

Title : Python Basic Assignment_4

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1. What exactly is []?

- in python list datatype is defined by []

2. 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.)

```
- 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)]?

- d

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

- d

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

- ['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')?

- 1

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

- [3.14, 'cat', 11, 'cat', True, 99]

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

- [3.14, 11, 'cat', True, 99]

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

- concatenation = +

- replication = *

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

- **`append()` – adds element in last index**

- **`insert()` – adds element as specified index**

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

- **`list.remove()`**

- **`list.pop()`**

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

- **both are iterable**

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

- **tuples is not mutable, list is mutable**

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

- **`tuple=(42,)`**

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

- **`tuple(listname)`**

- **`list(tuplename)`**

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

- **tuples , set , dictionary can also contain list inside them**

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

- **`copy()` – New list is impacted by any change in original list**

- **`deepcopy()` – new list is independent of original list**