

```
;NAME:: LUNGADE KIRAN SANJAY
;BATCH:: S2
;ROLL NO.:: 39
;PROGRAM FOR ADDITION OF 8 DIGIT NUMBERS
```

```
INPUTSTR MACRO BUFFADDR
    MOV AH,0AH
    MOV DX,OFFSET BUFFADDR
    INT 21H
ENDM
```

```
DISPSTR MACRO STRADDR
    MOV AH,09H
    MOV DX,OFFSET STRADDR
    INT 21H
ENDM
```

```
DATASEG1      SEGMENT
N1BUFF  DB 9,0
N1      DB 31H,32H,33H,34H,35H,36H,37H,38H,'$'
N2BUFF  DB 9,0
N2      DB 31H,31H,31H,31H,31H,37H,37H,39H,'$'
SUM     DB 9 DUP('0'),' '$'
CARRY DB 0, '$'
STR1 DB 10,13,'First 8-digit number   : $'
      STR2      DB 10,13,'Second 8-digit number : $'
STR3 DB 10,13,'Addition of numbers is: $'
```

```
DATASEG1  ENDS
CODESEG1  SEGMENT
    ASSUME DS:DATASEG1,CS:CODESEG1
BEGIN:    MOV AX,DATASEG1
    MOV DS,AX
```

```
    DISPSTR STR1
    INPUTSTR N1BUFF
```

```
    DISPSTR STR2
    INPUTSTR N2BUFF
```

```
    ;convert ASCII to BCD
    MOV SI,OFFSET N1
    MOV DI,OFFSET N2
    MOV CX,0008H
BACK:    AND BYTE PTR[SI],0FH
    AND BYTE PTR[DI],0FH
    INC SI
    INC DI
    LOOP BACK
```

```

;ADD NUMBERS
DEC SI
DEC DI
MOV BX,OFFSET SUM+8
MOV CX,0008
BACK1:  MOV AL,[SI]
        ADD AL,[DI]
        ADD AL,CARRY
        DAA
        MOV CARRY,0
        CMP AL,09
        JBE SKIP
        MOV CARRY,1
        AND AL,0FH
SKIP:
        ADD AL,30H
        MOV[BX], AL
        DEC SI
        DEC DI
        DEC BX
        LOOP BACK1
        DISPSTR STR3
        DISPSTR SUM

        MOV AX,4C00H
        INT 21H

CODESEG1  ENDS
END BEGIN

```

```

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
Z:\>C:
C:\>CD TASM
C:\TASM>TASM MPMC01
Turbo Assembler Version 3.2 Copyright (c) 1988, 1992 Borland International

Assembling file: MPMC01.ASM
Error messages: None
Warning messages: None
Passes: 1
Remaining memory: 469k

C:\TASM>TLINK MPMC01
Turbo Link Version 5.1 Copyright (c) 1992 Borland International
Warning: No stack

C:\TASM>MPMC01
First 8-digit number : 12354782
Second 8-digit number : 12121212
Addition of numbers is: 024475994
C:\TASM>

```