SIDDHI SINGH

17BIT0028

8085 MICROPROCESSOR

① Write an ALP for adding two 8 bit numbers 02H, 07H stored in registers B and C respectively.

```
MVI B, 02H
MVI C, 07H
MOV A, B
ADD C
HLT
```

② Write an ALP for adding two 8 bit number 02H, 1BH stored in registers B and C with carry.

```
MVI B, 02H
MVI C, 1BH
MOV A, B
ADC C
HLT
```

③ Write an ALP for subtracting two 8 bit numbers stored in registers with and without borrow.

WITH BORROW

```
MVI B, 02H
MVI C, 07H
MOV A, B
SBB C
HLT
```

WITHOUT BORROW

```
MVI B, 02H
MVI C, 07H
MOV A, B
SUB C
```

④ Write an ALP for storing the 8 bit data in memory address 01 and 02. Then perform addition of these two numbers and store the result in memory address 03.

```
LXI H, 01H
MOV A, M
INX H
ADD M
INX H
STA 03H
HLT
```

⑤ Write an ALP for storing 8 bit data in memory address 04 and 05. Then perform subtraction of these two number and store the result in memory address 09.

```
LXI H, 08H
MOV A, M
RAR
RAR
RAR
RAR
STA 09H
HLT
```

```
LXI H, 04H
MOV A, M
INX H
SUB M
INX H
INX H
STA 07H
```

⑥ Write an ALP for rotating the data available in a memory address 08 four time towards right and store the result in memory address 09.

```
LXI H, 08H
MOV A, M
RAR
RAR
RAR
RAR
STA 09H
HLT
```

① Write an ALP for finding the 1s complement of data stored in an address 01 and store the result in memory address 02.

```
LXI H, 01H
MOV A, M
CMA
STA 02H
HLT
```

② Write an ALP for finding the 2s complement of data stored in an address 10 and store the result in memory address 12.

```
LXI H, 0AH
MOV A, M
CMA
ADI 01H
STA 0CH
HLT
```

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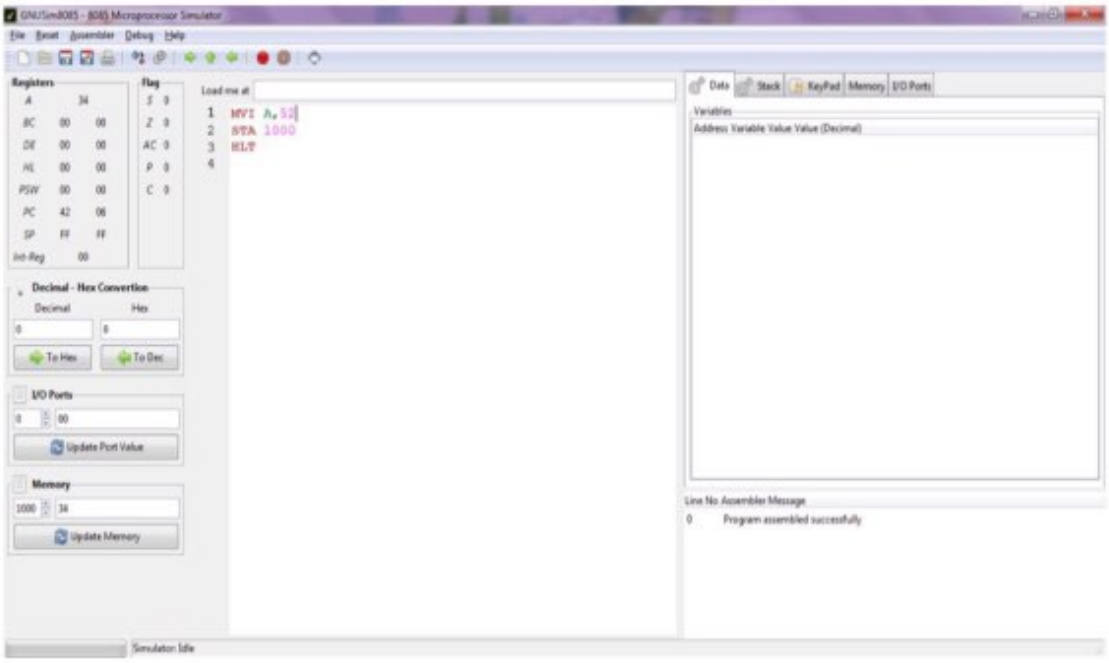

