

20, Largest number in array

Program

LXI H,2050

MOV C,M

INX H

MOV B,M

DCR C

LOOP1: INX H

MOV A,M

CMP B

JC LOOP

MOV B,A

LOOP: DCR C

JNZ LOOP1

LXI H,2059

MOV M,B

HLT

Output

The screenshot displays the GNUSim8085 - 8085 Microprocessor Simulator interface. The main window is divided into several sections:

- Registers:** A table showing the current state of the 8085 registers. The PC (Program Counter) is 42, and the SP (Stack Pointer) is FF. The PSW (Program Status Word) is 00.
- Flag:** A section showing the status of the flags. The S (Sign) flag is 0, and the Z (Zero) flag is 1.
- Decimal - Hex Conversion:** A section for converting between decimal and hexadecimal values. The decimal value is 0, and the hexadecimal value is 0.
- I/O Ports:** A section for monitoring and controlling I/O ports. The port value is 00.
- Memory:** A section for monitoring and controlling memory. The memory address is 2055, and the data is 42.
- Assembly Code:** A list of assembly instructions being executed. The instructions are: LXI H,2050; MOV C,M; INX H; MOV B,M; DCR C; LOOP1: INX H; MOV A,M; CMP B; JC LOOP; MOV B,A; LOOP: DCR C; JNZ LOOP1; LXI H,2059; MOV M,B; HLT.
- Memory Dump:** A table showing the contents of memory. The address 2050 contains the value 5, and the address 2051 contains the value 55. The address 2052 contains the value 22, and the address 2053 contains the value 44. The address 2054 contains the value 11, and the address 2055 contains the value 66. The address 2056 contains the value 0, and the address 2057 contains the value 0. The address 2058 contains the value 0, and the address 2059 contains the value 66. The address 2060 contains the value 0, and the address 2061 contains the value 0. The address 2062 contains the value 0, and the address 2063 contains the value 0.
- Simulator Status:** A message at the bottom indicating that the program assembled successfully.