

**CS116 – Lab 0**  
**Due Date: August 29**

**Purpose:** JES is the program that we will be using throughout the course to write and execute Python programs so you will need to be able to accomplish these tasks. You will also see, through examples, the basic building blocks of Python programs – variables which store data values, and functions which perform actions. We will be using and expanding upon these building blocks to solve problems computationally throughout this course. Being able to solve problems computationally is the core skill from this course, which will serve you well in whatever field you pursue.

**Skills:** The purpose of this lab is for you to practice the following skills needed for this course:

- Use JES to enter commands.
- Use JES to enter and execute programs

**Knowledge:** This lab will also help you become familiar with the following content knowledge:

- How variables are used to store values
- How functions represent a sequence of actions
- How functions can have input parameters to make them more general

**Task:** Before starting this lab, you should have read Chapter 2 in your text. Follow the steps in this lab carefully to complete the assignments.

1. Open JES. You should see a screen like on p22 of your text.

**Assignment 1:**

Type the following code fragments in the Command Area in JES. In a text or word document, write out a brief description of what each of the following three code fragments is doing and **why each works the way it does**.

**Criteria for Success:** You should have a clear succinct explanation for each of the commands. For example, an explanation of the command `x = x + 1` would be "The value 1 is added to the stored value in the variable x and this new value is stored back into x".

- 1.

```
x = 7
print x
x = x + 5
print "The result is",x
```

2.

```
x = 5
y = x / 2
z = x / 2.0
print y,z
```

3.

```
print "Is it true that 2>5? Let's see...",2>5
```

4.

```
print "!" + 3
```

5.

```
print "!" * 3
```

### Assignment 2:

In the program area of JES, type the following function definition:

```
def hello():
    print "hello"
    print "hello, again!"
```

Load the program and execute it by typing in the command window:

```
>>> hello()
```

Modify this definition so that you enter your name and get the result:

```
>>> hello("Jill")
hello Jill
hello, again!
```

**Criteria for Success:** You should have a program that gives the correct output as in the given example, but also works no matter what name is provided during execution.

Submit your writeup for Assignment 1 and your file containing your modified program for Assignment 2 using the Lab 0 submission in Canvas. Please indicate both partner names in your submission files.