

## Python List [37 exercises]

---

A list is a container which holds comma-separated values (items or elements) between square brackets where items or elements need not all have the same type.

1. Write a Python program to sum all the items in a list.
2. Write a Python program to multiply all the items in a list.
3. Write a Python program to get the largest number from a list.
4. Write a Python program to get the smallest number from a list.
5. Write a Python program to count the number of strings from a given list of strings. The string length is 2 or more and the first and last characters are the same.  
Sample List : ['abc', 'xyz', 'aba', '1221']  
Expected Result : 2
6. Write a Python program to get a list, sorted in increasing order by the last element in each tuple from a given list of non-empty tuples.  
Sample List : [(2, 5), (1, 2), (4, 4), (2, 3), (2, 1)]  
Expected Result : [(2, 1), (1, 2), (2, 3), (4, 4), (2, 5)]
7. Write a Python program to remove duplicates from a list.
8. Write a Python program to check if a list is empty or not.
9. Write a Python program to clone or copy a list.
10. Write a Python program to find the list of words that are longer than n from a given list of words.

**11.** Write a Python function that takes two lists and returns True if they have at least one common member.

**12.** Write a Python program to print a specified list after removing the 0th, 4th and 5th elements.

Sample List : ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']

Expected Output : ['Green', 'White', 'Black']

**13.** Write a Python program to generate a 3\*4\*6 3D array whose each element is \*.

**14.** Write a Python program to print the numbers of a specified list after removing even numbers from it.

**15.** Write a Python program to access the index of a list.

**16.** Write a Python program to find the index of an item in a specified list.

**17.** Write a Python program to append a list to the second list.

**18.** Write a Python program to find common items in two lists.

**19.** Write a Python program to change the position of every n-th value to the (n+1)th in a list.

Sample list: [0,1,2,3,4,5]

Expected Output: [1, 0, 3, 2, 5, 4]

**20.** Write a Python program to find missing and additional values in two lists.

Sample data : Missing values in second list: b,a,c

Additional values in second list: g,h

**21.** Write a Python program to split a list into different variables.

- 22.** Write a Python program to select the odd items from a list.
- 23.** Write a Python program to concatenate elements of a list.
- 24.** Write a Python program to convert a string to a list.
- 25.** Write a Python program to check if all items in a given list of strings are equal to a given string.
- 26.** Write a Python program to replace the last element in a list with another list.  
Sample data : [1, 3, 5, 7, 9, 10], [2, 4, 6, 8]  
Expected Output: [1, 3, 5, 7, 9, 2, 4, 6, 8]
- 27.** Write a Python program to check whether the n-th element exists in a given list.
- 28.** Write a Python program to find a tuple, the smallest second index value from a list of tuples.
- 29.** Write a Python program to create a list of empty dictionaries.
- 30.** Write a Python program to insert a given string at the beginning of all items in a list.  
Sample list : [1,2,3,4], string : emp  
Expected output : ['emp1', 'emp2', 'emp3', 'emp4']
- 31.** Write a Python program to move all zero digits to the end of a given list of numbers.  
Expected output:  
Original list:  
[3, 4, 0, 0, 0, 6, 2, 0, 6, 7, 6, 0, 0, 0, 9, 10, 7, 4, 4, 5, 3, 0, 0, 2, 9, 7, 1]  
Move all zero digits to end of the said list of numbers:  
[3, 4, 6, 2, 6, 7, 6, 9, 10, 7, 4, 4, 5, 3, 2, 9, 7, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0]

**32.** Write a Python program to find the list in a list of lists whose sum of elements is the highest.

Sample lists: [1,2,3], [4,5,6], [10,11,12], [7,8,9]

Expected Output: [10, 11, 12]

**33.** Write a Python program to find all the values in a list that are greater than a specified number.

**34.** Write a Python program to extend a list without appending.

Sample data: [10, 20, 30]

[40, 50, 60]

Expected output : [40, 50, 60, 10, 20, 30]

**35.** Write a Python program to remove duplicates from a list of lists.

Sample list : [[10, 20], [40], [30, 56, 25], [10, 20], [33], [40]]

New List : [[10, 20], [30, 56, 25], [33], [40]]

**36.** Write a Python program to find items starting with a specific character from a list.

Expected Output:

Original list:

['abcd', 'abc', 'bcd', 'bkie', 'cder', 'cdsw', 'sdfsd', 'dagfa', 'acjd']

Items start with a from the said list:

['abcd', 'abc', 'acjd']

Items start with d from the said list:

['dagfa']

Items start with w from the said list:

[]

**37.** Write a Python program to check whether all dictionaries in a list are empty or not.

Sample list : [{},{},{}]

Return value : True

Sample list : [{1,2},{},{}]

Return value : False