

## C Programming – Assignment001

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Diploma in Advance Computing  
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### Task 1:

1. Write a C program to take a string input from user and find the reverse of that string without using built-in string function.
2. Write a c program to take input from user and find Factorial of that number using do-while Loop only.
3. Write a Menu-Driven C Program to perform below given operations -  
1. Addition 2.Substraction 3. Multiplication 4.Division
4. Write a c program to draw the following given pattern  
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\*\*\*\*\*  
\*\*\*\*\*  
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5. Write a C program to take two numbers from user and swap them without using third variable.
6. Write a c program to display factors of positive integer.  
Ex. Enter a positive integer: 60  
Factors of 60 are: 1 2 3 4 5 6 10 12 15 20 30 60
7. Write a c program to find out the multiplication of two matrices.
8. Write a c program to print pascal Trangle.

```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
```

9. Write a Program to shift inputted data by two bits to the left.
10. Write a Program to add two number using pointers .(Take numbers from user)


11. Write a C Program to create an array of 10 elements , take the array values from user and find sum and average of array values.


-  12. Write a C Program to find the largest element in an array.

13. A list of marks is given below which are obtained by a class of 50 students in the examination.


43 65 51 27 79 11 56 61 82 09 25 36 07 49 55 63 74 81 49 37 40 49 16 75 87 91 33 24 58 78 6556  
76 67 45 54 36 63 12 21 73 49 51 19 39 49 68 93 85 59

Write a program to count the number of students belonging to each of the following groups of marks: 0-9, 10-19, 20 -29, ---, 90-100.

-  14. Write a program for removing the duplicate element in an array.

-  15. Create two functions in C to check the inputted number is Prime Numeber or Armstrong Number.

16. Write a c program to find GCD of Two Numbers using Recursion.

-  17. Write a c program to find sum of Natural Numbers Using Recursion.

18. Write a program in C to append multiple lines at the end of a text file.

Assume that the content of the file demo.txt is :

line 1

line 2

line 3

line 4

Test Data :

Input the file name to be opened : demo.txt

Input the number of lines to be written : 2

The lines are :

line 5

line 6

*Expected Output :*

The content of the file demo.txt is :

line 1

line 2

line 3

line 4

line 5

line 6

19. Write a program in C to calculate the length of the string using a pointer.

Input a string : Infoway

*Expected Output :*

The length of the given string Infoway is : 7

20. Write a program in C to sort an array using Pointer.
21. Write a program in C to compute the sum of all elements in an array using pointers.
22. Write a program in C to find the sum of the series  $1!/1+2!/2+3!/3+4!/4+5!/5$  using function.  
The sum of the series is: 34

23. Write a C Program to Store Information about Employee (EmpID, Name, Designation, and Salary) Using Structures with Dynamically Memory Allocation.

24. Write a program in C to count a number of words and characters in a file.

Input the file name to be opened : demo.txt

*Expected Output :*

The content of the file demo.txt are :

line 1

line 2

line 3

line 4

The number of words in demo.txt file is: 12

The number of characters in the file demo.txt is: 36

25. Write a C Program to Store Information of a Student Using Structure.