

## CS 149: Programming Fundamentals James Madison University Coding Exam #2 Fall 2015

*This work complies with the JMU Honor Code. I have neither given nor received unauthorized assistance, and I will not discuss the exam contents with anyone who has not taken it for credit.* Name: \_\_\_\_\_ Signature: \_\_\_\_\_

### **Tweet Tester**

Twitter is an online social networking service that enables users to send and read short 140-character messages called tweets. You have been chosen to help make a custom Twitter app for JMU students.

For this exam, you need to create one class from scratch: **Tweet** and a second from the provided class file **TweetTest**. The first class must implement the **stats** method described below. The second class should use JUnit to test your code thoroughly. At the end of (and during) the exam, you will submit these two files as a zip file exam2.zip via <https://autolab.cs.jmu.edu>. You may submit as many times as you like; only the last submission will be graded.

The stats method takes a single string parameter that represents a tweet. It returns a string in the format "%d-%d-%d" representing the number of mentions, hashtags, and links in the given tweet.

- Every mention will start with the '@' character and have at least one non-space or non-tab character following it (e.g., @mayfiecs).
- Every hashtag will start with the '#' character and have at least one non-space or non-tab character following it (e.g., #cs149).
- All links will start with the string "http://". Twitter ignores case, so HTTP and http are counted the same. You do not need to check for any characters following "http://".

You must write complete documentation comments for both classes (including your name and today's date) and all methods (including @param and @return tags). As with previous assignments, the code you submit must pass Checkstyle without any errors. It's strongly recommended that you complete the exam in this order:

1. Write documentation and stubs for all classes and methods. [10 min]
2. Implement your test cases; they should all fail at this point. [10 min]
3. Submit to Autolab to make sure that it compiles and runs. [5 min]
4. Implement/test mentions and hashtags; submit to Autolab. [15 min]
5. Implement/test http links ignoring case; submit to Autolab. [10 min]

You may use the back of this sheet for scratch paper. Good luck!

**Here's a sample Test for your TweetTest.java file(note this does not pass Checkstyle and has no JavaDoc comments):**

```
public class TestTweet {  
  
    public void testStats() {  
        String expected;  
  
        String actual;  
  
        String testString;  
  
        testString = "#hashtag @chaoaj here's # @ HTTP:// "  
            + "http://www.jmu.edu my awesome tweet to http://";  
  
        expected = "1-1-3";  
  
        actual = Tweet.stats(testString);  
  
        Assert.assertEquals(testString, expected, actual);  
    }  
}
```