```cpp
/*
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    Lab 5 - Patient Info
    Uses 2 classes, BloodData and Patient, to organize patient hospital info.
      Demonstrates knowledge of composition and header files.

*/

#include "pch.h"
#include <iostream>
#include "Patient.h"

int main() {
    Patient Timmy;
    cout << "Patient ID: " << Timmy.getID() << endl;
    cout << "Patient Age: " << Timmy.getAge() << endl;
    Timmy.displayBlood();

    Patient Spike(1337, 19, '-', "AB");
    cout << "Patient ID: " << Spike.getID() << endl;
    cout << "Patient Age: " << Spike.getAge() << endl;
    Spike.displayBlood();

    return 0;
}

/*
SAMPLE OUTPUT
Patient ID: 0
Patient Age: 0
Blood Type: O+
Patient ID: 1337
Patient Age: 19
Blood Type: AB-

Press any key to close this window . . .
*/
```

```h
#pragma once
#ifndef PATIENT_H
#define PATIENT_H

#include <iostream>
#include "BloodData.h"

class Patient { //Stores patient info
    private:
        int patientID, age;
        BloodData bloodData;
    public:
        //Constructors
        Patient(); //Default contructor
        Patient(int, int, char, string); //Overload of the default constructor, takes arguments
        //Getters
        int getID();
        int getAge();
        //Functions
        void displayBlood(); //Prints out information on the patient's blood type
};

//Constructors
Patient::Patient() { //Default contructor
    patientID = 0;
    age = 0;
    bloodData = BloodData();
}
Patient::Patient(int id, int a, char rh, string bloodType) { //Overload of the default constructor, takes arguments
    patientID = id;
    age = a;
    bloodData = BloodData(rh, bloodType);
}
//Getters
int Patient::getID() {
    return patientID;
}
int Patient::getAge() {
    return age;
}
//Functions
void Patient::displayBlood() { //Prints out information on the patient's blood type
    cout << "Blood Type: " << bloodData.getBloodType() << bloodData.getRH() << endl;
}
```

```
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46  #endif // !PATIENT_H
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```

```h
#pragma once
#ifndef BLOODDATA_H
#define BLOODDATA_H

#include <string>

using namespace std;

class BloodData { //Tracks blood type and the rh factor
    private:
        char rhFactor;
        string bloodType;
    public:
        //Constructors
        BloodData(); //Default contructor
        BloodData(char, string); //Overload of the default contructor, takes arguments
        //Getters
        char getRH();
        string getBloodType();
};

BloodData::BloodData() { //Default constructor
    rhFactor = '+';
    bloodType = "O";
}

BloodData::BloodData(char rh, string bt) { //Overload of the default contructor, takes arguments
    rhFactor = rh;
    bloodType = bt;
}

char BloodData::getRH() {
    return rhFactor;
}

string BloodData::getBloodType() {
    return bloodType;
}

#endif // !BLOODDATA_H

```