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# IT FDN 110

Assignment 06

# Functions, Parameters and Arguments

Functions are a way to combine multiple actions in a single process, which is ideal for repetitive processes. The syntax for a function in python starts with def, short for define or declaring a function, followed by ():. This allows you to input arguments into the function. Often when setting up a function you can put pass into the function as a placeholder for the function you will write. Functions in python are written in camel case.

Arguments are a way to input data into a function. There are two types of arguments, regular arguments and keyword arguments. Keyword arguments have an equal sign that declare a variable within an argument, as a way of setting a default that the user can choose to overwrite. You can use both types of arguments in a function but the keyword argument must come last if using both.

Doc strings can be added within a function by using three quotation marks and provides details about what the function does. To see the Doc string added to a function you can type print functionName.\_\_doc\_\_.

To see all the functions and variables in a file you can type dir().

# Global vs Local Variables

Local variables are variables created and stored within a function that will be deleted from memory when the function completes. Global variables are accessible anywhere within a program.

# Classes

Classes are a blueprint for an object which create a user defined data structure. They are created using the word class.

# Separations of Concerns

Separations of Concerns is the practice of dividing your code into manageable, organized chunks by what the behavior a chunk of code is attempting to deal with. For example, calculating the volume of a shape may be one concern while converting height in feet to inches would be another concern. In python we would not want to combine these two goals into one function or one code block, rather we would separate them so other developers can follow along easier and users are not left confused. The general rule of thumb is do one thing and do it well. This also prevents multiple things from breaking at one time if a function or class is isolated to one behavior.