PYTHON – ASSIGNMENT 4

1) What is __init__?

__init__ is one of the reserved methods in Python. In objectoriented programming, it is known as a constructor. The __init__ method can be called when an object is created from the class, and access is required to initialize the attributes of the class. In python, __init__ is a method or constructor. It is automatically called to allocate memory when a new object or instance of a class is created. All classes have the __init__ method.

2) What is self in Python?

The “self” parameter is a reference to the current instance of the class, and is used to access variables that belongs to the class. By using the “self” keyword we can access the attributes and methods of the class in python. It binds the attributes with the given arguments.

3) How can you randomize the items of a list in place in Python?

The method shuffle() can be used to randomize the items of a list in place. It should be noted that this function is not accessible directly and therefore we need to import or call this function using random static object.

4) What are Python iterators?

An Iterator is an object representing a stream of data that produces a data value at a time using the __next__() method.In Python, an iterator is an object which implements the iterator protocol, which means it consists of the methods such as *__iter__()* and *__next__()*.An iterator is an iterable object with a state so it remembers where it is during iteration. For Example, Generator. These iterators give or return the data one element at a time.It performs the iteration to access the elements of the iterable one by one. As it maintains the internal state of elements, the iterator knows how to get the next value.

5) What is pickling and unpickling?

“Pickling” is the process whereby a Python object hierarchy is converted into a byte stream, and **“unpickling”** is the inverse operation, whereby a byte stream (from a binary file or bytes-like object) is converted back into an object hierarchy.

6) What are generators in Python?

A generator is a function that returns an object (iterator) which we can iterate over (one value at a time).It is defined like a normal function, but whenever it needs to generate a value, it does so with the yield keyword rather than return. If the body of a def contains yield, the function automatically becomes a generator function.

7) How will you capitalize the first letter of string?

The first letter of a string can be capitalized using the capitalize() function. This method returns a string with the first letter capitalized. If you are looking to capitalize the first letter of the entire string the title() function should be used. The following is the syntax to use python to capitalize first letter:

String.capitalize()str

Here “string” refers to the string you are looking to capitalize

8) How to comment multiple lines in Python?

Unlike other programming languages Python doesn't support multi-line comment blocks out of the box. The recommended way to comment out multiple lines of code in Python is to use consecutive # single-line comments.