APS101 lab5 – week 7

This document contains the instructions for the week 7 APS101 lab.

1   Objectives

1. Practive using `StringTokenizer`.

2. Practice using JavaDoc.

3. Practice writing `while` loops.

4. Practice writing `for` loops.

2   Starting up

Sit down with your partner. The rest of these instructions call you two `s1` and `s2`. Pick which one is which. `s1` should log in and start up DrJava, and be the first driver.

3   `StringTokenizer`

Download `Sentence.java` from lab webpage.

Complete the method `reverseWords`. Use a `StringTokenizer` and a `while` loop to create a new `String` with the words of the given sentence in the reverse order. Return the new sentence (as a `String`).

For example, if the user types

```
"This is a great lab."
```

then following should be returned

```
"lab. great a is This"
```

There should not be a space after the last word! Compile it, test it, and fix any errors.

Demonstrate to your TA that it works.

4   JavaDoc!

Switch roles: `s2` drives and `s1` navigates.

In this section, you'll see JavaDoc in action. Download `Lab5.java` from the lab webpage.

Run JavaDoc on `Lab5.java`: open `Lab5.java` in DrJava, select the Tools menu and choose Preview Javadoc for Current Document. This will generate a web page and should open up your browser.

Scroll down to the bottom of the HTML page. Notice that, for example, `mostSpaces` lists both **Parameters:** and **Returns:**.

Look at the JavaDoc comments to find out how the **Parameters:** and **Returns:** sections are made. What are the two comment tags that produce them?

5 Loops!

Complete as many of the methods in `Lab5.java` as you can, alternating driver and navigator for each one. Warning: you may not get more than two or three of them done. **Don't rush:** make sure you understand what you do get done. Don't hurry your partner through these!

You can practice them over the weekend, or before the final exam, of course.

For each method, use exactly one `while` statement. You may not use `do-while`, `for`, `break` or `continue` statements. (Why? Because we will have you write `while` loops on the final and we want to get you to practice them.)

Also, you may use only one `return` statement in any method.

In any code that you write, you may use only these `String` methods: `equals`, `substring` and `length`. You must not use any other methods from `String`.

6 Loops: again!

If time permits, rewrite the methods in `Lab5.java`, using `for` loops instead of `while` loops.