NAME :- DIVYA PRAVIN PATIL
CLASS :- SE COMPUTER
ROLL NO :- 45
BATCH :- B2
EXPERIMENT NO :- 10
TITLE:- BCD TO HEX CONVERSION.
AIM :- WRITE AN 8086 ASSEMBLY LANGUAGE PROGRAM FOR 2-DIGIT BCD TO HEX CONVERSION.

```
DISPLAY MACRO MSG
 LEA DX,MSG
 MOV AH,09H
 INT 21H
ENDM

DATA SEGMENT
       BUFFER DB 02 DUP(0)
       MSG1 DB 13,10,"ENTER THE NUMBER......:-$"
       MSG2 DB 13,10,"INVALIED ENTRY...$"
       MSG3 DB 13,10,"EQUIVALENT HEX NUMBER IS:- $"
       HEX_CHART DB '0123456789ABCDEF'
       STORE_RESULT DB ?
       H_ATTACH DB 'H'
DATA ENDS

CODE SEGMENT
       ASSUME CS:CODE,DS:DATA

       MOV AX,DATA
       MOV DS,AX

       DISPLAY MSG1

       MOV BX,00
       CALL KBD_INPUT

       CALL KBD_INPUT

       MOV BX,00
       MOV AL,BUFFER[BX]
       MOV DH,BUFFER[BX+1]

       MOV BH,0AH
       MUL BH
       ADD AL,DH
       MOV STORE_RESULT,AL

       DISPLAY MSG3

       MOV AL,STORE_RESULT
       AND AL,0F0H
       MOV CL,04
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```
      ROR AL,CL
      CALL DISP_CHAR

      MOV AL,STORE_RESULT
      AND AL,0FH

      CALL DISP_CHAR

      MOV DL,H_ATTACH
      MOV AH,02H
      INT 21H
      JMP LAST

 KBD_INPUT PROC NEAR

      MOV AH,01H
      INT 21H
      CMP AL,'0'
      JB ERROR
      CMP AL,'9'
      JA ERROR
      AND AL,0FH
      MOV BUFFER[BX],AL
      INC BX
      RET
      ERROR:DISPLAY MSG2
      JMP LAST
 KBD_INPUT ENDP

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

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

OUTPUT:-ENTER THE NUMBER......:- H
 INVALIED ENTRY...

 ENTER THE NUMBER......:-05
 EQUIVALENT HEX NUMBER IS:-05H

 ENTER THE NUMBER......:-10
 EQUIVALENT HEX NUMBER IS:-0AH
```