Lecture 2

Basic I/O

The INT instruction

- INT interrupt_number
  - We will use INT 21H

How to use INT 21H

- Place function number in AH
- Call INT 21H

It will do the task specified by the function in AH

Function Number	Routine
1	Single key input
2	Single character output
9	Character string output

Function 1

- Single-Key Input

- Input: AH = 1

- Output: AL = ASCJI code if character key is pressed

  = 0 if non-character key is pressed·

MOV AH, 1

INT 21H

Function 2

- Display a character or execute a control flow
- Input: AH = 2

    DL = ASCII code of the display character or control character
- Output: AL = ASCII code of the display character or control character

MOV AH, 2

MOV DL, 'A'

INT 21H

Function 9

- Display a string
- Input: AH = 9

  DX = offset address of the string

  The string must end with '$' character

```
LEA DX, MSG
MOV AH, 09H
INT 21H
```

The LEA instruction

- Load Effective Address

- *LEA destination, source*

- Puts a copy of the source offset address into the destination

- *LEA DX, MSG*

Initialize the Data Segment register

MOV AX,@DATA

MOV DS,AX

Function 4CH

Return control to DOS

MOV AH, 4CH

INT 21H

Let's see some code