

Python Assignment

Module – 2 (Fundamentals of python)

➤ **QUESTION:1 How memory is managed in Python?**

Memory management in Python involves a private heap containing all Python objects and data structures. The management of this private heap is ensured internally by the Python memory manager. The Python memory manager has different components which deal with various dynamic storage management aspects, like sharing, segmentation, preallocation or caching.

For example, integer objects are managed differently within the heap than strings, tuples or dictionaries because integers imply different storage requirements and speed/space tradeoffs. The Python memory manager thus delegates some of the work to the object-specific allocators, but ensures that the latter operate within the bounds of the private heap.

➤ **QUESTION:2 What is the purpose continue statement in python?**

A continue statement ends the current iteration of a loop. Program control is passed from the continue statement to the end of the loop body.

A continue statement can only appear within the body of an iterative statement, such as do, for, or while.

The continue statement ends the processing of the action part of an iterative statement and moves control to the loop continuation portion of the statement. For example, if the iterative statement is a for statement, control moves to the third expression in the condition part of the statement, then to the second expression (the test) in the condition part of the statement.

➤ QUESTION:3 What are negative indexes and why are they used?

Python is an advanced programming language with dynamic semantics and is used for developing applications, writing scripts, data analysis, machine learning, etc.

Negative indexing is used in Python to manipulate sequence objects such as lists, arrays, strings, etc. Negative indexing retrieves elements from the end by providing negative numbers as sequence indexes.

Negative indices are powers (also called exponents) with a minus sign in front of them. E.g. We get negative indices by dividing two terms with the same base where the first term is raised to a power that is smaller than the power that the second term is raised to.