实验（1）插入运算符重载

实验源代码：

// main.cpp

// 11.5

// Created by mac on 16/5/27.

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#include <iostream>

#include <string>

using namespace std;

class Student{

private:

int number;

string name;

float score;

public:

Student(int number1=0,string name1="noname",int score1=0);

void modify(int nscore){

score=nscore;

}

friend istream &operator>>(istream &input,Student &stu){

cout<<"Please input a student's number,name and score:\n";

input>>stu.number>>stu.name>>stu.score;

return input;

}

friend ostream &operator<<(ostream &output,Student &stu){

output<<"Number:"<<stu.number<<" Name:"<<stu.name<<" Score:"<<stu.score;

return output;

}

};

Student::Student(int number1,string name1,int score1){

name=name1;

number=number1;

score=score1;

}

int main(int argc, const char \* argv[]) {

// insert code here...

Student stu1;

cout<<stu1<<endl;

cin>>stu1;

cout<<stu1<<endl;

return 0;

}

实验运行结果：

**Number:0 Name:noname Score:0**

**Please input a student's number,name and score:**

**23 zhangsan 85**

**Number:23 Name:zhangsan Score:85**

**Program ended with exit code: 0**

实验（2）操纵符实现课本例题

实验源代码：

// main.cpp

// 11.6操纵符实现

// Created by mac on 16/5/27.

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#include <iostream>

#include <iomanip>

using namespace std;

int main(int argc, const char \* argv[]) {

// insert code here...

cout<<setiosflags(ios::showpos|ios::scientific)<<1999<<' '<<3.1415926<<endl;

cout<<setiosflags(ios::uppercase)<<1999<<' '<<3.1415926<<endl;

cout<<resetiosflags(ios::uppercase)<<resetiosflags(ios::scientific)<<setiosflags(ios::fixed)<<1999<<' '<<3.1415926<<endl;

return 0;

}

实验运行结果：

**+1999 +3.141593e+00**

**+1999 +3.141593E+00**

**+1999 +3.141593**

**Program ended with exit code: 0**

实验（3）

实验源代码：

// main.cpp

// 实验（3）作业5

// Created by mac on 16/5/27.

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#include <iostream>

#include <string>

#include <fstream>

using namespace std;

int main(int argc, const char \* argv[]) {

// insert code here...

ofstream fout("test1.txt");

if(!fout){

cout<<"Open fail";

return 1;

}

fout<<"Learning c++ programming is fun!";

fout.close();

ifstream fin("test1.txt");

if(!fin){

cout<<"Open fail";

return 1;

}

string priString,tmpString;

fin>>tmpString;

while (!fin.eof()) {

priString+=tmpString+' ';

fin>>tmpString;

}

priString+=tmpString;

cout<<priString<<endl;

fin.close();

return 0;

}

运行结果：

**Learning c++ programming is fun!**

**Program ended with exit code: 0**

实验（4）

实验源代码：

// main.cpp

// 实验4

// Created by mac on 16/5/27.

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#include <iostream>

#include <string>

#include <fstream>

using namespace std;

class Student{

private:

int number;

string name;

int score;

public:

Student(int nu=0,string Nm="noname",int score1=0);

void modify(int newscore){

score=newscore;

}

~Student(){}

friend ostream &operator<<(ostream &out,Student &stu){

out<<stu.number<<" "<<stu.name<<" "<<stu.score;

return out;

}

friend istream &operator>>(istream &in,Student &stu){

in>>stu.number>>stu.name>>stu.score;

return in;

}

};

Student::Student(int nu,string Nm,int score1){

number=nu;

name=Nm;

score=score1;

}

int main(int argc, const char \* argv[]) {

// insert code here...

Student stu1,stu2(25,"ZhangSan",88);

ofstream fout("student.dat",ios::binary);

if(!fout){

cout<<"Open fail!"<<endl;

return 1;

}

fout.write((char\*)&stu2, sizeof(stu2));

fout.close();

ifstream fin("student.dat",ios::binary);

if(!fin){

cout<<"Open fail!"<<endl;

return 1;

}

fin.read((char\*)&stu1, sizeof(stu1));

cout<<stu1<<endl;

cout<<stu2<<endl;

fin.close();

return 0;

}

运行结果：

**25 ZhangSan 88**

**25 ZhangSan 88**

**Program ended with exit code: 0**

**通讯录同步**

**实验源代码：**

// main.cpp

// 通讯录同步

// Created by mac on 16/5/27.

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#include <iostream>

#include <fstream>

#include <map>

#include <string>

using namespace std;

int main()

{

map<string,string> phonenum;

string name,num;

ifstream in1("phonebook1.txt");

if(!in1.is\_open()) {

cout << "Cannot open file.\n";

return 1;

}

while(!in1.eof())

{

in1 >>name>>num;

phonenum.insert(pair<string,string>(name,num));

}

in1.close();

ifstream in2("phonebook2.txt");

if(!in2.is\_open()) {

cout << "Cannot open file.\n";

return 1;

}

while(!in2.eof())

{

in2 >>name>>num;

phonenum.insert(pair<string,string>(name,num));

}

in2.close();

ofstream out("phonebook3.txt");

if(!out.is\_open()) {

cout << "Cannot open file.\n";

return 1;

}

map<string,string>::iterator at = phonenum.begin();

while(at != phonenum.end())

{

out << at->first<<' '<<at->second<< endl;

at++;

}

out.close();

return 0;

}