

ASSIGNMENT -3

1, How does work break, continue and pass work:

Break and Continue:

That's where the break and continue statements come in. These statements let you control the flow of a loop. Python's built-in break statement allows you to exit a loop when a condition is met. The continue statement allows you to skip part of a loop when a condition is met.

Pass:

The pass statement in Python is used when a statement is required syntactically but you do not want any command or code to execute. It is like null operation, as nothing will happen if it is executed. Pass statement can also be used for writing empty loops.

2, Difference between List and Tuples

List	Tuples
Lists are mutable	Tuples are immutable.
Implication of iterations is Time-consuming	The implication of iterations is comparatively Faster,
The list is better for performing operations, such as insertion and deletion.	Tuple data type is appropriate for accessing the elements.
Lists consume more memory.	Tuple consume less memory as compared to the list
Lists have several built-in methods.	Tuple does not have many built-in methods.
The unexpected changes and errors are more likely to occur.	In tuple, it is hard to take place.

3, Functions in Python:

A function is a **block of code which only runs when it is called**. You can pass data, known as parameters, into a function. A function can return data as a result.

Types of function:

Python Function with no argument and no return value.

Function with no argument and with a Return value.

Python Function with argument and No Return value.

Function with argument and return value.

4, Lambda Function:

A Lambda Function in Python programming is an anonymous function or a function having no name. It is a small and restricted function having no more than one line. Just like a normal function, a Lambda function can have multiple arguments with one expression.

5, Generating Random numbers in python:

```
import random n = random. random() print(n)
import random n = random. randint(0,22) print(n)
import random randomlist = [] for i in range(0,5): n = random. randint(1,30) randomlist.
import random #Generate 5 random numbers between 10 and 30 randomlist = random.
```

6, Difference between Range and Xrange:

Range	Xrange
Returns a list of integers.	Returns a generator object.
Execution speed is slower	Execution speed is faster.
Takes more memory as it keeps the entire list of elements in memory.	Takes less memory as it keeps only one element at a time in memory.
All arithmetic operations can be performed as it returns a list.	Such operations cannot be performed on xrange().
In python 3, xrange() is not supported.	In python 2, xrange() is used to iterate in for loops.

7, How do you write comments in python?

A comment in Python starts with the hash character, # , and extends to the end of the physical line. A hash character within a string value is not seen as a comment, though. To be precise, a comment can be written in three ways - entirely on its own line, next to a statement of code, and as a multi-line comment block.

Comment Syntax:

Comments in Python begin with a hash mark (#) and whitespace character and continue to the end of the line.