vim BloodType.java

```java
/*

Jared Dyreson
CWID: 889546529
BloodType.java -> Enumeration class for blood type and RH Factors

*/


public enum BloodType{
        // list of all possible constructors for the BloodType
        // can be considered an abstraction from individually calling each constructor

        A_POSTIVE("A", '+'), A_NEGATIVE("A", '-'), B_POSTIVE("B", '+'), B_NEGATIVE("B", '-'), AB_POSITIVE("AB", '+'), AB_NEGATIVE("AB", '-'), O_POSITIVE("O", '+'), O_NEGATIVE("O", '-');

        private String blood_type;
        private char rh_factor;

        // base constructor

        private BloodType(String bt, char rh){
                blood_type = bt;
                rh_factor = rh;
        }

        // make one string out of both data members, easy printing
_
        public String combine_both(){ return blood_type+=rh_factor; }

}
```

vim Driver.java

```java
/*

Jared Dyreson
CWID: 889546529
Driver.java -> Driver code for the Patient and BloodType class

*/

// compile

public class Driver {
        public static void main(String[] args){
                // Auto generated with caffine and cgproxy.service

                // Default constructor (no enumeration class called)
                Patient Timmy = new Patient();
                Timmy.display_patient_information();

                System.out.println();

                // Overloaded constructor (enumeration class called)
                Patient Spike = new Patient(1337, 19, BloodType.AB_NEGATIVE);
                Spike.display_patient_information();
        }
}
```

vim Patient.java

```java
/*

Jared Dyreson
CWID: 889546529
Patient.java -> Patient and BloodType class

*/

import java.text.MessageFormat;

public class Patient {

        // data members

        private int id_number = 0, age = 0;
        private BloodType blood_characteristics;

        // overloaded constructor of Patient class
        public Patient(int id, int patient_age, BloodType bt){
                this.id_number = id;
                this.age = patient_age;
                this.blood_characteristics = bt;
        }

        // default constructor for Patient class (O Positive blood type)

        public Patient(){
                this.blood_characteristics = BloodType.O_POSITIVE;
        }


        // print information about the patient
        public void display_patient_information(){
                String message = MessageFormat.format("Patient ID: {0}\nPatient Age: {1}\nBlood Type: {2}", id_number, age, blood_characteristics.combine_both());
                System.out.println(message);
        }
}
```

vim Driver.java

```
Patient ID: 0
Patient Age: 0
Blood Type: O+

Patient ID: 1,337
Patient Age: 19
Blood Type: AB-

Press ENTER or type command to continue
```