头文件：

#ifndef student\_H\_H

#define student\_H\_H

#include <map>

#include<iostream>

#include<fstream>

#include <cstring>

using namespace std;

class student

{

public:

void get\_name()

{

cout<<"姓名：" ;

cin>>name;

}

void get\_id()

{

cout<<"\n学号：（浙工大计算机专业学号）";

cin>>id;

}

void get\_time()

{

cout<<"\n缺课时间：(例如1999 11 11)";

cin>>year>>month>>day;

}

void get\_order()

{

cout<<"\n课时：" ;

cin>>order;

}

void get\_classname()

{

cout<<"\n课程名称：";

cin>>classname;

}

void get\_abstype()

{

cout<<"\n缺课类型：";

cin>>abstype;

}

string check\_name()

{

return name;

}

long long check\_id()

{

return id;

}

int check\_year()

{

return year;

}

int check\_month()

{

return month;

}

int check\_day()

{

return day;

}

int check\_order()

{

return order;

}

string check\_classname()

{

return classname;

}

string check\_abstype()

{

return abstype;

}

void chuanru\_name(string n)

{

name = n;

}

void chuanru\_id(long long i)

{

id = i;

}

void chuanru\_date(int y,int m,int d)

{

year = y;

month = m;

day = d;

}

void chuanru\_order(int orde)

{

order = orde;

}

void chuanru\_classname(string cla)

{

classname = cla;

}

void chuanru\_abstype(string abs)

{

abstype = abs;

}

void get\_info();

void modify();

void search(long long n);

int check(long long id,int year,int month,int day,int order);

private:

string name;//姓名

long long id;//学号

int year,month,day; //缺课日期

int order; //第几节课

string classname; //课程名称

string abstype;//缺课类型（迟到、早退、请假、旷课）

};

#endif

函数定义：

#include <iostream>

#include <fstream>

#include <map>

#include "student.h"

using namespace std;

void student::get\_info()

{

get\_name();

get\_id();

get\_time();

get\_order();

get\_classname();

get\_abstype();

}

void student::modify()

{

cout<<"请重新输入想要更改信息\n";

get\_name();

get\_id();

get\_time();

get\_order();

get\_classname();

get\_abstype();

}

int student::check(long long i,int y,int m,int d,int o)

{

if(id == i && y == year&&m == month &&d == day && o == order)

return 1;

else return 0;

}

void student::search(long long n)

{

if(id == n)

{

cout<<"姓名: "<<name<<" "

<<"学号: "<<id<<" "

<<"缺课时间: "<<year<<" "<<month<<" "<<day<<" "

<<"课时: "<<order<<" "

<<"缺课类型: "<<abstype<<endl;

}

}

Main函数：

#include <iostream>

#include <windows.h>

#include <fstream>

#include<algorithm>

#include <iomanip>

#include "student.h"

using namespace std;

student a[1000000];

int count1,count2,counttea;//count1是旷课学生数count2是被旷课程数，counttea是老师注册数

const int admin = 6666;

struct safesystem

{

string zhanghao;

string mima;

}tea[2000];

struct students

{

string classnames;//被旷的课程

string namee;//旷课学生name

int countname;//旷课次数统计

int countclass;//该课程被旷次数统计

}stu[10000];

int a1[13] = {0,31,30,31,28,31,30,31,31,30,31,30,31};

int a2[13] = {0,31,30,31,29,31,30,31,31,30,31,30,31};

bool cmp1(students &a,students &b)

{

return a.countname>b.countname;

}

bool cmp2(students a,students b)

{

return a.countclass>b.countclass;

}

int check\_time(int fy,int fm,int fd,int ly,int lm,int ld,int y,int m,int d)

{

int ftime,ltime,time;

ftime = fy\*10000+fm\*100+fd;

ltime = ly\*10000+lm\*100+ld;

time = y\*10000+m\*100+d;

if(time<=ltime && time>=ftime)

{

return 1;

}

return 0;

}

int checkdate(int year,int month ,int day)

{

int flag = 1;

if((year % 4 == 0 && year % 100 != 0)||(year%400==0))

{

if(month>0&&month<=12)

{

if(day<0 || day>a2[month])

{

flag = 0;

}

}

else

{

flag = 0;

}

}

else

{

if(month>0&&month<=12)

{

if(day<0 || day>a1[month])

{

flag = 0;

}

}

else

{

flag = 0;

