

Assignment-4

1. What exactly is []?
Empty list
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.insert(2,'hello')
3. Let's pretend the spam includes the list ['a','b','c','d'] for the next three queries.
What is the value of spam[int(int('3'* 2) / 11)] :--**'d'**
4. What is the value of spam[-1]? :--**'d'**
- 5.
6. What is the value of spam[:2]? :- **['a', 'c']**
7. Let's pretend bacon has the list [3.14,'cat', 11, 'cat' True] for the next three questions.
What is the value of bacon.index('cat')? :--**1**

8. 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,'True',99]

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

List concatenation does concatenation of elements of two list which are having unique datas if there are same datas in different list only once it is concatenated.

Ex: a=[1,2,3,4,5]

b=[6,7,8,9,10]

a+b=[1,2,3,4,5,6,7,8,9,10]

list replication is generally used replicate the datas inside a list for a given number of time.

A=[1,2,3,4,5]

B=A*2

B=[1,2,3,4,5,1,2,3,4,5]

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

List.append() appends data at the end of list ,means adds the data at end of list based input given by user.

Ex: `a=[1,2,3,4]` `a.append(6)`---→`[1,2,3,4,6]`

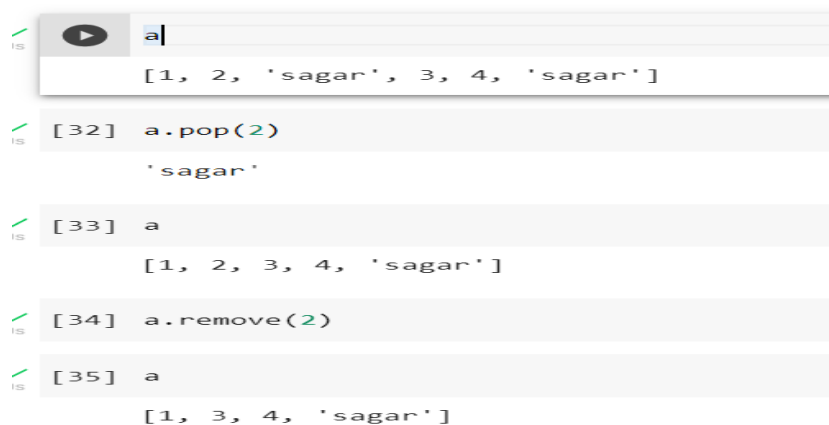
List.insert() the data at a particular indexes entred by a user.

Ex: `a=[1,2,3,4]` `a.insert(4,'sagar')`---→`[1,2,3,4,'sagar',6]`

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

List.pop(index) deletes the data from particular indexes.

List.remove() deletes the data directly based on data entered by user



The screenshot shows a Jupyter Notebook interface with five code cells. Each cell starts with a green checkmark and 'In' on the left. The first cell contains `a` and the output is `[1, 2, 'sagar', 3, 4, 'sagar']`. The second cell contains `a.pop(2)` and the output is `'sagar'`. The third cell contains `a` and the output is `[1, 2, 3, 4, 'sagar']`. The fourth cell contains `a.remove(2)`. The fifth cell contains `a` and the output is `[1, 3, 4, 'sagar']`.

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

List values are the one which are stored in square bracket it can be string,int,float,double etc.

String values are the one which are enclosed in a quotes.

If we consider length of a list ,it is number of individual elements inside a bracket.

If we consider length of a string,it is number of individual letters present inside the quotes.

13. What is the difference between tuples and lists?

Tuples: The data's enclosed in '()' generally immutable.

Tuples can be used inside dictionary as a key value pair.

List: The data's enclosed in '[]' generally mutable.

List cannot be used in dictionary as a key value pair.

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

Tuple=(42)

15. How do you get a list values in tuple form? How do you get a tuple value in list form?

A=[1.2,3,4] ->B=tuple(list(A))

A=(1.2,3,4) ->C=list(tuple(A))

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

Reference to the list values.

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

Copy.copy() and copy.deepcopy() copies the data from original data, main difference is copy.copy() stores exact values as original data so if there is any change in copied data there is change in original data also, where as copy.deepcopy() is replica of original data but there will be no change in original data if there is change in copied data.