

## ASSIGNMENT 2 – REE 200 & PET ENG 200

**Instruction:** Complete the following coding tasks *using* Python.

### Task 1

Given a string *s*, return the string after replacing every uppercase letter with the same lowercase letter.

Example 1:

*Input: s = "Hello"*

*Output: "hello"*

Example 2:

*Input: s = "here"*

*Output: "here"*

Example 3:

*Input: s = "LOVELY"*

*Output: "lovely"*

### Task 2

Given a string *s*, return a new string where every uppercase letter is converted to lowercase and every lowercase letter is converted to uppercase.

Example:

*Input: "HeLLo WoRLd"*

*Output: "hElLo wOrlD"*

### Task 3

Given a string *s*, remove all uppercase letters and return the modified string.

Example:

*Input: "HelloWorld"*

*Output: "elloorld"*

#### Task 4

Given a string *s*, return the number of uppercase and lowercase letters in that string.

Example:

*Input: "EngiNEEr"*

*Output: Uppercase: 4, Lowercase: 4*

#### Task 5

Remove all characters from a string that are not English letters (i.e., strip digits, punctuation, symbols, etc.).

Example:

*Input: "Data-Driven@2025!"*

*Output: "DataDriven"*

#### Task 6

Given the lengths of three sides of a triangle, compute the area using Heron's formula.

Example:

*Input:  $a = 3, b = 4, c = 5$*

*Output: 6.0*

#### Task 7

Format a list of names to print neatly in a table using *ljust()*, *rjust()*, or *center()*.

#### Task 8

Clean a string by:

- i. Removing leading/trailing whitespace (*.strip()*)
- ii. Replacing all punctuation with an empty string
- iii. Removing all spaces

Example:

*Input: " Hello, World! "*

*Output: "HelloWorld"*