

## 1. (10%) Employee

```
1.cpp x
1  #include<iostream>
2  #include<iomanip>
3  #include<string>
4  using namespace std;
5
6  class Employee
7  {
8  private:
9      string name;
10     int idNumber;
11     string department;
12     string position;
13 public:
14     Employee(string empN,int empID,string empD,string empP);
15     Employee(string empN,int empID);
16     Employee();
17     void setName(string );
18     void setID(int );
19     void setDepartment(string );
20     void setPosition(string );
21     string getName();
22     int getID();
23     string getDepartment();
24     string getPosition();
```

```
1.cpp x
25 };
26 Employee::Employee(string empN,int empID,string empD,string empP)
27 {
28     name=empN;
29     idNumber=empID;
30     department=empD;
31     position=empP;
32 }
33 Employee::Employee(string empN,int empID)
34 {
35     name=empN;
36     idNumber= empID;
37     department=" ";
38     position=" ";
39 }
40 Employee::Employee()
41 {
42     name=" ";
43     idNumber=0;
44     department=" ";
45     position=" ";
46 }
47 void Employee::setName(string empN)
48 {
```

```
1.cpp x
49     name = empN;
50 }
51 void Employee::setID(int empID)
52 {
53     idNumber = empID;
54 }
55 void Employee::setDepartment(string empD)
56 {
57     department = empD;
58 }
59 void Employee::setPosition(string empP)
60 {
61     position = empP;
62 }
63 string Employee::getName()
64 {
65     return name;
66 }
67 int Employee::getID()
68 {
69     return idNumber;
70 }
71 string Employee::getDepartment()
72 {
```

```

1.cpp x
73     return department;
74 }
75 string Employee::getPosition()
76 {
77     return position;
78 }
79 int main()
80 {
81     Employee emp1 ("Susan Meyers" , 47899 , "Accounting" , "Vice President");
82     Employee emp2 ("Mark Jones" , 39119 , "IT" , "Programmer");
83     Employee emp3 ("Chris Raines" , 81774 , "Manufacturing" , "Engineer");
84
85     cout<<setw(20)<<left<<"Name"<<setw(20)<<left<<"ID number"<<setw(20)
86         <<left<<"Department"<<setw(20)<<left<<"Position"<<endl;
87
88     cout<<setw(20)<<left<<emp1.getName()<<setw(20)<<left<<emp1.getID()<<setw(20)<<left<<emp1.getDepartment()
89         <<setw(20)<<left<<emp1.getPosition()<<endl;
90     cout<<setw(20)<<left<<emp2.getName()<<setw(20)<<left<<emp2.getID()<<setw(20)<<left<<emp2.getDepartment()
91         <<setw(20)<<left<<emp2.getPosition()<<endl;
92     cout<<setw(20)<<left<<emp3.getName()<<setw(20)<<left<<emp3.getID()<<setw(20)<<left<<emp3.getDepartment()
93         <<setw(20)<<left<<emp3.getPosition()<<endl;
94     return 0;
95 }

```

```

C:\Users\User\Desktop\作業\C++HW4\1.exe
Name                ID number          Department          Position
Susan Meyers        47899              Accounting          Vice President
Mark Jones           39119              IT                  Programmer
Chris Raines        81774              Manufacturing        Engineer

Process returned 0 (0x0)   execution time : 0.065 s
Press any key to continue.

```

## 2. (10%) Inventory & Cash Register Class

## 3. (10%) Car Class

## 4. (10%) POSTNET Bar Codes

## 5. (10%) Patient Fees

```

5.cpp x
1  #include<iostream>
2  #include<iomanip>
3  #include<string>
4  using namespace std;
5
6  class PatientAccount{
7  public:
8      int charges;
9      int numberOfDay;
10     int rate;
11     PatientAccount(){
12         charges = 0;
13         numberOfDay = 0;
14         rate = 100;
15     }
16 };
17
18 class Surgery{
19 public:
20     string surgery1;
21     string surgery2;
22     string surgery3;
23     string surgery4;
24     string surgery5;
25     int surgery1_charges;
26     int surgery2_charges;
27     int surgery3_charges;
28     int surgery4_charges;
29     int surgery5_charges;

```

```

31     Surgery(){
32         surgery1 = "surgery1";
33         surgery2 = "surgery2";
34         surgery3 = "surgery3";
35         surgery4 = "surgery4";
36         surgery5 = "surgery5";
37
38         surgery1_charges = 100;
39         surgery2_charges = 200;
40         surgery3_charges = 300;
41         surgery4_charges = 400;
42         surgery5_charges = 500;
43     }
44     bool updateCharges(PatientAccount &patientAccount, int type){
45         switch(type){
46             case 1: patientAccount.charges += surgery1_charges;break;
47             case 2: patientAccount.charges += surgery2_charges;break;
48             case 3: patientAccount.charges += surgery3_charges;break;
49             case 4: patientAccount.charges += surgery4_charges;break;
50             case 5: patientAccount.charges += surgery5_charges;break;
51             default: return false;break;
52         }
53         return true;
54     }
55 };
56
57
58 class Pharmacy{
59 public:

