**CS160 Introduction to Computer Science I Fall 2015**

**Lab 2: Strings and Scanner Input**

**20 pts**

*Monday Lab Wednesday Lab*

**Start Date:** 09-14-2015 **Start Date:** 09-09-2015

**Due:** 09-17-2015 **Due:** 09-12-2015

**Learning Outcomes**

 Utilize Java Syntax in fundamental programming algorithms (a)

 Recognize and apply the various input and output devices in programming (c)

**Requirements**

The goal of this lab is to create a Java program to practice with String and numeric variables,

arithmetic expressions, String manipulation, and basic input and output with Scanner and the

console.

***Preliminaries***

**1)** Create an Eclipse Java Project, called <ID>\_lab2. Replace <ID> with your ID, such as:

fowlml01\_lab2

**2)** Add a Java class named StringScan to your project

**3)** Create a project submission folder, in the form Lab#FirstNameLastName. For example,

mine would be Lab2MaxFowler

**Exercises**

Part 1) The import statement – 2 points

a) Make sure you include the import “import java.util.Scanner” at the top of the code

(without quotation marks) so you can use the Scanner class! This part is small, but of

vital importance to the lab.

Part 2) Basic Input -5 points

a) Declare a Scanner object, like Scanner scan. Make sure to use the keyword ‘new’ when

making a new object!

b) Ask for the program user’s name. Then, read this input using the Scanner object.

c) Print the name back to the console, identifying it as the name entered. Something like

“Your name is NAME\_HERE” is fine.

CS160 Introduction to Computer Science I Spring 2015

d) Ask for the user’s favorite number and store it for later on.

Part 3) Basic String Manipulation – 8 points

a) Print out to the console the length of the name that was entered, while identifying that

it is the name’s length with text.

b) Print out the first and last characters of the name

c) Print out the character at index 5 (the 6th character) in the name.

d) Print the name in ALL UPPERCASE LETTERS, BECAUSE IT MAKES YOU

COOLER!

Part 4) A little bit of math – 5 points

a) In one line (int eq = …), run the following equation:

a. Name\_length + 2\* Favorite\_Number

b. Note: Name\_Length + 2 should happen *BEFORE* the multiplication. Remember

order of operations and think about how to guarantee this order

b) Print the result of the equation to the console

***Sample Output***

*Note: other than what is specified above, your output is allowed to differ. Example – ‘Enter your*

*name,’ can easily be, ‘Who are you?’ if you wanted it to be*

Enter your name :

Mister Magoo

Your name is Mister Magoo

Enter your favorite number:

23

Your name is 12 characters long

The first character is: M

The last character is: o

The 6th character is: r

If you were cool, your name would be written: MISTER MAGOO

The equation's result is: 322

**Submission Guidelines:** Copy all the source code (the .java files) into the submission folder

made during the preliminaries step. Then zip this folder and submit it onto blackboard.

Remember to click on the assignment’s name when submitting, as the blue link is just the pdf!

And be sure to double check your submission, in case blackboard eats it.