
```
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#####  
INDEX                EXP : 9  
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```

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Rollno : 19UELE8030

Experiment : 9

Aim : Write a program to complement status flags on 8085 microProcessor

Software Use : GNUSim8085

Program :

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

```
MVI A, 35H           ;Load a test value  
LXI SP,1008H         ;Intialise the stack pointer(SP)  
PUSH PSW             ;Copy the content of accumulator and flag on the stack  
POP B                ;Retrieve register pair (BC) from stack  
MOV A,C              ;Move the content from register C to A  
CMA                  ;Complement the accumulator  
MOV C,A              ;Store accumulator to C register  
PUSH B               ;Copy the content of BC register pair to stack  
POP PSW              ;Retrieve the content of accumulator and flag from stack  
HLT                  ;Stop the execution
```

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

Applications

*Untitled Document 1 -...

GNUSim8085 - 8085 Mi...

rishu@localhost: ~

22:39

Rishabh Sarswa

GNUSim8085 - 8085 Microprocessor Simulator

FileResetAssemblerDebugHelp

Registers

A	35
BC	35 FD
DE	00 00
HL	00 00
PSW	00 00
PC	42 0D
SP	10 08
Int-Reg	00

Flag

S	1
Z	1
AC	1
P	1
C	1

Decimal - Hex Conversion

Decimal

Hex

144

90

→ 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

MVI A, 35H

LXI SP, 1008H

PUSH PSW

POP B

MOV A, C

CMA

MOV C, A

PUSH B

POP PSW

HLT

;

Initialise the stack pointer(SP)

;

Copy the content of accumulator

;

Retrieve register pair (BC) fr

;

Move the content from register

;

Complement the accumulator

;

Store accumulator to C registe

;

Copy the content of BC registe

;

Retrieve the content of accum

;

Stop the execution

Data

Stack

Keypad

Memory

I/O Ports

Start

1000h

OK

Address (Hex)

Address

Data

1000

4096

0

1001

4097

0

1002

4098

0

1003

4099

0

1004

4100

0

1005

4101

0

1006

4102

253

1007

4103

53

1008

4104

0

1009

4105

0

100A

4106

0

Line No

Assembler Message

0

Program assembled successfully

Simulator: Idle