CONNECTION ASSIGNMENT 8 DEFINITIONS

**Boolean:** Consists of literals True and False to represent truth values. Involves using comparison operators (such as <, >, ==, !=, <=, >=). Also involves boolean operators (and, or, not).

**String:** Sequences of characters enclosed within quotes, can be assigned to a variable, and can be controlled using operators and functions.

**Lists:** A comma-separated sequence of items enclosed within square brackets. Items can be numbers, strings, and other lists.

**Variable:** Appears inside an expression; it evaluates to its assigned value. Also stores a value in computer memory.

**Function:** A block of code which only runs when called. Data (parameters) is passed into the function and as a result, returns data.

**Method:** Methods are what certain objects, such as strings and lists, can call to perform certain tasks. For instance, a string can call the upper() method to capitalize all letters in the string.

**Algorithms:** A step-by-step procedure that defines a set of instructions to be executed in a certain order to get the desired output.

**Parameter(s):** Information that is passed into the function. They are specified after the function name in parentheses. Can add as many parameters as you want, just separate them by a comma.

**Mutable:** An object that can be changed after it is created, such as a set or a list.

**Immutable:** An object that cannot be changed after it is created, such as an integer or string.

**EXAMPLES:**

**Data Type:** Integer

**Operator:** + (addition)

**Comparison Operator:** > (greater than)

**Boolean literal:** True

**Expression:** x = 4 ("4" is the expression)

**Statement:** if: (if statement)

**String:** "Hello World!"
**Integer:** 2

**Float:** 2.5

**Function:** def f(x,y): (f(x,y) is the function)

**String Method:** upper() (capitalizes all letters in a string)

**List Method:** append() (adds element at end of the list)

**Execution Control Structure:** if x > y:

    print("enough") (The if-statement is the execution control structure)

**Iteration Control Structure:** while counter <= 3:

    print('hi!') ('while' loop is the iteration control structure)

**Conditional Control Structure:** if amount > 30:

    print("Too much")

    else:

        print("All good") (Two-armed if statement is a Conditional Control structure)