Lab Assignment 1

Microprocessor Lab

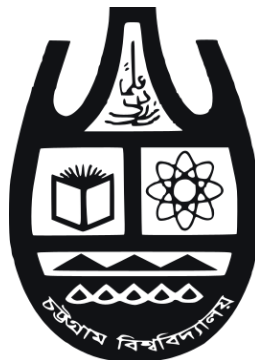CSE416

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Task-01:String input and Output

Answer:

```
.model small
.stack 100h
.data
str1 db 'Enter A String : $'
str2 db 'You have Entered : $'
str_store db 200 dup('$')
.code

main proc
  mov ax,@data
  mov ds,ax

  mov ah,9
  lea dx,str1
  int 21h
  mov si, offset str_store

  input:
  mov ah,1
  int 21h
  cmp al,13

  je print

  mov [si],al
  inc si
  jmp input

  print:
  ;print new line
  mov ah,2
  mov dl,10
  int 21h
  mov dl,13
  int 21h

  mov ah,9
  lea dx,str2
  int 21h
```
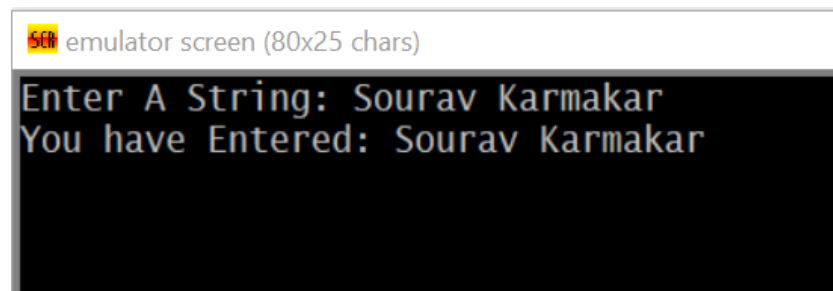
```
    mov ah,9
    mov dx,offset str_store
    int 21h

    ;for exit
    exit:
    mov ah,4ch
    int 21h
    main endp
end main
```

Output:

Task-02:Print Sum of Series

Answer:

```
.model small
.stack 100h
.data
str1 db 'Our Series is 2+4+6+8+....+n $'
str2 db 'Enter n for sum till nth place: $'
str3 db 'Ans is: $'
n db ?
ans db ?
    string db 2 dup(' ')
.code

main proc
    mov ax,@data
    mov ds,ax
    ;ah,9 used for string output
    mov ah,9
    lea dx,str1
```

```asm
        int 21h
        ;print new line
        mov ah,2
        mov dl,10
        int 21h
        mov dl,13
        int 21h

        ;ah,9 used for string output
        mov ah,9
        lea dx,str2
        int 21h

        ;print new line
        mov ah,2
        mov dl,10
        int 21h
        mov dl,13
        int 21h

        mov ah,1
        int 21h
        mov n,al
        sub n,48


        mov CL,n
        mov al,0
        mov bl,2

sum:
        add al,bl
        add bl,2
        mov ans,al
        loop sum

        mov ah,2
        mov dl,10
        int 21h
        mov dl,13
        int 21h
        ;ah,9 used for string output
        mov ah,9
        lea dx,str3
```
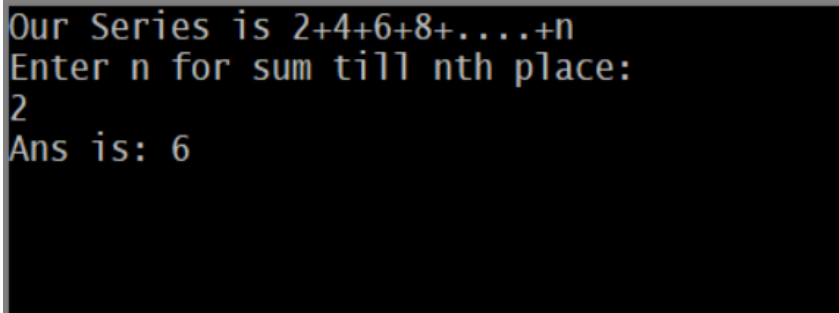
```
    int 21h
    mov bl,10
     mov al,n
    div bl

    add ans,48
    mov ah,2
    mov dl, ans
    int 21h

    ;for exit
    mov ah,4ch
    int 21h
    main endp
end main
```

Output:

```
Our Series is 2+4+6+8+....+n
Enter n for sum till nth place:
2
Ans is: 6
```