

Homework 4 (100 points)**Due Date*: 10:00am 02/28/2018, Cutoff Deadline**: 10:00am 03/03/2018******Submission will NOT be accepted after the cutoff deadline****Submission: The .s file on Blackboard under Homework 4 (NO email submission please!)**

Warning: (1) The grading of an ARM program is based on the testing results. An ARM program that cannot be assembled will receive up to 5% of the points!!! (2) Once the submitted work is graded, no more submission will be accepted or re-graded.

Write an ARM program to

- in the data area,
 - declare and initialize two NULL-terminated strings labeled as StrOne, and StrTwo.
 - define a *symbolic name* called MAX_LEN and equivalent it with a number like 100 or greater. (Hint: EQU must be used here.)
 - reserved a chunk of zeroed memory with a size of (MAX_LEN + 1), label this chunk of memory as MixStr. (You may assume that the sum of the lengths of StrOne and StrTwo is no greater than MAX_LEN)
 - Store each one of the above three labels as a word with an address label, e.g., “adrStrOne DCD StrOne” for StrOne, and EXPORT each address label, e.g., “EXPORT adrStrOne”.
- in the main program,
 - Merge the first string labeled by StrOne and the second string labeled by StrTwo in a unit of one.
 - Store the ASCII string as a NULL-terminated string to memory labeled as MixStr
 - If one string is longer than the other one, just copy the rest of the longer one to MixStr
 - E.g., “Hello Metro State!” and “I like assembly programming.” should be mixed as “Hie lllioK eM eatrsroe mSbtlayt ep!rogramming.”