Lab - Printing

Tutorial Lab 1: Printing

1. Use the code editor to the left.
2. Enter the code below.

```
String my_variable = "I am learning"; //step 1
System.out.print(my_variable); //step 2
my_variable = " to program"; //step 3
System.out.print(my_variable); //step 4
my_variable = " in Java."; //step 5
System.out.println(my_variable); //step 6
my_variable = "Hooray!"; //step 7
System.out.println(my_variable); //step 8
```

3. Run the module to see the output. Use the code visualizer to go through the program step by step.

Code Visualizer

4. Here are some important points about the program (click on the underlined text):
   - Step 1 - Declare the variable `my_variable` and initialize it the value `I am learning`.
   - Step 2 - Print without a new line character using `print`
   - Step 3 - Add a space when starting the string to avoid `learningto`
   - Step 6 - A newline character is added using `println`
   - Step 8 - `Hooray!` is on its own line since a regular `print` command was used in step 6

Lab - Variables

Tutorial Lab 2: Variables

1. Use the code editor to the left.
2. Enter the code below.

```
String english = "Hello";
String spanish = "Hola";
String italian = "Ciao";
String french = "Bonjour";

spanish = english;
italian = spanish;
french = italian;

System.out.print(french);
```

3. Run the module to see the output. Use the code visualizer to go through the program step by step.

Code Visualizer

4. If you use the code visualizer, you will notice that all four of the variables have the value of `Hello` by the end of the program.

Lab - Challenge

Tutorial Lab 3: Fundamentals Challenge

In the code to the left, we see that there are a series of declared and initialized variables. Use these variables to print out a custom message to customers who open a chat client.

Your output should look something like this:

```
Hello! Today is Wednesday, May 4.
The current wait time is 4 minutes.
```

▼ **Hint from upcoming section**
In the `operators` unit you will learn about String concatenation. For now, all you need to know is you can connect or merge Strings using the `+`. For example, `System.out.println("Hello," + name + "!");` where name is a variable.

The pattern is as follows. The `*` indicates variables:

```
*greeting* Today is *dayOfWeek*, *month* *day*.
The current wait time is *currentWaitMinutes* minutes.
```

To test the code, first compile and then check the output of a few different test cases: