

;Read a character from the keyboard and display it at the beginning of the next line.

```
.model small
.stack 100h
.code
main proc

    mov ah,1
    int 21h
    mov bl,al

    mov ah,2
    mov dl,10
    int 21h
    mov dl,13
    int 21h

    mov ah,2
    mov dl,bl
    int 21h

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

;Write a program to display a String

```
.model small
.stack 100h
.data
var db 'Bangladesh$'
.code
main proc

    mov ax,@data
    mov ds,ax

    mov ah,9
    lea dx,var
    int 21h

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

;Write a program that reads two numbers from the keyboard and gives their sum as output

```
.model small
.stack 100h
.data
a db 'Enter the first positive integer: $'
b db 10,13,'Enter the second positive integer: $'
c db 10,13,'Sum is: $'
.code
main proc

    mov ax,@data
    mov ds,ax

    mov ah,9
    lea dx,a
    int 21h
    mov ah,1
    int 21h
    mov bl,al

    mov ah,9
    lea dx,b
    int 21h
    mov ah,1
    int 21h
    mov bh,al

    mov ah,9
    lea dx,c
    int 21h
    add bl,bh
    sub bl,48
    mov ah,2
    mov dl,bl
    int 21h
```

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

;Lowercase to Uppercase Letter

```
.model small
.stack 100h
.data
a db 'Enter the lowercase character: $'
b db 10,13,'Uppercase is:  $'
.code
main proc

    mov ax,@data
    mov ds,ax

    mov ah,9
    lea dx,a
    int 21h
    mov ah,1
    int 21h
    mov bl,al

    mov ah,9
    lea dx,b
    int 21h
    mov ah,2
    sub bl,32
    mov dl,bl
    int 21h

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

;Read two number and print the maximum number

```
.model small
.stack 100h
.data
a db 'Enter two number: $'
b db 10,13,'Biggest number is: $'
.code
main proc

    mov ax,@data
    mov ds,ax

    mov ah,9
    lea dx,a
    int 21h
    mov ah,1
    int 21h
    mov bl,al
    mov ah,1
    int 21h
    mov bh,al

    cmp bl,bh
    jg largest
    jmp smallest

largest:
    mov ah,9
    lea dx,b
    int 21h
    mov ah,2
    mov dl,bl
    int 21h
    jmp exit

smallest:
    mov ah,9
```

```
    lea dx,b
    int 21h
    mov ah,2
    mov dl,bh
    int 21h
    jmp exit

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

;If AX contains a negative number, put -1 in BX; if AX contains 0, put 0 in BX; if AX contains a positive number, put 1 in BX.

```
.model small
.stack 100h
.code
main proc

    mov ah,1
    int 21h

    cmp ax,0
    jl negative
    je zero
    jg positive

negative:
    mov bx,-1
    jmp exit

zero:
    mov bx,0
    jmp exit

positive:
    mov bx,1
    jmp exit

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


;read a character and if it is uppercase letter then display it.

```
.model small
.stack 100h
.code
main proc

    mov ah,1
    int 21h
    mov bl,al

    cmp bl,'A'
    jnge exit
    cmp bl,'Z'
    jnle exit

    mov ah,2
    mov dl,bl
    int 21h

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

;read a character and if it is 'y' or 'Y' then display it otherwise terminate the program.

```
.model small
.stack 100h
.code
main proc

    mov ah,1
    int 21h
    mov bl,al

    cmp bl,'y'
    je print
    cmp bl,'Y'
    je print
    jmp exit

print:
    mov ah,2
    mov dl,bl
    int 21h

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

;write a count-control loop to display the row of 80 stars.

```
.model small
.stack 100h
.code
main proc

    mov cx,80
    mov ah,2
    mov dl,'*'

    level:
        int 21h
        loop level

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

;count number of character in an input line

```
.model small
.stack 100h
.code
main proc

    mov dx,0          ;dx count character
    mov ah,1
    int 21h
    mov bl,al

while:
    cmp bl,0dh        ;cr?
    je exit
    inc dx
    int 21h
    jmp while

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

;write a code to read characters until blank is read

```
.model small
```

```
.stack 100h
```

```
.code
```

```
main proc
```

```
    mov ah,1
```

```
level:
```

```
    int 21h
```

```
    cmp al,' '
```

```
    je exit
```

```
    jmp level
```

```
exit:
```

```
    mov ah,4ch
```

```
    int 21h
```

```
main endp
```

```
end main
```

;Put the sum 1+4+7+...+148 in AX main endp

MOV CX, 49;counter for FOR LOOP

MOV AX,1 ;adds the sum of series and store the result

MOV BX,1 ;used to move the series 3 steps forward forward

Label:

ADD AX,BX

ADD BX,3

LOOP Label

;DOS exit

INT 21H

MOV AH,4CH

INT 21H