



A.Y. 2022-2023

Subject: Process Organization and Architecture

SAP ID: 60004220253 – Devansh Mehta

Experiment 9

Aim: Assembly program to find Factorial of a number

Part A: Factorial without macros.

Code:

DATA SEGMENT

N1 DW 05H

FACT DW ?

DATA ENDS

CODE SEGMENT

START: MOV AX, DATA

MOV DS, AX

MOV AX, N1

L1: DEC N1

MUL N1

MOV CX, N1

CMP CX, 01H

JNZ L1

MOV FACT, AX

CODE ENDS

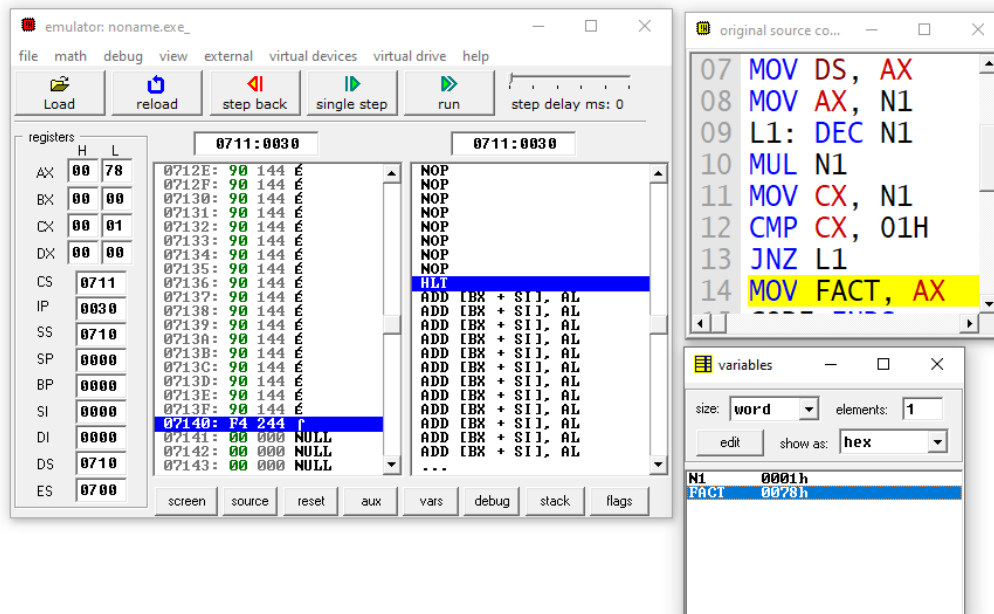
END START



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Part B: Factorial with macros.

Code:

FACT MACRO F

UP:

MUL F

DEC F

JNZ UP

ENDM

DATA SEGMENT

NUM DW 05H

RESULT DW ?

ENDS

CODE SEGMENT



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START:

MOV AX,DATA

MOV DS,AX

MOV CX,NUM

MOV AX, 0001H

FACT NUM

MOV RESULT,AX

ENDS

END START

