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BRANCH :- Comps -B.   **BRANCH:** B.
EXPERIMENT 2: Simulate the operation of COPY and PASTE in 8086.
SUBJECT :- CAO (COMPUTER ARCHITECTURE AND ORGANIZATION)

TOPIC :- COPYING 10 16-BIT NUMBERS FROM SOURCE INDEX TO DESTINATION INDEX.

CODE :-

```
data segment
data ends
code segmet
assume cs:code,ds:data
start:
mov ax,1000h
mov ds,ax
mov si,0000h
mov di,2000h
mov cx,0Ah
xyz:
mov ax,[si]
mov [di],ax
add si,02
add di,02
dec cx
jnz xyz
mov ah,4ch
int 21h
code ends
end start
```

OUTPUT :-


```
DOSBox 0.74, Cpu speed:   3000 cycles, Frameskip  0, Program:   DEBUG
Run File [manish2.exe]:
List File [nul.map]:
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4021: no stack segment

C:\HOME\STUDENTS\MANISH\8086>debug manish2.exe
-d 1000:0000
1000:0000  8A 45 0E 2A E4 50 9A D1-06 3B 12 83 C4 02 89 46   .E.*.P...;....F
1000:0010  FC 0B C0 75 05 9A 8E FA-A2 01 8B 5C 0C 8A 47 16   ...u.......\..G.
1000:0020  8B 5E FC 88 07 FF 74 0C-E8 29 1A 8B 46 FC 89 44   .^....t..)..F..D
1000:0030  0C C6 44 0E 01 C6 44 0B-02 80 7C 0B 02 75 5D 8A   ..D...D...|..u].
1000:0040  44 0E 2A E4 89 46 F4 8B-5E 04 3B 47 02 73 30 FF   D.*..F..^.;G.s0.
1000:0050  77 02 FF 74 0C 9A 53 07-3B 12 83 C4 04 89 44 0C   w..t..S.;.....D.
1000:0060  03 46 F4 89 46 FC 8B 5E-04 8B 46 F4 39 47 02 76   .F..F..^..F.9G.v
1000:0070  22 8B 5E FC FF 46 FC C6-07 20 FF 46 F4 EB E7 8B   ".^..F... .F....
-e 1000:0000
1000:0000  8A.28    45.09    0E.24    2A.08    E4.13    50.03    9A.55    D1.66
1000:0008  06.77    3B.88    12.99    83.00    C4.11    02.22    89.33    46.44
1000:0010  FC.02    0B.98    C0.64    75.14
-g

Program terminated normally
```



```
DOSBox 0.74, Cpu speed:   3000 cycles, Frameskip  0, Program:   DEBUG

Program terminated normally
-d 1000:2000h
            ^ Error
-d 1000:2000
1000:2000  28 09 24 08 13 03 55 66-77 88 99 00 11 22 33 44   (.$...Ufw...."3D
1000:2010  02 98 64 14 00 00 00 00-F0 06 00 00 00 00 00 00   ..d.............
1000:2020  F8 06 00 00 00 00 00 00-00 07 00 00 00 00 00 00   ................
1000:2030  08 07 00 00 00 00 00 00-10 07 00 00 00 00 00 00   ................
1000:2040  18 07 00 00 00 00 00 00-20 07 00 00 00 00 00 00   ................
1000:2050  28 07 00 00 00 00 00 00-30 07 00 00 00 00 00 00   (.......0.......
1000:2060  3B 07 00 00 00 00 00 00-40 07 00 00 00 00 00 00   8.......@.......
1000:2070  48 07 00 00 00 00 00 00-50 07 00 00 00 00 00 00   H.......P.......
-d 1000:0000
            ^ Error
-d 1000:0000
1000:0000  28 09 24 08 13 03 55 66-77 88 99 00 11 22 33 44   (.$...Ufw...."3D
1000:0010  02 98 64 14 05 9A 8E FA-A2 01 8B 5C 0C 8A 47 16   ..d........\..G.
1000:0020  8B 5E FC 88 07 FF 74 0C-E8 29 1A 8B 46 FC 89 44   .^....t..)..F..D
1000:0030  0C C6 44 0E 01 C6 44 0B-02 80 7C 0B 02 75 5D 8A   ..D...D...|..u].
1000:0040  44 0E 2A E4 89 46 F4 8B-5E 04 3B 47 02 73 30 FF   D.*..F..^.;G.s0.
1000:0050  77 02 FF 74 0C 9A 53 07-3B 12 83 C4 04 89 44 0C   w..t..S.;.....D.
1000:0060  03 46 F4 89 46 FC 8B 5E-04 8B 46 F4 39 47 02 76   .F..F..^..F.9G.v
1000:0070  22 8B 5E FC FF 46 FC C6-07 20 FF 46 F4 EB E7 8B   ".^..F... .F....
```

TOPIC :- COPYING 10 16-BIT NUMBERS FROM ONE SEGMENT TO ANOTHER SEGMENT.

CODE :-

```
data segment
data ends
code segment
assume cs:code, ds:data
start:
mov ax,1000h
mov ds,ax
mov si,0000h
mov di,0000h
mov cx,0Ah
mov ax,2000h
mov es,ax
xyz:
mov ax,[si]
mov es:[di],ax
add si,02
add di,02
dec cx
jnz xyz
mov ah,4ch
int 21h
code ends
end start
```

OUTPUT :-