Assignment 7 (5%)
lowerCamelCase

Deadline: Friday 26 November 2021 at 23:59 on Submitty

Working individually, complete the assignment below. Submit your solution to Submitty (`https://submit.scss.tcd.ie`). By submitting your solution, you are confirming that you have familiarised yourself with College's policy on plagiarism (`https://libguides.tcd.ie/plagiarism`).

Your mark will be the auto-graded mark assigned by Submitty (10 marks) plus a manually assigned mark (5 marks) for programs that demonstrate excellent presentation, helpful, concise pseudo-code comments and a well-structured approach to solving the problem.

You are allowed to submit five attempts for the assignment without penalty. Subsequent attempts will attract a 1 mark penalty each, up to a maximum penalty of 5 marks.

Submitty will allow you eight "late days" over the full semester. This means, for example, you can submit one assignment late by eight days or eight assignments late by one day (or part thereof) each, without penalty. Once your "late days" are used up, you will receive zero marks for any late submissions.

Instructions

A **lowerCamelCase** string is a string that contains only alphabetic characters, no spaces, each word apart from the first word begins with an UPPERCASE letter and all other letters are lowercase. "introductionToComputing" is an example of a lowerCamelCase string.

Design and write an ARM Assembly Language program that will store the lowerCamelCase equivalent of a NULL-terminated ASCII string in memory. For example, given the string "TRINITY COLLEGE DUBLIN", your program should store the new string "trinityCollegeDublin".

Assume that R1 contains the start address of the original string in read only memory (ROM). Store the new lowerCamelCase string in memory (RAM) beginning at the address contained in R0.

Your solution should at least work for original strings containing UPPERCASE and lowercase alphabetic characters with a single space between words. More marks will be awarded, however, for solutions that can handle multiple consecutive spaces and non-alphabetic characters in the original string (e.g. " TRINITY COLLEGE, DUBLIN. ")