# 16-BIT MULTIPLICATION

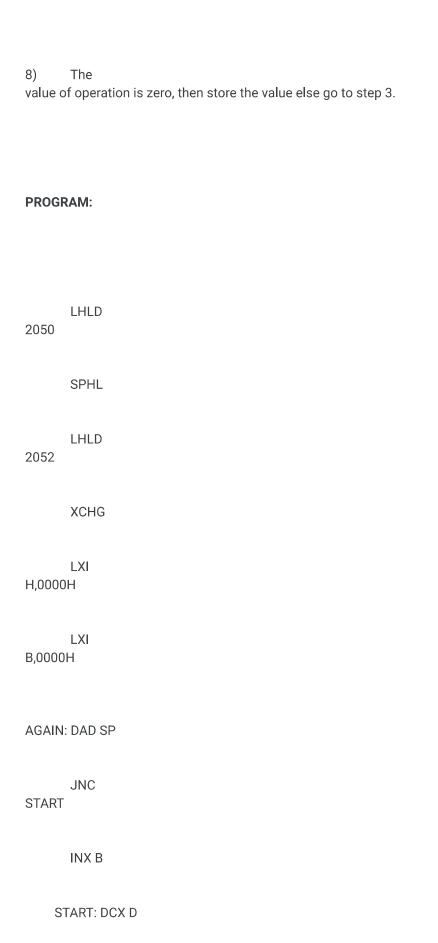
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### AIM:

To write an assembly language program to implement 16-bit multiplication using 8085 processor.

### **ALGORITHM:**

- 1) Load the first data in HL pair.
- 2) Move content of HL pair to stack pointer.
- 3) Load the second data in HL pair and move it to DE.
- 4) Make H register as 00H and L register as 00H.
- 5) ADD HL pair and stack pointer.
- 6) Check for carry if carry increment it by 1 else move to next step.
- 7) Then move E to A and perform OR operation with accumulator and register D.



MOV

A,E

ORA D

JNZ

AGAIN

SHLD

2054

MOV L,C

MOV

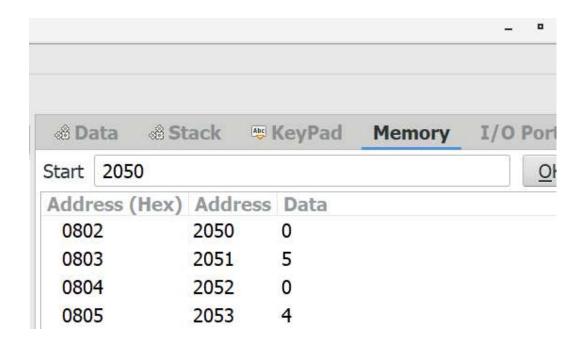
H,B

SHLD

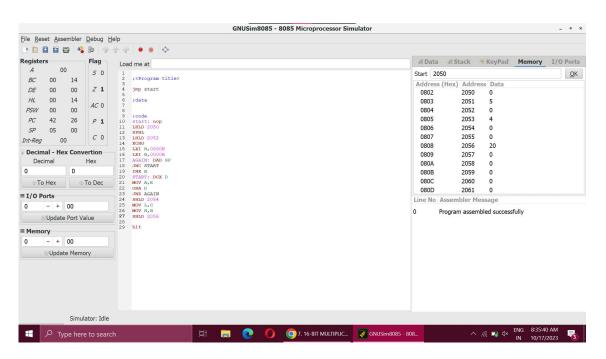
2056

HLT

INPUT:



## **OUTPUT:**



#### **RESULT:** Thus

the program was executed successfully using 8085 processor simulator.