ATHARVA YADAV

ROLL NO : 127

BATCH : S23

MPL ASSIGNMENT NO. 9

AIM:TO FIND EVEN AND ODD NUMBERS FROM THE GIVEN LIST

```
DATA_SEG SEGMENT

 ARY1 DB 89H , 31H , 22H , 37H , 44H , 63H , 24H  , 10H , 99H , 77H
 COUNT_ODD DB 0                                        ;INITIALIZE THE COUNTER
 COUNT_EVEN DB 0    ;INITIALIZE THE COUNTER  LEN DB 10        ;LENGTH OF THE
ARRAY

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


       LEA SI , ARY1        ;[OR]  MOV SI , OFFSET ARY1 MOV CL , LEN
       ;INITIALIZE THE COUNTER

 AGAIN :
       MOV AL , [SI]       ;READ THE ELEMENT
        ROR AL , 1                      ;TEST EVEN OR ODD BY ROTATING AL
       JC ODD1          ;GENERATE A CARRY IF ODD
       INC COUNT_EVEN      ;INCREMENT THE COUNTER IF EVEN
       JMP NEXT          ;JUMP TO THE LABEL NEXT

 ODD1 :
       INC COUNT_ODD       ;INCREMENT IF ODD  NEXT :
        INC SI                      ;INCREMENT SI
        DEC CL                      ;DECREMENT THE ARRAY LENGTH
       JNZ AGAIN           ;JUMP TO THE LABEL AGAIN


       MOV AH ,4CH  ;EXIT TO DOS
```

```
        INT 21H
CODE_SEG ENDS

END START
```

≡ File Edit View Run Breakpoints Data Options Window Help READY

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```
        JNZ AGAIN
```

┌─────────Regs─4──────────┐
│ ax 4CBB │ c=1 │
│ bx 0000 │ z=1 │ T
│ cx 0000 │ s=0 │
│ dx 0000 │ o=0 │
│ si 000A │ p=1 │
│ di 0000 │ a=0 │
│ bp 0000 │ i=1 │
│ sp 0000 │ d=0 │
│ ds 087C │
│ es 086C │
│ ss 087B │
│ cs 087D │
│ ip 0024 │
└──────────────────────────┘

CODE_

END S

┌─[■]═Variables════════════════════════3═[↑][↓]─┐
│   │
│   │
│   │
│   │
│ ary1   'ё' 137 (89h)   │
│ count_odd   '♠' 6 (06h)   │
│ count_even   '♦' 4 (04h)   │
│ len   '◙' 10 (0Ah)   │
│ start   @087D:0000   │
│ again   @087D:000C   │
└──┘

┌─Watches─────────────────────────────────2─┐
│   │
│   │
│   │
└───┘

F1-Help F2-Bkpt F3-Mod F4-Here F5-Zoom F6-Next F7-Trace F8-Step F9-Run F10-Menu