



Shri Vile Parle Kelavani Mandal's

DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING

(Autonomous College Affiliated to the University of Mumbai)

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Name:	Prerna Sunil Jadhav
Sap Id:	60004220127
Class:	T. Y. B.Tech (Computer Engineering)
Course:	Processor Organization and Architecture (POA)
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AIM: Assembly program to transfer n block of data from one segment to another segment.

CODE:

```
data segment
    seg1 db 1h,2h,3h
ends
extra segment
    seg2 db ?
ends
code segment
    start:
        mov ax,data
        mov ds,ax
        mov ax,extra
        mov es,ax
        lea si,seg1
        lea di,seg2
        mov cx,03h
x: mov ah,ds:[si]
    mov es:[di],ah
    inc si
    inc di
    dec cx
    jnz x
    int 3
ends
```



OUTPUT:

The screenshot displays an 8086 emulator interface with three main windows:

- Registers Window:** Shows the state of various registers. The Program Counter (IP) is at 0104. The Data Segment (DS) is at 0710. The Extra Segment (ES) is at 0711.
- Source Code Window:** Displays the assembly code being executed. The current instruction is `INT 3` at address 0004.
- Random Access Memory Window:** Shows a memory dump starting at address 0710:0000. The dump includes hexadecimal values and their corresponding ASCII representations.

The assembly code in the Source Code window is as follows:

```

0001 DATA SEGMENT
0002 SEG1 DB 1H,2H,3H
0003 ENDS
0004 EXTRA SEGMENT
0005 SEG2 DB ?
0006 ENDS
0007 CODE SEGMENT
0008 START:
0009 MOV AX,DATA
0010 MOV DS,AX
0011 MOV AX,EXTRA
0012 MOV ES,AX
0013
0014 LEA SI,SEG1
0015 LEA DI,SEG2
0016 MOV CX,03H
0017 X: MOV AH,DS:[SI]
0018 MOV ES:[DI],AH
0019
0020 INC SI
0021 INC DI
0022 DEC CX
0023 JNZ X
0024 INT 3
0025
0026 ENDS
0027 END START
    
```