

Addressing Modes, Mov Instruction, Service Routine, ASCII Code and Interrupt

Addressing Modes

Ways/Models to access data

Data Transfer Instruction

```
Mov DL, 2          DL, 'A'
```

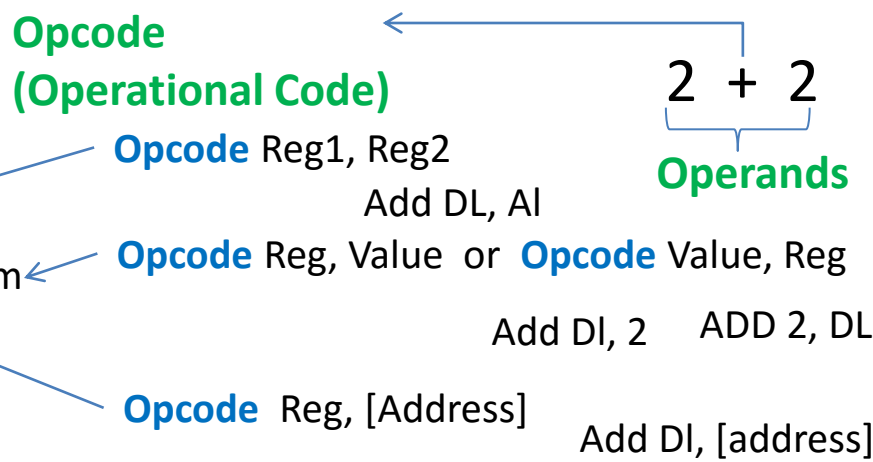
```
Mov Ah, 2
```

Service Routine

Registers Addressing: Both operands are registers

Immediate Addressing: One Operand is constant term

Memory Addressing: Access static data directly



- 1 = Input a character with echo
  - 2 = Output/Print a single character 'a'
  - 8 = Input a character without echo
  - 9 = Print collection of characters 'abcd'
  - 4ch = Exit
- String

Interrupt

Stop the current program and allow microprocessor to access hardware to take input or give output

- INT 21H = Interrupt for Text Handling
- INT 20H = Interrupt for Video/Graphics Handling

Example 1: Output

Example 2: Input

Mov ah, 2  
INT 21H

Mov ah, 1  
INT 21H

ASCII Code

(American Standard Code for Information Interchange)

- Character Encoding Scheme
- By: American Standards Association (ASA)
- Published in; 1963

A = 65	B = 66	→	Z=90
a = 91	b = 92	→	z=122
0 = 48	1 = 49	→	9=57
Next Line Feed = 10			
Carriage Return = 13			