TUTORIAL

Common programs

- WAP to compute the sum of digits in a given Integer.
- WAP to calculate the sum of numbers from *m* to *n*.
- WAP to convert the given binary number into decimal.
- WAP to convert a given number of days in terms of years, weeks & days.
- WAP to reverse a given number.
- WAP check whether a given is a palindrome or not.
- Check whether a number is prime or not.
- WAP to print diamond pattern.
- WAP to enter the marks of a students in four subjects. Then calculate the total, aggregate (average), and display the grades obtained by the student.
- WAP to determine whether an entered character is a vowel or not using switch case.

Functions

- Call by value
- Call by address/pointer

Structure

- WAP to read, display, and add two complex numbers.
- WAP to enter two co-ordinates points and then calculate the distance between them.
- WAP to read and display the information (i.e. Roll_no, name, DOB (d-m-y), CGPA) of all students in the class.

Array

- WAP to insert an element in a specified position in a given array.
- WAP to delete the specified integer from an array.
- WAP to calculate sum & average of an integer array.
- WAP to calculate the sum of the array elements using pointer.
- WAP to compute the sum of two one-dimensional arrays using *malloc* function

Matrix

- WAP to calculate the addition or subtraction of 2 matrices.
- WAP to compute the product of two matrices.
- WAP to check if 2 matrices are equal.
- WAP to check if a given matrix is an identity matrix.
- WAP to interchange any two rows & columns in the given matrix.

String

- WAP to check if a given string is palindrome.
- WAP to read two strings & concatenate the strings.
- WAP to check if the substring is present in the given string.
- WAP to accept two strings & compare them.

- WAP to replace lowercase characters by uppercase & vice-versa.
- WAP to count the number of vowels & consonants in a sentence.

Recursion

- WAP to find the factorial of a number with and without using recursion.
- WAP to print Fibonacci series with and without using recursion.
- WAP to find GCD of given numbers with and without using recursion.
- WAP to find power of a number (i.e. *pow(x,n)*) with and without using recursion.

Extras

- Storage Classes
- Structure and Union
- Pointers
- Local vs Global variables
- DMA