C++员工管理系统

#include <iostream>  
#include <string>  
#include <fstream>  
  
  
using namespace std;  
  
  
class staff  
{  
private:  
string employee\_number;//职工号  
string name;//姓名  
int age;//年龄  
string sex;//性别  
string zip\_code;//邮编  
string department;//部门  
int wage;//工资  
class staff\* next;  
public:  
staff():next(NULL){}  
void registration(class staff\* head);//注册 尾插  
void query\_name(class staff\* t);//按照姓名查询员工信息  
void query\_depart(class staff\* t);//按照部门查询员工信息  
void delete\_num(class staff\* t);//按工号删除员工信息  
void delete\_name(class staff\* t);//按姓名删除员工信息  
void show\_all(class staff\* head);//展示所有员工信息  
void update(class staff\* head);  
void update\_num(class staff\* head);//修改工号  
void update\_name(class staff\* head);//修改姓名  
void update\_age(class staff\* head);//修改年龄  
void update\_sex(class staff\* head);//修改性别  
void update\_zip(class staff\* head);//修改邮编  
void update\_depart(class staff\* head);//修改部门  
void update\_wage(class staff\* head);//修改工资  
void update\_all(class staff\* head);//修改全部  
void sort\_up(class staff\* head);//按工资升序排列  
void sort\_down(class staff\* head);//按工资降序排列  
int read(class staff\* head);  
void write(class staff\* t);  
};  
  
  
void staff::registration(class staff\* head)  
{  
while(head->next != NULL)  
{  
head = head->next;  
}  
staff\* newnode = new staff;  
head->next = newnode;  
newnode->next = NULL;  
cout << "请输入员工信息" << endl;  
cout << "职工号: " << endl;  
cin >> newnode->employee\_number;  
cout << "职工姓名: " << endl;  
cin >> newnode->name;  
cout << "职工年龄: " << endl;  
cin >> newnode->age;  
cout << "职工性别: " << endl;  
cin >> newnode->sex;  
cout << "职工邮编: " << endl;  
cin >> newnode->zip\_code;  
cout << "职工部门: " << endl;  
cin >> newnode->department;  
cout << "职工工资: " << endl;  
cin >> newnode->wage;  
  
  
}  
void staff::show\_all(class staff\* head)  
{  
int i = 0;  
while(head->next != NULL)  
{  
i++;  
cout << i << "." << "工号：" ;  
cout << head->next->employee\_number <<'\t';  
  
  
cout << "名字：";  
cout << head->next->name <<'\t';  
  
  
cout << "性别：" ;  
cout << head->next->sex <<'\t';  
  
  
cout << "年龄：" ;  
cout <<  head->next->age <<'\t';  
  
  
cout << "邮编：" ;  
cout << head->next->zip\_code << '\t';  
  
  
cout << "部门：";  
cout << head->next->department << '\t';  
  
  
cout << "工资：" ;  
cout << head->next->wage << endl;  
head = head->next;  
}  
}  
void staff::query\_name(class staff\* t)  
{  
string n;  
cout << "请输入你想查询职工姓名:" << endl;  
cin >> n;  
int count = 0;  
while(t->next != NULL)  
{  
if(t->next->name == n)  
{  
cout << "工号：" ;  
cout << t->next->employee\_number <<'\t';  
  
  
cout << "名字：";  
cout << t->next->name <<'\t';  
  
  
cout << "性别：" ;  
cout << t->next->sex <<'\t';  
  
  
cout << "年龄：" ;  
cout <<  t->next->age <<'\t';  
  
  
cout << "邮编：" ;  
cout << t->next->zip\_code << '\t';  
  
  
cout << "部门：";  
cout << t->next->department << '\t';  
  
  
cout << "工资：" ;  
cout << t->next->wage << endl;  
count++;  
}  
t = t->next;  
}  
if(count == 0)  
{  
cout << "查无此人！" << endl;  
}  
  
  
}  
void staff::query\_depart(class staff\* t)  
{  
string n;  
cout << "请输入你想查询职工部门:" << endl;  
cin >> n;  
int count = 0;  
while(t->next != NULL)  
{  
if(t->next->department == n)  
{  
cout << "工号：" ;  
cout << t->next->employee\_number <<'\t';  
  
  
cout << "名字：";  
cout << t->next->name <<'\t';  
  
  
cout << "性别：" ;  
cout << t->next->sex <<'\t';  
  
  
cout << "年龄：" ;  
cout <<  t->next->age <<'\t';  
  
  
cout << "邮编：" ;  
cout << t->next->zip\_code << '\t';  
  
  
cout << "部门：";  
cout << t->next->department << '\t';  
  
