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Aim

Write an assembly language program to add two numbers:  
a) numbers are of 8 - bit  
b) numbers are of 16 - bit

Experiment - 2

Computer Organization and Architecture

# **EXPERIMENT – 2**

## **Aim:**

Write an assembly language program to add two numbers:

a) numbers are of 8 - bit  
b) numbers are of 16 - bit

## **Source Codes:**

## Adding 8 – bit numbers

### Source Code

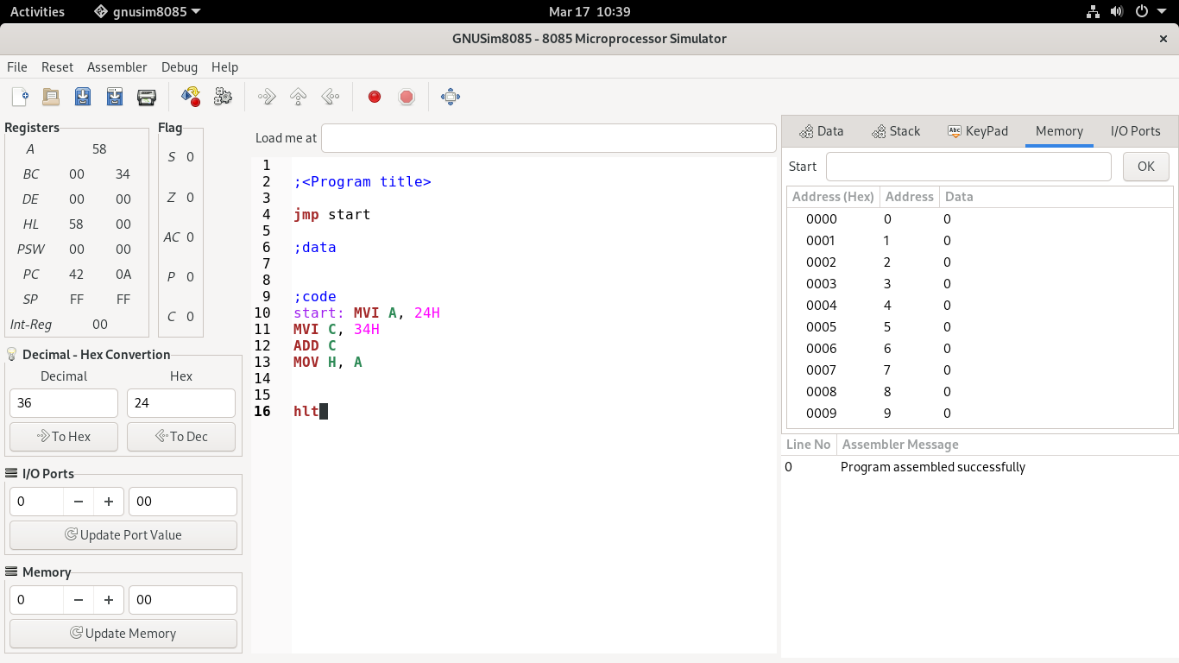
; Adding 8 – bit numbers  
  
jmp start  
  
;data  
  
  
;code  
start: MVI A, 24  
MVI C, 34  
ADD C  
MOV H, A

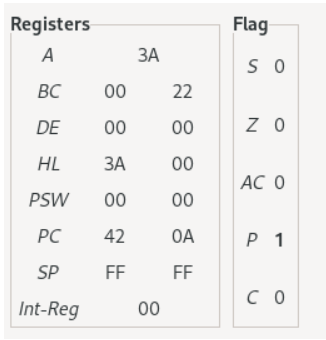
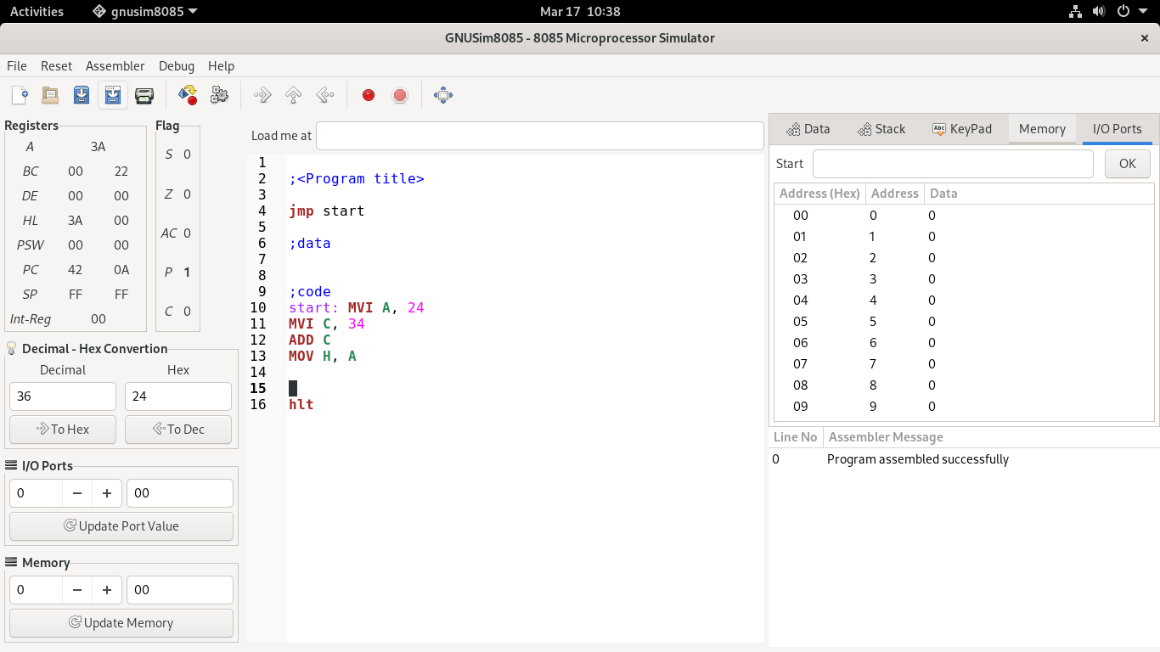
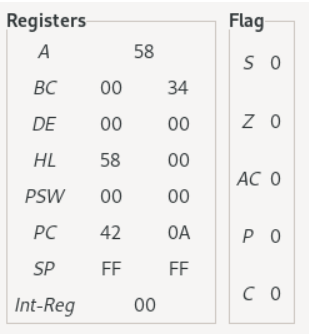
hlt

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; Adding 8 – bit numbers  
  
jmp start  
  
;data  
  
  
;code  
start: MVI A, 24H  
MVI C, 34H  
ADD C  
MOV H, A  
  
  
hlt

## **A) Output:**





## Adding 16 – Bit Numbers

### Source Code

;Adding 16 – bit Numbers  
  
jmp start  
  
;data

;code  
start: LXI H, 2434h  
LXI D, 3417h  
DAD D

hlt

## **B) Output**

