Practice Exercise- Inheritance

DO NOT SUBMIT (IT IS NOT AN EXTRA CREDIT EXERCISE!!)

Create the following inheritance program:

1. Class A is the super class with attributes: **public int d and private String s**. Write the default and non default constructors. Include a display command in each that displays “This is the default constructor of A” or “This is the non default constructor of A”. Besides the constructors write a method: public void method1(). Inside the method write the code to display the message: "method1 of A executed" No other methods need to be written.

2. Class B inherits A. The attributes are: public double g, private int r. Write the default and non default constructors. Each constructor also has a display i.e "The default constructor of B was executed" or "The non default constructor of B was executed". Write the method: public int method2(int h)
   
   ```java
   { 
       System.out.println("method 2 of B was executed");
       method1();
       return h*2;
   }
   
   No other methods need to be coded.
   ```

3. Create class called Client
   In the main method create an object of B using the default constructor. Use that object to invoke the method method1 of A.
   Next create an object of B using the non default constructor of B. Use it to invoke method2 of B and pass it the value 10.

4. Why method1 was called in method2 of class B without an object of A invoking it? Answer it to the TA or instructor who checks your work.

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1 Acknowledgement: used with permission from George Koutsogiannakis