



main ▾

Odd--OR--Even-Using-8085 / README.md



dhanwanth07 Update README.md

4404397 · now



38 lines (32 loc) · 1.43 KB

Preview

Code

Blame

Raw



Aim:

To write an 8085 microprocessor program to check whether a given 8-bit number is odd or even.

Apparatus Required:

Laptop with an internet connection

Algorithm:

1. Load the number from a specified memory location into register A.
2. Perform an AND operation with 01H to check the least significant bit (LSB).
3. If the result is 0, the number is even; otherwise, it is odd.
4. Store the result in a specific memory location (odd or even flag).

Program:

```
; Program: Check Odd or Even
; Input  : Number is stored at 2050H
; Output : If number is even -> 01 stored at 2051H
;         If number is odd  -> 00 stored at 2051H

LDA 2050H      ; Load number from memory into accumulator
ANI 01H        ; Mask all bits except LSB (A = A AND 01H)
JZ EVEN       ; If Zero Flag = 1 → Number is even

; If odd
```



```

MVI A,00H      ; Load 00 into accumulator
STA 2051H      ; Store result (Odd)
HLT            ; Stop program

```

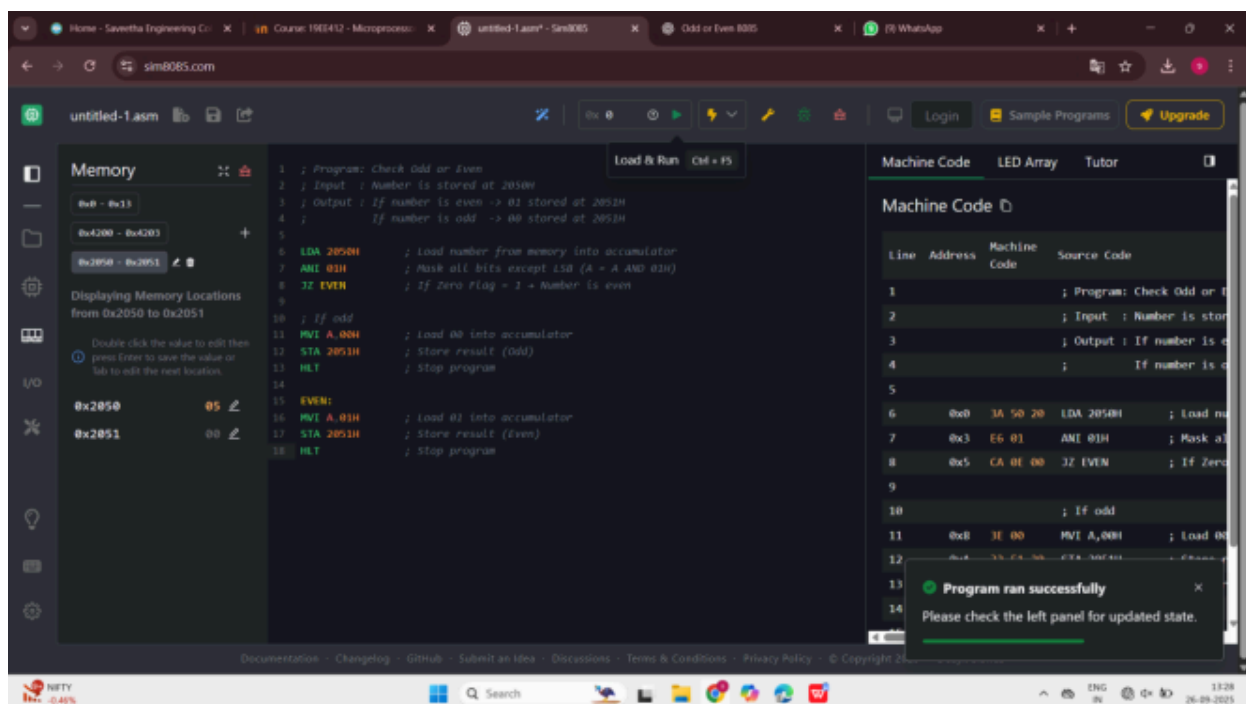
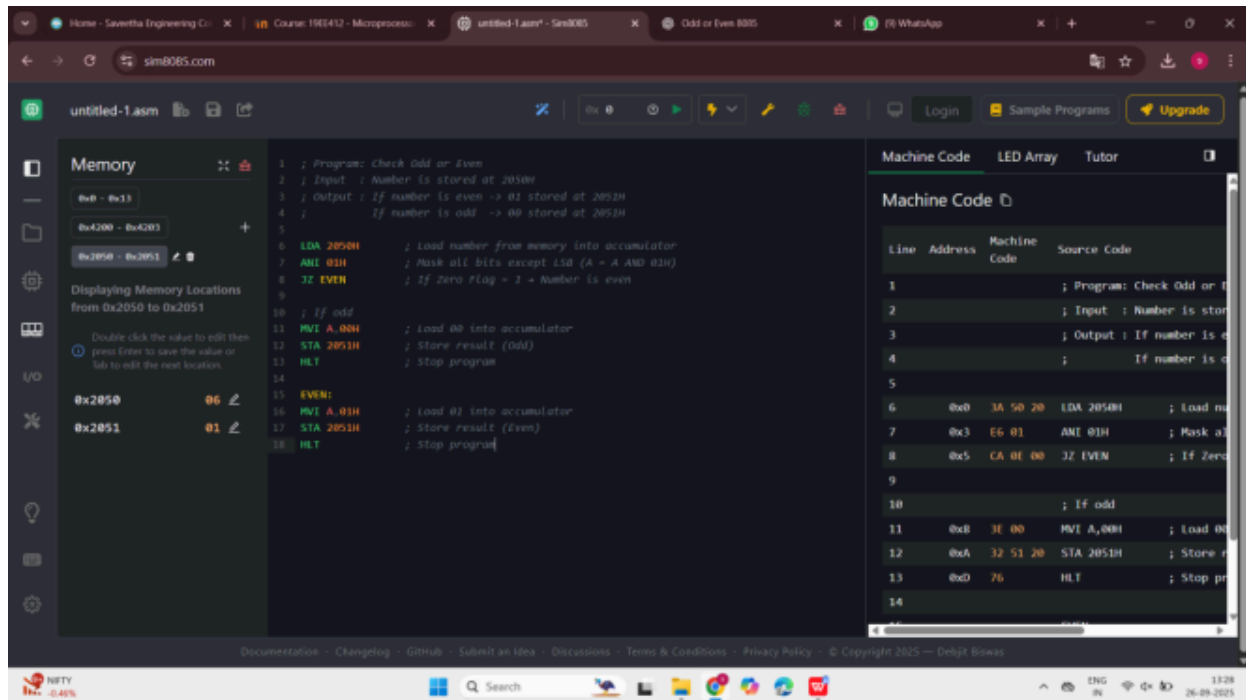
EVEN:

```

MVI A,01H      ; Load 01 into accumulator
STA 2051H      ; Store result (Even)
HLT            ; Stop program

```

Output:



Result:

The 8085 microprocessor successfully checks whether a given number is odd or even and stores the result in memory.