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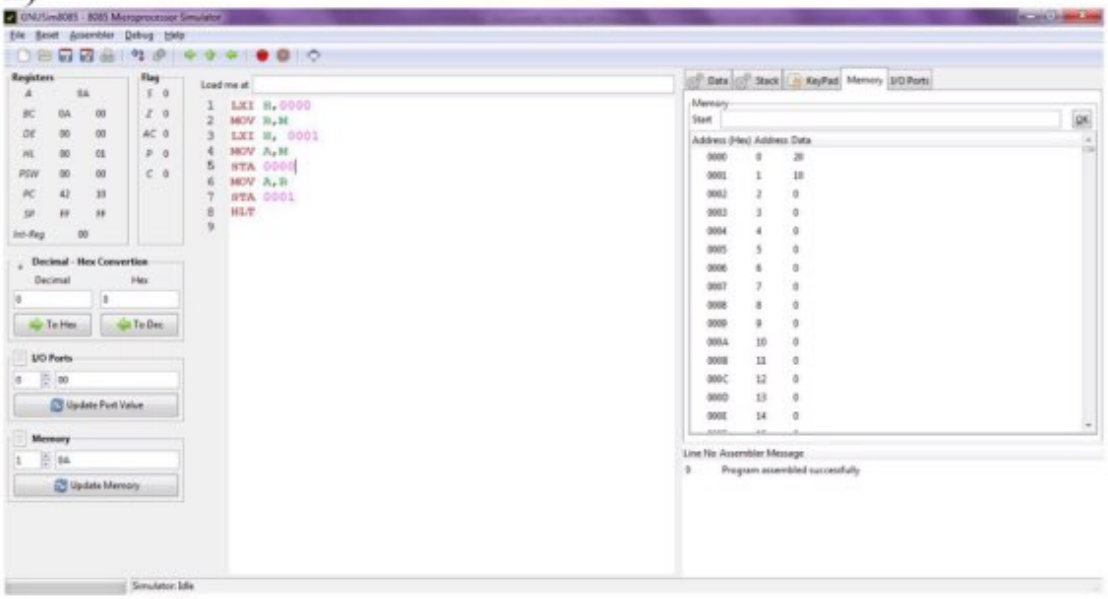

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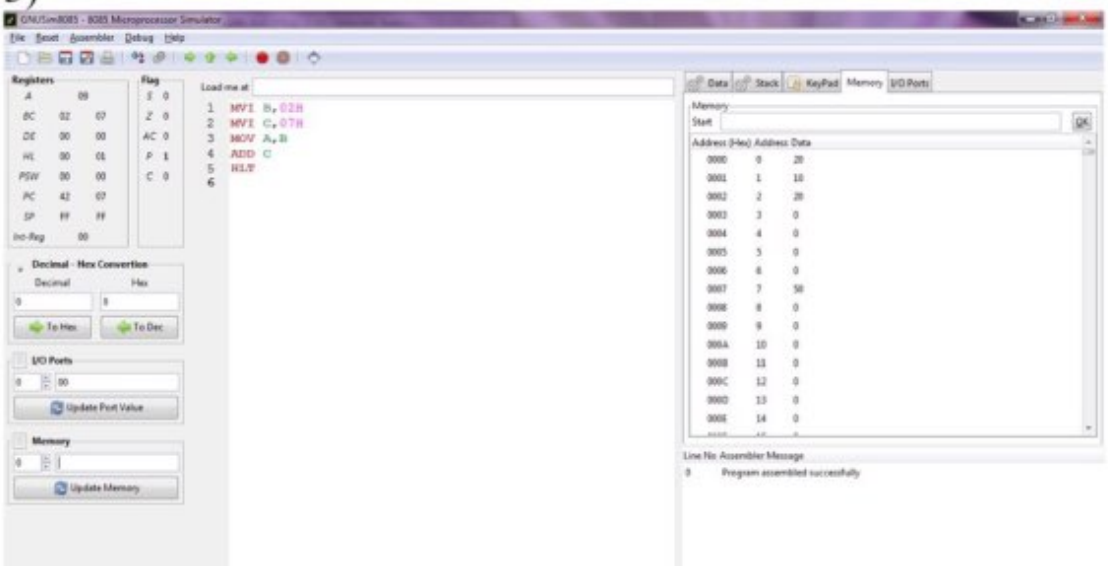

