**Python List**

**1.** Write a Python program to sum all the items in a list.

**2.** Write a Python program to multiplies 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 where the string length is 2 or more and the first and last character are same from a given list of strings.   
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 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 shuffle and print a specified list.

**16.** Write a Python program to generate and print a list of first and last 5 elements where the values are square of numbers between 1 and 30 (both included).

**17.** Write a Python program to generate and print a list except for the first 5 elements, where the values are square of numbers between 1 and 30 (both included).

**18.** Write a Python program to generate all permutations of a list in Python.

**19.** Write a Python program to get the difference between the two lists.

**20.** Write a Python program access the index of a list.

**21.** Write a Python program to convert a list of characters into a string.

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

**23.** Write a Python program to flatten a shallow list.

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

**25.** Write a Python program to select an item randomly from a list.

**26.** Write a python program to check whether two lists are circularly identical.

**27.** Write a Python program to find the second smallest number in a list.

**28.** Write a Python program to find the second largest number in a list.

**29.** Write a Python program to get unique values from a list.

**30.** Write a Python program to get the frequency of the elements in a list.

**31.** Write a Python program to count the number of elements in a list within a specified range.

**32.** Write a Python program to check whether a list contains a sublist.

**33.** Write a Python program to generate all sublists of a list.

**34.** Write a Python program using Sieve of Eratosthenes method for computing primes upto a specified number.   
Note: In mathematics, the sieve of Eratosthenes, (Ancient Greek: κόσκινον Ἐρατοσθένους, kóskinon Eratosthénous) one of a number of prime number sieves, is a simple, ancient algorithm for finding all prime numbers up to any given limit.

**35.** Write a Python program to create a list by concatenating a given list which range goes from 1 to n.   
Sample list : ['p', 'q']  
n =5  
Sample Output : ['p1', 'q1', 'p2', 'q2', 'p3', 'q3', 'p4', 'q4', 'p5', 'q5']

**36.** Write a Python program to get variable unique identification number or string.

**37.** Write a Python program to find common items from two lists.

**38.** Write a Python program to change the position of every n-th value with the (n+1)th in a list.   
Sample list: [0,1,2,3,4,5]  
Expected Output: [1, 0, 3, 2, 5, 4]

**39.** Write a Python program to convert a list of multiple integers into a single integer.   
Sample list: [11, 33, 50]  
Expected Output: 113350

**40.** Write a Python program to split a list based on first character of word.

**41.** Write a Python program to create multiple lists.

**42.** 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

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

**44.** Write a Python program to generate groups of five consecutive numbers in a list.

**45.** Write a Python program to convert a pair of values into a sorted unique array.

**46.** Write a Python program to select the odd items of a list.

**47.** Write a Python program to insert an element before each element of a list.

**48.** Write a Python program to print a nested lists (each list on a new line) using the print() function.

**49.** Write a Python program to convert list to list of dictionaries.   
Sample lists: ["Black", "Red", "Maroon", "Yellow"], ["#000000", "#FF0000", "#800000", "#FFFF00"]

Expected Output: [{'color\_name': 'Black', 'color\_code': '#000000'}, {'color\_name': 'Red', 'color\_code': '#FF0000'}, {'color\_name': 'Maroon', 'color\_code': '#800000'}, {'color\_name': 'Yellow', 'color\_code': '#FFFF00'}]

**50.** Write a Python program to sort a list of nested dictionaries.

**51.** Write a Python program to split a list every Nth element.   
Sample list: ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n']  
Expected Output: [['a', 'd', 'g', 'j', 'm'], ['b', 'e', 'h', 'k', 'n'], ['c', 'f', 'i', 'l']]

**52.** Write a Python program to compute the similarity between two lists.   
Sample data: ["red", "orange", "green", "blue", "white"], ["black", "yellow", "green", "blue"]  
Expected Output:   
Color1-Color2: ['white', 'orange', 'red']  
Color2-Color1: ['black', 'yellow']

**53.** Write a Python program to create a list with infinite elements.

**54.** Write a Python program to concatenate elements of a list.

**55.** Write a Python program to remove key values pairs from a list of dictionaries.

**56.** Write a Python program to convert a string to a list.

**57.** Write a Python program to check if all items of a list is equal to a given string.

**58.** 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]

**59.** Write a Python program to check if the n-th element exists in a given list.

**60.** Write a Python program to find a tuple, the smallest second index value from a list of tuples.

**61.** Write a Python program to create a list of empty dictionaries.

**62.** Write a Python program to print a list of space-separated elements.

**63.** 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']

**64.** Write a Python program to iterate over two lists simultaneously.

**65.** Write a Python program to access dictionary keys element by index.

**66.** 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]

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

**68.** Write a Python program to extend a list without append.   
Sample data: [10, 20, 30]  
[40, 50, 60]  
Expected output : [40, 50, 60, 10, 20, 30]

**69.** 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]]

**70.** Write a Python program to get the depth of a dictionary.

**71.** Write a Python program to check if all dictionaries in a list are empty or not.   
Sample list : [{},{},{}]  
Return value : True  
Sample list : [{1,2},{},{}]  
Return value : False