FACTORIAL OF A GIVEN NUMBER

EXP NO: 9

AIM: To find the factorial of a given number using 8085 microprocessor.

ALGORITHM:
1) Load the data into register B
2) To start multiplication set D to 01H
3) Jump to step 7
4) Decrements B to multiply previous number
5) Jump to step 3 till value of B>0
6) Take memory pointer to next location and store result
7) Load E with contents of B and clear accumulator
8) Repeatedly add contents of D to accumulator E times
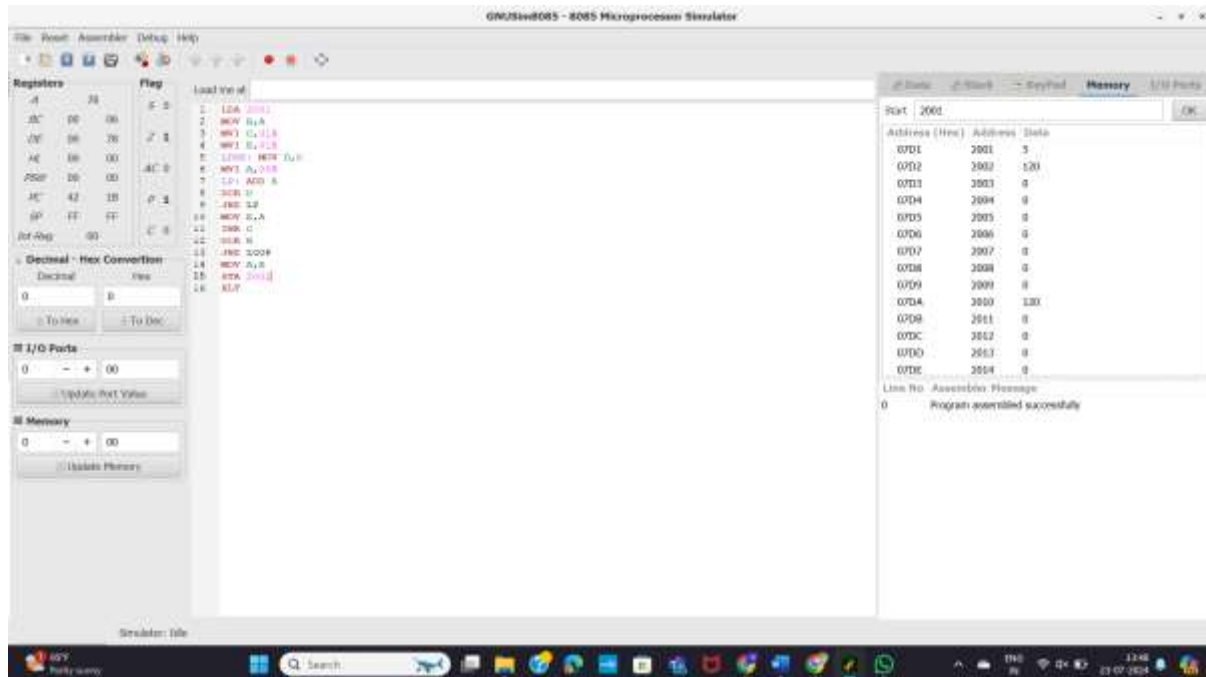9) Store accumulator content to D
10) Go to step 4

PROGRAM:
```
LDA 2001
MOV B,A
MVI C,#01
MVI E,#01
LOOP: MOV D,C
MVI A,00H
LP: ADD E
DCR D
JNZ LP
MOV E,A
INR C
DCR B
JNZ LOOP
MOV A,E
STA 2010
HLT
```

INPUT:

Address (Hex)	Address	Data
07D1	2001	5
07D2	2002	120
07D?	200?	?

OUTPUT:

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