

## Task 1: (Encrypt/Decrypt)

Secret agencies do not want to share messages with everyone but just with their secret group. Let's implement a simple algorithm that will distort the message, using a key value, so that others can't understand it. You have to perform the following steps:

- For Encryption
  - o Ask user to enter a message
  - o Ask for any double digit key
  - o Add the key in ASCII values of all the letters
- For decryption
  - o Take the encrypted message
  - o Subtract double digit key from all the letters

For Example:

**Original Message:** "Hello There"

**Key :** 2

**Encrypted Message:** "Jgnnq Vjgtg"

**Decrypted Message:** "Hello There"

## Task2: (Frequency Calculator)

Vowels are used more frequently than other letters. In this task we will ask the user to input any paragraph and our program will print the frequencies of all the letters.

For Example :     **Input** = "COAL IS COOL"  
                      **Output** =     A : 1  
                                  B : 0  
                                  C : 2  
  , and so on .....

## Task3: (Name Changer)

You may not have noticed that but it could be fun if we change some letters of some words. In this task you have to input three things: A word, letter to be replaced and new letter.

For Example: Input#1: 'COAL'  
                  Input#2: 'A'  
                  Input#3: 'O'  
                  **Output:** "COOL"

## Task4: (Word Searcher):

Implement a Word Searcher that will find all the occurrences of a word in a paragraph and capitalize all the the letters of that word in the paragraph.

For Example:

- **Paragraph** = “Do you want to know who you are? Don’t ask. Act!  
Action will delineate and define you”
- **Word** = “ you”
- **Output** = “Do YOU want to know who YOU are? Don’t ask. Act!  
Action will delineate and define YOU”