

AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY



Department of Computer Science and Engineering Program: BSc in Computer Science and Engineering

Course Code: CSE 2214

Assignment No: 01

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Submitted by,

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Lab Section: B1

1. Write a program to input an uppercase letter and display its corresponding lowercase letter.

Ans:

```
.MODEL SMALL  
.STACK 100H  
.DATA  
    MSG1 DB 'ENTER AN UPPERCASE LETTER:$'  
    MSG2 DB 0DH,0AH,'IN LOWERCASE IT IS:$'  
    CHAR DB ?, '$'  
.CODE  
MAIN PROC  
    MOV AX, @DATA  
    MOV DS, AX  
  
    LEA DX, MSG1  ;  
    MOV AH, 9  
    INT 21H  
  
    MOV AH, 1    ;  
    INT 21H  
  
    ADD AL, 20H  ;  
    MOV CHAR, AL  
  
    LEA DX, MSG2  ;  
    MOV AH, 9  
    INT 21H  
  
    LEA DX, CHAR  ;  
    MOV AH, 9  
    INT 21H  
  
    MOV AX, 4C00H ;  
    INT 21H  
MAIN ENDP  
END MAIN
```

2. Write a program to read two decimal digits whose sum is less than 10 and display them and their sum in the next line with appropriate message.

Ans:

```
.MODEL SMALL
.STACK 100H
.DATA
    MSG1 DB 'ENTER FIRST DIGIT:$'
    MSG2 DB 0DH,0AH,'ENTER SECOND DIGIT:$'
    MSG3 DB 0DH,0AH,'THE DIGITS ARE:$'
    MSG4 DB 0DH,0AH,'THEIR SUM IS:$'
    DIG1 DB ?,'$'
    DIG2 DB ?,'$'
    SUM DB ?,'$'
.CODE
MAIN PROC
    MOV AX, @DATA
    MOV DS, AX

    LEA DX, MSG1
    MOV AH, 9
    INT 21H

    MOV AH, 1
    INT 21H
    MOV DIG1, AL

    LEA DX, MSG2
    MOV AH, 9
    INT 21H

    MOV AH, 1
    INT 21H
    MOV DIG2, AL

    MOV AL, DIG1
    SUB AL, '0'
    MOV BL, DIG2
    SUB BL, '0'
    ADD AL, BL
    ADD AL, '0'
```

MOV SUM, AL

LEA DX, MSG3

MOV AH, 9

INT 21H

LEA DX, DIG1

MOV AH, 9

INT 21H

LEA DX, DIG2

MOV AH, 9

INT 21H

LEA DX, MSG4

MOV AH, 9

INT 21H

LEA DX, SUM

MOV AH, 9

INT 21H

MOV AX, 4C00H

INT 21H

MAIN ENDP

END MAIN