

SUBTRACTION OF TWO 16-BIT NUMBERS

AIM

To develop an assembly language program to subtract two 16-bit numbers.

ALGORITHM

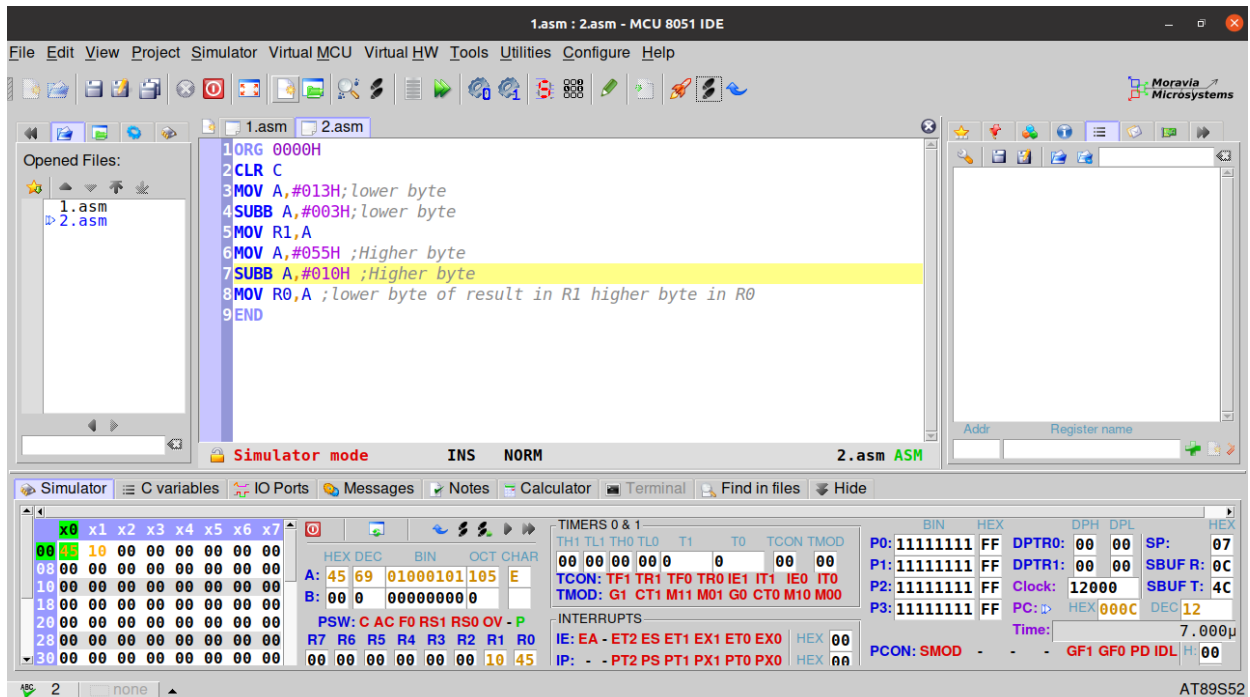
Algorithm 1 Addition of two 16-bit numbers

- 1: Start
- 2: Read the two numbers (n1,n2).
- 3: Subtract the LSB of n2 from n1 and store the result in lower .
- 4: Subtract the MSB of n2 from n1 and store the result in upper .
- 5: upper = upper - borrow
- 6: The LSB of diff is lower and the MSB of diff is upper .
- 7: Print the result (diff).
- 8: Stop

SOURCE CODE

```
ORG 0000H
CLR C
MOV A,#013H;lower byte
SUBB A,#003H;lower byte
MOV R1,A
MOV A,#055H ;Higher byte
SUBB A,#010H ;Higher byte
MOV R0,A ;lower byte of result in R1 higher byte in R0
END
```

OUTPUT:



RESULT:

Executed program to Subtraction of two 16-bit numbers in emu8086 and obtained the required outputs.

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