

Lab Task Week 15

1. Write a program in which user will enter a string (without spaces). The string will be passed to a function which will check that the string is palindrome or not and display a message accordingly.
2. Write a C program that does the following according to user input. It's a menu-driven program. The user is asked to enter a string. Then the program displays the following menu:
 - A) Count the number of vowels in the string
 - B) Count both the vowels and consonants in the string
 - C) Display the most frequent character in the string.
 - D) Concatenate another string with the existing string.
 - E) Exit the program.

The program performs the operation selected by the user and repeats until the user selects E to exit the program.

3. A software house is looking for a programmer to write a program that does encryption and decryption of a message to securely transmit it over the network. Be the one who will write that program. Write a C program that takes a string as an input (including spaces). The string will be passed to a function named `encrypt()` as an argument. The function will encrypt the string and displays the encrypted version of the message. There should be another function named `decrypt()`, which will decrypt the message and displays the original message. Your program should be menu driven. Implement Caesar cipher algorithm in a way that each character in the original string should be replaced by its succeeding third letter.