CS1303: Introduction to Programming
Assignment 10:
Pointers

Submission Deadline:
Thursday, 14h November 2019, 7:00 PM

Problem Statement:

You have to develop a C program to reverse a string using pointers. Given a string as an input, you have to design a function that takes the input as a parameter and returns the reverse of that string. You can use either iteration or recursion to do the above task, but it is mandatory to use pointers in your implementation.

Notes:

1) Strings are essentially character arrays.
2) A valid string is always terminated by a NULL character ('\0'). Be careful of the garbage values in an uninitialized character array.
3) Give appropriate error messages if a NULL string is given as input.
4) The input string should not be more than 10 characters.

Sample Test Cases:

1) Input: Enter the string to reverse : Abcdef
   Output: fedcbA

2) Input: Enter the string to reverse : Sachin Rathor
   Invalid Input. Enter again!!
   Enter the string to reverse : Good boy
   Output: yob dooG

Submission Details:
Please submit the following information:

- **Source Code:** Your source program. The name of your file should be in this format: **Pointers-roll no.c** where you replace "roll no" with your roll number.

- **Readme.txt:** In this file, you should explain how to compile and run your program. The name of your file should be in this format: **Pointers-Readme-roll no.txt** where you

replace “roll no” with your roll number.

- **Design.txt:** In this file, you explain the design of your program (control flow of your program). Your objective should be such that the TA reading this file should easily understand the working of your program. Please add details about how you have handled corner cases - i.e. for what inputs you have printed “Error”. The name of your file should be in this format: **Pointers-Design-roll no.txt** where you replace “roll no” with your roll number.

Zip all these files and name it as **Pointers-roll no.zip**. **Please follow the naming convention strictly. Otherwise, your program will not be evaluated.** Then, submit it on google classroom for this assignment by the above-mentioned deadline.

Plagiarism policy: If we find a case of plagiarism in your assignment (i.e. copying of code from each other, in part or whole), you will be awarded **zero marks**. **Note** that we will not distinguish between a person who has copied, or has allowed his/her code to be copied; both will be equally awarded **zero** marks for the submission. Follow the link below for more information about plagiarism policy: **https://cse.iith.ac.in/academics/plagiarism-policy.html**

Evaluation Policy:
The TAs will use the following evaluation policy:

- Design: 30%
- Execution: 60%
- Indentation and Documentation (with comments): 10%

Late Submission Penalty:
For each day after the deadline, your submission will be penalized by 10 marks.