

#### ◆ PART A: Basic List Operations

1. Write a program to perform **list operations**.
  2. Write a program to **access list items**.
  3. Write a program to **change list items**.
  4. Write a program to **replace list values**.
  5. Write a program to use **append() method**.
  6. Write a program to use **insert() method**.
  7. Write a program to **extend list items**.
  8. Write a program to **remove list item**.
  9. Write a program to **clear entire list**.
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#### ◆ PART B: Fundamental List Programs

10. Write a program for **list traversal**.
  11. Write a program to find **length of the list**.
  12. Write a program to find **sum of list elements**.
  13. Write a program to **decrement list values**.
  14. Write a program to **append elements to list**.
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#### ◆ PART C: Basic Coding Problems on List

15. Write a program to find **maximum of two numbers**.
  16. Write a program to find **minimum of two numbers**.
  17. Write a program to **find length of a list**.
  18. Write a program to **interchange first and last element**.
  19. Write a program to **swap two elements**.
  20. Write a program to **check if element exists** in a list.
  21. Write a program to **reverse a list**.
  22. Write a program to **clone or copy a list**.
  23. Write a program to **count element in a list**.
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#### ◆ PART D: Numerical List Operations

24. Write a program to find **sum and average of a list**.
  25. Write a program to find **sum of digits in a list**.
  26. Write a program to **multiply all numbers in a list**.
  27. Write a program to find **smallest number in a list**.
  28. Write a program to find **largest number in a list**.
  29. Write a program to find **second largest number in a list**.
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#### ◆ **PART E: Conditional List Programs**

30. Write a program to print **even numbers in a list**.
  31. Write a program to print **odd numbers in a list**.
  32. Write a program to **count even and odd numbers**.
  33. Write a program to print **positive numbers in a list**.
  34. Write a program to print **negative numbers in a list**.
  35. Write a program to **count positive and negative numbers**.
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#### ◆ **PART F: List Modification Programs**

36. Write a program to **remove multiple elements from list**.
  37. Write a program to **remove empty tuples from list**.
  38. Write a program to **print duplicate elements**.
  39. Write a program to **remove first element from list**.
  40. Write a program to **remove duplicates from list**.
  41. Write a program to **get unique values from list**.
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#### ◆ **PART G: List Combination & Comparison**

42. Write a program to **merge two lists**.
43. Write a program to **iterate over a list**.
44. Write a program to find **average of list**.
45. Write a program to **append element at beginning**.
46. Write a program to find **intersection of two lists**.
47. Write a program to **check if two lists are identical**.
48. Write a program to **print common elements of two lists**.

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#### ◆ PART H: Special List Utilities

- 49. Write a program to **select random value from list**.
- 50. Write a program to **get last element of list**.
- 51. Write a program to **remove None values from list**.
- 52. Write a program to find **max and min element position**.

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#### ◆ PART I: Intermediate Coding Problems on List

- 53. Write a program for **Less Than**.
- 54. Write a program to calculate **average**.
- 55. Write a program to **separate even and odd elements**.
- 56. Write a program to find **second largest element**.
- 57. Write a program to find **third largest element**.
- 58. Write a program for **three great candidates**.
- 59. Write a program to **move all zeroes to end**.
- 60. Write a program for **Plus One problem**.
- 61. Write a program to **remove duplicates from sorted array**.
- 62. Write a program to find **array leaders**.
- 63. Write a program to **count distinct elements**.
- 64. Write a program for **union of arrays with duplicates**.

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#### ◆ PART J: Programs on List of Strings

- 65. Write a program to **swap elements in string list**.
- 66. Write a program to **convert list to string**.
- 67. Write a program to **reverse all strings in list**.
- 68. Write a program to find **character position of Kth word**.
- 69. Write a program to **extract words starting with K**.
- 70. Write a program to find **prefix frequency**.
- 71. Write a program to **split string list on K**.
- 72. Write a program to **split strings on prefix occurrence**.
- 73. Write a program to **remove words containing list characters**.

74. Write a program to **remove multiple empty spaces**.
  75. Write a program to **add space between potential words**.
  76. Write a program to **convert character matrix to string**.
  77. Write a program to **filter strings using substring match**.
  78. Write a program to **replace all characters except given one**.
  79. Write a program to **convert string list to integers**.
  80. Write a program to **convert string representation of list to list**.
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#### ◆ **PART K: Programs on List of Lists**

81. Write a program to **remove empty lists**.
  82. Write a program to **convert list to list of dictionaries**.
  83. Write a program to **convert list of lists to dictionary**.
  84. Write a program to find **uncommon elements in list of lists**.
  85. Write a program to **select random value from list of lists**.
  86. Write a program to **reverse row sort**.
  87. Write a program to **pair elements with rear element**.
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#### ◆ **PART L: Sublist & Advanced List Problems**

88. Write a program to **count strings with substring**.
  89. Write a program to **remove values present in another list**.
  90. Write a program to **print all sublists**.
  91. Write a program to **reverse array in groups**.
  92. Write a program to find **maximum product subarray**.
  93. Write a program to **split array into three equal sum subarrays**.
  94. Write a program to find **longest bitonic subsequence**.
  95. Write a program to **count subarrays with K distinct elements**.
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#### ◆ **PART M: Advanced Coding Challenges on List**

96. Write a program to **count unique items**.
97. Write a program to **list product excluding duplicates**.
98. Write a program to **extract elements with frequency > K**.

99. Write a program to **check list elements in given range**.
100. Write a program to **check three consecutive common numbers**.
101. Write a program to **find strongest neighbour**.
102. Write a program to find **possible combinations from digits**.
103. Write a program to find **all combinations with given condition**.
104. Write a program to **get all unique combinations of two lists**.
105. Write a program to **remove all occurrences of element**.
106. Write a program to **remove consecutive K records**.
107. Write a program to **replace index elements with other list**.
108. Write a program to **retain records with N occurrences**.
109. Write a program to **sort list using lambda**.
110. Write a program to **create list using given range**.
111. Write a program to **check if object is list**.
112. Write a program to **break list into chunks of size N**.
113. Write a program to **get last N elements**.
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#### ◆ PART N: Expert Level List Problems

114. Write a program for **Not a Subset Sum**.
115. Write a program to find **minimum jumps**.
116. Write a program to find **smallest missing positive number**.
117. Write a program for **trapping rain water problem**.
118. Write a program for **alternate positive and negative**.
119. Write a program to find **max distance between same elements**.
120. Write a program to **transform and sort array**.
121. Write a program to **maximize number of 1's**.
122. Write a program for **product array puzzle**.