生信息

{

if (\_num <= 0)

{

cout << "没有学生信息存入，请返回主导航界面" << endl;

Sleep(1500);//等待1.5S

}

else

{

ofstream fout;

fout.open("student.txt", ios::out);

cout << "文件正在保存......请稍候！！" << endl;

cout << "数据保存成功！！！" << endl;

fout << "已保存学生信息如下：" << endl;

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

{

fout << " 学号:" << w[i].num << endl;

fout << " 姓名:" << w[i].name << endl;

fout << " 年级:" << w[i].grade << endl;

fout << " 籍贯:" << w[i].address << endl;

fout << " 综合素质:" << w[i].zhonghe << endl;

}

cout << "系统返回导航界面：" << endl;

menu();

fout.close();

}

}

void tuichu()//退出

{

cout << "正在安全退出系统......" << endl;

Sleep(1000);//时间间隔1s，已毫秒计时

cout << "请稍等......" << endl;

Sleep(2000);//时间间隔2s

cout << "已安全退出" << endl;

exit(0);

}

void zhu()//主函数

{

Studentmu niao;

while (1)

{

system("cls");//清屏

menu();

int a;

cin >> a;

while (!(a >= 0 && a <= 7))//输入范围，防止输入错误序号

{

cout << "请重新输入您所需要的功能序号" << endl;

cin >> a;

}

switch (a)

{

case 1://1 输入学生信息界面

{

system("cls");//清屏

cout << "\t\t\t\t输入学生信息界面" << endl;

niao.add();

Sleep(1000);//时间间隔1s

cout << "录入成功！" << endl;

}break;

case 2://输出学生信息界面

{

system("cls");//清屏

cout << "\t\t\t\t输出学生信息界面" << endl;

Sleep(1000);//时间间隔2s

niao.printstudent();

}break;

case 3://3 删除学生信息界面

{

system("cls");//清屏

cout << "\t\t\t\t删除学生信息界面" << endl;

Sleep(2000);//时间间隔2s

niao.delet();

}break;

case 4://4 查找学生信息界面

{

system("cls");//清屏

cout << "\t\t\t\t查找学生信息界面" << endl;

Sleep(1000);//时间间隔2s

niao.findstudent();

}break;

case 5://5 改动学生信息界面

{

system("cls");//清屏

cout << "\t\t\t\t改动学生信息界面" << endl;

Sleep(2000);//时间间隔2s

niao.changestudent();

}break;

case 6:

{

system("cls");//清屏

cout << "\t\t\t\t保存学生信息" << endl;

Sleep(2000);//时间间隔2s

niao.keepstudent();

}break;

case 7:

{

system("cls");//清屏

cout << "\t\t\t\t查看统计信息界面" << endl;

Sleep(2000);//时间间隔2s

niao.tongji();

}break;

case 0://0:安全退出系统

{

tuichu();//退出

}break;

default:

break;

}

cout << "是否返回目录功能导航界面？1:是 2：否" << endl;//返回界面

int b;

cin >> b;

while (b != 1 && b != 2)//输入范围，防止输入错误序号

{

cout << "请重新输入";

cin >> b;

}

if (b == 2)

{

tuichu();//退出

}

}

}

int main()

{

zhu();//zhucaidan

return 0;

}