Experiment No : 1

Aim : To Study the various features of EDSIM51 simulator for 8051 micro controller.

Theory :

- EdSim51 is a software product that simulates the 8051 microcontroller.
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- Peripherals can be ignored in EDSim51 unlike other stimulators. Various sections of EDSim consists of:
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- The Microcontroller Panel. The Bitfield. Data and Code Memory.
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- The Assembly Code Panel.
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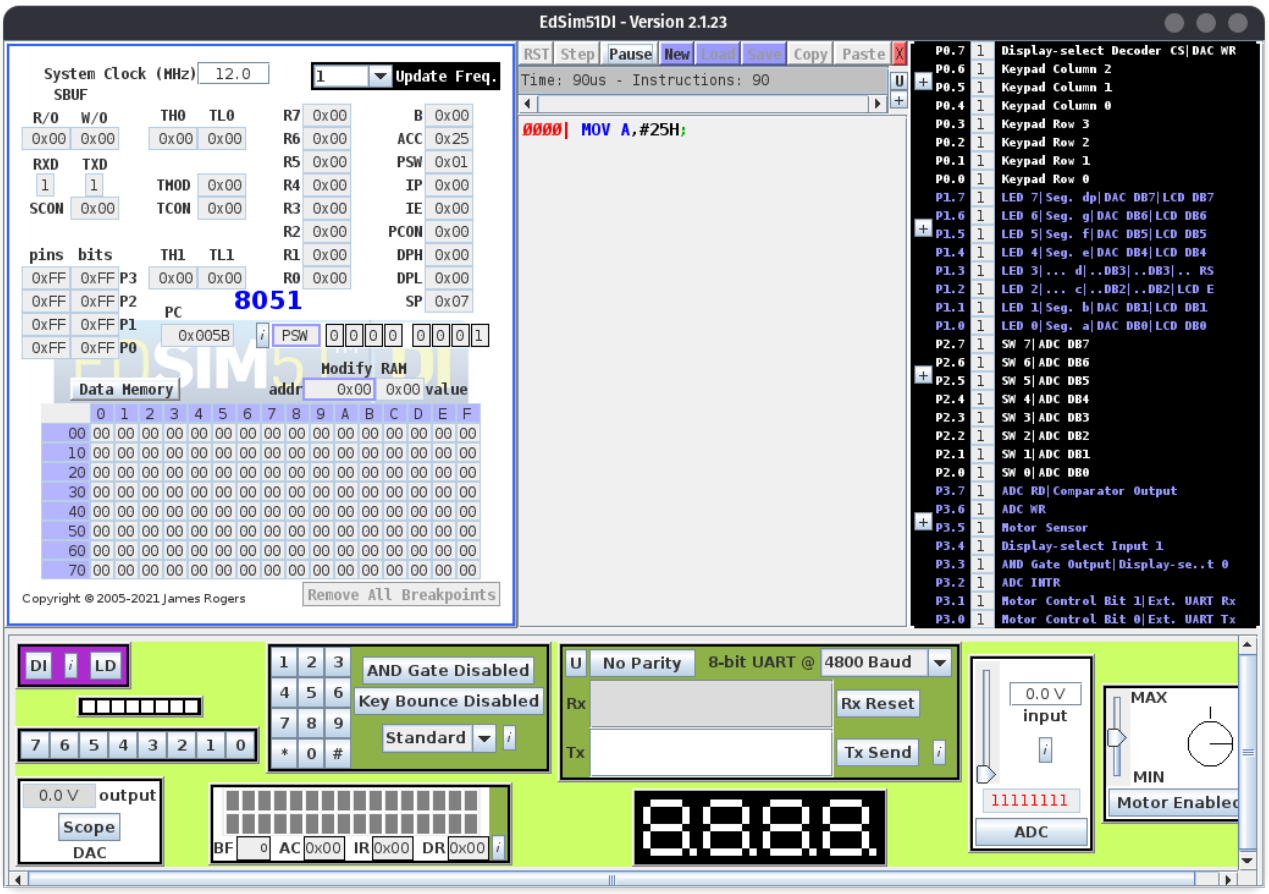
- The Peripherals. The Logic Diagram. The LED Bank, DAC and the 7-segment Displays. The LCD Module. The Switch Bank and the ADC. The Comparator and the DAC. The Motor. The UART. The Keypad.

