```
NAME :- DIVYA PRAVIN PATIL
CLASS :- SE COMPUTER
ROLL NO :- 45
BATCH :- B2
EXPERIMENT NO :- 9
TITLE:- TO GENERATE FIBONACCI SERIES.
AIM :- WRITE AN 8086 ASSEMBLY LANGUAGE PROGRAM TO GENERATE
FIBONACCI SERIES.


DISPLAY_ZERO MACRO
      MOV DL, '0'
      MOV AH,02H
      INT 21H

ENDM

DISPLAY_SPACE MACRO
      MOV DL,' '
      MOV AH,02H
      INT 21H

ENDM

DATA SEGMENT
      NUMBER1 DB 00
      NUMBER2 DB 01
      CHART DB '0123456789'
      QUOTIENT DB ?
      REMAINDER DB ?
      COUNTER DW 00AH
DATA ENDS

CODE SEGMENT
      ASSUME CS:CODE,DS:DATA

      MOV AX,DATA
      MOV DS,AX

      MOV CX,COUNTER

      DISPLAY_ZERO
      DISPLAY_ZERO

      DISPLAY_SPACE

      DISPLAY_ZERO
      MOV AL,NUMBER2
      CALL DISP_CHAR

 N1: MOV AH,00
      MOV AL,NUMBER1
      ADD AL,NUMBER2
```

```
        MOV DH,AL
        MOV BH,10
        DIV BH
        MOV QUOTIENT,AL
        MOV REMAINDER,AH

        DISPLAY_SPACE

        MOV AL,QUOTIENT

        CALL DISP_CHAR

        MOV AL,REMAINDER
        CALL DISP_CHAR

        MOV AL,NUMBER2
        MOV NUMBER1,AL
        MOV NUMBER2,DH
        LOOP N1

        JMP LAST

 DISP_CHAR PROC NEAR
        MOV BX,00H
        MOV BL,AL
        MOV DL,CHART[BX]
        MOV AH,02H
        INT 21H
        RET
 DISP_CHAR ENDP

 LAST:MOV AH,4CH
        INT 21H
CODE ENDS
END

OUTPUT:-00 01 01 02 03 05 08 13 21 34 55 89
```