**ASSIGNMENT-6**

**1.What is PYTHONPATH?**

The PYTHONPATH variable holds a string with the name of various directories that need to be added to the sys. path directory list by Python. The primary use of this variable is to allow users to import modules that are not made installable yet.

**2.What are python modules? Name some commonly used built-in modules in Python?**

* In Python, Modules are simply files with the “. py” extension containing Python code that can be imported inside another Python Program. In simple terms, we can consider a module to be the same as a code library or a file that contains a set of functions that you want to include in your application.
* Commonly used build-in modules in Python-math, random, Os, Csv, urllib, types.

**3.What are local variables and global variables in Python?**

**Local variable:**

* Accessible only within the function it is declared.
* A variable that is declared inside a function of a computer program.

**Global variable:**

* Accessible by all the functions in the program.
* A variable that is declared outside the functions of a computer program.

**4.Is python case sensitive?**

Yes, python is a case-sensitive language without a doubt. If we write a variable in a small letter and want to use it further in the program, then use it in the same manner only otherwise it will be considered as you are using a new variable.

**5.What is type conversion in Python?**

Type Conversion is the conversion of object from one data type to another data type. Implicit Type Conversion is automatically performed by the Python interpreter. Python avoids the loss of data in Implicit Type Conversion.

**6.Is indentation required in python?**

Indentation is mandatory in python to define the blocks of statements. The number of spaces must be uniform in a block of code. It is preferred to use whitespaces instead of tabs to indent in python.

**7.What is the difference between Python Arrays and lists?**

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| --- | --- |
| **LISTS** | **ARRAYS** |
| Can consist of elements belonging to different data types | |  | | --- | | Only consists of elements belonging to the same data type | |  | |
| No need to explicitly import a module for declaration | |  | | --- | | Need to explicitly import a module for declaration | |  | |
| Cannot directly handle arithmetic operations | |  | | --- | | Can directly handle arithmetic operations | |  | |
| Can be nested to contain different type of elements | |  | | --- | | Must contain either all nested elements of same size | |  | |
| Preferred for shorter sequence of data items | |  | | --- | | Preferred for longer sequence of data items | |  | |
| Greater flexibility allows easy modification (addition, deletion) of data | |  | | --- | | Less flexibility since addition, deletion has to be done element wise | |  | |
| The entire list can be printed without any explicit looping | |  | | --- | | A loop has to be formed to print or access the components of array | |  | |
| Consume larger memory for easy addition of elements | Comparatively more compact in memory size |