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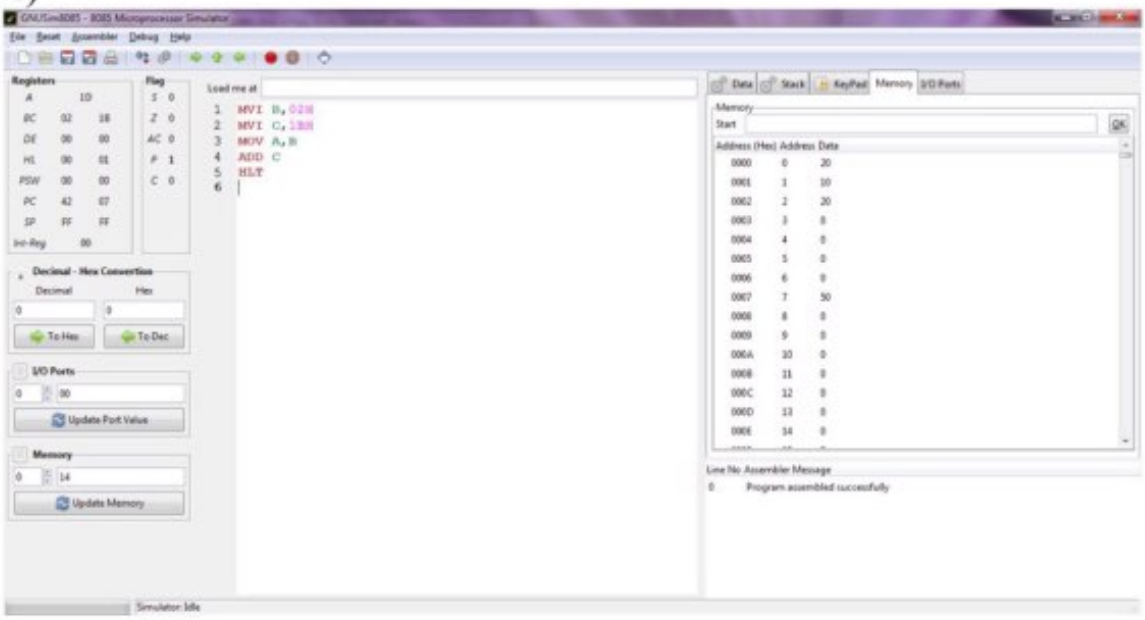

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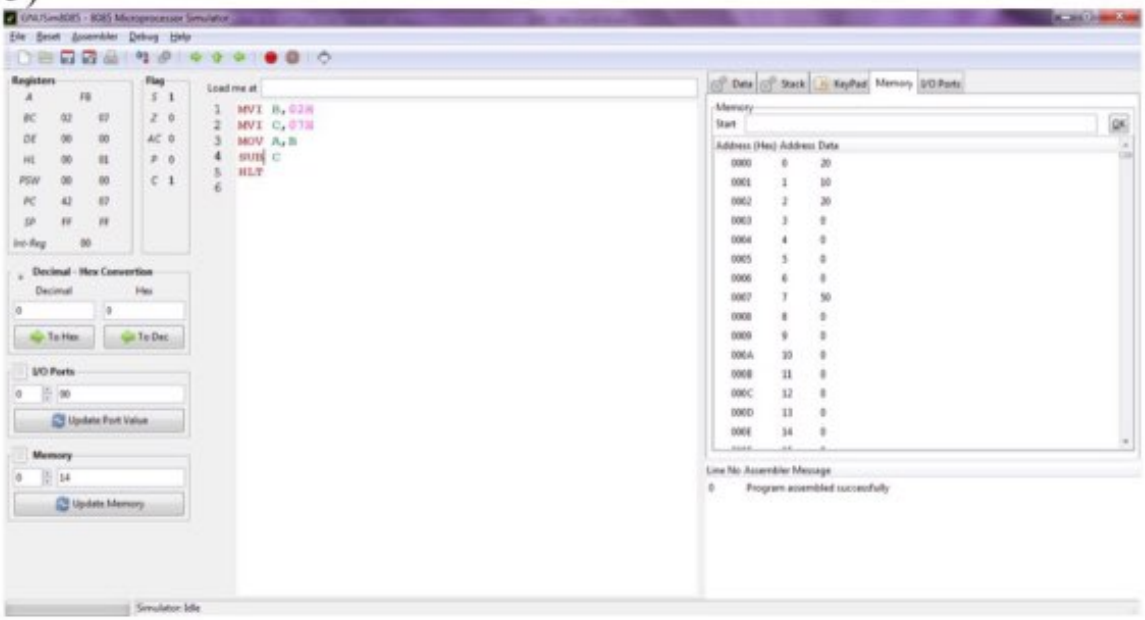

