

CSSE 220 Binary Integer in-class programming problem.

I encourage you to work with another class-mate; each of you must submit it, but it is okay for this one assignment if what you submit is identical.

In our last class, we discussed implementing non-negative integers as binary strings (least significant digit first).

We did an algorithm for "succ" (the "addone" function). You are to implement

```
static String plus(String s1, String s2) {
```

which takes two string representations of binary integers, and returns their sum in the same representation.

You may use **Integer.parseInt()** and **Integer.toString()** or other similar methods only on single-bit binary numbers.

I.e. **Integer.parseInt(s)** is only allowed if **s** is "0" or "1", and **Integer.toString(x)** is only allowed if **x** is 0 or 1.

Recursion is your friend!

You must do the arithmetic using the String representation. I.e., you are not allowed to convert multi-digit strings to the corresponding integers, add the integers, and convert back to Strings. Try to write the code in such a way as to minimize special cases that your code must test.

The initial code is in your repository in the BinaryInteger project. When your code meets the requirements listed above and passes all of my provided unit tests, you should commit your code back to your repository.