

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEVANG PATEL INSTITUTE OF ADVANCED TECHNOLOGY AND RESEARCH
COMPUTER SCIENCE AND ENGINEERING

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Definition

WRITE AN ASSEMBLY LANGUAGE PROGRAM TO FIND LARGEST NUMBER FROM THE GIVEN ARRAY. THE LENGTH OF THE ARRAY IS STORED AT 3000;0300. THE STARTING ADDRESS OF ARRAY IS 7000:0700

Solution

; 18DCS007
; RUDRA BARAD

org 100h

MOV AX,3000H
MOV DS,AX

MOV [0300H],7H
MOV CX, [0300H]

MOV AX,7000H
MOV DS,AX

MOV [700H], 50H
MOV [701H], 15H
MOV [702H], 30H
MOV [703H], 72H
MOV [704H], 14H
MOV [705H], 78H

MOV [706H], 39H

MOV SI, 700H

MOV [707H], 0H

LABEL1:

MOV AL, [SI]

CMP [707H], AL

JC CHANGE

BACK:

INC SI

LOOP LABEL1

JMP FINISH

CHANGE:

MOV [707H], AL ;result will be stored at 7000:707

JMP BACK

FINISH:

ret

Input and Output Screen Shot

```
07 ; 18DCS007
08 ; RUDRA BARAD
09
10 org 100h
11
12
13 MOV AX,3000H
14 MOV DS,AX
15
16 MOV [0300H],7H
17 MOV CX,[0300H]
18
19 MOV AX,7000H
20 MOV DS,AX
21
22 MOV [700H],50H
23 MOV [701H],15H
24 MOV [702H],30H
25 MOV [703H],72H
26 MOV [704H],14H
27 MOV [705H],78H
28 MOV [706H],39H
29
30
31 MOV SI,700H
32 MOV [707H],0H
33
34 LABEL1:
35 MOV AL,[SI]
36 CMP [707H],AL
37 JC CHANGE
38 BACK:
39 INC SI
40 LOOP LABEL1
41 JMP FINISH
42
43 CHANGE:
44 MOV [707H],AL ;result will be stored at 7000:707
45 JMP BACK
46
47 FINISH:
48 ret
49
```

