The objective of this lab is to:

understand recursion and writing recursive functions.

ALERT!

1. This is an individual lab, you are strictly **NOT** allowed to discuss your solution with fellow colleagues, even not allowed asking how is he/she is doing, it may result in negative marking. You can **ONLY** discuss with your TAs or with me.
2. Pay attention to **GOOD coding conventions.**

Anyone caught in act of plagiarism would be awarded an "F" grade in this Lab.

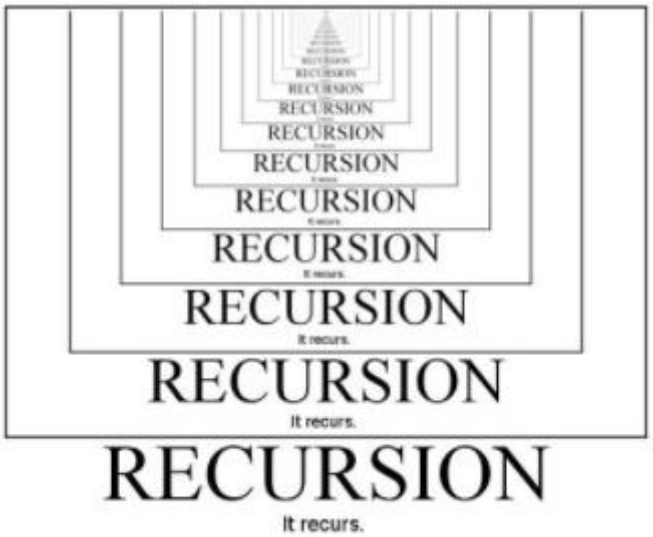
Task 01: [40 Marks]

1. Write a recursive function that counts the number of characters in a given string.

2. Write a recursive program for finding max value from an array, without taking any static or global variable.

3. Write a recursive function for finding a given value from an array using binary search.

4. Write a recursive function **void replace(char *str, char from, char to)**; that changes all occurrences of *from* in string *str* to *to*. For example, if *str* were "steve", and from == 'e' and to == 'a', *str* would become "stava".



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