

# STACKS

In 8086

By,

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# Introduction

- Temporary storage for data
  - Interrupts and subroutines
- Last In First Out
- Operations
  - Pushing and popping
- Pointers used
  - SP,SS



# Stack structure of 8086

- Decrementing stack
- Push – Decrement pointer
- Pop – Increment pointer
- Size – 64 Kb
- SS and SP as pointers
- Stack top address?
- SP begins from FFFFh
- Overflow and underflow



# MACROS

In 8086



# Introduction

- What are macros?
- Nested macros
- Difference between macros and subroutines
  - Execution sequence
  - usage of stack
  - Program length
  - Execution speed



# Macros in programs

- **Defining a macro**

```
DISPLAY MACRO
    MOV AX,SEG MSG
    MOV DS,AX
    MOV DX,OFFSET MSG
    MOV AH,09H
    INT 21H
ENDM
```



# Macro call

- Call by quoting its name, along with values to be passed to it.
- Eg:  
display  
display msg



# Passing parameters

```
DISPLAY MACRO MSG
    MOV AX,SEG MSG
    MOV DS,AX
    MOV DX,OFFSET MSG
    MOV AH,09H
    INT 21H
ENDM
```

# call it by display msg1,display msg2

