

Task on Strings and Structure

1. Take a string as input and count its length.

Sample Input: *I Like Programming.*

Sample Output: *Length of string is 19.*

2. Take a string as input and reverse it.

Sample Input: *I Like Programming.*

Sample Output: *.gnimmargorP ekiL I*

3. Take two strings as input and merge them.

Sample Input1: *I Like Programming.*

Sample Input2: *Let's do some Practice.*

Sample Output: *I Like Programming. Let's do some Practice.*

4. Take a string as input and find how many vowels appears in it.

Sample Input: *I Like Programming.*

Sample Output: *vowels appeared 6 times.*

5. Take two strings as input and compare them.

Sample Input1: *Hello World.*

Sample Input2: *Bye World.*

Sample Output: *Not Same.*

6. Write a program that will create custom ciphers (encoded words) on strings. Follow this procedure:

- i. Write a function named ***encode*** that takes TWO parameters, a string **s** and an integer **j**.
- ii. Skip **j** number of characters in the string and increase the ASCII value of the next character by 2.
- iii. Perform step **(ii)** throughout the string.
- iv. Return the converted string from **encode** function.

For example,

Sample String (s): I am a student

Sample Integer (j): 2

Converted String: I cm c svudgnt

7. Write a Structure named *Student* with the following attributes:

```
int id
string name
double cgpa
char gender
int creditCompleted
string department
bool checkProbation( ) // The structure also has the following method
                        that checks for students whose cgpa is less than 2.5.
```

Write a main function to create an array of 5 students and print the name of the probation students from the array.