Various peripherals provided by EDSim are as follows:

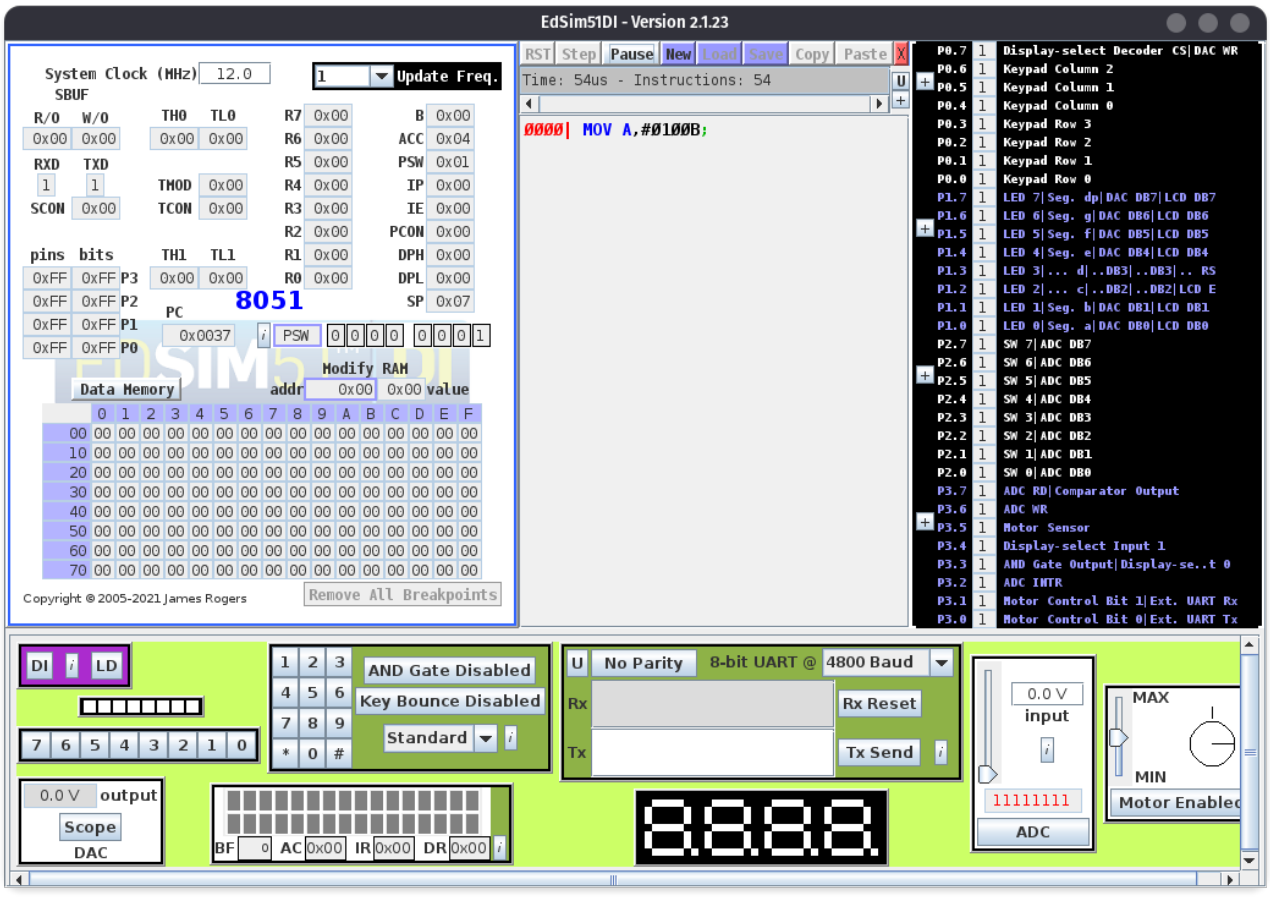
- Analogue-to-Digital Converter(ADC)
- Comparator
- UART
- 4Multiplexed7-segment Displays
- 4X3Keypad
- 8 LEDs
- DC Motor
- 8 Switches
- Digital-to-Analogue Converter (DAC)- displayed on oscilloscope.

Write assembly language programs to do the following:

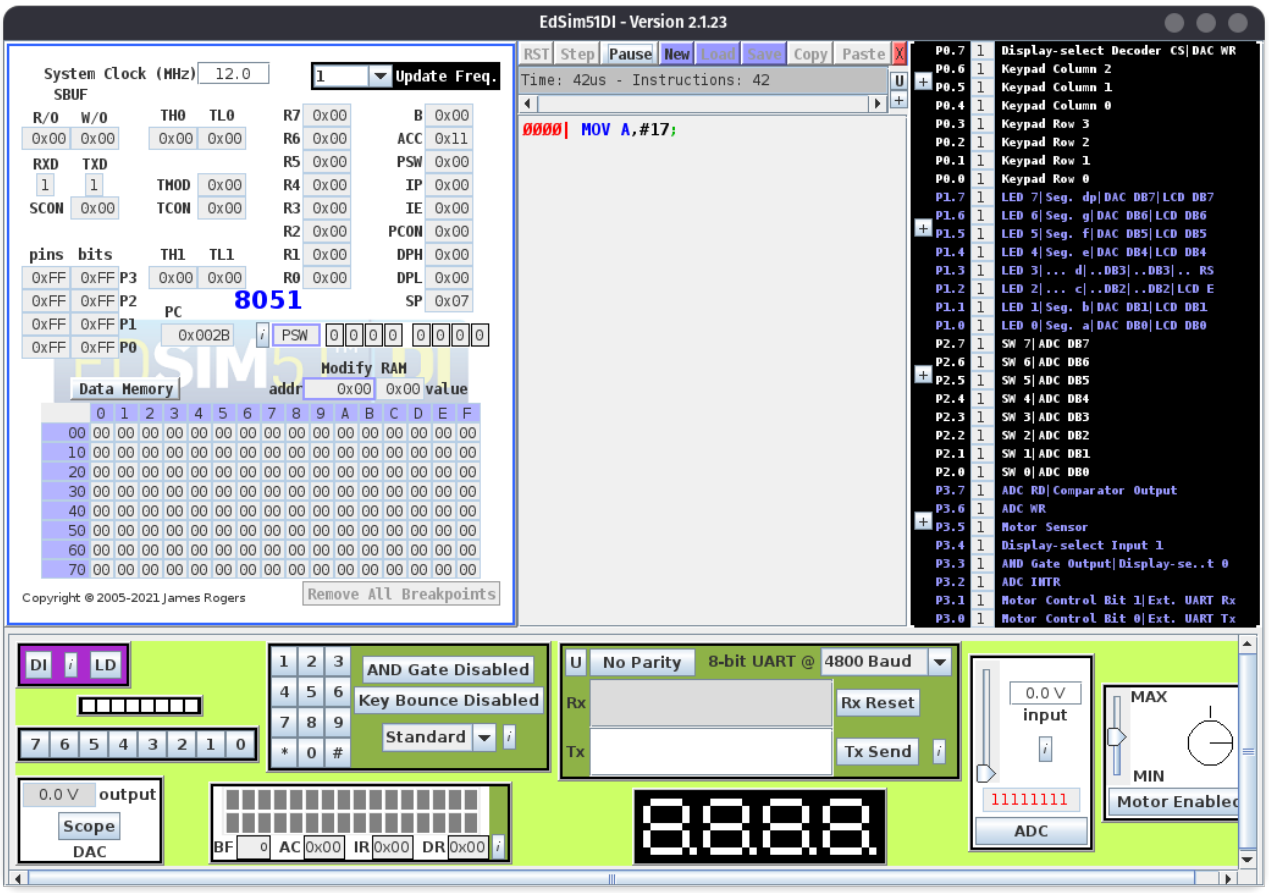
1. Store a hexadecimal number in register A.



