AP Computer Science Homework 4

Due date: Thursday, October 29, 2015
Instructor: Mr. Alwin Tareen

Part A: Sum of Multiples of 3 or 5

- If we list all of the natural numbers below 10 that are multiples of 3 or 5, we get: `3, 5, 6, 9`.

- The sum of these multiples is: `23`.

- Write a program that finds the sum of all the multiples of 3 or 5 below 1000.

- *Hint:* The answer to this problem is 233168.

- Download the file `Homework04.zip` from the class website, and unzip this file. This will result in a BlueJ Project Folder named `Homework04`. Open this folder in BlueJ by clicking on the `Project` menu, then selecting `Open Project...`

- Use the following code framework in the BlueJ Project Folder `Homework04` to write your solution:

    - `SumMultiples.java`

- There is a file called `SumMultiplesJUnitTest.java` in the folder, but don't alter the contents of this file. It is for `JUnit` testing purposes only.

- Compile and run the `SumMultiples.java` file, and make sure that you get a correct value of 233168 on the terminal output. If you have made an error, correct the mistake, and then compile and run the `SumMultiples.java` file again, until you get the right answer.

- Now, we are going to verify that we have a correct answer by using the `JUnit` testing feature of BlueJ.

- In your `BlueJ` project window, you should see a button labelled `Run Tests`. Press this button to run the `JUnit` tests.

- You should see a `BlueJ: Test Results` window pop up. If everything is correct, you should see a green bar that indicates that your code has passed the `JUnit` tests. If your program is incorrect, you will see a red bar. You can click on the method name to get more information about the problem. Otherwise, just click on the `Close` button, and you can go ahead and upload this program to `Web-CAT`.

Part B: Submission

- Submit your Java program `SumMultiples.java` by uploading it to the Web-CAT automated grading platform.