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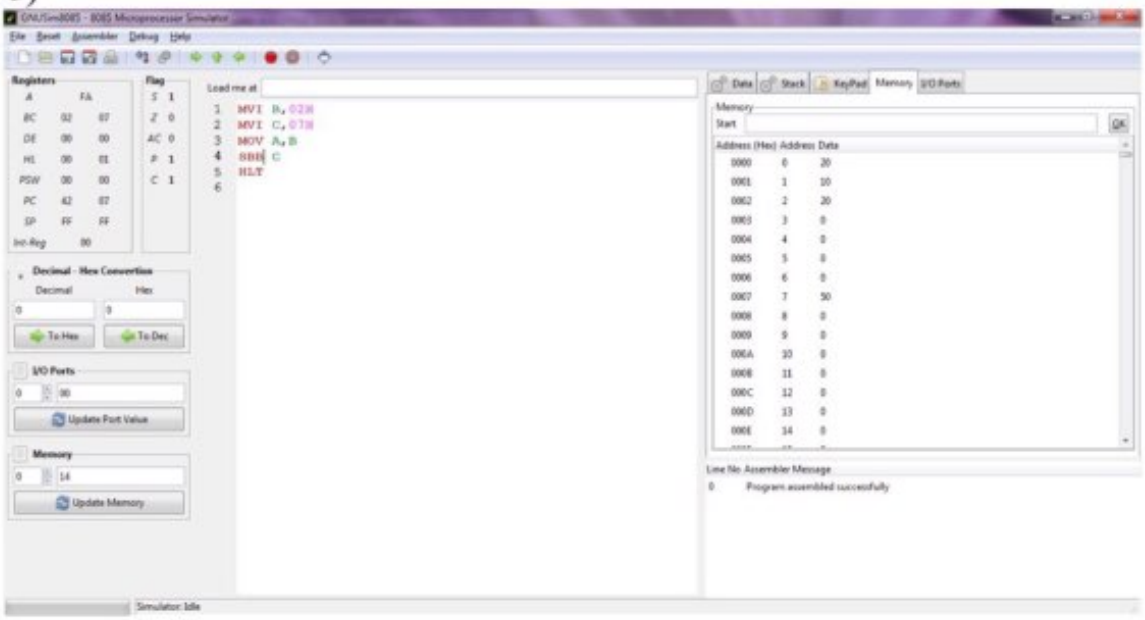

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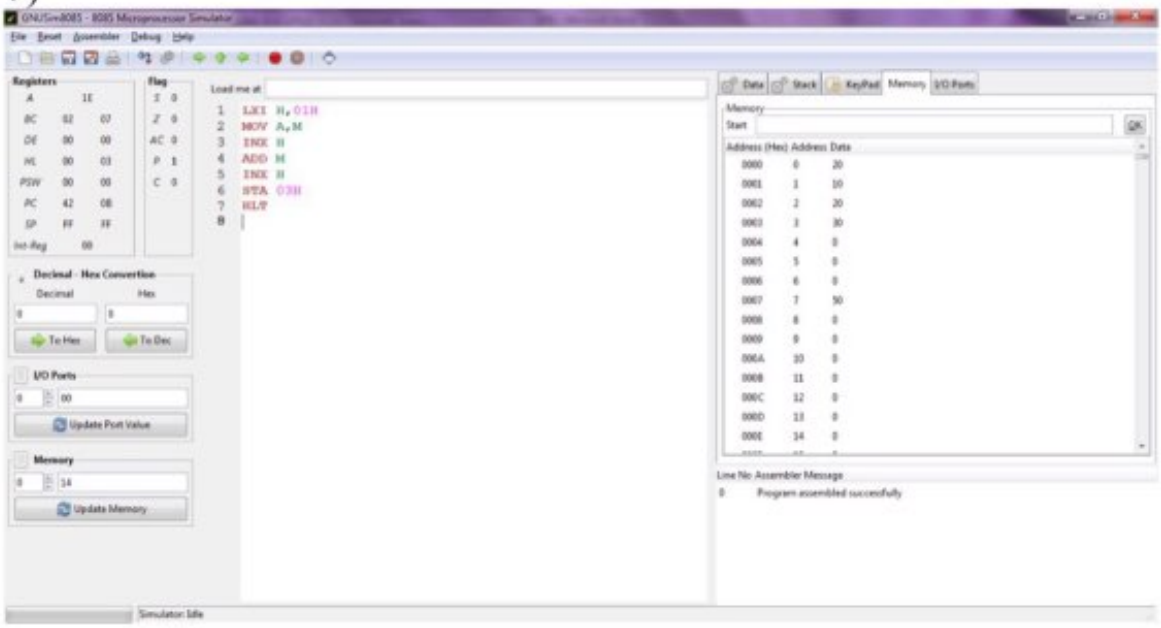