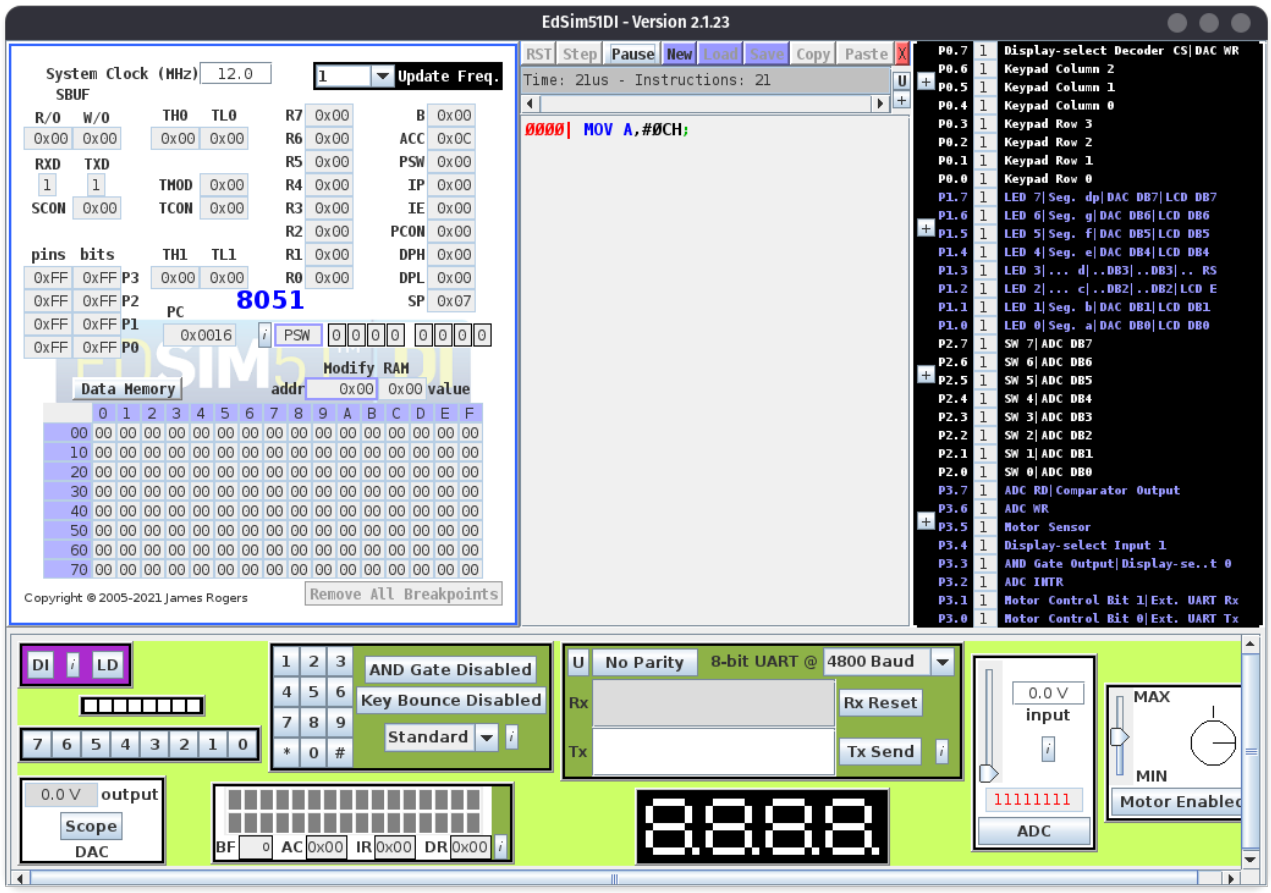
2. Store a binary number in register A.



