PYTHON ASSIGNMENT

1. How memory is managed in Python?

* Memory management in Python is handled automatically through techniques such as reference counting and garbage collection.
* Pythons memory manager automatically allocates and deallocates memory for objects, ensuring efficient memory usage and feeling up memory when objects are no longer needed.

2. What is the purpose continue statement in python?

* The ‘continue’ statement in python is used within loops to skip the rest of the current iteration and move on the next iteration.
* When encountered, it immediately stops the execution of the remaining code within the loop body and jump to the next iteration.
* The main purpose of the ‘continue’ statement is the control the flow of the loop and selectively skip certain iteration based on specific conditions.
* It allows you to bypass certain code within a loop without exiting the loop entirely.

3. What are negative indexes and why are they used?

* Negative index in python are used to access elements in a sequence such as string, list or tuple from the end instead of the beginning.
* Instead of using positive index that start from 0 and go up, negative indexes start from -1 and go backwards.

Here is how negative index work:

* The last element in a sequence can be accessed using the index -1.
* The second to last elements can be accessed using the index -2 and so on..

USES

* Negative indexes are useful in scenarios where you need to access elements from the end of a sequence without knowing the length of the sequence beforehand.
* It allows you to conveniently retrieve relative to the end without needing to calculate the exact index position.

4. What is List? How will you reverse a list?

* List is a data structure that represents an ordered collection of elements.
* It is a mutable objects, which means that you can add, remove or modify elements in the list after it is created.
* List can contain elements of different data type, such as int, strings, or even other lists.
* Here is an ex of reverse the list using slicing

List = [ 2,3,4,5,6 ]

Reversed list = list[ : : -1 ]

5. How will you remove last object from a list?

* To remove the last object from the list in python, you can use the pop ( ) method with empty parameters

6. Differentiate between append () and extend () methods?

* The ‘append( )’ method is used to add a single element to the end of the list.
* The ‘extend( )’ method is used to add multiple elements to the end of the list.

7. How will you compare two lists?

* To compare two list in python and check if they have the same elements in the same order, you can use the ‘= =’ operator.
* Ex:

list1 = [ 1,2,3 ]

list2 = [1,2,3 ]

list3 = [3,2,1 ]

print( list1 == list2 ) output = true

print( list1 == list3 ) output = false