

- **Addition of Two Numbers (User Input)**

```
.MODEL SMALL
.STACK 100h
.DATA
    MSG1 DB 'Enter first number: $'
    MSG2 DB 'Enter second number: $'
    MSG3 DB 'The sum is: $'
    NUM1 DB ?
    NUM2 DB ?
    RESULT DB ?

.CODE
MAIN PROC
    MOV AX, @DATA
    MOV DS, AX

    ; Prompt user for first number
    MOV AH, 09h
    MOV DX, OFFSET MSG1
    INT 21h
    MOV AH, 01h
    INT 21h    ; Get input into AL
    SUB AL, 30h ; Convert ASCII to integer
    MOV NUM1, AL

    ; Prompt user for second number
    MOV AH, 09h
    MOV DX, OFFSET MSG2
    INT 21h
    MOV AH, 01h
    INT 21h    ; Get input into AL
    SUB AL, 30h ; Convert ASCII to integer
    MOV NUM2, AL

    ; Add the numbers
    MOV AL, NUM1    ; Load NUM1 into AL
    ADD AL, NUM2    ; AL = AL + NUM2
    MOV RESULT, AL  ; Store result in RESULT

    ; Display result
    MOV AH, 09h
    MOV DX, OFFSET MSG3
    INT 21h
    MOV DL, RESULT
    ADD DL, 30h    ; Convert back to ASCII
    MOV AH, 02h
```

INT 21h

; Exit program

MOV AH, 4Ch

INT 21h

MAIN ENDP

END MAIN