Important and Common Python Terms

Data Types

All data have a data type. Simple types include int (integer, e.g., 0, -1, 5, 240), float (decimal, 0.3, 5.4, -3.0), str (string, e.g., "Hello"), bool (boolean, True and False).

Variable

A name given to a memory location where data is stored, e.g., the command a = 3 allocates space in memory, gives it the name a, and puts the value 3 in it.

List

An ordered collection of elements, which can be of different types, and whose values can be changed after the creation of the list. E.g., [1,"hello",3.0] is a list of 3 elements.

Tuple

Similar to a list, but tuples cannot be changed after creation. E.g., (1,"hello",3.0).

Loop

Iteratively repeat code. Common loops structures include for and while loops.

Conditional Statements

Used for controlling the flow in code based on conditions. Keywords include if, elif, and else.

Function

A block of reusable code that performs a specific task. Defined using the def keyword.

Class

A blueprint for creating objects. It defines attributes (variables) and methods (functions) that the objects created from the class will have. Classes are extensions of data types

Object

An instance of a class. It is a self-contained entity with attributes and behavior defined by its class. Classes and objects are similar to a data type and a variable of that type.

Import Statement

Used to include the functionality of external libraries and modules.