Aim :- Assembly program for add 2 nos.

Algorithm

1. Initalize the data segment
2. Get the first number is BL register
3. Get the second number is DL register
4. add the two numbers.
5. Store the result in d1
6. Display the result.
7. Stop.

Program

```
DATA SEGMENT
A  db 5
B  db 3
C  db ?
data segment
code segment
assume cs : code , ds : data
Start :
      MOV    ax, DATA
      MOV    DS , AX
      MOV    BL , A
      MOV    DL , B
      ADD    DL , BL
      ADD    'DL', 48
      MOV    AH , 2
      INT    21H
      MOV    C, DI
      MOV    AH , 4ch
      INT    21h
CODE    ENDS
END     START
```

File   Edit   Search   View   Options   Help

C:\ADD.ASM

```asm
;Assembly program to add two numbers
data segment
a db 5
b db 3
c db ?
data ends
code segment
assume cs:code, ds:data
start:
        mov ax,data
        move ds,ax
        mov bl,a
        mov dl,b
        add dl,bl
        add dl,48
        mov ah,2
        int 21h
        mov c,dl
        mov ah,4ch
        int 21h
        code ends
        end start
```

F1=Help   Line:5   Col:36

```
C:\>edit add.asm

C:\>masm add.asm
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.

Object filename [add.OBJ]: ;
Source listing  [NUL.LST]: ;

  51766 + 464778 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\>link add.obj

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.

Run File [ADD.EXE]: ;
LINK : warning L4021: no stack segment

C:\>add.exe
8
C:\>
```

EXP - 2

Aim: Assembly program to print 'hello world'.

Program

```
DATA        SEGMENT
    MESSAGE DB "HELLO WORLD"
    DATA ENDS
    CODE SEGMENT
        ASSUME DS: DATA , CS: CODE

START:
    MOV  AX , DATA
    MOV  DS, AX
    LEA  DX, MESSAGE
    MOV  AH, 9
    INT  21H

    MOV  AH , 4CH
    INT  21H
    CODE  ENDS
    END   START
```

```
File   Edit   Search   View   Options   Help
                      C:\HELLO.ASM
;Assembly program to print hello world
DATA SEGMENT
       MESSAGE DB "HELLO WORLD !!!$"
DATA ENDS
CODE SEGMENT
       ASSUME DS:DATA,CS:CODE
START:
       MOV AX,DATA
       MOV DS,AX
       LEA DX,MESSAGE
       MOV AH,9
       INT 21H
       MOV AH,4CH
       INT 21H
       CODE ENDS
       END START
```

F1=Help   Line:1   Col:1

```
Object filename [hello.OBJ]: ;
hello.asm(6): warning A4001: Extra characters on line
hello.asm(7): error A2062: Missing or unreachable CS

  51758 + 464786 Bytes symbol space free

      1 Warning Errors
      1 Severe  Errors

C:\>edit hello.asm\

C:\>masm hello.asm
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.

Object filename [hello.OBJ]: ;

  51758 + 464786 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\>hello.exe
HELLO_!
C:\>
```