Weekly Reflection Week 2 DDP1-D

What I've learned:

1. Modules and libraries are the same thing. In essence, they are .py files which contain functions or variables we can reuse in our projects. For example, the math library allows us to use premade functions for ceil and floor rounding, factorials, and many other predefined functions
2. Statements and expressions are two different things. Statements are commands that do things, but don't return a value. For example, print() is a statement because it does something – print a string to the console – but does not return a value you can store in a variable. Expressions on the other hand, do have return values that you can store in a variable. For example, str.strip() is an expression because it returns a value that you can store in a variable – a string with leading and trailing whitespaces stripped.
3. Naming variables have a set of rules and some recommendations. For example, it is recommended to use descriptive variables that can help readibility of code, and to use snake case when naming variables in python. Some rules include not using reserved characters which have special uses to name variables and functions, and to not have whitespace in variable and class names.
4. Variables are labels we give to memory spaces that can store the values of objects. In essence, objects are stored in the computer memory, which we label and access using variables.
5. Each value in programming has its own ID, and variables with the same value share the same ID.
6. There is a clear distinction between objects and variables, wherein variables don't have a fixed data type that it can store. However, objects have their own data types and cannot be assigned willy nilly.
7. Python Is a dynamically typed language which means that you don't have to specify what type a variable is on declaration.
8. There are many different number systems such as octal, hexadecimal, binary, decimal, etc. They are different positional number systems that differ in the base that they are using.
9. Positional number systems are defined with the following formula:

$$D = \sum_{i=-n}^{m-1} d_i R^i$$

where R is the radix and i is the number of digits behind the decimal point, and m is the number of digits in front of the decimal point.

Improvements for Learning Experience

1. Perhaps more examples on how the things we are learning might be useful in the industry or implementations that we can practice with.

Questions:

No questions for this week 😊