}

}

return flag;

}

int main()

{

//密码系统

cout<<"请输入管理密码: ";

int ad;

cin>>ad;

if(ad == admin)

{

cout<<"欢迎进入系统\n";

cout<<"1、注册 2、登录\n";

int choice;

cin>>choice;

if(choice == 1)

{

cout<<"请输入注册账号（推荐使用教师id): ";

cin>>tea[counttea].zhanghao;

cout<<"请输入登陆密码: ";

cin>>tea[counttea].mima;

cout<<"\n注册成功。。。\n";

cout<<"自动登录\n";

ofstream out("教师账号.txt",ios::app|ios::out);

out<<tea[counttea].zhanghao<<" "<<tea[counttea].mima<<" "<<endl;

out.close();

}

else if(choice == 2)

{

ifstream in("教师账号.txt");

int i=0;

while(in>>tea[i].zhanghao>>tea[i].mima)

{

i++;

}

string zh,mm;

cout<<"请输入账号：";

cin>>zh;

cout<<endl;

cout<<"请输入密码：";

cin>>mm;

int flag = 0;//确认是否存在账号

int spot;//记录相符账号位置

for(int j = 0;j<=1000;j++)

{

if(tea[j].zhanghao == zh )

{

flag = 1;

spot = j;

}

}

if(flag)

{

if(tea[spot].mima == mm)

{

cout<<"欢迎进入系统";

cout<<endl<<endl;

system("pause");

system("cls");

cout<<"/---------------------------------------------------------------------------------------/\n" ;

}

else

{

cerr<<"密码错误\n";

return 0;

}

}

else

{

cerr<<"账号错误\n";

return 0;

}

}

}

else

{

cerr<<"管理员密码错误！\n";

return 0;

}

//管理界面

int cnt=0;

int i;

while(1)

{

SetConsoleTextAttribute(GetStdHandle(STD\_OUTPUT\_HANDLE), FOREGROUND\_INTENSITY | FOREGROUND\_RED | FOREGROUND\_GREEN);

cout<<"\t\t\t★★★★★★★★★★★★★★★★★★★★★★★★"<<endl;

cout<<"\t\t\t\t☆☆欢迎进入学生考勤系统☆☆"<<endl;

cout<<"\t\t\t★★★★★★★★★★★★★★★★★★★★★★★★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ※ 1、录入学生的缺课记录； ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ※ 2、修改某个学生的缺课记录； ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ※ 3、查询某个学生的缺课情况 ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ※ 4、旷课学生姓名及旷课次数 ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ※ 5、有学生旷课课程和人次 ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★ ※ 0. 退出 ★"<<endl;

cout<<"\t\t\t★ ★"<<endl;

cout<<"\t\t\t★★★★★★★★★★★★★★★★★★★★★★★★" <<endl <<endl <<"\t\t";

cout<<"\t ※ \*\*\*\*\*\*请选择您所需要的信息\*\*\*\*\*\*※"<<endl;

SetConsoleTextAttribute(GetStdHandle(STD\_OUTPUT\_HANDLE), FOREGROUND\_INTENSITY | FOREGROUND\_BLUE | FOREGROUND\_GREEN);

cout<<"请输入数字选择功能\n";

cin>>i;

switch(i)

{

case 0:return 0;

case 1://录入功能

{

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请选择\n1、初次录入\n2、补录\n";

cout<<"/---------------------------------------------------------------------------------------/\n" ;

int c;

cin>>c;

if(c == 1)

{

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请输入此次录入的学生人数\n";

cin>>cnt;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

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

{

a[i].get\_info();

int year = a[i].check\_year();

int month = a[i].check\_month();

int day = a[i].check\_day();

int flag = 1;

if((year % 4 == 0 && year % 100 != 0)||(year%400==0))

{

if(month>0&&month<=12)

{

if(day<0 || day>a2[month])

{

flag = 0;

}

}

else

{

flag = 0;

}

}

else

{

if(month>0&&month<=12)

{

if(day<0 || day>a1[month])

{

flag = 0;

}

}

else

{

flag = 0;

}

}

if(!flag)

{

cerr<<"日期输入有误，请检查后重输\n";

int n,y,r;

cout<<"日期\n";

cin>>n>>y>>r;

a[i].chuanru\_date(n,y,r);

}

cout<<endl;

