

Rajshahi University of Engineering and Technology
Department of Computer Science and Engineering

Course Code : CSE -3110
Course Title : Microprocessor and Assembly Language.
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Sec : A

Problem Name : Take string input as a text , Reverse the text word by word and first character of those reverse word should be capital.

Objectives :

1. To learn about string operation.
2. To learn about the implementation using stack .
3. To execute the program according to the given condition.

Code:

```
INCLUDE "EMU8086.INC"
.model small
.stack 100h
.data
.code

msg2 db 'Reverse String:$'
count DW 0
main proc

    PRINT "ENTER A TEXT : "
    xor cx,cx
    mov ah,1
    int 21h
input:
    cmp al,0dh
    je end_input
    push ax
    inc cx
    int 21h
    jmp input
end_input:

    PRINTN

    mov bx,50h
    xchg bx,sp
    push 0020h
    xchg bx,sp


    inc count
loop1:
    pop dx
```

```

        xchg bx,sp
        push dx
        xchg bx,sp
        inc count
    loop loop1
    PRINT "REVERSE IS : "
    mov cx,count
    mov count,0
    push 0020h
    inc count
reverse:
    xchg bx, sp
    pop dx
    xchg bx, sp
    cmp dl, 20h
    jne skip
    mov ah, 2
    loop2:
    pop dx
    int 21h
    dec count
    jnz loop2
    mov dx, 0020h
skip:
    push dx
    inc count
    loop reverse
    mov ah, 4ch
    int 21h
main endp
end main

```

Output :

 emulator screen (169x55 chars)

```

ENTER A TEXT : hello ! i am emu8086
REVERSE IS : olleh ! i ma 6808ume

```