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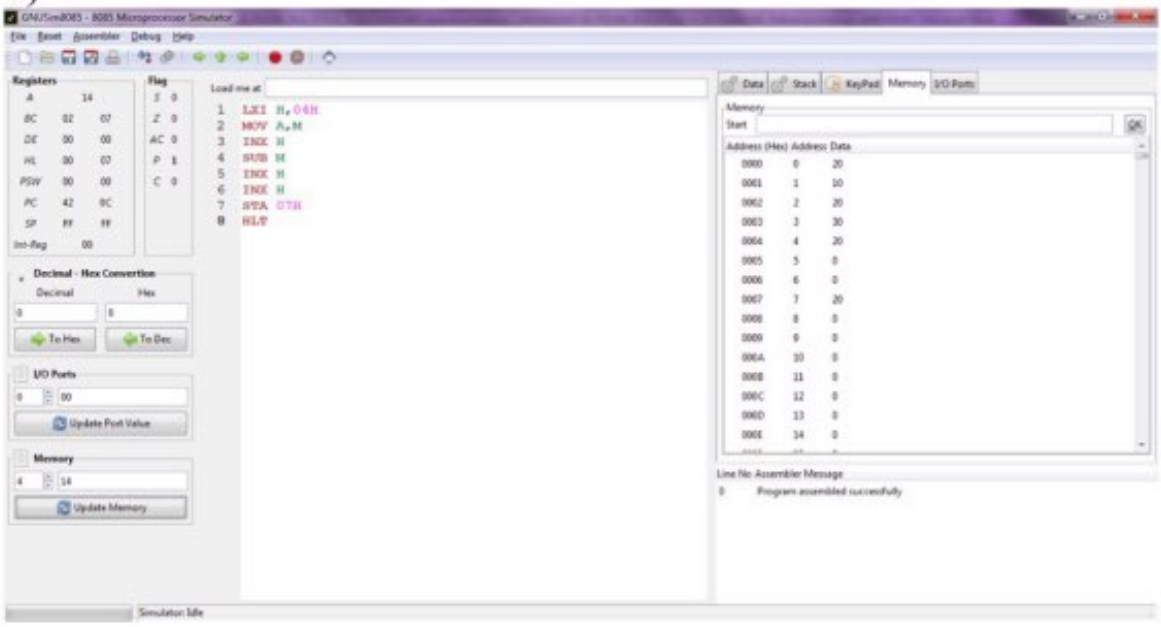

