**Assignment\_4**

1.What exactly is []?

**Ans: It is a empty list.**

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: spam[2]=’hello’**

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

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

4. What is the value of spam[-1]? **Ans: d**

5. What is the value of spam[:2]? **Ans: [‘a’,’b’]**

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

6. What is the value of bacon.index('cat')? **Ans: 1**

7. How does bacon.append(99) change the look of the list value in bacon? **Ans: [3.14, 'cat,' 11, 'cat,' True, 99]**

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

Ans: **: [3.14, 11, 'cat,' True, 99]**

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

**Ans: List concatenation is adding two lists with ‘+’. List replication is multiplying the list with ‘\*’**

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

**Ans: append(): it will add values in the list only at the last.ex- bacon.append(‘cat’)**

**Insert(): values can be added at any position in the list. Ex- bacon.insert(1,’cat’)**

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

Ans: **1)list\_name.remove()**

**2)list\_name.pop()**

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

**Ans: Both list and string have indexes. And len() can be found out**

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

**Ans: List are mutable and are written in square brackets[]. Tuples are immutable and are written in round brackets().**

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

**Ans: (42,)**

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

**Ans: tuple() , and list[]**

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

**Ans: references**

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

**Ans: copy.copy() will copy a list while copy.deepcopy() will duplicate any lists inside the list.**