**MODULE 3 Assignment**

**• Differentiate between append () and extend () methods?**

Answer:

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| --- | --- |
| Append() | Extend() |
| . Append adds a single element | Extend adds multiple elements. |
| . Append takes a single argument | Extend takes multiple. |
| . Append return none. | Extend return modified list. |

**• What is tuple? Difference between list and tuple.**

Answer: A tuple is a collection which is ordered and unchangeable. Tuples are written with round brackets. Tuple is one of the four data types that are built into Python.

Difference:

|  |  |
| --- | --- |
| List | Tuple |
| .Lists are mutable. | Tuples are immutable. |
| .Lists consume more memory. | . Tuples consume less memory. |
| Lists have several built-in methods | Tuple does not have many built-in methods. |
| List operations are more error prone. | Tuples operations are safe. |

• **Why Do You Use the Zip () Method in Python?**

Answer: Python zip () method takes iterable containers and returns a single iterator object, having mapped values from all the containers. The zip () is a built-in function that takes one or more iterables as input. It returns an object that contains the elements of the input iterables mapped based on the index.