New Era University

College of Computer Studies

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Direction: Using your computer, construct an assembly language program that will show the output given below. After you successfully run your program, write the codes on the space provided.

Program that will accept upper and lowercase letters and will show the next character.

OUTPUT 1:

```
Enter a letter: m
The next letter after m  is n.
```

Enter user's name and will display the following:

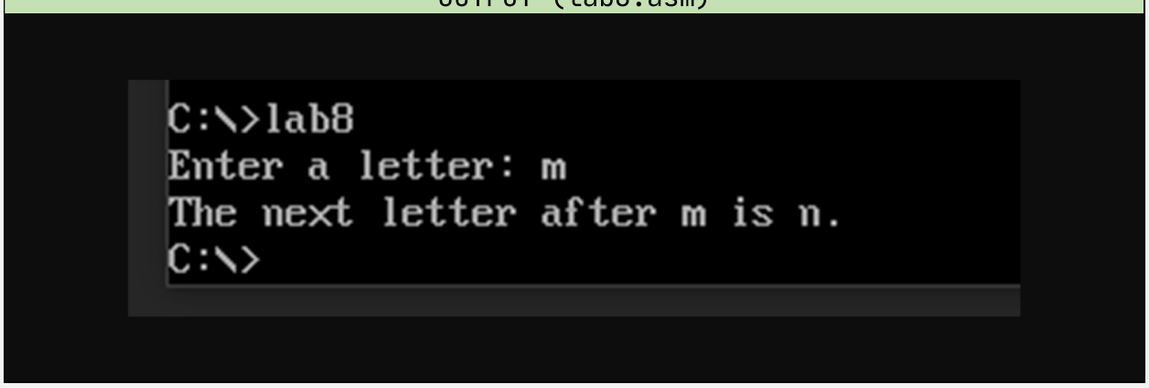
OUTPUT 2:

```
Enter your name : Marcus
Roses are red.
Violets are blue.
Sugar is sweet as you are, Marcus!
```

CODE (lab8.asm)

```
TITLE lab8.ASM
DOSSEG
.MODEL SMALL
.STACK 0100h
.DATA
    Q DB 'Enter a letter: $'
    A DB 0Ah, 0Dh, 'The next letter after $'
    verb DB ' is $'
X DB 0
.CODE
    MOV AX, @DATA
    MOV DS, AX

    MOV AH, 09h
    MOV DX, OFFSET Q
    INT 21h

    MOV AH, 01h ;request for character input
    INT 21h

    MOV AH, 09h
    MOV DX, OFFSET A
    INT 21h

    MOV X, AL
    MOV AH, 02h
    MOV DL, X
    INT 21h

    MOV AH, 09h
    MOV DX, OFFSET verb
    INT 21h

    INC AL
    MOV X, AL

    MOV AH, 02h
    MOV DL, X
    INT 21h

    MOV AH, 02h
    MOV DL, '.'
    INT 21h

    MOV AX, 4C00h
    INT 21h
END
```

OUTPUT (lab8.asm)



CODE (lab8_2.asm)

```
TITLE LAB8_2.ASM
DOSSEG
.MODEL SMALL
.STACK 0100h
.DATA
    NEYM DB 09h, ?, 08h DUP ('$')
    Q DB 'Enter your Name: $'
    A1 DB 0Ah, 0Dh, 'Roses are red.$'
    A2 DB 0Ah, 0Dh, "Violets are blue.$"
    A3 DB 0Ah, 0Dh, "Sugar is sweet as you are, $"
.CODE
    MOV AX, @DATA
    MOV DS, AX
    MOV AH, 09h
    MOV DX, OFFSET Q
    INT 21h

    MOV AH, 0Ah ; request for string input
    MOV DX, OFFSET NEYM ; load address
    INT 21h

    MOV AH, 09h
    MOV DX, OFFSET A1
    INT 21h

    MOV DX, OFFSET A2
    INT 21h

    MOV DX, OFFSET A3
    INT 21h

    MOV DX, OFFSET NEYM+2
    INT 21h

    MOV AH, 02h ; this is only for the position of !
    MOV BH, 00h
    MOV DH, 18h
    MOV DL, 1Eh
    INT 10h

    MOV AH, 02h
    MOV DL, '!'
    INT 21h

    MOV AX, 4C00h
    INT 21h
END
```

OUTPUT (lab7_2.asm)