

**Department of Computer Science and Engineering**

**21st Batch**

**Lab Report 4**

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| Course title | : Microprocessor and Assembly Language |
| Course Code | : CSE-334 |

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**Problem Statement:** Implementing :

Enter first value : 4

Enter second value : 2

4+2 = 6

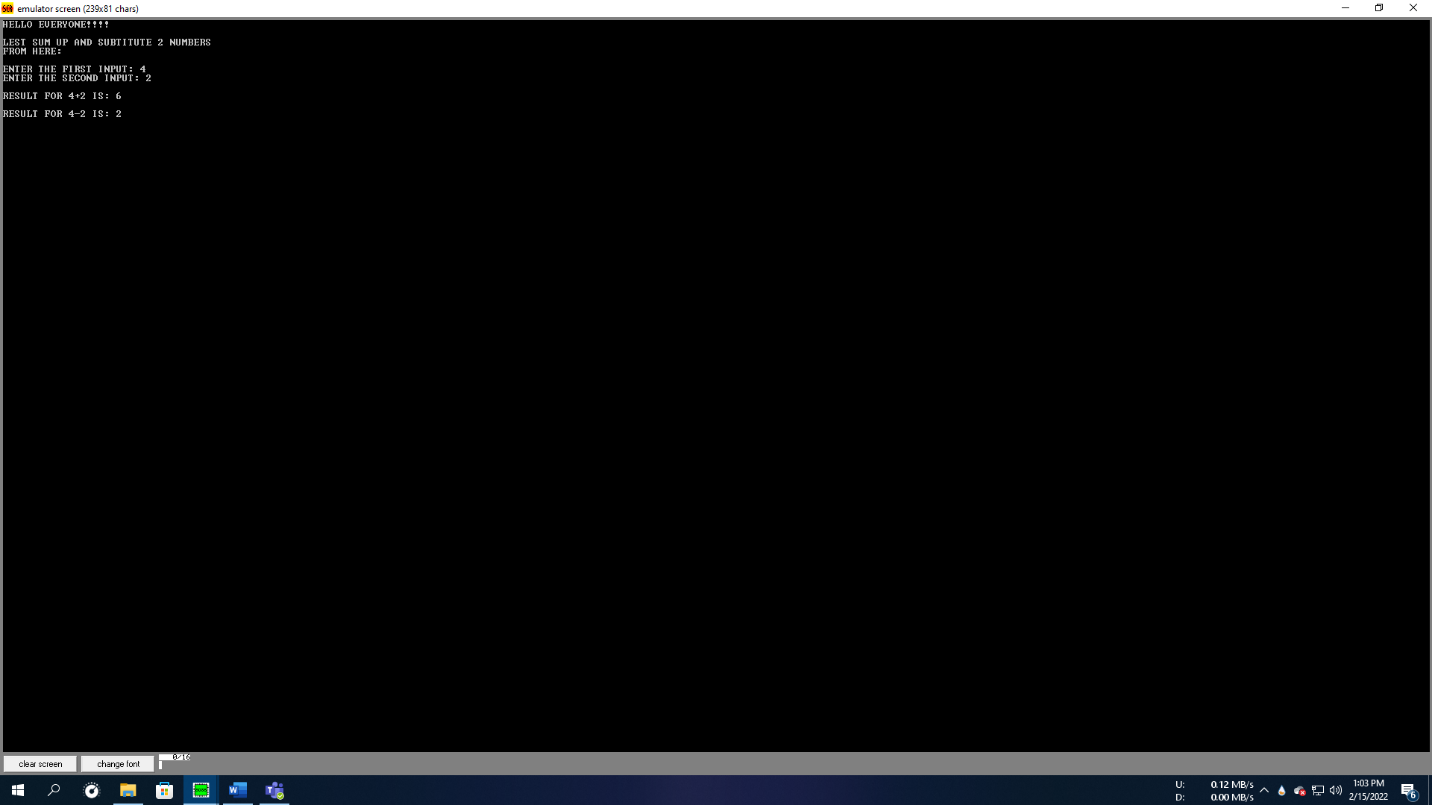
4-2 = 2

**Theory:** To Print the coder’s name by Assembly code using emu8086 character by character, we will use the default assembly format to print a single character. To do so, we will use two different registers. “**AH**” register as the mode of the code and “**VAR3(C), VAR1(A), VAR2(B)**” to store the input values, which will be calculated and stored at “**REST**” and “**REST1**”then printed using “**DL**” register and the “**INTERRUPT ROUTINE 21H**”.

**CODE:**

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| --- |
| .MODEL SMALL  .STACK 100H  .DATA  NL EQU 0AH,0DH  IS DB " IS : $" ; USING EQU TO CREATE A CONSTANT  MSG DB "HELLO EVERYONE!!!!",NL,"$"  MSG1 DB "LEST SUM UP AND SUBTITUTE 2 NUMBERS ",NL,"FROM HERE : ",NL,"$"  MSG2 DB "ENTER THE FIRST INPUT : $"  MSG3 DB NL,"ENTER THE SECOND INPUT : $"  MSG4 DB NL,NL,"RESULT FOR $"  VAR1 DB ?  VAR2 DB ?  VAR3 DB ?  RSLT DB ?  RSLT1 DB ?  .CODE  MAIN PROC  MOV AX,@DATA  MOV DS,AX    MOV AH,9  LEA DX,MSG ;LEA = LOAD EFFECTIVE ADDRESS  INT 21H    MOV AH,2  MOV DL,0AH  INT 21H    MOV DL,0DH ;EXTRA NEW LINE  INT 21H    MOV AH,9 ;MESSAGE FOR THE USER  LEA DX,MSG1  INT 21H      MOV AH,2 ;NEWLINE  MOV DL,0AH  INT 21H  MOV AH,2  MOV DL,0DH  INT 21H    MOV AH,9  LEA DX,MSG2  INT 21H    MOV AH,1 ;1ST VALUE  INT 21H  MOV VAR1,AL  MOV CH,VAR1  SUB CH,30H    MOV AH,9  LEA DX,MSG3  INT 21H    MOV AH,1 ;2ND VALUE  INT 21H  MOV VAR2,AL  MOV CL,VAR2  SUB CL,30H    ADD CH,CL ;ADDITION  ADD CH,30H  MOV RSLT,CH    MOV CH,VAR1 ;SUBSTRACTION  SUB CH,CL  MOV RSLT1,CH    MOV AH,9  LEA DX,MSG4  INT 21H    MOV AH,2  MOV DL,VAR1  INT 21H    MOV DL,"+"  INT 21H    MOV DL,VAR2  INT 21H    MOV AH,9  LEA DX,IS  INT 21H    MOV AH,2  MOV DL,RSLT  INT 21H    MOV AH,9  LEA DX,MSG4  INT 21H    MOV AH,2  MOV DL,VAR1  INT 21H    MOV DL,"-"  INT 21H    MOV DL,VAR2  INT 21H    MOV AH,9  LEA DX,IS  INT 21H    MOV AH,2  MOV DL,RSLT1  INT 21H          MOV AH,4CH  INT 21H  MAIN ENDP  END MAIN |

**Result:**

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