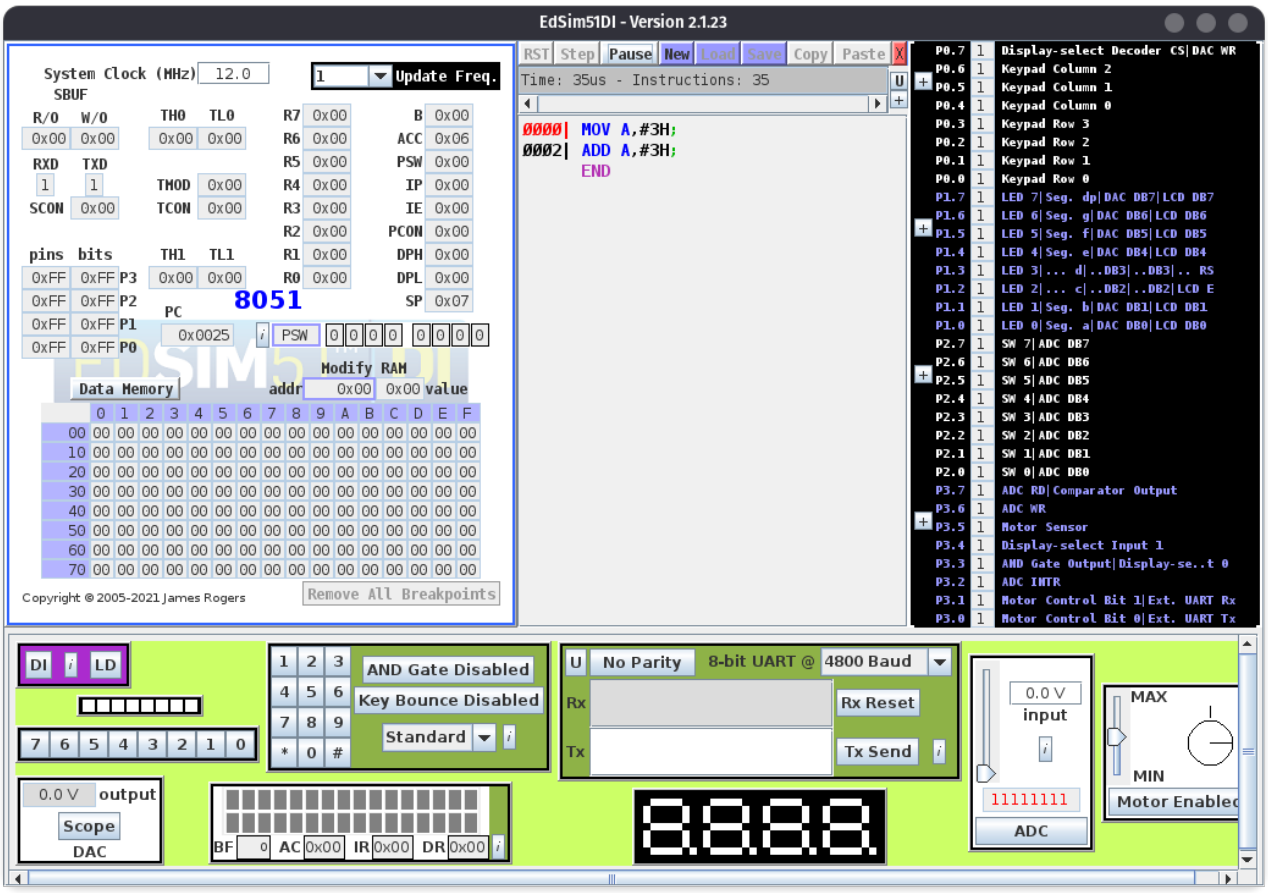
3. Store a decimal number in register A.



