源代码：

/\*创建一个student类，包含姓名成绩，设计友元函数输出等级\*/

#include<iostream>

#include<string>

using namespace std;

class Student

{

public:

Student(string sname,float sgrades)

{

name = sname;

grades = sgrades;

}

friend void printf(Student &stu); //声明友元函数

private:

string name; //将类的数据成员设为私自有

float grades;

};

void printf(Student &stu) //定义友元函数

{

if (stu.grades >=90);

cout << stu.name << "\t\t"<<stu.grades << "\t" << "优" << endl;

if (stu.grades>=80&&stu.grades<90)

cout << stu.name << "\t\t" << stu.grades << "\t" << "良" << endl;

if (stu.grades>=70&&stu.grades<80)

cout << stu.name << "\t\t" << stu.grades << "\t" << "中" << endl;

if (stu.grades>=60&&stu.grades<70)

cout << stu.name << "\t\t" << stu.grades << "\t" << "合格" << endl;

if (stu.grades<60)

cout << stu.name << "\t\t" << stu.grades << "\t" << "不合格" << endl;

}

int main()

{

cout << "姓名\t" << "\t\t" << "分数" << "\t" << "等级"<<endl;

//定义各个对象，调用友元函数，输出学生的成绩信息

Student stu1("student1",95);

printf(stu1);

Student stu2("student2",81);

printf(stu2);

Student stu3("student3", 77);

printf(stu3);

Student stu4("student4", 68);

printf(stu4);

Student stu5("student5", 55);

printf(stu5);

}

结果截图：

