Lesson 1.02: Interactive Mode

# Learning Objectives

* Define and identify: interpreter, prompt, string, integer, value, errors
* Be able to use the python interpreter to do simple math
* Acknowledge the difference between a number and a number with quotes around it

# Materials/Preparation

* Lab handout (Interpreter Scavenger Hunt)
* Worksheet on terminology
* Ensure all students are able to log into the system
* Have own account which is up and running

# Pacing Guide

|  |  |
| --- | --- |
| Duration | Description |
| 5 Minutes | Welcome, attendance, bell work, announcements |
| 15 Minutes | Introductory Discussion |
| 25 Minutes | Python “Scavenger Hunt” Lab |
| 10 Minutes | Debrief, wrap-up |

# Instructor’s Notes

1. Introductory Discussion
   1. Display IDE. Discuss different parts and focus on “interactive prompt”
      1. Interpreter: processes the program a little at a time, alternately reading lines and performing computations.
      2. Prompt: allows you to interact with the interpreter. Usually distinguished by ‘>>>’
   2. Demonstrate how to use prompt
      1. Practice typing in integers, adding and multiplying numbers (discuss that the interpreter is processing this line of code to give)
      2. Practice typing in letters:
         1. Traceback (most recent call last):

File "<stdin>", line 1, in <module>

NameError: name 'x' is not defined

* + 1. Practice typing in strings and then adding strings (python calls these strs)
       1. Discuss that in order to use letters you need to use single quotes or double quotes so that the interpreter can understand

1. Lab Walk Through
   1. Have students work on lab trying to find different ways to get numbers and letters
2. Debrief
   1. Go through walkthrough asking for ways students found the answer.
   2. Ask for unexpected things and cold call on answers for questions about string multiplying
   3. Talk about different error messages and compare from snap