PROGRAMS

1. Write an ALP to find the largest from given series of Numbers

Data Segm	F 3A4401 CMP 2 7303 JAE 4 8A4401 MOV 7 46 INC 8 FEC9 DEC A 75F3 JNZ C A20500 MOV F CC INT Result BX=0000 CX=0000 ent 00 04 0A 01 21 09 21	AL,[SI] AL,[SI+01] 0017 AL,[SI+01] SI CL 000F
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2. Write an ALP to find the smallest from given series of Numbers

ASSUME CS:CODE, DS:DATA	T-U		
, , , , , , , , , , , , , , , , , , , ,	0745:0000 B84407	MOV	AX,0744
DATA SEGMENT	0745:0003 8ED8	MOV	DS,AX
LIST DB 04H,0AH,01H,21H,09H	0745:0005 B80000	MOV	AX,0000
SMALL DB 0H	0745:0008 BE0000	MOV	SI,0000
DATA ENDS	0745:000B B104	MOV	CL,04
	0745:000D 8A04	MOV	-
CODE SEGMENT	0745:000F 3A4401	CMIP	-
START:	0745:0012 7203	JB	
MOV AX, DATA	0745:0014 8A4401	MOV	
MOV DS, AX	0745:0017 46	INC	
MOV AX,0H	0745:0018 FEC9	DEC	CL
1120 (122,022	0745:001A 75F3	JNZ	
MOV CL,04	0745:001C A20500	MOV	
LEA SI,LIST	0745:001F CC	INT	3
	Result		
I MOV ALISH		ESUIL	
MOV AL,[SI]	No.	Esuit	
L2:		esuit	
L2: CMP AL,[SI+1]	Registers		
L2: CMP AL,[SI+1] JC L1			
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1]	Registers AX=0001 BX=0000 CX=00		
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1:	Registers		
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI	Registers AX=0001 BX=0000 CX=00 Data Segment D DS:0	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL JNZ L2	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2 Flag Register	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL JNZ L2 MOV SMALL,AL	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2 Flag Register	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL JNZ L2 MOV SMALL,AL	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2 Flag Register	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL JNZ L2 MOV SMALL,AL INT 03H CODE ENDS	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2 Flag Register	000	
L2: CMP AL,[SI+1] JC L1 MOV AL,[SI+1] L1: INC SI DEC CL JNZ L2 MOV SMALL,AL	Registers AX=0001 BX=0000 CX=00 Data Segment -D DS:0 0744:0000 04 0A 01 2 Flag Register	000	

3. Write an ALP to sort the given series of Numbers in ascending order

ASSUME CS:CODE, DS:DATA DATA SEGMENT LIST DB 02H,22H,45H,01H,32H DATA ENDS CODE SEGMENT START: MOV AX, DATA MOV DS, AX MOV AX,0H MOV CL,04 GO3: LEA SI,LIST MOV DL,04H GO1: MOV AL,[SI] CMP AL,[SI+1] JC GO2 XCHG AL,[SI+1] MOV [SI],AL GO2: INC SI DEC DL JNZ GO1 DEC GL	-u 0745:0000 B84407 0745:0003 8ED8 0745:0005 B80000 0745:0008 B104 0745:0000 B204 0745:0000 B204 0745:0001 3A4401 0745:0014 7205 0745:0016 864401 0745:0019 8804 0745:0016 FECA 0745:0016 FECA 0745:0016 FECA 0745:0016 CFECA 0745:0016 FECA 0745:0016 FECA 0745:0016 FECA 0745:0016 FECA 0745:0016 FECA 0745:0017 FECA 0745:0020 FEC9 0745:0020 FEC9 0745:0020 FEC9 0745:0020 FEC9 0745:0020 FEC9 0745:0020 FEC9	AX,0744 DS,AX AX,0000 CL,04 SI,0000 DL,04 AL,[SI] AL,[SI+01] 001B AL,[SI+01] [SI],AL SI DL 000F CL 000A 3
DEC CL JNZ GO3 INT 03H CODE ENDS END START		

4. Write an ALP to sort the given series of Numbers in descending order

ASSUME CS:CODE, DS:DATA	-u		
,	0745:0000 B84407	MOV	AX,0744
DATA SEGMENT	0745:0003 8ED8	MOV	DS.AX
LIST DB 02H,22H,45H,01H,32H	0745:0005 B80000	MOV	AX,0000
DATA ENDS	0745:0008 B104	MOV	CL,04
	0745:000A BE0000	MOV	SI,0000
CODE SEGMENT	0745:000D B204	MOV	DL,04
START:	0745:000F 8A04	MOV	AL,[SI]
MOV AX, DATA	0745:0011 3A4401	CMP	AL,[SI+01]
MOV DS, AX	0745:0014 7305	JAE	001B
MOV AX,0H	0745:0016 864401	XCHG	AL,[SI+01]
•	0745:0019 8804	MOV	[SI],AL
MOV CL,04	0745:001B 46	INC	SI
•	0745:001C FECA	DEC	DL
GO3: LEA SI,LIST	0745:001E 75EF	JNZ	000F
MOV DL,04H	I–u		
GO1: MOV AL,[SI]	0745:0020 FEC9	DEC	CL
CMP AL,[SI+1]	0745:0022 75E6	JNZ	000A
JNC GO2	0745:0024 CC	INT	3
XCHG AL,[SI+1]	•		
MOV [SI],AL	Result		
GO2: INC SI			
DEC DL	Data Segment		
JNZ GO1	-d ds:0		
DEC CL	0744:0000 45 32 22 02 01		
JNZ GO3			
INT 03H			
CODE ENDS			