

**AIM:**

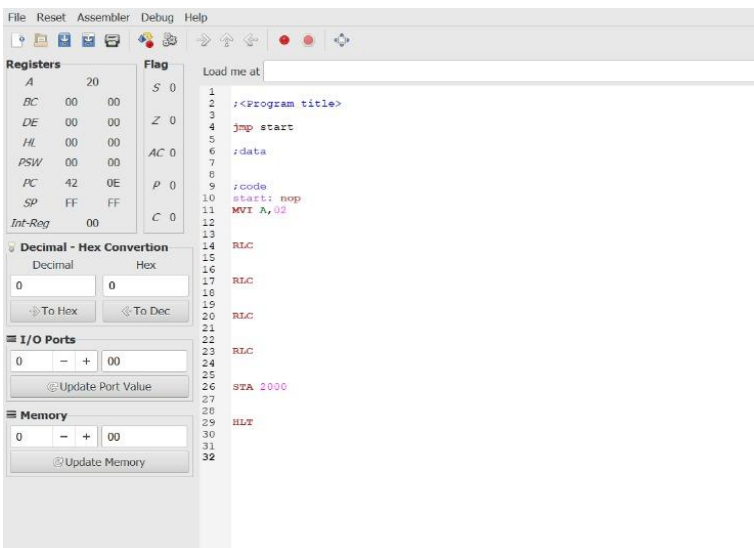
To compute rotation of given data in left without carry using 8085 processor.

**ALGORITHM:**

- 1) Load the base address of the array in HL register pair.
- 2) Move the data from memory location into accumulator.
- 3) Shift left the accumulator content for four times.
- 4) Store the result in the specified location.

**PROGRAM:**

```
MVI A,02  
RLC  
RLC  
RLC  
RLC  
STA 2000  
HLT
```

**INPUT:**

## OUTPUT:

The screenshot displays the 8085 processor simulator interface. The main window is divided into several sections:

- Registers:** Shows the state of the 8085 registers. The Accumulator (A) contains the value 20. The Program Counter (PC) contains 42. The Stack Pointer (SP) contains FF. The Interrupt Register (Int-Reg) contains 00. The Status Register (S) contains 0. The Zero Flag (Z) is 0. The Carry Flag (C) is 0.
- Decimal - Hex Conversion:** A section for converting between decimal and hexadecimal values. The decimal input is 0, and the hexadecimal output is 0.
- I/O Ports:** A section for interacting with I/O ports. The port value is 0, and the update button is labeled "Update Port Value".
- Memory:** A section for viewing and editing memory. The memory address is 0, and the update button is labeled "Update Memory".
- Assembly Code:** The central area for writing and executing assembly code. The code is as follows:

```
1 ;<Program title>
2
3
4 jmp start
5
6 ;data
7
8
9 ;code
10 start: nop
11 MVI A, 02
12
13
14 RLC
15
16
17 RLC
18
19
20 RLC
21
22
23 RLC
24
25
26 STA 2000
27
28
29
30
31
32 HLT
```
- Memory Window:** A table showing the memory contents. The start address is 2000. The memory is organized into a table with columns for Address (Hex), Address, and Data. The data is as follows:

Address (Hex)	Address	Data
0700	2000	32
0701	2001	0
0702	2002	0
0703	2003	0
0704	2004	0
0705	2005	0
0706	2006	0
0707	2007	0
0708	2008	0
0709	2009	0
070A	2010	0
070B	2011	0
070C	2012	0
070D	2013	0
- Assembler Message:** A section for displaying assembler messages. The message is "Program assembled successfully".

## RESULT:

Thus the program was executed successfully using 8085 processor simulator.