

COMP 210

Lab 1 & Homework 1

Spring 2017

For your first assignment you'll use Java to write the kind of procedural code you wrote in C++. This is not how we plan to use Java ever again. The point of this exercise is to get your basic tools up and running¹ and to get used to some differences between key statements in Java and C++.

¹ Eclipse and JUnit

The Program

Between lab 1 and homework 1 you'll design, implement, and test the following procedures:

- A function named *sumTo* that computes the sum off all the integers from 0 to $n - 1$ when given n . In mathematical terms it computes this:

$$\sum_{i=0}^{n-1} i$$

- An output procedure named *fizzbuzz* that carries out the classic fizzbuzz problem. This procedure takes the `PrintStream` and a positive integer n and for each number i from 1 until n it will print:

- *Fizz* if the number is divisible by 3 but not 5
- *Buzz* if the number is divisible by 5 but not 3
- *FizzBuzz* if the number is divisible by 3 and 5
- i otherwise

Output should be comma separated and on one line. There should be no comma after the final output.

- A mutator named *rmvAll* which takes a `StringBuilder`² and a character and remove all occurrences of the character form the string.
- An input procedure named *readUntil* which takes a `Scanner`, a string and a `StringBuilder` and reads all the strings from the `Scanner` until the string argument is encountered or until there are no more string, whichever comes first. These strings read are appended to the `StringBuilder` without any separation.

² mutable string

Lab 1

Your goal in lab is to get your project setup, main stubbed, the procedures declared, documented, and stubbed, and the JUnit tests stubbed³. Once this is done, be sure you can run your stubbed out code. From there move on to writing tests and completing *main*. When that's done, and only then, start on the implementation of the functions⁴.

³ letting Eclipse do the work

⁴ If I see function implementation and not tests or main, you get a 1

At the end of lab or when you finish the lab work, which ever comes first, submit the source code and only the source code using *handin*. The assignment is *lab1* and the course is *comp210*. Handin lets you submit multiple directories, so just handin the src and tests folders directly. If I get anything other than source code, you'll have to resubmit or get a zero.

Homework 1

Complete the lab work if necessary then implement the procedures. Debug as needed. Submit the completed source code as assignment *hwk1* using handin. Once again, submission containing anything other than the java source code will not be accepted.