ATHARVA YADAV

ROLL NO : 127

BATCH : S23

MPL ASSGINMENT NO.6

AIM: BCD to unpacked BCD

```
DATA_SEG SEGMENT
 PACKED_BCD DB 89H
HIGH_DIGIT DB ?  LOW_DIGIT
DB ?


DATA_SEG ENDS


CODE_SEG SEGMENT
      ASSUME CS:CODE_SEG , DS:DATA_SEG

 START:
      MOV AX , DATA_SEG   ;INITIALIZE THE DATA SEG
      MOV DS,AX

      MOV AL , PACKED_BCD   ;READ THE VALUE OF PACKED_BCD TRANSFERED AL
      AND AL , 0F0H        ;AND OPERATION WITH AL (MASK THE LOWER DIGIT)
      MOV CL , 4
       ROR AL , CL                   ;ROTATE BITS OF AL TO RIGHT BY 4
       MOV HIGH_DIGIT , AL        ;CONTENTS OF AL
(HIGH DIGITS) TRANFERED TO HIGH_DIGIT

      MOV AL , PACKED_BCD
      AND AL , 0FH          ;AND OPERATION WITH AL (MASK THE HIGHER DIGIT) MOV
      LOW_DIGIT , AL        ;CONTENTS OF AL
(LOW DIGITS) TRANFERED TO LOW_DIGIT

      MOV AH ,4CH  ;EXIT TO DOS
      INT 21H
CODE_SEG ENDS

END START
```

GUI Turbo Assembler x64

Module: 89p6 File: 89p6.asm 35━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━1━

```
•        A ┌─[■]═Regs═4═[↓]─┐   ;AND OPERATION WITH AL (MASK THE HIGHER DIGIT)
•        M │ ax 0809   c=0 │ ━━━━Variables━━━━━━━━━━━━━━━━━━━━━━3━       G
           │ bx 0000   z=0 │
▶        M │ cx 0004   s=0 │ TO D
           │ dx 0000   o=0 │
         I │ si 0000   p=1 │
 CODE_S    │ di 0000   a=0 │
           │ bp 0000   i=1 │
 END ST    │ sp 0000   d=0 │
           │ ds 087C       │
           │ es 086C       ├───────────────────────────────────────
           │ ss 087B       │ packed_bcd              'ё' 137 (89h)
           │ cs 087D       │ high_digit              '█' 8 (08h)
           │ ip 0019       │ low_digit               'o' 9 (09h)
           │               │ start                   @087D:0000
           │               │
           └───────────────┘
```

━━Watches━━2━