MP sessional
Lab 2

1. **New Line**
   ```
   INCLUDE "EMU8086.INC"
   .MODEL SMALL
   .STACK 100H
   .DATA
   .CODE

   MAIN PROC

       ;INPUT
       MOV AH,1
       INT 21H

       ;NEW LINE
       PRINTN ""

       ;NEW LINE
       MOV AH,2
       MOV DL,ODH       ;carriage return
       INT 21H
       MV DL,0AH        ;new line
       INT 21H

       ;OUTPUT
       MOV AH,2
       MOV DL, AL
       INT 21H

       MOV AH,4CH
       INT 21H
       MAIN ENDP

   END MAIN
   ```

2. Conditional and Unconditional jump (if-else)
   UNCONDITIONAL –

   ```
   JMP label_name
   Ex –
   MOV AX, 10
   JMP NEXT
   ```

MOV AX, 20   ; This will be skipped

NEXT:
MOV BX, AX   ; Execution continues here

CONDITIONAL –

CMP reg1, reg2 / CMP operand1,operand2 / CMP reg,operand
Jxx LABEL   ;(xx = JUMP code)

Instruction	Meaning	Description
JE or JZ	Jump if Equal / Zero	Used after CMP when values match
JNE or JNZ	Jump if Not Equal / Not Zero	When values are **not** equal
JG or JA	Jump if Greater / Above	After CMP, if left > right
JL or JB	Jump if Less / Below	After CMP, if left < right
JGE or JAE	Jump if Greater or Equal	
JLE or JBE	Jump if Less or Equal	
JC	Jump if Carry	Based on carry flag
JNC	Jump if No Carry	No carry flag set

Code – EMU8086(bigNumber)

TASKS:

1. Convert letters to uppercase and lowercase by taking input.
2. Calculate area of a triangle.
3. Find the smallest one from 3 numbers.
4. Print Numbers from 1 to 10 using JUMP instruction.
   Write a program to:
   - Initialize CX to 10
   - Use JNZ to count down and print numbers from 10 to 1