April 25, 2019

**Lab Assignment 3**

Microprocessor & Assembly Language

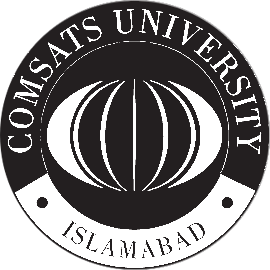
***Submitted To***

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**COMSATS University Islamabad**

Sahiwal Campus

TITLE TWO\_DIGIT\_ADDITION

.MODEL SMALL

.STACK 100H

.DATA

FIRST\_DIGIT DB 0AH,0DH, " FIRST DIGIT: $"

SECOND\_DIGIT DB 0AH,0DH, "SECOND DIGIT: $"

RESULT DB 0AH,0DH, "RESULT: $"

.CODE

MAIN:

MOV AX,@DATA

MOV DS, AX

LEA DX, FIRST\_DIGIT

MOV AH, 09H

INT 21H

MOV AH, 01H

INT 21H

SUB AL,30H

MOV BH, AL

MOV AH, 01H

INT 21H

SUB AL, 30H

MOV BL,AL ;BH:BL FIRST NUMBER

LEA DX, SECOND\_DIGIT

MOV AH, 09H

INT 21H

MOV AH, 01H

INT 21H

SUB AL,30H

MOV CH, AL

MOV AH, 01H

INT 21H

SUB AL, 30H

MOV CL, AL ; CH:CL SECOND NUMBER

ADD BL, CL

MOV AL, BL

MOV AH, 00H

AAA

MOV CL, AL ; LAST DIGIT OF ANSWER

MOV BL, AH

ADD BL, BH

ADD BL,CH

MOV AL,BL

MOV AH,00H

AAA

MOV BX,AX

;MOV BH,AH

;MOV BL,AL

MOV DX, OFFSET RESULT

MOV AH, 09H

INT 21H

MOV DL, BH

ADD DL, 30H

MOV AH, 02H

INT 21H

MOV DL, BL

ADD DL, 30H

MOV AH, 02H

INT 21H

MOV DL,CL

ADD DL, 30H

MOV AH, 02H

INT 21H