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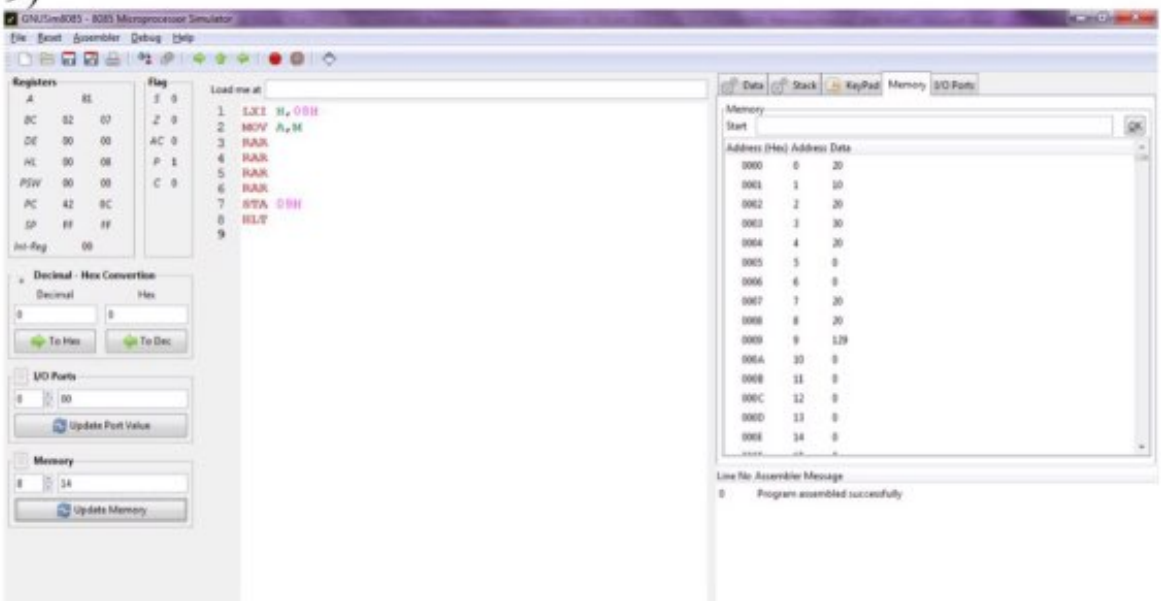

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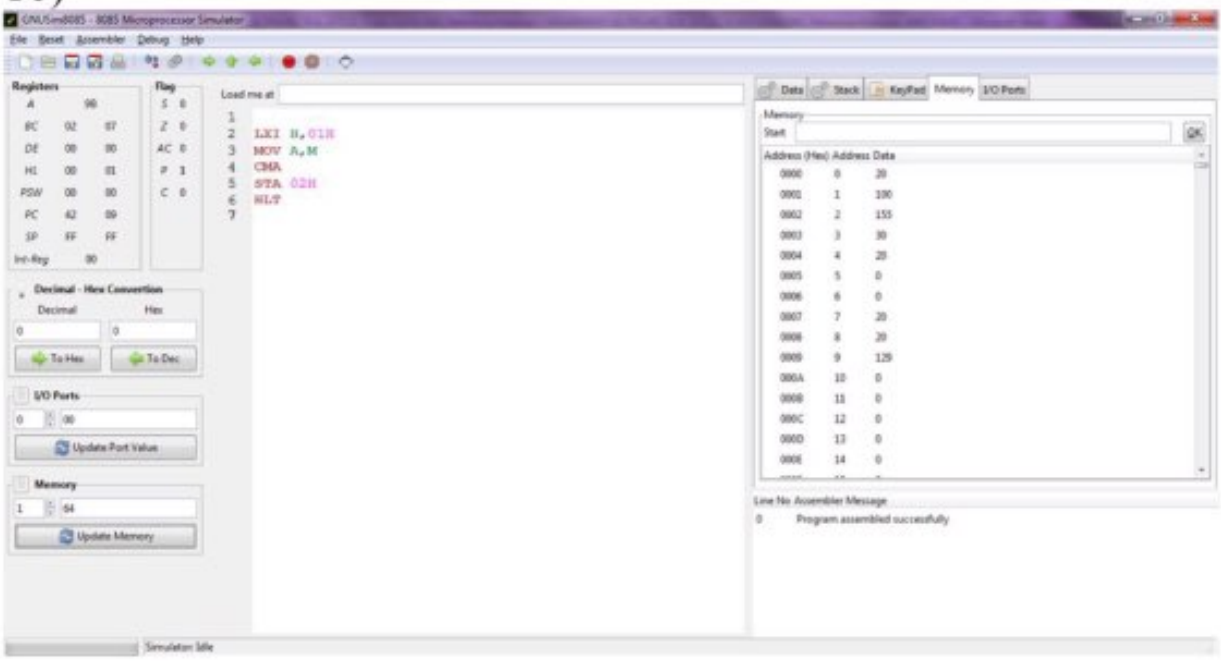

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