```

```

61     string medication1;
62     string medication2;
63     string medication3;
64     string medication4;
65     string medication5;
66     int medication1_charges;
67     int medication2_charges;
68     int medication3_charges;
69     int medication4_charges;
70     int medication5_charges;
71     Pharmacy(){
72         medication1 = "medication1";
73         medication2 = "medication2";
74         medication3 = "medication3";
75         medication4 = "medication4";
76         medication5 = "medication5";
77
78         medication1_charges = 100;
79         medication2_charges = 200;
80         medication3_charges = 300;
81         medication4_charges = 400;
82         medication5_charges = 500;
83     }
84     bool updateCharges(PatientAccount &patientAccount, int type){
85         switch(type){
86             case 1: patientAccount.charges += medication1_charges;break;
87             case 2: patientAccount.charges += medication2_charges;break;
88             case 3: patientAccount.charges += medication3_charges;break;
89             case 4: patientAccount.charges += medication4_charges;break;
90             case 5: patientAccount.charges += medication5_charges;break;

```

```

91             default: return false; break;
92         }
93     }
94     return true;
95 }
96
97 };
98
99 int main(){
100     PatientAccount patientAccount;
101     Surgery surgery;
102     Pharmacy pharmacy;
103     int surgeryType;
104     int medicationType;
105
106     bool chooseSurgeryFin = false;
107     bool choosePharmacyFin = false;
108     char pharmacy_continue;
109     while(!chooseSurgeryFin){
110         cout<<" ";<<endl;
111         cout<<"Which type of the surgery did u have? "<<endl;
112         cout<<"1. "<<surgery.surgery1<<" charges:"<<surgery.surgery1_charges<<endl
113         <<"2. "<<surgery.surgery2<<" charges:"<<surgery.surgery2_charges<<endl
114         <<"3. "<<surgery.surgery3<<" charges:"<<surgery.surgery3_charges<<endl
115         <<"4. "<<surgery.surgery4<<" charges:"<<surgery.surgery4_charges<<endl
116         <<"5. "<<surgery.surgery5<<" charges:"<<surgery.surgery5_charges<<endl;
117         cin>>surgeryType;
118         if((chooseSurgeryFin = surgery.updateCharges(patientAccount,surgeryType)) == false )
119             cout<<"Should input 1~5"<<endl;
120     }

```

```

121
122     while(!choosePharmacyFin){
123         cout<<" ";<<endl;
124         cout<<"Which type of the medication did u have? "<<endl;
125         cout<<"1. "<<pharmacy.medication1<<" charges:"<<pharmacy.medication1_charges<<endl
126         <<"2. "<<pharmacy.medication2<<" charges:"<<pharmacy.medication2_charges<<endl
127         <<"3. "<<pharmacy.medication3<<" charges:"<<pharmacy.medication3_charges<<endl
128         <<"4. "<<pharmacy.medication4<<" charges:"<<pharmacy.medication4_charges<<endl
129         <<"5. "<<pharmacy.medication5<<" charges:"<<pharmacy.medication5_charges<<endl;
130         cin>>medicationType;
131         if((choosePharmacyFin = pharmacy.updateCharges(patientAccount,medicationType)) == false )
132             cout<<"Should input 1~5"<<endl;
133         else{
134             cout<<"Do u need to input other treatment? (Y/N) ";
135             cin>>pharmacy_continue;
136             if (pharmacy_continue=='Y' || pharmacy_continue=='y') choosePharmacyFin=0;
137             else choosePharmacyFin=1;
138         }
139     }
140
141     cout<<" ";<<endl;
142     cout<<"The rate of the hospital is : "<<patientAccount.rate<<endl;
143     cout<<"Please enter u: day spent in the hospital : ";
144     cin>>patientAccount.numberOfDay;
145     cout<<" ";<<endl;
146     patientAccount.charges += patientAccount.numberOfDay * patientAccount.rate;
147     cout<<"You should pay: "<<patientAccount.charges<<endl;
148
149     return 0;
150 }

```

```
C:\Users\User\Desktop\作業\C++HW4\5.exe

Which type of the sugery did u have?
1. surgery1 charges:100
2. surgery2 charges:200
3. surgery3 charges:300
4. surgery4 charges:400
5. surgery5 charges:500
5

Which type of the medication did u have?
1. medication1 charges:100
2. medication2 charges:200
3. medication3 charges:300
4. medication4 charges:400
5. medication5 charges:500
5

Do u need to input other treatment? (Y/N) y

Which type of the medication did u have?
1. medication1 charges:100
2. medication2 charges:200
3. medication3 charges:300
4. medication4 charges:400
5. medication5 charges:500
1

Do u need to input other treatment? (Y/N) n

The rate of the hospital is : 100
Please enter ur day spent in the hospital : 10

You should pay: 2100

Process returned 0 (0x0) execution time : 15.800 s
Press any key to continue.
```

## 6. (10%) Moving inchworm