

Philip Pesic

Week 14

April 23 2023

Week 14 Prog 5

Write a recursive function that adds up the numbers 1 to 10

```
package Prog5;

class prog5 {

    static int result = 0;

    public static int adder(int x) {
        result += x;
        x--;
        if (x > 0) {
            return adder(x);
        } else {
            return result;
        }
    }

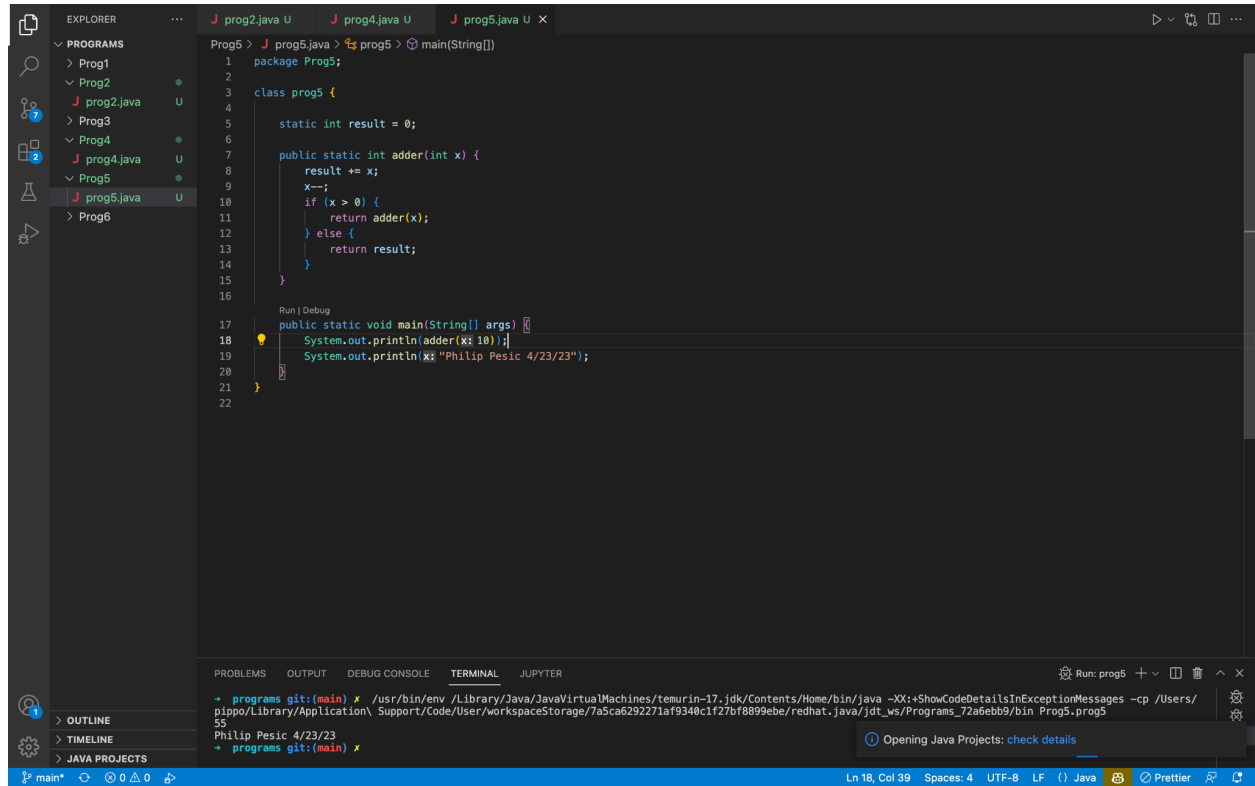
    public static void main(String[] args) {
        System.out.println(adder(10));
        System.out.println("Philip Pesic 4/23/23");
    }
}
```

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The screenshot shows an IDE with a project named 'Prog5'. The Explorer panel on the left lists several programs, with 'prog5.java' selected. The main editor displays the code for 'prog5.java', which includes a package declaration, a class definition, a static variable, a recursive method, and a main method. The code is as follows:

```
1 package Prog5;
2
3 class prog5 {
4
5     static int result = 0;
6
7     public static int adder(int x) {
8         result += x;
9         x--;
10        if (x > 0) {
11            return adder(x);
12        } else {
13            return result;
14        }
15    }
16
17    Run | Debug
18    public static void main(String[] args) {
19        System.out.println(adder(x: 10));
20        System.out.println(x: "Philip Pesic 4/23/23");
21    }
22 }
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
+ programs git: (main) x /usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/pippo/Library/Application\ Support/Code/User/workspaceStorage/7a5ca6292271af9340c1f27bf8899ebeb/redhat.java/jdt_ws/Programs_72a6ebb9/bin Prog5.prog5
Philip Pesic 4/23/23
+ programs git: (main) x
```

A notification at the bottom right says 'Opening Java Projects: check details'.

I learned how to write my own recursive functions