

# Computer Science 2311

## Lab 3

Name: \_\_\_\_\_

### Group Activities

1. Log in and use WWW Browser to go to the course home page <http://www.cs.ecu.edu/~rws/c2310> and download *Lab3.java* into your *labs* subdirectory.
2. In a terminal window issue the command `cd labs` to make the *labs* directory the current directory. You will use this window to compile and execute your program.
3. Open the text editor with file *Lab3.java*.

### Individual Activities

Write a complete Java program that prompts for the input of a phrase and then prompts for the input of a single character. The program should then output the logical position in the phrase where the character first occurs. A sample interaction is shown below. (user input is underlined)

Enter Phrase

Go Pirates

Enter character to search for

P

character P is located at position 4

### NOTES:

- As with Lab 2, this program follows the standard organization of: (1) Declare variables; (2) Prompt for and get input from the user; (3) Specify required processing; and (4) Produce necessary output.
- You will need to use Scanner class method `nextLine()` for storing the input phrase into a String class variable. You can use either `nextLine()` or `next()` for storing the input character into a different String class variable.
- You will have to examine the description of the methods associated with the String class as presented in Display 2.7 to determine which one to use to find the location of the character within the phrase. Remember that while the second piece of data is a single character, it is being stored as a string.
- Remember to output the *logical* position of the character in the string. When people think about strings, we don't think about something being in the 0<sup>th</sup> position of a string!
- You will need to make use of the information on screen output in section 2.3 to determine how to properly generate the final output message. In determining how to specify the output statement, be sure you understand which parts of the output message will always be the same, and which parts depend on the input data (and thus are likely to be specified using variables whose values are determined during execution of the program).

- Do not worry about what result you get when the character is not part of the string. You might try a sample test case though to see what happens!
- Remember to properly use the *javac* and *java* commands for compiling and executing your program.
- Be sure you include your name in a comment line at the top of your file---example  
*// Ronnie W. Smith, CSCI 2311*
- Submit your program electronically by issuing the following command  
*submit l3 Lab3.java*

If the submission is successful you should see the following message:  
**File 'Lab3.java' was copied successfully.**