}

cout<<"是否导出文本1、yes 0、no\n";

int i;

cin>>i;

if(i)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream outfile("旷课大佬.txt",ios::out|ios::app);

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

{

if(a[j].check\_id() == 0) continue;

outfile<<a[j].check\_name()<<" "<<a[j].check\_id()<<" "<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()

<<" "<<a[j].check\_order()<<" "<<a[j].check\_classname()<<" "<<a[j].check\_abstype()<<endl;

}

outfile.close();

}

}

else if(c == 2)

{

cout<<"请输入此次录入的学生人数\n";

int b;//补录的学生人数

cin>>b;

int temp = cnt;

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

{

if(a[i].check\_id() == 0)

{

a[i].get\_info();

b--;

}

}

for(int i = cnt;i<cnt+b;i++)

{

a[i].get\_info();

}

cnt+=b;

cout<<"是否导出文本1、yes 0、no\n";

int i;

cin>>i;

if(i)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream outfile("旷课大佬.txt",ios::out|ios::app);

for(int j=temp;j<cnt;j++)

{

if(a[j].check\_id() == 0) continue;

outfile<<a[j].check\_name()<<" "<<a[j].check\_id()<<" "<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()

<<" "<<a[j].check\_order()<<" "<<a[j].check\_classname()<<" "<<a[j].check\_abstype()<<endl;

}

outfile.close();

}

}

break;

}

case 2://修改某个学生的缺课记录；

{

string name,classname,abstype;

int y,m,d,orderr;

long long idd;

int i = 0;

ifstream in("旷课大佬.txt",ios::in);

//利用函数传入数据，暂时没有更好的办法

while(in>>name>>idd>>y>>m>>d>>orderr>>classname>>abstype)

{

a[i].chuanru\_name(name);

a[i].chuanru\_id(idd);

a[i].chuanru\_date(y,m,d);

a[i].chuanru\_order(orderr);

a[i].chuanru\_classname(classname);

a[i].chuanru\_abstype(abstype);

i++;

}

in.close();

long long id;

int yea,mon,da,order;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"1/修改 2/删除\n";

int pan;

cin>>pan;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

if(pan == 1)

{

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请输入想要修改的学生学号、缺课时间和课时\n";

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cin>>id;

cin>>yea>>mon>>da;

cin>>order;

int flag = 0;

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

{

if(a[j].check(id,yea,mon,da,order))

{

flag = 1;

a[j].modify();

break;

}

}

if(!flag)

{

cout<<"缺课记录不存在,请确认后重新修改\n";

}

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"是否保存1/yes 0/no"<<endl;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

int check;//选择是否保存

cin>>check;

if(check)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream out("旷课大佬.txt",ios::out);

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

{

if(a[j].check\_id() == 0) continue;

out<<a[j].check\_name()<<" "<<a[j].check\_id()<<" "<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()

<<" "<<a[j].check\_order()<<" "<<a[j].check\_classname()<<" "<<a[j].check\_abstype()<<endl;

}

}

}

else if(pan == 2)

{

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请输入想要修改的学生学号、缺课时间和课时\n";

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cin>>id;

cin>>yea>>mon>>da;

cin>>order;

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

{

if(a[j].check(id,yea,mon,da,order))

{

a[j].chuanru\_name("0");

a[j].chuanru\_id(0);

a[j].chuanru\_date(0,0,0);

a[j].chuanru\_order(0);

a[j].chuanru\_classname("0");

a[j].chuanru\_abstype("0");

break;

}

}

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"是否保存1/yes 0/no"<<endl;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

int check;//选择是否保存

cin>>check;

if(check)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream out("旷课大佬.txt",ios::out);

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

{

if(a[j].check\_id() == 0) continue;

out<<a[j].check\_name()<<" "<<a[j].check\_id()<<" "<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()

<<" "<<a[j].check\_order()<<" "<<a[j].check\_classname()<<" "<<a[j].check\_abstype()<<endl;

}

}

}

break;

}

case 3://询某个学生的缺课情况

{

string name,classname,abstype;

int yea,mon,da,orderr;

long long idd;

int i = 0;

ifstream in("旷课大佬.txt",ios::in);

//利用函数传入数据，暂时没有更好的办法

while(in>>name>>idd>>yea>>mon>>da>>orderr>>classname>>abstype)

