FIBONACCI NUMBERS

AIM

To develop an assembly language program to find first n Fibonacci numbers.

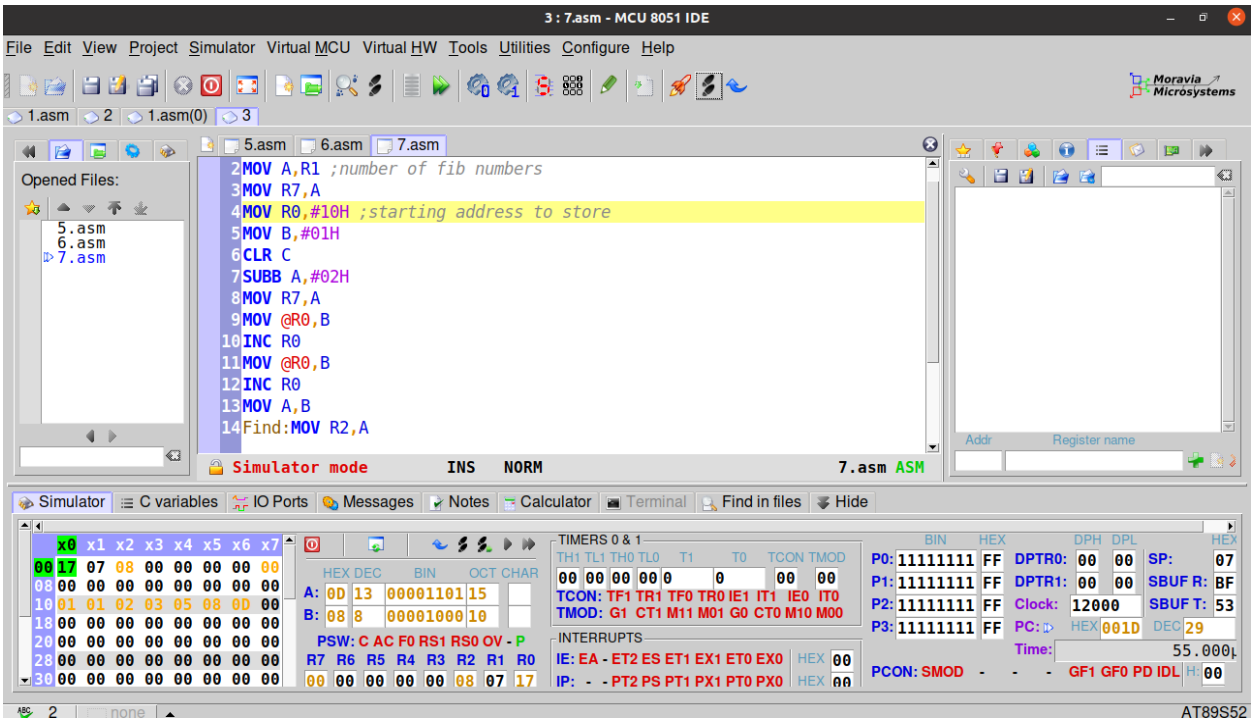
ALGORITHM

```
Algorithm 1 Factorial of an 8-bit number
1: Start
2: Read the number (n).
3: fact = 1
4: for i = 1 to n do
5:    fact = fact* i
6: end for
7: Print the result (fact).
8: Stop
```

SOURCE CODE

```
ORG 000H
MOV A,R1 ;number of fibonacci numbers
MOV R7,A
MOV R0,#10H ;starting address to store
MOV B,#01H
CLR C
SUBB A,#02H
MOV R7,A
MOV @R0,B
INC R0
MOV @R0,B
INC R0
MOV A,B
Find:MOV R2,A
ADD A,B
MOV @R0,A
INC R0
MOV B,R2
DJNZ R7,Find
END
```

OUTPUT:



input in R1 and Output at addresses starting from 0x10

RESULT:

Assembly language program for generating first n Fibonacci numbers has been developed and verified using MCU-8051-IDE.

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