

AIM: To compute swapping of numbers using 8085 processor.

ALGORITHM:

- 1) Load a 8-bit number from memory location into accumulator.
- 2) Move value of accumulator into register H.
- 3) Load a 8-bit number from next memory location into accumulator.
- 4) Move value of accumulator into register D.
- 5) Exchange both the registers pairs.
- 6) Halt

PROGRAM:

```
LDA 2001
MOV B,A
LDA 2002
STA 2001
MOV A,B
STA 2002
HLT
```

INPUT & OUTPUT

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

Register	Value
A	0A
BC	0A 00
DE	00 00
HL	20 42
PSW	00 00
PC	42 0F
SP	FF FF
Int-Reg	00

Flag

Flag	Value
S	0
Z	1
AC	0
P	1
C	0

Decimal - Hex Conversion

Decimal: 0 Hex: 0

I/O Ports

Memory

Address (Hex)	Address	Data
07D1	2001	5
07D2	2002	10
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0

Assembler Message

0 Program assembled successfully

Simulator: Idle

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Registers

A	05
BC	05 00
DE	00 00
HL	20 42
PSW	00 00
PC	42 0F
SP	FF FF
Int-Reg	00

Flag

S	0
Z	1
AC	0
P	1
C	0

Load me at

```

1  LDA 2001
2  MOV B,A
3  LDA 2002
4  STA 2001
5  MOV A,B
6  STA 2002
7  HLT

```

Memory

Start

Address (Hex)	Address	Data
07D1	2001	10
07D2	2002	5
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0

I/O Ports

Memory

Assembler Message

Line No	Assembler Message
0	Program assembled successfully

Simulator: Idle

RESULT: Thus the program was executed successfully using 8085 processor simulator.