Lesson 1.02: Interactive Mode

# Learning Objectives

Students will be able to …

* Define and identify: interpreter, prompt, string, integer, value, errors, console
* Use the python interpreter to do simple math
* Given a value, be able to distinguish between number and string

# 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 | Moring worksheet |
| 15 Minutes | Lesson |
| 25 Minutes | Interpreter Worksheet |
| 10 Minutes | Debrief, wrap-up |

# Instructor’s Notes

1. Hand out worksheet or display on board or email
   1. Establish that students start working immediately
   2. Bring back attention by doing 5, 4, 3, 2, 1 eyes up or another classroom management technique
2. Introductory Discussion
   1. Discuss the work sheet
      1. Say the black box is called a console:
         1. Define: Console is a place where you can interact with a program. This console is running the python interpreter
      2. Ask the students: What does the console do?
         1. Define: Interpreter runs python code
      3. What did you notice about section 1?
         1. What does the // do
         2. What’s the difference between 3.0 and 3
         3. Strings and Integers
      4. What did you notice about section 2?
         1. What happened when you typed in a?
         2. What do you think that error message mean?
         3. If you want to type in
      5. What did you notice about section 3?
         1. What was the difference between the two inputs?
         2. Strings can be combined using plus sign
         3. What do you think the error message means?
         4. Can’t combine different types
      6. What did you notice about section 4?
         1. What error did you get? What do you think that means
         2. What happens when you multiply strings?
3. Lab Walk Through
   1. Worksheet students need to practice.
4. Debrief
   1. Discuss anything surprising in the results. What do the \*\* means. What happened with integer division. What about order of operations
   2. Discuss why it might be useful to have the interactive console? How is that different than snap?