STRING PROGRAMS (Very Important)

1. Reverse a string.
2. Check if a string is palindrome.
3. Count vowels and consonants.
4. Count uppercase and lowercase letters.
5. Remove vowels from a string.
6. Remove spaces from a string.
7. Remove special characters from a string.
8. Find the frequency of each character.
9. Find the first non-repeating character.
10. Replace spaces with _.
11. Convert string into uppercase without using .upper().
12. Print characters at even indexes.
13. Print characters at odd indexes.
14. Toggle case for each letter (a→A, B→b).
15. Find number of words in a sentence.
16. Reverse each word but maintain word order.
17. Reverse order of words in a sentence.
18. Check if two strings are anagrams.
19. Remove duplicates from string.
20. Print occurrences of each word in a sentence.
21. Find longest word in a sentence.
22. Extract only digits from a string.
23. Extract only alphabets from a string.
24. Extract only special characters.
25. Convert characters in a pattern (like 2 upper, 2 lower — the one you did).

🔢 **ARRAY / LIST PROGRAMS**

26. Find largest number in an array.
27. Find smallest number.
28. Find second largest number.

29. Find second smallest number.
30. Sort array without using built-in sort.
31. Count even and odd numbers.
32. Find sum of array elements.
33. Reverse an array.
34. Remove duplicates from array.
35. Merge two arrays.
36. Find frequency of elements in array.
37. Print elements at even index positions.
38. Rotate array left by 1 position.
39. Rotate array right by 1 position.
40. Find missing number in a consecutive array.
41. Search for an element in array (linear search).
42. Search using binary search.
43. Pair of numbers whose sum is equal to given value.
44. Move all zeros to end without using extra array.
45. Check if array is sorted or not.

🔁 LOOPING & BASIC LOGIC PROGRAMS

46. Print numbers from 1 to 100.
47. Print sum of first n natural numbers.
48. Print factorial of number.
49. Print multiplication table.
50. Check if number is prime.
51. Print all prime numbers between two values.
52. Check if number is Armstrong.
53. Print Fibonacci series.
54. Check if a number appears in Fibonacci series.
55. Reverse a number.
56. Count digits of a number.
57. Sum of digits of number.

58. Find largest digit in number.
59. Check if number is palindrome.
60. Print numbers divisible by 3 and 5.

⭐ **PATTERN PRINTING (Very Common for Freshers)**

61. Print a square of stars.
62. Print a right triangle pattern.
63. Reverse right triangle.
64. Pyramid pattern of stars.
65. Number pattern (1 22 333…).
66. Floyd's triangle.
67. Inverted pyramid.
68. Diamond star pattern.
69. Alphabet pyramid (A, AB, ABC…).
70. Hollow square.

🧮 **MATHEMATICAL PROGRAMS**

71. Find GCD of two numbers.
72. Find LCM of two numbers.
73. Swap two numbers (with third variable).
74. Swap two numbers (without third variable).
75. Check leap year.
76. Convert Celsius to Fahrenheit.
77. Convert binary to decimal.
78. Convert decimal to binary.
79. Print all factors of a number.
80. Count how many factors a number has.

🧱 **FUNCTION-BASED PROGRAMS**

81. Write a function to check prime.
82. A function that returns factorial.

83. A function that returns reverse of string.
84. A function that counts vowels.
85. A function to find largest of three numbers.

🧊 DATA STRUCTURE BASICS

86. Stack implementation (push, pop).
87. Queue implementation.
88. Linked list (basic insertion).
89. Find middle element of linked list.
90. Find length of linked list.

⚡ OOP CONCEPTS CODING

91. Create a class and object.
92. Constructor example.
93. Inheritance example.
94. Method overriding.
95. Method overloading.
96. Encapsulation (with getters & setters).
97. Polymorphism example.
98. Static vs instance method example.

🎯 LOGICAL MIND-TEST TYPE

99. Print numbers from 1 to 100 without using loop.
100. Find common elements in two lists.
101. Count how many times each character appears (dictionary).
102. Flatten a nested list.
103. Rotate string by k characters.
104. Remove element without using remove().