```
################################################################################
################################################################################
```
EXP : 3
```
################################################################################
################################################################################
```


Name   : Rishabh Sarswa
Rollno : 19UELE8030

Experiment : 3

Aim :   Exchange Contents of Memory locations 1000H and 1001H

Software Use : GNUSim8085

Program :

        -------- program in asm ------

```asm
LXI B,1000H      ;Load first operand address
LXI D,1001H      ;Load second operand address
LDAX B           ;Load first value
MOV H,A
LDAX D           ;Load second value
STAX B           ;Store second value
MOV A,H
STAX D           ;Store second value
HLT              ;Stop Program
```

        ------- end program -------

GNUSim8085 - 8085 Microprocessor Simulator

File   Reset   Assembler   Debug   Help

Registers

A	07
BC	10	00
DE	10	01
HL	07	01
PSW	00	00
PC	42	0D
SP	FF	FF
Int-Reg	00

Flag

S	0
Z	0
AC	0
P	0
C	0

Decimal - Hex Convertion

Decimal	Hex
0	0

→ To Hex   ← To Dec

I/O Ports

0   —   +   00

↻ Update Port Value

Memory

0   —   +   00

↻ Update Memory

Load me at

```
1
2
3    LXI B,1000H        ;Load first operand address
4    LXI D,1001H        ;Load second operand address
5    LDAX B             ;Load first value
6    MOV H,A
7    LDAX D             ;Load second value
8    STAX B             ;Store second value
9    MOV A,H
10   STAX D             ;Store second value
11
12   HLT                ;Stop Program
13
14
15
```

Data   Stack   KeyPad   **Memory**   I/O Ports

Start   1000h   OK

Address (Hex)	Address	Data
1000	4096	3
1001	4097	7
1002	4098	0
1003	4099	0
1004	4100	0
1005	4101	0
1006	4102	0
1007	4103	0
1008	4104	0
1009	4105	0
100A	4106	0

Line No	Assembler Message
0	Program assembled successfully

Simulator: Idle