  
cout << "工资：" ;  
cout << t->next->wage << endl;  
count++;  
}  
t = t->next;  
}  
if(count == 0)  
{  
cout << "查无此人！" << endl;  
}  
}  
void staff::delete\_num(class staff\* t)  
{  
string n;  
cout << "请输入你想删除职工号:" << endl;  
cin >> n;  
int count = 0;  
while(t->next != NULL)  
{  
if(t->next->employee\_number == n)  
{  
staff\* temp = t->next;  
t->next = t->next->next;  
delete temp;  
temp = NULL;  
cout << "删除成功！" << endl;  
count++;  
break;  
}  
t = t->next;  
}  
if(count == 0)  
{  
cout << "查无此人！" << endl;  
}  
}  
void staff::delete\_name(class staff\* t)  
{  
string n;  
cout << "请输入你想删除职工的姓名:" << endl;  
cin >> n;  
int count = 0;  
while(t->next != NULL)  
{  
if(t->next->name == n)  
{  
staff\* temp = t->next;  
t->next = t->next->next;  
delete temp;  
temp = NULL;  
cout << "删除成功！" << endl;  
count++;  
break;  
}  
t = t->next;  
}  
if(count == 0)  
{  
cout << "查无此人！" << endl;  
}  
}  
void staff::update(class staff\* head)  
{  
int num = 0;  
cout << "1.修改员工号" << endl;  
cout << "2.修改员工姓名" << endl;  
cout << "3.修改员工年龄" << endl;  
cout << "4.修改员工性别" << endl;  
cout << "5.修改员工邮编" << endl;  
cout << "6.修改员工部门" << endl;  
cout << "7.修改员工工资" << endl;  
cout << "8.修改全部" << endl;  
cin >> num;  
switch(num)  
{  
case 1:  
update\_num(head);  
break;  
case 2:  
update\_name(head);  
break;  
case 3:  
update\_age(head);  
break;  
case 4:  
update\_sex(head);  
break;  
case 5:  
update\_zip(head);  
break;  
case 6:  
update\_depart(head);  
break;  
case 7:  
update\_wage(head);  
break;  
case 8:  
update\_all(head);  
break;  
default:  
cout << "请重新输入正确的指令！" << endl;  
  
  
}  
}  
void staff::update\_num(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout<< "输入新工号："<< endl;  
string temp2;  
cin>>temp2;  
head->next->employee\_number = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_name(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新名字："<< endl;  
string temp2;  
cin >> temp2;  
head->next->name = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_age(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新年龄："<< endl;  
int temp2;  
cin >> temp2;  
head->next->age = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_sex(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新性别："<< endl;  
string temp2;  
cin >> temp2;  
head->next->sex = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_zip(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新邮编："<< endl;  
string temp2;  
cin >> temp2;  
head->next->zip\_code = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_depart(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新部门："<< endl;  
string temp2;  
cin >> temp2;  
head->next->department = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_wage(class staff\* head)  
{  
cout << "输入要修改对象的工号："<< endl;  
int count = 0;  
string temp;  
cin >> temp;  
while(head->next != NULL)  
{  
if(temp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新工资："<< endl;  
int temp2;  
cin >> temp2;  
head->next->wage = temp2;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::update\_all(class staff\* head)  
{  
cout<<"输入要修改对象的工号："<<flush;  
int count = 0;  
string tmp;  
cin >> tmp;  
while(head->next != NULL)  
{  
if(tmp == head->next->employee\_number)  
{  
count = 1;  
cout << "输入新工号："<< endl;  
string temp;  
int tmp;  
cin >> temp;  
head->next->employee\_number = temp;  
  
  
cout<< "输入新名字："<< endl;  
cin >> temp;  
head->next->name = temp;  
  
  
cout<< "输入新性别："<< endl;  
cin >> temp;  
head->next->sex = temp;  
  
  
cout<< "输入新年龄："<< endl;  
cin >> tmp;  
head->next->age = tmp;  
  
  
cout<< "输入新邮编："<< endl;  
cin >> temp;  
head->next->zip\_code = temp;  
  
  
cout<< "输入新部门："<< endl;  
cin >> temp;  
head->next->department = temp;  
  
