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Batch: S3

Experiment No.5

Aim: To perform an assembly program to sort an array in ascending order and descending order.

Program for sorting an array in ascending order:

```
ASSUME CS: CODE, DS: DATA

DATA SEGMENT
ARR DB 07H, 02H, 11H, 03H, 12H
DATA    ENDS

CODE SEGMENT
START:
MOV AX, DATA
MOV DS, AX
MOV CH, 04H
UP2: MOV CL, 04H
LEA SI, ARR
UP1: MOV AL, [SI]
MOV BL, [SI+1]
CMP AL, BL
JC DOWN
MOV DL, [SI+1]
XCHG [SI], DL
MOV [SI+1], DL
DOWN: INC SI
DEC CL
JNZ UP1
```

```

DEC CH
JNZ UP2
INT 03H
CODE ENDS
END START

```

Output:

Aim: To perform an assembly program to sort an array in ascending order and descending order.

Program for sorting an array in ascending order:

```

ASSUME CS: CODE, DS: DATA
DATA SEGMENT
ARR DB 07H, 02H, 11H, 03H, 12H
DATA ENDS

```

CODE SEGMENT

START:

MOV AX, DATA

MOV DS, AX

MOV CH, 04H

UP2: MOV CL, 04H LEA SI, ARR

UP1: MOV AL, [SI] MOV BL, [SI+1] CMP AL, BL

JNC DOWN

MOV DL, [SI+1] XCHG [SI], DL MOV [SI+1], DL DOWN: INC SI DEC CL

JNZ UP1

DEC CH

JNZ UP2

INT 03H

CODE ENDS

END START

Output:



