Program-Minimum and maximum in an user defined array.

Code:

```
data segment

msg0 db 0dh,0ah,"NIYATI EXP 3 $"

msg1 db 10,13,"Array Limit is 5: $"

msg2 db 10,13,"Enter Number: $"

msg3 db 10,13,"The Minimum is: $"

msg4 db 10,13,"The Maximum is: $"

min db ?

max db ?

data ends


code segment

assume cs:code, ds:data

start:

mov ax,data

mov ds,ax


LEA DX,msg0

mov ah,09h

int 21h


LEA DX,msg1

mov ah,09h

int 21h


LEA SI,4000H

mov cx,5


label1: LEA Dx,msg2

        mov ah,09h
```

```
                        int 21h

                        mov ah,01h
                        int 21h
                        call input
                        mov ah,00h
                        add bl,al

                        mov[SI],bl
                        inc SI
LOOP label1

LEA SI,4000H
mov al,[SI]

mov min,al
mov max,al
mov cl,05

up:     inc SI
        mov al,[SI]
        cmp min,al
        JC lmax
        mov min,al
        lmax:
        cmp max,al
        JNC label1
        mov max,al
        label1: dec cl
        JNZ up
```

```asm
        mov bl,min
        LEA DX,msg3
        mov ah,09h
        int 21h
        call convert


        mov bl,max
        LEA DX,msg4
        mov ah,09h
        int 21h
        call convert


        mov ah,4ch
        int 21h



convert proc
            mov al,bl
            and al,0F0h
            ror al,04h
            cmp al,0Ah
                jc l1
            add al,37h
                jmp l2
            l1: add al, 30h
            l2: mov dl,al
            mov ah,02h
            int 21h


                mov al,bl
```

```asm
        and al,0Fh
            cmp al,0Ah
            jc l3
            add al,37h
            jmp l4
            l3: add al, 30h
            l4: mov dl,al
            mov ah,02h
            int 21h

ret
endp

input proc
        cmp al,41h
        jc label6
        sub al,07h
        label6:
        sub al,30h

        ret
endp

code ends
end start
```

Output:

```
C:\TASM>minmax.exe

NIYATI EXP 3
Array Limit is 5:
Enter Number: 97

Enter Number: 56

Enter Number: 33

Enter Number: 10

Enter Number: 99

The Minimum is: 10
The Maximum is: 99
C:\TASM>
```

```
NIYATI EXP 3
Array Limit is 5:
Enter Number: 11

Enter Number: 33

Enter Number: 22

Enter Number: 55

Enter Number: 44

The Minimum is: 11
The Maximum is: 55
C:\TASM>_
```