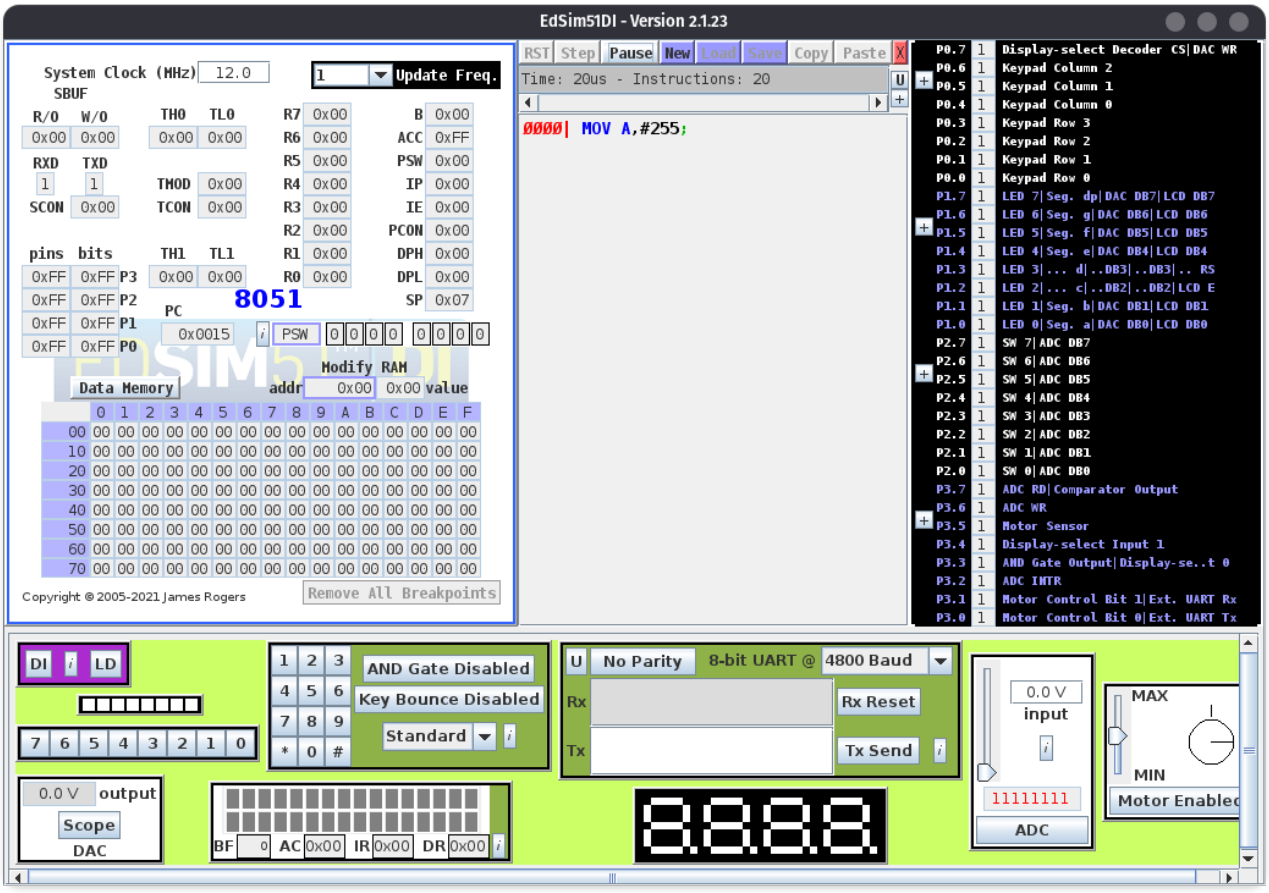
4. Store a hexadecimal number which starts with a letter in register A.