{

a[i].chuanru\_name(name);

a[i].chuanru\_id(idd);

a[i].chuanru\_date(yea,mon,da);

a[i].chuanru\_order(orderr);

a[i].chuanru\_classname(classname);

a[i].chuanru\_abstype(abstype);

i++;

}

in.close();

//传入结束

long long id;

string n;

cout<<endl;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请选择查询方式\n 1/学号 2/姓名:\n";

cout<<"/---------------------------------------------------------------------------------------/\n" ;

int aa;

cin>>aa;

if(aa == 1)

{

cout<<"警告：请勿恶意输入会导致程序崩溃！！！！！\n";

cout<<"警告：请勿恶意输入会导致程序崩溃！！！！！\n";

cout<<"警告：请勿恶意输入会导致程序崩溃！！！！！\n";

cin>>id;

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

{

a[j].search(id);

}

cout<<"是否导出该学生的记录1/yes \n 0/no\n";

int c;

cin>>c;

if(c)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream out("个人统计.txt",ios::out);

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

{

if(id == a[j].check\_id())

{

out<<a[j].check\_name()<<" "

<<a[j].check\_id()<<" "

<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()<<" "

<<a[j].check\_order()<<" "

<<a[j].check\_abstype()<<endl;

}

}

out.close();

}

}

else if(aa == 2)

{

cout<<"请输入想要搜索的学生姓名\n\n";

cout<<"警告：请勿恶意输入会导致程序崩溃！！！！！\n";

cout<<"警告：请勿恶意输入会导致程序崩溃！！！！！\n";

cout<<"警告：请勿恶意输入会导致程序崩溃！！！！！\n";

cin>>n; //姓名搜索

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

{

if(n == a[j].check\_name())

{

cout<<"姓名: "<<a[j].check\_name()<<" "

<<"学号: "<<a[j].check\_id()<<" "

<<"缺课时间: "<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()<<" "

<<"课时: "<<a[j].check\_order()<<" "

<<"缺课类型: "<<a[j].check\_abstype()<<endl;

}

}

cout<<"是否导出该学生的记录1/yes 0/no\n";

int c;

cin>>c;

if(c)

{

cout<<"保存成功！:)"<<endl;

ofstream out("个人统计.txt",ios::out);

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

{

if(n == a[j].check\_name())

{

out<<a[j].check\_name()<<" "

<<a[j].check\_id()<<" "

<<a[j].check\_year()<<" "<<a[j].check\_month()<<" "<<a[j].check\_day()<<" "

<<a[j].check\_order()<<" "

<<a[j].check\_abstype()<<endl;

}

}

system("pause");

out.close();

}

}

break;

}

case 4://旷课学生姓名及旷课次数

{

string name,classname,abstype;

int yea,mon,da,orderr;

long long idd;

int cnt = 0;

ifstream in("旷课大佬.txt",ios::in);

//利用函数传入数据，暂时没有更好的办法

while(in>>name>>idd>>yea>>mon>>da>>orderr>>classname>>abstype)

{

a[cnt].chuanru\_name(name);

a[cnt].chuanru\_id(idd);

a[cnt].chuanru\_date(yea,mon,da);

a[cnt].chuanru\_order(orderr);

a[cnt].chuanru\_classname(classname);

a[cnt].chuanru\_abstype(abstype);

cnt++;

}

in.close();

//传入结束

int cnt2=-1;

int ftime\_y,ftime\_m,ftime\_d,ltime\_y,ltime\_m,ltime\_d;

cout<<endl;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请输入起始时间（例如2000 01 01）\n";

cin>>ftime\_y>>ftime\_m>>ftime\_d;

if(!checkdate(ftime\_y,ftime\_m,ftime\_d))

{

cerr<<"起始时间有误，请重新输入:\n";

cin>>ftime\_y>>ftime\_m>>ftime\_d;

}

cout<<"请输入结束时间（例如2000 01 01）\n";

cin>>ltime\_y>>ltime\_m>>ltime\_d;

if(!checkdate(ltime\_y,ltime\_m,ltime\_d))

{

cerr<<"起始时间有误，请重新输入:\n";

cin>>ltime\_y>>ltime\_m>>ltime\_d;

}

cout<<"/---------------------------------------------------------------------------------------/\n" ;

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

{

if(a[i].check\_id() == 0) continue;

int year = a[i].check\_year();

int month = a[i].check\_month();

int day = a[i].check\_day();

if(check\_time(ftime\_y,ftime\_m,ftime\_d,ltime\_y,ltime\_m,ltime\_d,year,month,day))//确定时间范围

