

Experiment 8

(1)

Page No.	
Date	

POA Experiment 8

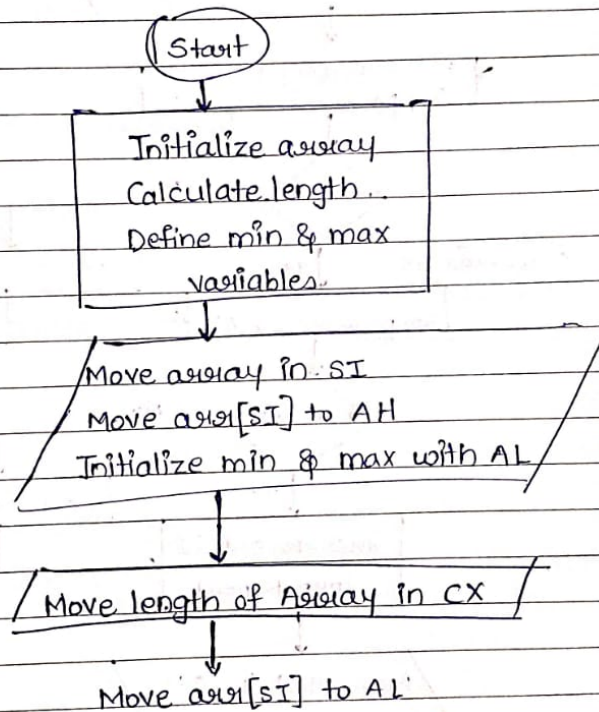
Name : Ksreena Shah

SapId : 60004210243

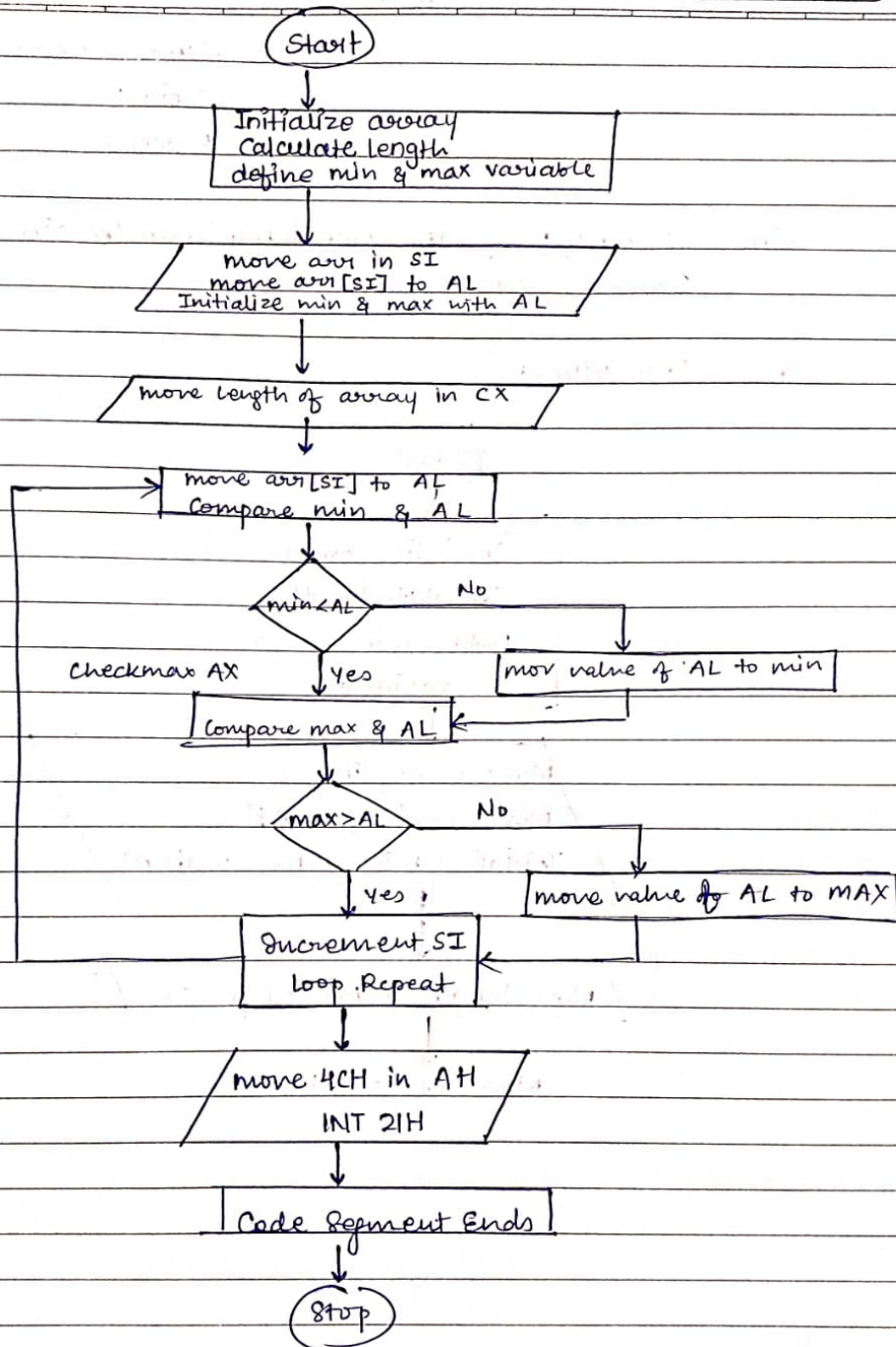
Batch : c'32

Aim : Assembly program to find minimum/maximum no. from a given array.

Theory / Workflow :



FOR EDUCATIONAL USE



emu8086 - assembler and microprocessor emulator 4.08

file edit bookmarks assembler emulator math ascii codes help

new open examples save compile emulate calculator convertor options help about

```
01 DATA SEGMENT
02 ARR DB 5,3,7,1,19,2,6,8,4
03 LEN DW $-ARR
04 MIN DB ?
05 MAX DB ?
06 DATA ENDS
07
08 CODE SEGMENT
09 ASSUME DS:DATA CS:CODE
10 START:
11 MOV AX,DATA
12 MOV DS,AX
13
14 LEA SI,ARR
15 MOV AL,ARR[SI]
16 MOV MIN,AL
17 MOV MAX,AL
18
19 MOV CX,LEN
20 REPEAT:
21 MOV AL,ARR[SI]
22 CMP MIN,AL
23 JL CHECKMAX
24
25 MOV MIN,AL
26 CHECKMAX:
27 CMP MAX,AL
28 JG DONE
29
30 MOV MAX,AL
31 DONE:
32 INC SI
33 LOOP REPEAT
34
35 MOV AH,4CH
36 INT 21H
37 CODE ENDS
38 END START
```

original source code

```
01 DATA SEGMENT
02 ARR DB 5,3,7,1,19,2,6,8,4
03 LEN DW $-ARR
04 MIN DB ?
05 MAX DB ?
06 DATA ENDS
07
08 CODE SEGMENT
09 ASSUME DS:DATA CS:CODE
10 START:
11 MOV AX,DATA
12 MOV DS,AX
13
14 LEA SI,ARR
15 MOV AL,ARR[SI]
16 MOV MIN,AL
17 MOV MAX,AL
18
19 MOV CX,LEN
20 REPEAT:
21 MOV AL,ARR[SI]
22 CMP MIN,AL
23 JL CHECKMAX
24
25 MOV MIN,AL
26 CHECKMAX:
27 CMP MAX,AL
28 JG DONE
29
30 MOV MAX,AL
31 DONE:
32 INC SI
33 LOOP REPEAT
34
35 MOV AH,4CH
36 INT 21H
37 CODE ENDS
38 END START
```

emulator: noname.exe

file math debug view external virtual devices virtual drive help

Load reload step back single step run step delay ms: 0

registers

	H	L
AX	4C	04
BX	00	00
CX	00	00
DX	00	00
CS	F400	
IP	0204	
SS	0710	
SP	FFFA	
BP	0000	
SI	0009	
DI	0000	
DS	0710	
ES	0700	

F400:0204

F4200:	FF	255	RES
F4201:	FF	255	RES
F4202:	CD	205	=
F4203:	21	033	?
F4204:	CF	207	=
F4205:	00	000	NULL
F4206:	00	000	NULL
F4207:	00	000	NULL
F4208:	00	000	NULL
F4209:	00	000	NULL
F420A:	00	000	NULL
F420B:	00	000	NULL
F420C:	00	000	NULL
F420D:	00	000	NULL
F420E:	00	000	NULL
F420F:	00	000	NULL
F4210:	00	000	NULL
F4211:	00	000	NULL
F4212:	00	000	NULL
F4213:	00	000	NULL
F4214:	00	000	NULL
F4215:	00	000	NULL

BIOS DI

INT 021h	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
ADD [BX + SI], AL	
...	

screen source reset aux vars debug stack flags

message

PROGRAM HAS RETURNED CONTROL TO THE OPERATING SYSTEM

OK

variables

size: byte elements: 1

edit show as: hex

LEN	0009h
MIN	01h
MAX	13h

line: 2 col: 17 drag a file here to open

30°C Smoke

Search

ENG IN 16:26 28-11-2023