## 1-D ARRAY

**Ques 1-**Write a program to input a string and perform following functions:

- 1. To count number of vowels
- 2. To count number of consonants
- 3. To count number of words
- 4. To generate a new string by replacing alternate characters of the original string with hyphen
- 5. To generate a new string by toggling the original string
- 6. To find whether the given string is palindrome or not

Ques 2- Write a program to input an array of 10 integers and perform following-

- 1. To display prime number present in it.
- 2. To find the average of the elements of the array and count the no. of elements lying above and below the average value
- 3. To find the sum of even and odd elements present in the array separately
- 4. To find the sum of elements lying at even and odd positions of the array
- 5. to find the sum of multiples of 7 present in an array
- 6. To find the max and min no. present in the array.
- 7. To reverse the array using swapping of elements.

## 2-D ARRAY

Ques 1- Write a program in c++ to input a 3\*3 matrix-

- 1. find the sum of elements
- 2. find the sum of even and odd elements separately
- 3. find the sum of elements positioned alternatively
- 4. To print the prime numbers
- 5. To print row-wise sum of elements
- 6. To print column-wise sum of elements
- 7. To print sum of elements lying on diagonal 1 and diagonal 2
- 8. To print the sum of elements which are not lying on any of the diagonals
- 9. To print a 2-D array row-wise and column-wise
- 10. To swap 1<sup>st</sup> column with last column or 1st row with last row

Ques 2- Write a Menu driven program to perform following operations on two 2-D arrays.

## Menu

- 1. Equality
- 2. Addition
- 3. Substraction
- 4. Multiplication
- 5. Exit

Ques-3-Write a program to display lower triangular matrices and upper triangle matrices

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