{

int flag = 0;

for(int j=0;j<=cnt2;j++)

{

if(stu[j].namee == a[i].check\_name())

{

flag = 1;

stu[j].countname++;//该学生旷课次数+1

break;

}

}

if(!flag)//如果没有在已有名单中找到该旷课学生

{

cnt2++;//旷课学生数++；

stu[cnt2].namee = a[i].check\_name();

stu[cnt2].countname = 1;

}

count1 = cnt2;//传递总旷课学生数

}

}

sort(stu,stu+count1+1,cmp1);

cout<<"姓名 旷课次数\n";

for(int i=0;i<=count1;i++)

{

cout<<stu[i].namee<<" "<<stu[i].countname<<endl;

}

cout<<"是否保存到文本1/yes 0/no\n";

int c;

cin>>c;

if(c == 1)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream out("六月死刑名单.txt",ios::out|ios::app);

out<<"姓名 旷课次数\n";

for(int i=0;i<=count1;i++)

{

out<<stu[i].namee<<" "<<stu[i].countname<<endl;

}

out.close();

}

break;

}

case 5:// 有学生旷课课程和人次

{

string name,classname,abstype;

int yea,mon,da,orderr;

long long idd;

int cnt = 0;

ifstream in("旷课大佬.txt",ios::in);

//利用函数传入数据，暂时没有更好的办法

while(in>>name>>idd>>yea>>mon>>da>>orderr>>classname>>abstype)

{

a[cnt].chuanru\_name(name);

a[cnt].chuanru\_id(idd);

a[cnt].chuanru\_date(yea,mon,da);

a[cnt].chuanru\_order(orderr);

a[cnt].chuanru\_classname(classname);

a[cnt].chuanru\_abstype(abstype);

cnt++;

}

in.close();

//传入结束

int cnt3 = 0;

int ftime\_y,ftime\_m,ftime\_d,ltime\_y,ltime\_m,ltime\_d;

cout<<endl;

cout<<"/---------------------------------------------------------------------------------------/\n" ;

cout<<"请输入起始时间（例如2000 01 01）\n";

cin>>ftime\_y>>ftime\_m>>ftime\_d;

if(!checkdate(ftime\_y,ftime\_m,ftime\_d))

{

cerr<<"起始时间有误，请重新输入:\n";

cin>>ftime\_y>>ftime\_m>>ftime\_d;

}

cout<<"请输入结束时间（例如2000 01 01）\n";

cin>>ltime\_y>>ltime\_m>>ltime\_d;

if(!checkdate(ltime\_y,ltime\_m,ltime\_d))

{

cerr<<"起始时间有误，请重新输入:\n";

cin>>ltime\_y>>ltime\_m>>ltime\_d;

}

cout<<"/---------------------------------------------------------------------------------------/\n" ;

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

{

if(a[i].check\_id() == 0) continue;

int year = a[i].check\_year();

int month = a[i].check\_month();

int day = a[i].check\_day();

if(check\_time(ftime\_y,ftime\_m,ftime\_d,ltime\_y,ltime\_m,ltime\_d,year,month,day))

{

int flag1 = 0;

for(int j = 0;j<=cnt3;j++)//cnt3是当下总记录下的人数，用于比较后输入的人是否有重复

{

if(stu[j].classnames == a[i].check\_classname())

{

flag1 = 1;

stu[j].countclass++;

break;

}

}

if(!flag1)

{

cnt3++;

stu[cnt3].classnames = a[i].check\_classname();

stu[cnt3].countclass = 1;

}

count2 = cnt3;

}

}

sort(stu,stu+count2+1,cmp2);

cout<<"被旷课程 被旷次数\n";

for(int i=0;i<count2;i++)

{

cout<<stu[i].classnames<<" "<<stu[i].countclass<<endl;

}

cout<<"是否导出文件1/yes 0/no\n";

int check;

cin>>check;

if(check == 1)

{

cout<<"保存成功！:)"<<endl;

system("pause");

ofstream out("课程情况统计.txt",ios::out|ios::app);

out<<"被旷课程 被旷次数\n";

for(int i=0;i<count2;i++)

{

out<<stu[i].classnames<<" "<<stu[i].countclass<<endl;

}

out.close();

}

break;

}

}

system("cls");

}

return 0;

}