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Assignment 4

1. What exactly is []?

Ans: This represent the empty list or a list which does not contain anything.

1. In a list of values stored in a variable called spam, how would you assign the value 'hello' as the third value? (Assume [2, 4, 6, 8, 10] are in spam.)

Ans: If we need to replace the 3rd element with hello then 🡪 **spam[2] = ‘hello’**

If we need to insert hello in 3rd place and shift all the remaining element 1 position right then 🡪 **spam.insert(2,’hello’)**

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

1. What is the value of spam[int(int('3' \* 2) / 11)]?

Ans: The value of spam[int(int('3' \* 2) / 11)] is **‘d’**

1. What is the value of spam[-1]?

Ans: The value of spam[-1] is **‘d’**

1. What is the value of spam[:2]?

Ans: The value of spam[:2] is **['a', 'b']**

Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions.

1. What is the value of bacon.index('cat')?

Ans: The value of bacon.index('cat') is **1**

1. How does bacon.append(99) change the look of the list value in bacon?

Ans: The look of the list value in bacon after bacon.append(99) is **[3.14, 'cat,' 11, 'cat', True, 99]**

1. How does bacon.remove('cat') change the look of the list in bacon?

Ans: The look of the list in bacon after bacon.remove('cat') is **[3.14, 11, 'cat', True]**

1. What are the list concatenation and list replication operators?

Ans: The list concatenation operator is **‘+’** and the list replication operator is **‘\*’**

1. What is difference between the list methods append() and insert()?

Ans: The list append() method is always insert the element at the last and it take only 1 parameter i.e. value of the element while The list insert() method take 2 parameter 1st one is position and 2nd is the value of the element, so here we can insert element in any position as per required.

1. What are the two methods for removing items from a list?

Ans: The two methods for removing items from a list is **remove()** and **pop()**.

1. Describe how list values and string values are identical.

Ans: The only identical thing about list values and string value is that it can store in a sequencial manner.

1. What's the difference between tuples and lists?

Ans: The main and only difference between tuples and lists is, **Tuples are immutable while list are mutable.**

1. How do you type a tuple value that only contains the integer 42?

Ans: **(42,)**

1. How do you get a list value's tuple form? How do you get a tuple value's list form?

Ans: list value's tuple form : **listing = [(‘ineuron’,2),(‘mohit’),(‘data science’,100,56)]**

tuple value's list form : **tupling = ([‘ineuron’,2],[‘mohit’],[‘data science’,100,56])**

1. Variables that "contain" list values are not necessarily lists themselves. Instead, what do they contain?

Ans: They contain reference of list values.

1. How do you distinguish between copy.copy() and copy.deepcopy()?

Ans: copy() method create reference to original object, if we change copies object then original object is also change.