  
cout<< "输入新工资："<< endl;  
cin >> tmp;  
head->next->wage = tmp;  
cout << "修改成功" << endl;  
break;  
}  
head = head->next;  
}  
if(count == 0)  
{  
cout << "查无此人" << endl;  
}  
}  
void staff::sort\_up(class staff\* head)  
{  
while(head->next != NULL)  
{  
class staff\* temp = head;  
while(temp->next != NULL)  
{  
if(head->next->wage > temp->next->wage)  
{  
int a;  
string b;  
a = head->next->wage;  
head->next->wage = temp->next->wage;  
temp->next->wage = a;  
b = head->next->employee\_number;  
head->next->employee\_number = temp->next->employee\_number;  
temp->next->employee\_number = b;  
b = head->next->name;  
head->next->name = temp->next->name;  
temp->next->name = b;  
b = head->next->sex;  
head->next->sex = temp->next->sex;  
temp->next->sex = b;  
a = head->next->age;  
head->next->age = temp->next->age;  
temp->next->age = a;  
b = head->next->zip\_code;  
head->next->zip\_code = temp->next->zip\_code;  
temp->next->zip\_code = b;  
b = head->next->department;  
head->next->department = temp->next->department;  
temp->next->department = b;  
}  
temp = temp->next;  
}  
head = head->next;  
}  
}  
void staff::sort\_down(class staff\* head)  
{  
while(head->next != NULL)  
{  
class staff\* temp = head;  
while(temp->next != NULL)  
{  
if(head->next->wage < temp->next->wage)  
{  
int a;  
string b;  
a = head->next->wage;  
head->next->wage = temp->next->wage;  
temp->next->wage = a;  
b = head->next->employee\_number;  
head->next->employee\_number = temp->next->employee\_number;  
temp->next->employee\_number = b;  
b = head->next->name;  
head->next->name = temp->next->name;  
temp->next->name = b;  
b = head->next->sex;  
head->next->sex = temp->next->sex;  
temp->next->sex = b;  
a = head->next->age;  
head->next->age = temp->next->age;  
temp->next->age = a;  
b = head->next->zip\_code;  
head->next->zip\_code = temp->next->zip\_code;  
temp->next->zip\_code = b;  
b = head->next->department;  
head->next->department = temp->next->department;  
temp->next->department = b;  
}  
temp = temp->next;  
}  
head = head->next;  
}  
}  
int staff::read(class staff\* head)  
{  
ofstream infile1;  
infile1.open("职工系统.txt",ios::app);  
if(!infile1)  
{  
return 0;  
}  
else  
{  
infile1.close();  
ifstream infile;  
infile.open("职工系统.txt",ios::in);  
while(!infile.eof())  
{  
staff\* newnode = new staff;  
infile >> newnode->employee\_number;  
if(newnode->employee\_number.length() == 0)  
{  
delete newnode;  
break;  
}  
infile >> newnode->name;  
infile >> newnode->sex;  
infile >> newnode->age;  
infile >> newnode->zip\_code;  
infile >> newnode->department;  
infile >> newnode->wage;  
head->next = newnode;  
head = head->next;  
}  
infile.close();  
}  
return 0;  
}  
void staff::write(class staff\* t)  
{  
ofstream outfile;  
outfile.open("职工系统.txt",ios::out);  
while(t->next != NULL)  
{  
outfile << t->next->employee\_number <<'\t';  
outfile << t->next->name << '\t';  
outfile << t->next->sex << '\t';  
outfile << t->next->age << '\t';  
outfile << t->next->zip\_code << '\t';  
outfile << t->next->department << '\t';  
outfile << t->next->wage << endl;  
t = t->next;  
}  
outfile.close();  
}  
int main()  
{  
staff\* head = new staff;  
head->read(head);  
string temp;  
cout << "欢迎来到Coder职工系统!" << endl;  
while(1)  
{  
cout << "------------------------------------" << endl;  
head->show\_all(head);  
cout << "------------------------------------" << endl;  
cout << endl;  
cout << "1.注册员工信息" << endl;  
cout << "2.按照姓名查询员工信息" << endl;  
cout << "3.按照部门查询员工信息" << endl;  
cout << "4.按工号删除员工信息" << endl;  
cout << "5.按姓名删除员工信息" << endl;  
cout << "6.按工资升序排列" << endl;  
cout << "7.按工资降序排列" << endl;  
cout << "8.修改员工信息" << endl;  
cout << "0.退出" << endl;  
cout << endl;  
cout << "请输入你想选择的功能：" << endl;  
int number;  
cin >> number;  
switch(number)  
{  
case 1:  
{  
head->registration(head);  
break;  
}  
case 2:  
{  
head->query\_name(head);  
break;  
}  
case 3:  
{  
head->query\_depart(head);  
break;  
}  
case 4 :  
{  
head->delete\_num(head);  
break;  
}  
case 5:  
{  
head->delete\_name(head);  
break;  
}  
case 6:  
{  
head->sort\_up(head);  
break;  
}  
case 7:  
{  
head->sort\_down(head);  
break;  
}  
case 8:  
{  
head->update(head);  
break;  
}  
case 0:  
{  
head->write(head);  
return 0;  
}  
default: cout << "请重新输入正确的操作指令" << endl;  
  
  
}  
}  
}