National University of Computer and Emerging Sciences



Lab 08

COAL

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| Semester | Fall 2020 |

Task 1

# **Source Code**:

*;Author :Muhammad Zain*

;Task :Task 1

;Name :Multiplication with a constant

include Irvine32.inc

.data

String\_Array DWORD 9,8,7,6,5,4,3,2,1

; result\_Array DWORD Counter dup(?)

Constant\_Num BYTE 5

const\_msg BYTE "9\*5,8\*5,7\*5,6\*5,5\*5,4\*5,3\*5,2\*5,1\*5 ",0

resultant\_msg BYTE "The Array after Multiplication with 5 ",0

space BYTE " ",0

.code

main proc

mov eax, white + (lightred \* 16)

call SetTextColor

mov edx,offset resultant\_msg

call writestring

call crlf

cld ;clear directioin flag

mov esi,offset String\_Array

mov edi ,esi ;source index to destination index

mov ecx,LENGTHOF String\_Array

mov edx,offset const\_msg

call writestring

call crlf

L1:

lodsd ;load string

mul Constant\_Num

mov edx,offset space

call writestring

call writedec

stosd ;store string

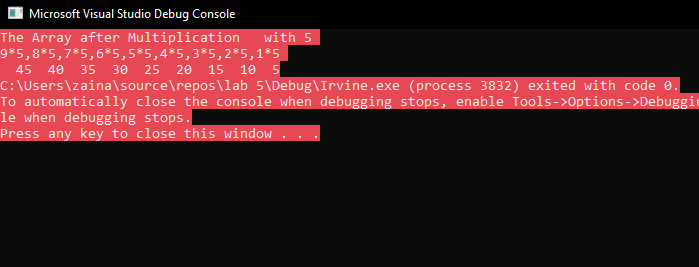
loop L1;

exit

main endp

end main

# **Snip:**



Task 2

# Source Code:

*;Author :Muhammad Zain*

;Task :Task 2

;Name :Search and plus Counter

include Irvine32.inc

.data

msg\_1 BYTE "Values of Registers before funtion call ",0

msg\_2 BYTE "Values of Registers after funtion call ",0

Target BYTE "123ABC342432",0

Source BYTE "ABC",0

Space BYTE "Value at index = ",0

.code

main proc

mov eax, white + (lightred \* 16)

call SetTextColor

mov edx ,offset msg\_1

call writestring

call crlf

call dumpregs

call string\_find\_proc

mov edx, offset msg\_2

call writestring

call crlf

call dumpregs

exit

main ENDP

string\_find\_proc proc uses esi edi ecx

mov esi,OFFSET source

mov edi,OFFSET target

mov al, [esi]

mov ecx,LENGTHOF target

cld ;Clear direction flag

repne scasb ;repeat while not equals

jnz quit

mov eax, LENGTHOF target

sub eax, ecx

mov edx, offset Space

call writestring

call writedec

call crlf

call crlf

quit:

ret

string\_find\_proc endp

END main

# Snip: