

## ExceptionTester.java

```
/**  
 * This program allows the user to trace program execution under different  
 * scenarios involving exceptions. To use this program, make sure to download  
 * (or create) the following RuntimeExceptions (all should be in the same folder  
 * as this program): RedException BlueException YellowException GreenException  
 * OrangeException  
 *  
 * To run the program, you must provide two command-line arguments: mmm ccc  
 * where  
 *   mmm represents the method and is c, d, or e  
 * and  
 *   ccc represents the color of the exception and is red, blue, yellow, green,  
 * or orange  
 *  
 * To use command-line arguments when you run this program using Eclipse:  
 * 1) Right click on this source file in the "Package Explorer" window.  
 * 2) Select "Run As" from the pop-up menu.  
 * 3) Select "Run Configurations..." from the pop-up menu, which brings up the  
 *   "Run Configurations" window.  
 * 4) Click on the "(x)= Arguments" tab.  
 * 5) Enter the arguments (separated by a space) in the "Program arguments:"  
 *   text box.  
 * 6) Click either the "Run" button or the "Apply" and "Run" buttons.  
 *  
 * @author Beck Hasti, copyright 2008-2014  
 */  
public class ExceptionTester {  
    private static String color; // holds the color from the command line  
    private static String method; // holds the method from the command line  
  
    public static void main(String[] args) {  
        // Set up  
        if (args.length != 2) {  
            method = "e"; color = "blue";  
            //method = ""; color = "";  
        } else {  
            method = args[0];  
            color = args[1];  
            System.out.println("Args=" + method + ";" + color);}  
  
        // This is where the interesting stuff starts to happen  
        System.out.print("main["); ①  
        try {  
            methodA();  
            System.out.print("after A,"); ⑨  
            methodE();  
            System.out.print("after E,"); ⑩  
        } catch (RedException exc) {  
            System.out.print("red,");  
        } catch (GreenException exc) {  
            System.out.print("green,");  
        }  
        System.out.println("]main"); ⑪  
    }  
    /*  
     * A private method with a try and one catch  
     */  
    private static void methodA() {  
        System.out.print("A["); ②  
        try {  
            methodB();  
            System.out.print("after B,"); ⑦  
        } catch (YellowException exc) {  
            System.out.print("yellow,"); ⑧  
        }  
    }  
}
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        } catch (BlueException exc) {
            System.out.print("blue,");
        }
    }
    System.out.print("]A "); (8)
}

/*
 * A private method with a try, two catches, and a throw
 */
private static void methodB() {
    System.out.print("B[ "); (3)
    try {
        methodC();
        System.out.print("after C,"); (4)
    } catch (YellowException exc) {
        System.out.print("yellow,");
        throw new GreenException();
    } catch (RedException exc) {
        System.out.print("red,");
    }
    methodD();
    System.out.print("after D"); (5)
    System.out.print("]B "); (6)
}

/*
 * A private exception generating method.
 */
private static void methodC() {
    if (method.equalsIgnoreCase("C")) { DOES NOTHING
        if (color.equalsIgnoreCase("red"))
            throw new RedException();
        else if (color.equalsIgnoreCase("blue"))
            throw new BlueException();
        else if (color.equalsIgnoreCase("green"))
            throw new GreenException();
        else if (color.equalsIgnoreCase("yellow"))
            throw new YellowException();
        else if (color.equalsIgnoreCase("orange"))
            throw new OrangeException();
    }
}

/*
 * A private exception generating method.
 */
private static void methodD() {
    if (method.equalsIgnoreCase("D")) { DOES NOTHING
        if (color.equalsIgnoreCase("red"))
            throw new RedException();
        else if (color.equalsIgnoreCase("blue"))
            throw new BlueException();
        else if (color.equalsIgnoreCase("green"))
            throw new GreenException();
        else if (color.equalsIgnoreCase("yellow"))
            throw new YellowException();
        else if (color.equalsIgnoreCase("orange"))
            throw new OrangeException();
    }
}

/*
 * A private exception generating method.
 */
private static void methodE() {
    if (method.equalsIgnoreCase("E")) {

```

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```
if (color.equalsIgnoreCase("red"))
    throw new RedException();
else if (color.equalsIgnoreCase("blue"))
    throw new BlueException();
else if (color.equalsIgnoreCase("green"))
    throw new GreenException();
else if (color.equalsIgnoreCase("yellow"))
    throw new YellowException();
else if (color.equalsIgnoreCase("orange"))
    throw new OrangeException();
}
```

DOES  
NOTHING