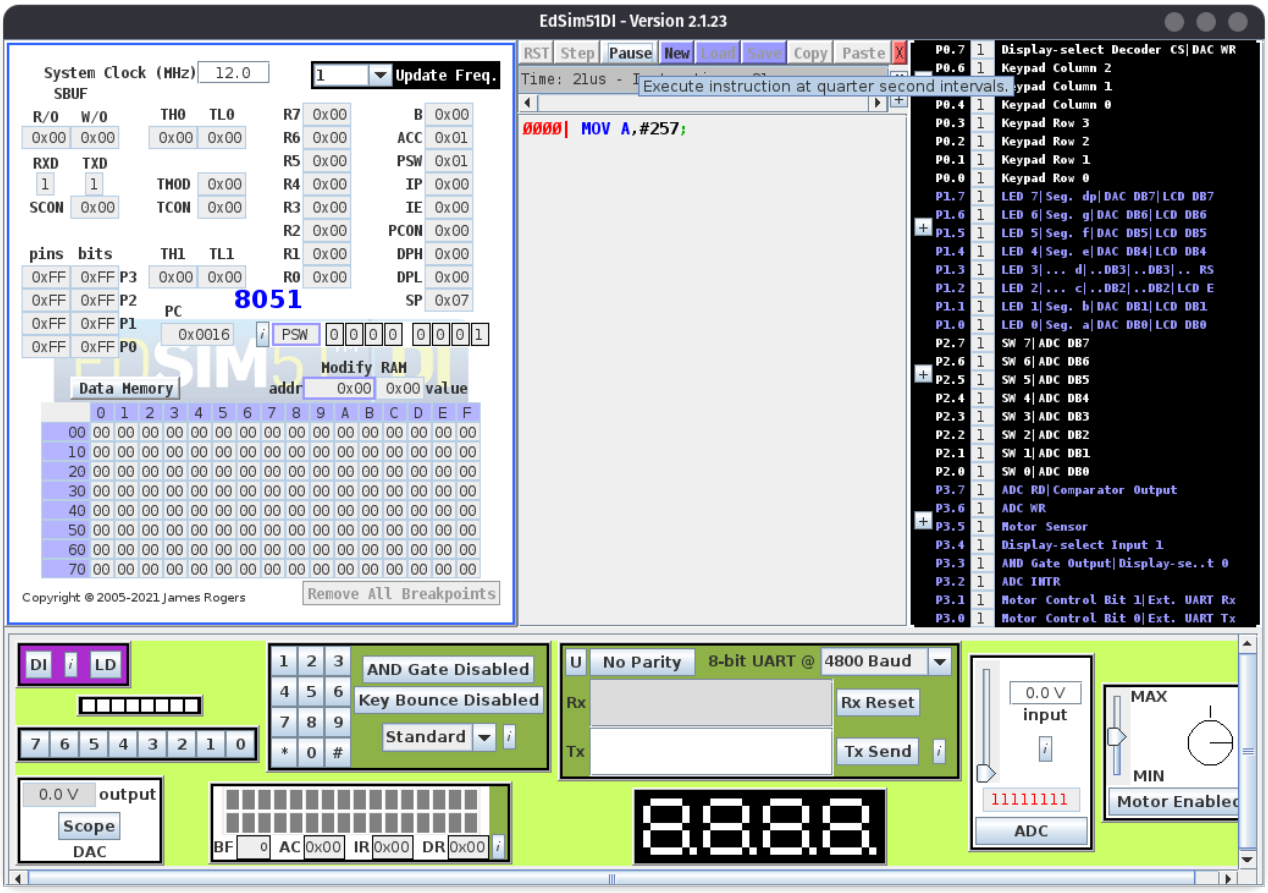
5. Add two unsigned numbers.

