Introduction to Python Part 2

In this course, you will work in teams of 3–4 students to learn new concepts. This activity will introduce you to the process. We'll continue to look at variables, assignment, and input/output.

Model 1 Variables and Assignment

In programming, an ***assignment statement*** sets or updates the value of a ***variable***. The variable is set to the value after the ***assignment operator*** (=). Choosing short yet descriptive variable names is considered good programming style and will make your programs easier to read.

Do not type anything yet! Read the questions first!

Python code	Shell output
`data = 12`	
`data`	
`Data`	
`Data = 34`	
`data`	
`Data`	
`3data = "hello"`	
`data3 = "world"`	
`data3 = hello`	
`hot = 273 + 100`	
`273 + 100 = hot`	
`hot`	
`hot - 100`	

1. Pick one assignment statement from the table above, and identify the following:

a) the variable being assigned

b) the assignment operator

c) the value of the variable immediately after the assignment

2. Type each line of code in a Python Shell and write the resulting output in the space provided. If an error occurs, write what type of error. Place an asterisk (*) next to any output for which you were surprised.

3. Circle each *successful* assignment statement in Model 1. How many are there?

4. What is the observed output of a successful assignment statement?

5. After the successful execution of an assignment statement, how can you confirm the value of this variable?

6. For each assignment statement that executed without an error, write the corresponding variable name.

7. Based on the Model 1 output, indicate whether each statement below is true or false.

a) Variable names in Python can start with a number.

b) Variable names in Python must start with a lower-case letter.

c) Variable names in Python are case-sensitive.

8. Each of the following assignment statements has an error. Write a valid line of Python code that corrects the assignment statement. Test your code on a computer in a Python Shell.

a) `3 + 4 = answer`

b) `oh well = 3 + 4`

c) `2x = 7`

9. Predict the value of the variable `hot` after executing all lines of code in Model 1. Then test your prediction on a computer, and explain the result.

10. Write a line of Python code to assign the current value of `hot` to the variable `temp`. Show output that confirms that you have done this correctly, and explain the code.