**MICROPROCESSOR-BASED SYSTEMS DESIGN**

**UCS617**

**Lab Assignment-2 (8086)**

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| **8.** | Write an assembly language program to find out the largest number from a given unordered array of 16-bit numbers, stored in the locations starting from a known address in 8086. |  |
| **9.** | Write an assembly language program to print Fibonacci series in 8086. |  |
| **10.** | Write an assembly language program to perform the division 15/6 using the ASCII codes. Store the ASCII codes of the result in register DX. |  |

**Program 1**

**Aim: Write an assembly language program to add two 16-bit numbers in 8086.**

**Sol:**

MOV AX,1234H

MOV BX,1236H

ADD AX,BX

HLT

**Output:**

A screenshot of a computer

Description automatically generated

Fig 1.1

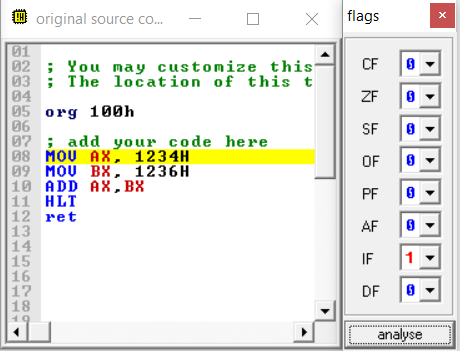


Fig 1.2

**Program 2**

**Aim: Write an assembly language program to subtract two 16-bit numbers in 8086.**

**Sol:**

MOV AX, 1234H

MOV BX, 1236H

SUB AX, BX

HLT

**Output:**

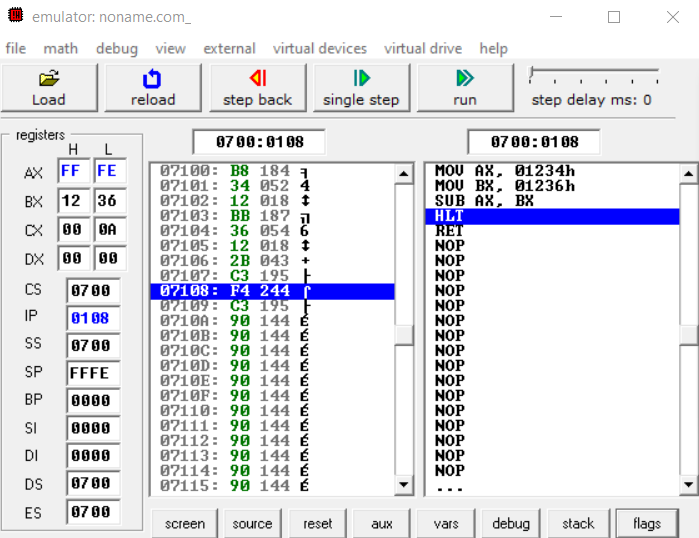


Fig 2.1

A screenshot of a computer

Description automatically generated

Fig 2.2

**Program 3**

**Aim: Write an assembly language program to multiply two 16-bit numbers in 8086.**

**Sol:**

MOV AX, [0301H]

MOV BX, [0303H]

MUL BX

HLT

**Input:**



Fig 3.1

A table with numbers and a list

Description automatically generated

Fig 3.2

**Output:**

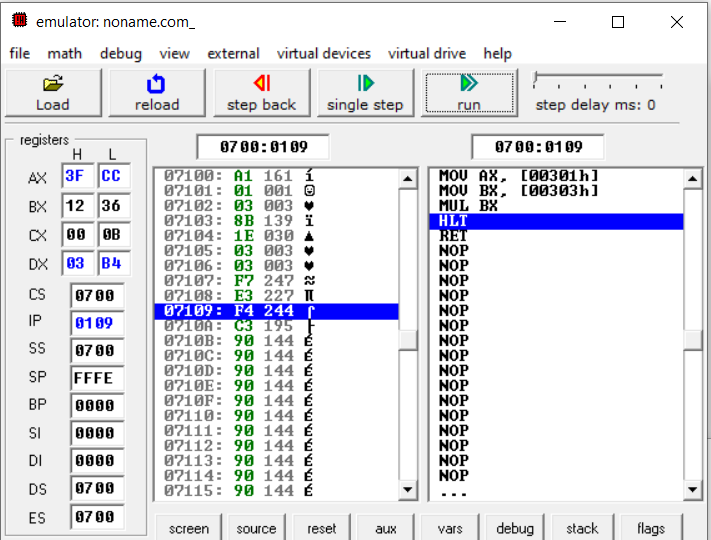


Fig 3.3

A screenshot of a computer

Description automatically generated

Fig 3.4

**Program 4**

**Aim: Write an assembly language program to divide two 16-bit numbers in 8086.**

**Sol:**

MOV AX,5600H

MOV BX,2500H

DIV BX

HLT

**Output:**

A screenshot of a computer

Description automatically generated

Fig 4.1

A screenshot of a computer

Description automatically generated

Fig 4.2