

Program:

```
DATA SEGMENT
MSG1 DB 10,13,"ARRAY LIMIT IS 10: $"
MSG2 DB 10,13,"ENTER THE NUMBERS: $"
MSG3 DB 10,13,"Min: $"
MSG4 DB 10,13,"Max: $"
msg5 db 10,13,"Entered array: $"
newl DB 10,13,"$"
min DB ?
max DB ?
DATA ENDS
```

```
CODE SEGMENT
ASSUME DS:DATA,CS:CODE
START:
MOV AX,DATA
MOV DS,AX
```

```
LEA DX,MSG1
MOV AH,09H
INT 21H
```

```
MOV SI,4000H ;Starting location
MOV CX,10
```

```
LABEL1: ;Array user input
```

```
LEA DX,MSG2
MOV AH,09H
```

```
INT 21H
MOV AH,01H
INT 21H
CALL INPUT
ROL AL,04H
MOV BL,AL
```

```
MOV AH,01H
INT 21H
CALL INPUT
MOV AH,00H
ADD BL,AL
```

```
MOV [SI],BL
INC SI
LEA DX,newl
MOV AH,09H
INT 21H
```

```
LOOP LABEL1
```

```
MOV SI,4000H
mov al,[SI]
```

```
mov min,al
mov max,al
mov cl,09
```

```
up: inc SI
    mov al,[SI]
    cmp min,al
    JC lmax
    mov min,al
lmax:
    cmp max,al
    JNC label4
    mov max,al
label4: dec cl
    JNZ up
```

```
lea dx,msg5
mov ah,09h
int 21h
```

```
MOV SI,4000H ;Print the entered array
MOV CX,10
d:
```

```
mov dl,' '
mov ah,02h
int 21h
```

```
MOV BL,00H
MOV BL,[SI]
AND BL,0F0H
ROR BL,04H
CALL OUTPUT
MOV BL,[SI]
AND BL,0FH
CALL OUTPUT
INC SI
LOOP d
```

```
LEA DX,newl
mov Ah,09h
INT 21h
```

```
lea dx,msg3
mov ah,09h
int 21h
```

```
mov bl,min
call convert
```

```
mov dl, ''
mov ah,02h
int 21h
```

```
lea dx,msg4
mov ah,09h
int 21h
```

```
mov bl,max
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
    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
```

```
OUTPUT PROC
    CMP BL,0AH
    JC LABEL7
    ADD BL,07H
    LABEL7:
    ADD BL,30H
    MOV DL,BL
    MOV AH,02H
    INT 21H
```

```
RET
ENDP
```

```
CODE ENDS
END START
```

Output:

ENTER THE NUMBERS: 13

ENTER THE NUMBERS: 49

ENTER THE NUMBERS: 56

ENTER THE NUMBERS: 34

ENTER THE NUMBERS: 75

ENTER THE NUMBERS: 60

ENTER THE NUMBERS: 3A

ENTER THE NUMBERS: B7

Entered array: 09 87 13 49 56 34 75 60

Min: 09

Max: B7

Program successfully executed !

Press any key to continue.