

**PRACTICAL – 40****AIM:**

**Write an assembly language program to arrange an array of 10 data in ascending order. The length of the list is in memory location 2200H and the series itself begins from memory location 2201H**

**CODE:**

```
org 100h
mov [4000h],01h
mov [4001h],03h
mov [4002h],05h
mov [4003h],02h
mov [4004h],04h
mov [4005h],06h
mov bh,5
```

```
lab2:
mov si,4001h
mov cx,5
```

```
label1:
mov al,[si-1]
mov ah,[si]
cmp al,ah
jg l2
jmp repeat
```

```
l2:
mov dl,[si-1]
mov bl,[si]
```

```

mov [si-1],bl
mov [si],dl
jmp repeat

```

```

repeat:
inc si
cmp si,4006h
jnz label1

```

```

dec bh
cmp bh,00h
jnz lab2
ret

```

## OUTPUT:

Address	01	03	05	02	04	06	00	00-00	00	00	00	00	00	00	00	00	00
0700:4000	01	03	05	02	04	06	00	00-00	00	00	00	00	00	00	00	00	00
0700:4010	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4020	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4030	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4040	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4050	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4060	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4070	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00

Address	01	02	03	04	05	06	00	00-00	00	00	00	00	00	00	00	00	00
0700:4000	01	02	03	04	05	06	00	00-00	00	00	00	00	00	00	00	00	00
0700:4010	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4020	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4030	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4040	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4050	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4060	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00
0700:4070	00	00	00	00	00	00	00	00-00	00	00	00	00	00	00	00	00	00

**CONCLUSION:** In this practical, we learnt how to store array's data into a memory location in ascending order.