Ahsanullah University of Science and Technology (AUST)

Department of Computer Science and Engineering

LAB REPORT

Course No	: CSE3108
Course Title	: Microprocessors Sessional
Assignment No	: 03
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Section : B

Q. Show the desined output in seven-segment and LED Display:

7 B 3 H 2 G(ON) - R2(ON) - Y(ON) - R2+Y(OFF)

Answer:

```
SSEG  SEGMENT  STACK 'STACK'
      DW 50 DUP(?)
SSEG  ENDS

DSEG  SEGMENT 'DATA'
CHARS   DB   00000111b, 01111100b, 01001111b, 01110110b, 01011011b
LEDs    DB   00000100b, 00001100b, 00001110b, 00000100b, 00000100b
DSEG  ENDS

CSEG  SEGMENT 'CODE'
MAIN PROC FAR

      PUSH  DS
      MOV AX,0
      PUSH AX

MOV  AX, DSEG
MOV  DS, AX
MOV  ES , AX
XOR  SI, SI
MOV  BX, 5
```

```
NEXT:

        MOV  DX, 2030h

        ADD  DX. SI

        MOV  AL, CHARS [SI]

        OUT DX, AL

        MOV  DX, 2070h

        MOV AL, LEDs [SI]

        OUT DX, AL

        ; for delay

        MOV CX, 01FFH

        LO:

         LOOP LO

         INC  SI

         DEC BX

         CMP BX,0

              JG NEXT

RET

MAIN ENDP

CSEG  ENDS

END MAIN
```