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| **LAB101 Assignment** | **Type:** | **Short Assignment** |
| **Code:** | **C.S.P0034** |
| **LOC:** | **28** |
| **Slot(s):** | **1** |

**Title**

Reverse a string; convert to upper case and vice versa.

**Background**

N/A

**Program Specifications**

Implement a program that asks users a string.

Then, reverse the string; and convert lowercase to uppercase and vice versa.

***Function details:***

1. Function 1: Display a screen to prompt users to input a string.

* Users run the program and ask users to input a string.
* Users input a string; perform Function 2.

1. Function 2: Reverse the string and convert uppercase to lowercase and vice versa.

* The program reverses the string. During the reversing process, perform Function 3 to convert uppercase to lowercase and vice versa.
* After reversing the string, returns the new reversed string.
* Perform Function 4.

1. Function 3: Convert uppercase to lowercase and vice versa.

* The program takes input as a string.
* If a letter is uppercase, convert to lowercase.
* If a letter is lowercase, convert to uppercase.

1. Function 4: Output the new string to the screen.

***Expectation of User interface:***



**Guidelines**

**Use the following functions in the ctype.h library for the tasks**

Use the function **int isalpha (int c)** to check if a character is a letter:

* c: ASCII character
* return: 0 if not a letter; otherwise non-zero

Use the function **int islower(int c)** to check if a letter is lowercase

Use the function **int isupper (int c)** to check if a letter is uppercase

Use the function **int toupper (int c)** to convert a lowercase letter to uppercase letter

Use the function **int tolower (int c)** to convert an uppercase letter to lowercase letter