FACTORIAL OF A GIVEN NUMBER

EXP NO: 9

AIM: To find the factorial of a given number using an 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:

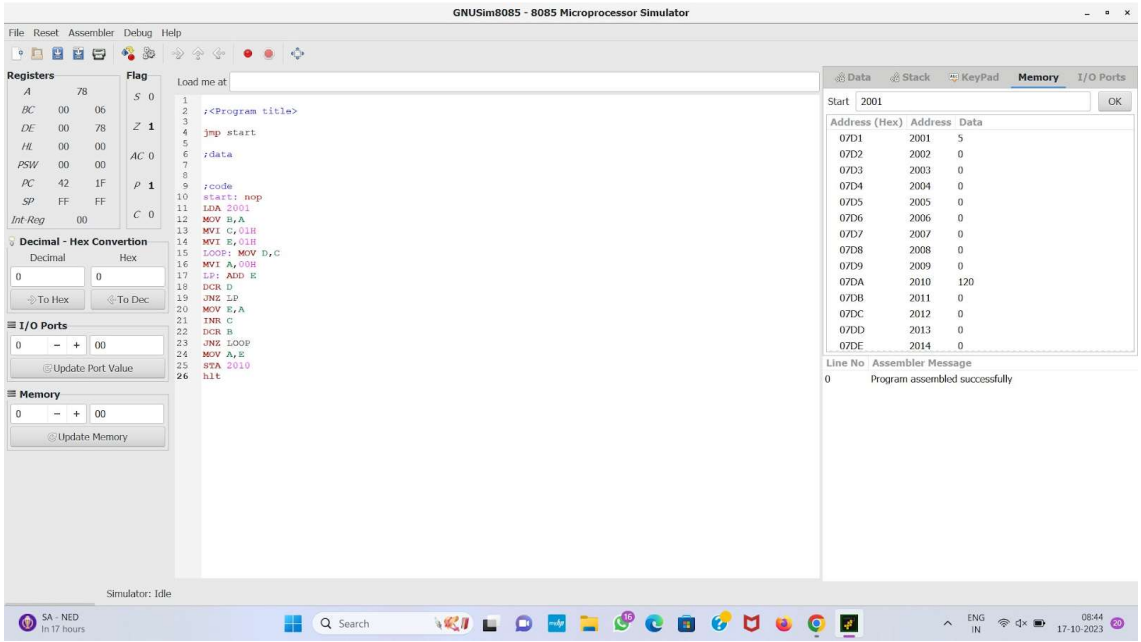
```
LDA 2001

MOV B,A

MVI C,01H

MVI E,01H

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:

OUTPUT:



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