Tuples:

Tuples in Python are ordered collections of elements, similar to lists, but with the key difference that tuples are **immutable**. This means that once a tuple is created, its elements cannot be changed, added, or removed. Tuples are defined by enclosing comma-separated elements within parentheses ().

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|  |  | Tuple |
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| Creation | Simple Method | thistple = ("apple", "banana", "cherry", "orange") |
|
| by USING Constructor | thistple = tuple(("apple", "banana", "cherry", "orange")) |
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| Access / Slicing Items | | print(thistple[1])  ans= [apple] |
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| print(thistple[-1])  ans= [mango] |
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| print(thistple[2:5]) ans=[cherry, orange, kiwi] |
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| print(thistple[:4]) ans=[apple, banana, cherry, orange] |
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| print(thistple[2:]) [cherry, orange, kiwi, melon, mango] |
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| print(thistple[-4:-1]) [orange, kiwi, melon] |
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| Loop Through | | #To print all value:- |
| for x in thistple:  print(x) |
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| apple banana cherry orange kiwi melon mango |
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| Length | | len(abc) |
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| Check if Item Exists | | if "apple" in thistple:  print("Yes, apple is in the fruits list") |
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| Changing the item | | Since Tuple is immutable, if you need to add or change any item, then 1st convert Tuple into a list and then you can change or add the item in tuple |
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| Adding an Item | To add an item at the Last index | Convert Tuple to List then you can add An Item |
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| To add an item at the specified index | Convert Tuple to List then you can add An Item at specific index |
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| Remove |  | Tupple is Immutable, Hence you cannot remove items in a tuple. |
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| Clear | To empty the list: | Tuples cannot be emptied, since they are immutable. |
| Delete | To delete the Data Completely | del abc |
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| Copy |  | Tuples cannot be copied since they are immutable. |
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| Join |  | Tupple Example abc = ("a", "b" , "c") xyz = (1, 2, 3) |
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| by + operator | ddd = abc + xyz  print(ddd) |
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| Number of elements in dataset | | xyz.count(2) |
|
| 1 |
|
| Index of the first element with the specified value | | index() |
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| Reverses the order | | ***---*** |
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| Sorts the list | | ***---*** |
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