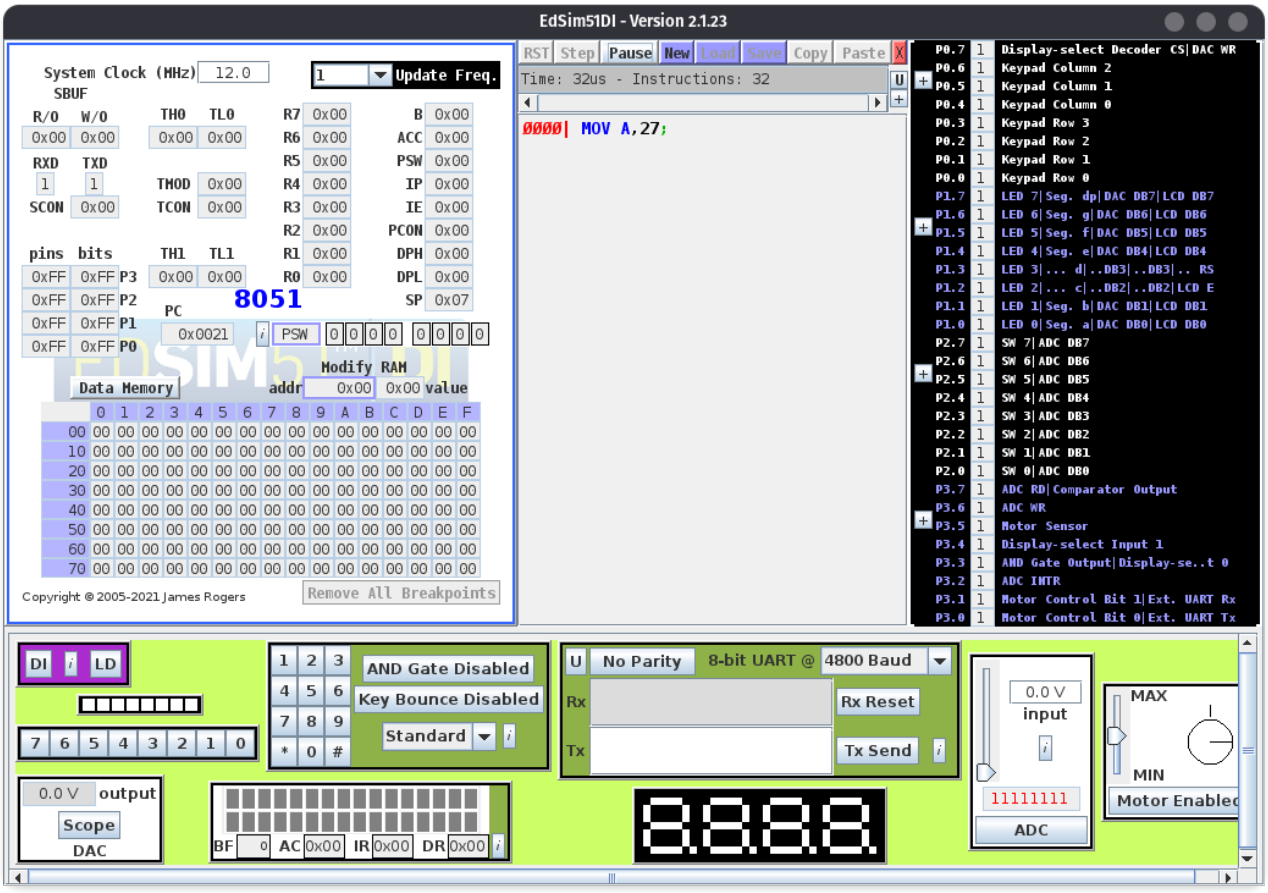


6. What is the largest value you can move into a register? Give an example program



7. What is the use of a pound(#) sign in 8051 programming? Give an example if pound not used.





Conclusion : The Experiment to study the various features of EDSIM51 simulator for 8051 microcontroller was completed successfully.

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