- 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