

**National Institute of Technology Calicut**  
**Department of Computer Science and Engineering**  
**Third Semester B. Tech.(CSE)**  
**CS2092D Programming Laboratory**  
**Modification Question for Assignment-1 (26.08.2021) 2 - 5 pm**

**Instructions:** For the question given below, write the design in the shared doc. Upload your design as a .doc file in the eduserver on or before 3.30 pm in the link provided for **submitting the design of the Modification question**. After submitting the design, implement your design using **C Language** and show the output of your program to the evaluator for the test cases given for the Modification question in eduserver. In any case, you should submit your C Program on or before 5 pm in the link provided for **submitting the C Program for the Modification question**. In case of clarifications, your evaluator will help you.

Marks (Design + Implementation): 5 + 2

Time: **Design:** Till 3.30 pm and Implementation: Till 5 pm. The marks for implementation will be based on the results for the test cases. The evaluator will be conducting a viva for a maximum of 5 minutes.

### QUESTION

1. Consider a scenario where you are having  $n$  pairs of dancing strings (a dancing string is a string made up of lower and/or upper characters). For every pair of strings, you have to perform some operations called dance moves. The first dance move is a toggle move in which the case of the characters has to be changed. The second move is a merge move in which two dancing strings have to be merged first and then the merged string should be reversed.

Your program must contain the following functions:

- A function **Toggle-Move(*str*)** that takes a string *str* as input and change the case of every character (uppercase to lowercase and lowercase to uppercase).
- A function **Merger-Reverse-String(*str1*, *str2*)** that takes two strings *str1* and *str2* as input, merge both the strings and reverse it.

**Input format:**

- First-line contains an integer  $n \in [1 - 10]$  which is the number of pairs of dancing strings.
- The subsequent  $n$  lines contain two strings *str1* and *str2* with uppercase, lowercase characters  $\in [A - Z, a - z]$ . Every string must be a one word without any space. Both strings should not be null in any case.

**Output Format:**

- The output contains  $n$  lines. Each line prints the strings *str1* and *str2* after toggle, merge and reverse.

**Sample Input1:**

```
2
hEppo WaarU
RoacT NykMn
```

**Sample Output1:**

```
uRAAwOPPeH
NmKYntCAOr
```

**Sample Input2:**

2  
weLcoMe HomE  
HellO WorlD

**Sample Output2:**

eMOhEmOClEW  
dLROwoLLEh

**Test case 1:****Input:**

1  
My CouNtrY

**Output:**

yRTnUOcYm

**Test case 2:****Input:**

2  
aaaaaa a  
zzzzzz ZZZ

**Output:**

AAAAAAA  
zzzZZZZZZ

**Test case 3:****Input:**

3  
NIT Calicut  
a b  
Programming Lab

**Output:**

TUCILActin  
BA  
BAIGNIMMARGORp

**Test case 4:**

**Input:**

2

aacbax abcaa

MALA YALAM

**Output:**

AACBAXABCAA

malayalam