

ASSIGNMENT-4

1. [] is an empty list.
2. spam=[2, 4, 6, 8, 10]
spam[2]='hello'
We can assign the values using indexes.
3. spam = ['a','b','c','d']
spam[int(int('3'*2)/11)] → 'd'
4. spam[-1] → 'd'
5. spam[:2] → ['a', 'b']
6. bacon = [3.14,'cat',11,'cat',True]
bacon.index('cat') → 1
7. bacon.append(99) → [3.14, 'cat', 11, 'cat', True, 99]
8. bacon.remove('cat') → [3.14, 11, 'cat', True]
9. The list concatenation operator is +
List replication operator is *
10. append() adds an item to the end of the list whereas insert() inserts the item in a specified position in the list.
11. remove() and pop() are the two methods for removing items from a list. clear() method removes all the elements in the list.
12. Both strings and lists have lengths. A string's length is the number of characters in string and list's length is the number of items in the list. Each character in a string as well as each item in a list has a position, also called an index.
13. The main difference tuples and lists is that tuples are immutable whereas lists are mutable.
14. t=(42,)
15. To get a list value's tuple form we need to use a method tuple() and pass the list inside it.
To get a tuple value's list form we need to use a method list() and pass the tuple inside it.
16. Variables that contain list values are not necessarily lists themselves. Instead variables will contain references to list values than list values themselves.
17. Copy.copy() creates reference to original object. Whereas the copy.deepcopy() creates a new object same as original object.