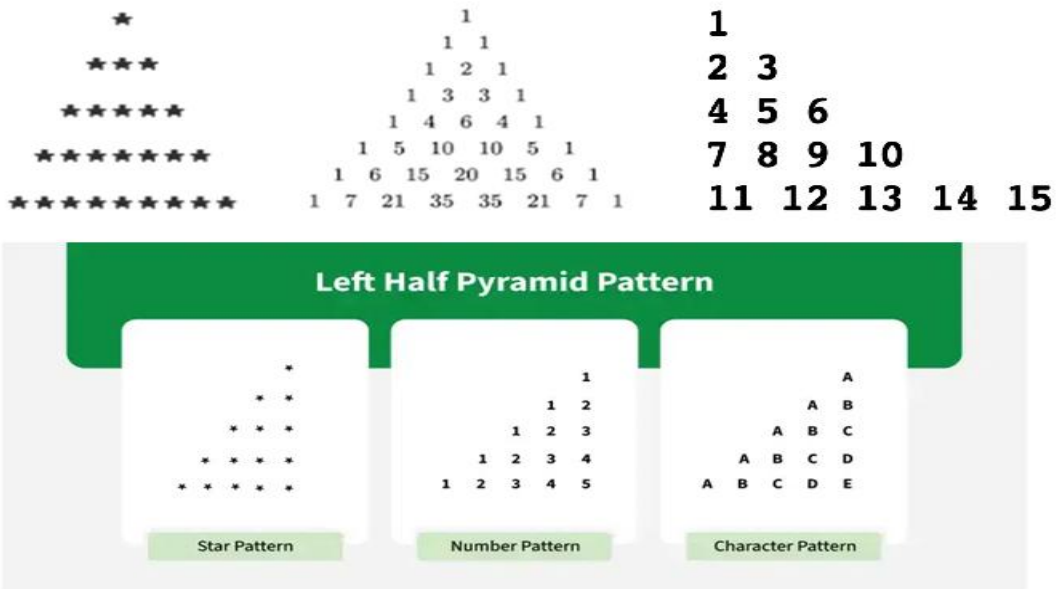
C-Lab

1. WAP to perform input/output of all basic data types.
2. WAP to enter two numbers and find their sum.
3. WAP to reverse a number.
4. WAP to Swap Two Numbers.
5. WAP to Check Whether a Number is Even or Odd
6. WAP to compute the factors of a given number.
7. WAP to enter marks of five subjects and calculate total, average and percentage.
8. WAP to print the sum and product of digits of an integer.
9. WAP to Check Whether a Character is Vowel or Consonant
10. WAP to Find the Largest Number Among Three Numbers
11. WAP to compute the sum of the first n terms of the following series

    S =1-2+3-4+5……
12. WAP to compute the sum of the first n terms of the following series

    S = 1+1/2+1/3+1/4+ ……
13. WAP to print a triangle of stars as follows (take number of lines from user):



14. WAP to perform following actions on an array entered by the user:

    a) Print the even-valued elements

    b) Print the odd-valued elements

    c) Calculate and print the sum and average of the elements of array

    d) Print the maximum and minimum element of array

    e) Remove the duplicates from the array

    f) Print the array in reverse order

The program should present a menu to the user and ask for one of the options. The menu should also include options to re-enter array and to quit the program.

15. WAP that prints a table indicating the number of occurrences of each alphabet in the text entered as command line arguments.

16. Write a program that swaps two numbers using pointers.

17. Write a program in which a function is passed address of two variables and then alter its contents.

18. Write a program which takes the radius of a circle as input from the user, passes it to another function that computes the area and the circumference of the circle and displays the value of area and circumference from the main() function.

19. Write a program to find sum of n elements entered by the user. To write this program, allocate memory dynamically using malloc() / calloc() functions or new operator.

20. Write a menu driven program to perform following operations on strings:

21. Show address of each character in string

22. Concatenate two strings without using strcat function.

23. Concatenate two strings using strcat function.

24. Compare two strings

25. Calculate length of the string (use pointers)

26. Convert all lowercase characters to uppercase

27. Convert all uppercase characters to lowercase

28. Calculate number of vowels

29. Reverse the string

30. Given two ordered arrays of integers, write a program to merge the two-arrays to get an ordered array.

31. WAP to display Fibonacci series (i)using recursion, (ii) using iteration

32. WAP to calculate Factorial of a number (i)using recursion, (ii) using iteration

33. WAP to calculate GCD of two numbers (i) with recursion (ii) without recursion.

34. Write a menu-driven program to perform following Matrix operations (2-D array implementation):

a) Sum b) Difference c) Product d) Transpose

35. Create a structure Student containing fields for Roll No., Name, Class, Year and Total Marks. Create 10 students and store them in a file.

36. Write a program to retrieve the student information from file created in previous question and print it in following format:

Roll No. Name Marks

37. Copy the contents of one text file to another file, after removing all whitespaces.

38. WAP to Write a Sentence to a File.

39. WAP to Read a Line From a File and Display it.

40. Write a function that reverses the elements of an array in place. The function must accept only one pointer value and return void.

41. Write a program that will read 10 integers from user and store them in an array. Implement array using pointers. The program will print the array elements in ascending and descending order.