

Unit 2 Lab 6 - Some String Methods in Java

Name _____

class hour _____

Pts: 10

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I. Some String Methods in Java

1) a) Open **P1ch2lab6.java**

b) Run and look at the output then look at the code to answer:

(1) How many ways are there of declaring a String object? _____

(2) Declaring or creating an object is also called what? _____

(3) What method is used to make all the characters capitalized? _____

(4) What method is used to make all the characters lower case? _____

(5) What method finds the length of a String? _____

(6) The number of letters in HELLO World is 10 but the length is 11. Why?

(7) Change the last line: `System.out.println("The length of the first string is: " + stg1.length());`
to `System.out.println("The length of the first string is: " + "HELLO World".length());`

Run and answer: Is the output the same? (Yes / No) _____

(Note: Literal strings like "HELLO World" are actually objects.)

(8) What package is imported to so that String methods can be used? _____

(Hint: It is the same one that allows System.out and the Math Class to be used.)

c) If the following were added to the end of the program what would be the output for these two lines? (Can you answer this without actually running the program?)

```
System.out.println(stg1);
```

```
System.out.println(stg2);
```

The original first string is HELLO World and the line above outputs HELLO World

The original second string is Hi there! and the line above outputs HI THERE!

Why has the first string stayed the same but the second one permanently changed?

2) a) Open **P1ch2lab6b.java**

b) Run and look at the output then look at the code to answer:

(1) What method is used to combine 2 Strings into one string? _____

(2) concat is short for what word? _____

c) Rewrite the 3 lines below as one shortcut String declaration. (Note: a review topic)

```
String stg1 = new String( );
```

```
String stg2 = new String( );
```

```
String stg3 = new String( );
```

This single instantiation statement is _____

(Note: We will study more String methods in a later chapter.)

OVER

Summary

Note: The String class is found in the java.lang package, so it is automatically imported into all Java programs. (It is a nonstatic class so objects can be created for it.)

See page 81 in the blue book for the String class methods.

II. Given the following Java code fragment, what is output?

```
int a;  
String b, c, d;  
String x = new String("hi");  
String y = new String("THERE");  
a = x.length( );  
System.out.println("1) " + a);  
b = x.toUpperCase( );  
System.out.println("2) " + b);  
c = y.toLowerCase( );  
System.out.println("3) " + c);  
d = x.concat(y);  
System.out.println("4) " + d);
```

Output:

Turn in this sheet to be graded!