# Project 2 Report

Project 2 asked to display the reverse string in memory. I named the string 'source' and initiated it with 'Test string.', also end it with 0. In this case, the length of the string is 13, I use DumpMem to display the string 'target', it shows 13 '40' (asc ii code for @). After that, I set the ESI pointed to the starting address of 'source', then in the loop, I move each element to [EDX+ECX-1]. In other words, I get every element from 'source' and put them from the back of the 'target'. I reverse the string by doing this. The output shows that the initial 'target' is 40 40 40 40 40... and the initial source is 54 65 73.... which ended by 00. The 'target' after loop is '00 2E 67....' which is the reverse order of the 'source'.

Source code:

TITLE Project 2 (p2.asm)

; Program Description: Display reverse string in memory

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; Revisions:

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INCLUDE Irvine32.inc

.data

source BYTE "Test string.",0

target BYTE SIZEOF source DUP('@')

.code

main PROC

mov esi, OFFSET target

mov ebx, 1

mov ecx, SIZEOF target

call DumpMem

mov esi, OFFSET source

mov ebx, 1

mov ecx, SIZEOF source

mov edx, OFFSET target

call DumpMem

L1:

;call DumpRegs

mov al, [esi]

mov [edx+ecx-1], al

inc esi

loop L1

mov esi, OFFSET target

mov ebx, 1

mov ecx, SIZEOF target

call DumpMem

exit

main ENDP

END main

Output:

