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

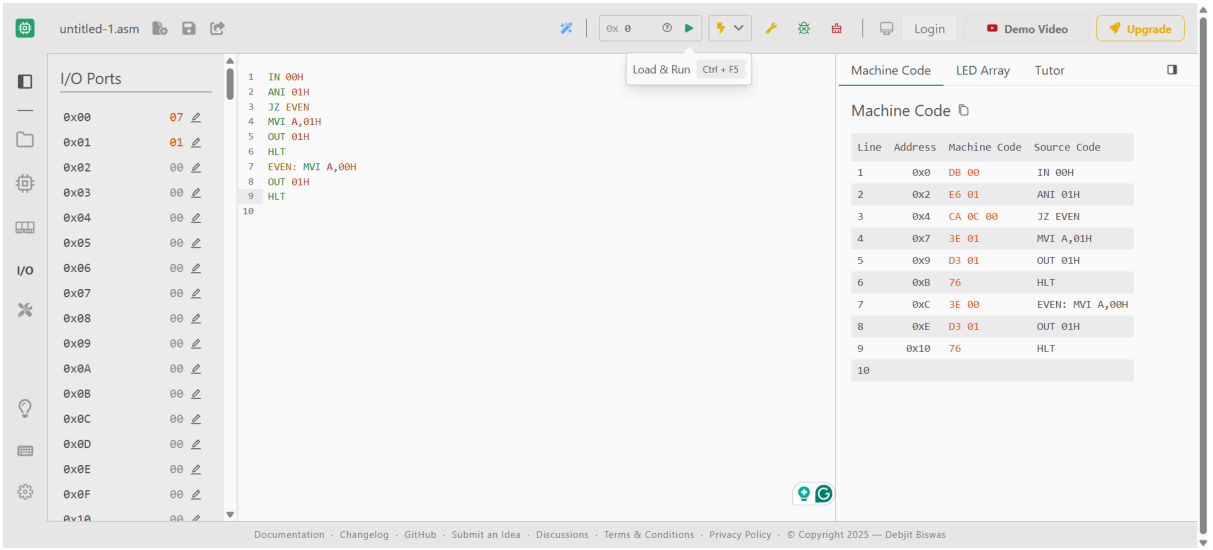
Algorithm:

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:

```
IN 00H
ANI 01H
JZ EVEN
MVI A,01H
OUT 01H
HLT
EVEN: MVI A,00H
OUT 01H
HLT
```

Output:



Input Ports (numbers are read from these ports):
00H → Input number

Output Port (result is displayed on this port):
01H → Result

00H = Even

01H = Odd

Result:

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