

Load me at

```

1
2 ;<Program title>
3
4 jmp start
5
6 ;data
7
8
9 ;code
10 start: nop
11 LDA 2001
12 MOV B,A
13 MVI C,01
14 MVI E,01
15 LOOP: MOV D,C
16 MVI A,00H
17 LP: ADD E
18 DCR D
19 JNZ LP
20 MOV E,A
21 INR C
22 DCR B
23 JNZ LOOP
24 MOV A,E
25 STA 2010
26 HLT

```

Memory

0	-	+	00
 Update Memory			

Start 2001 OK

Line No	Assembler Message
---------	-------------------

```
0      Program assembled successfully
```

GNUSim8085 - 8085 Microprocessor Simulator

FileResetAssemblerDebugHelp

Registers

A	22
BC	00 00
DE	00 18
HL	08 0D
PSW	00 00
PC	42 19
SP	FF FF
Int-Reg	00

Flag

S	0
Z	1
AC	0
P	1
C	0

Decimal - Hex Conversion

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

4

5

6

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8

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11

12

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16

17

18

19

20

21

22

23

<Program title>

jmp start

;data

;code

start: nop

LXI H,2050

MOV C,M

DCR C

INX H

MOV A,M

LOOP1: INX H

CMP M

JNC LOOP

MOV A,M

LOOP: DCR C

JNZ LOOP1

STA 2058

HLT

DataStackKeyPadMemoryI/O Ports

Start2050OK

Address (Hex)	Address	Data
0802	2050	11
0803	2051	20
0804	2052	32
0805	2053	25
0806	2054	17
0807	2055	16
0808	2056	34
0809	2057	7
080A	2058	34
080B	2059	0
080C	2060	0
080D	2061	0
080E	2062	0
080F	2063	0
0810	2064	0
0811	2065	0
0812	2066	0
0813	2067	0

Line No	Assembler Message
0	Program assembled successfully

Simulator: Idle

ENG IN22:4113-06-2024

— □ ×

Flag

Load me at

```

1
2      ;<Program title>
3
4      jmp start
5
6      ;data
7
8
9      ;code
10     start: nop
11         LXI H,2050
12         MOV C,M
13         DCR C
14         INX H
15         MOV A,M
16         LOOP1: INX H
17         CMP M
18         JC LOOP
19         MOV A,M
20         LOOP: DCR C
21         JNZ LOOP1
22         STA 2050
23         HLT


```

Decimal - Hex Conversion

Decimal	Hex
0	0
<input type="button" value="→ To Hex"/>	<input type="button" value="← To Dec"/>

I/O Ports

0	-	+	00
---	---	---	----

 Update Port Value

Memory

0	-	+	00
---	---	---	----

 Update Memory

The screenshot shows the 'Memory' window in the Keil IDE. At the top, there are tabs for 'Data', 'Stack', 'Keypad', 'Memory' (which is selected), and 'I/O Ports'. Below the tabs, there is a 'Start' field containing the address '2050' and an 'OK' button. The main area displays a table of memory contents:

Address (Hex)	Address	Data
0802	2050	5
0803	2051	2
0804	2052	1
0805	2053	4
0806	2054	7
0807	2055	15
0808	2056	13
0809	2057	21
080A	2058	1
080B	2059	0
080C	2060	0
080D	2061	0
080E	2062	0
080F	2063	0

Line No	Assembler Message
0	Program assembled successfully

Simulator: Idle

Memory

0	-	+	00
 Update Memory			

```

1
2      ;<Program title>
3
4      jmp start
5
6      ;data
7
8
9      ;code
10     start: nop
11     LOOP: LXI H,3500
12     MVI D,00
13     MVI C,05
14     LOOP1: MOV A,M
15     INX H
16     CMP M
17     JC LOOP2
18     MOV B,M
19     MOV M,A
20     DCX H
21     MOV M,B
22     INX H
23     MVI D,01
24     LOOP2: DCR C
25     JNZ LOOP1
26     MOV A,D
27     HLT

```

Line No	Assembler Message
0	Program assembled successfully

GNUSim8085 - 8085 Microprocessor Simulator

FileResetAssemblerDebugHelp

Registers

A	00
BC	19 00
DE	00 18
HL	0D B1
PSW	00 00
PC	42 22
SP	FF FF
Int-Reg	00

Flag

S	0
Z	1
AC	0
P	1
C	0

Decimal - Hex Conversion

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

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

<Program title>

jmp start

data

code

start: nop

LOOP: LXI H, 3500

MVI D, 00

MVI C, 05

LOOP1: MOV A, M

INX H

CMP M

JNC LOOP2

MOV B, M

MOV M, A

DCX H

MOV M, B

INX H

MVI D, 01

LOOP2: DCR C

JNZ LOOP1

MOV A, D

RRC

JC LOOP

HLT

DataStackKeyPadMemoryI/O Ports

Start

3500

OK

Address (Hex)	Address	Data
0DAC	3500	25
0DAD	3501	25
0DAE	3502	20
0DAF	3503	10
0DB0	3504	5
0DB1	3505	5
0DB2	3506	0
0DB3	3507	0
0DB4	3508	0
0DB5	3509	0
0DB6	3510	0
0DB7	3511	0
0DB8	3512	0
0DB9	3513	0
0DBA	3514	0
0DBB	3515	0
0DBC	3516	0
0DBD	3517	0

Line No	Assembler Message
0	Program assembled successfully

Simulator: Idle

ENG IN23:2513-06-2024

Flag

Load me at

Simulator: Idle

Line No	Assembler Message
0	Program assembled successfully

Load me at

```

1
2 ;<Program title>
3
4 jmp start
5
6 ;data
7
8
9 ;code
10 start: nop
11 LDA 2001
12 MOV B,A
13 LDA 2002
14 MOV C,A
15 STA 2003
16 MOV A,B
17 STA 2004
18 HLT

```

Memory

0	-	+	00
 Update Memory			

Line No	Assembler Message
0	Program assembled successfully

Load me at

```

1  LXI H,8000
2  XRA A
3  MOV B,M
4  LOOP: ADD M
5  DCR B
6  JNZ LOOP
7  STA 8001
8  HLT

```

Decimal	Hex
---------	-----


Hex

0

[← To Dec](#)

0

00


 Update Port Value

0

—

—

00

 Update Memory

Simulator: Idle