

# DSA through C++

## Stack



Saurabh Shukla (MySirG)

# Agenda

- ① what is STACK?
- ② Operations on STACK
- ③ Ways to implement STACK
- ④ Polish Notation
- ⑤ Algorithm to convert infix to postfix
- ⑥ Algorithm to evaluate postfix expression

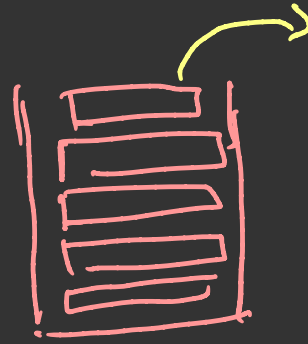
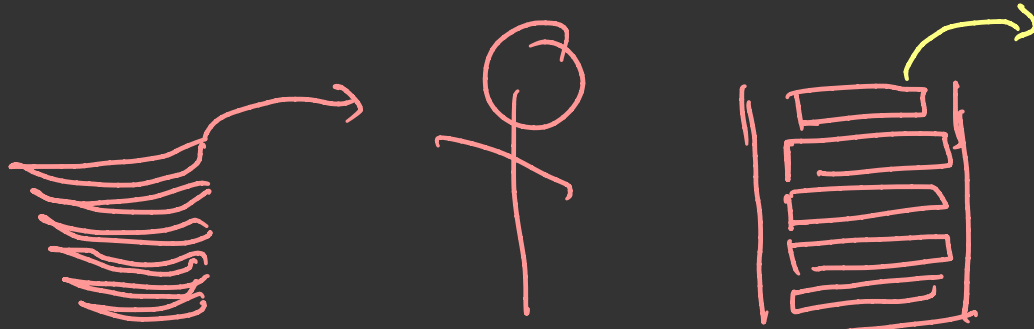
# What is STACK?

- STACK is a linear Data Structures
- STACK's working principle is Last In First Out (LIFO)



# Travel

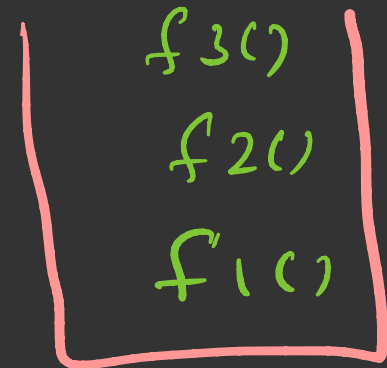
## Real world examples of Stack



## Programming world examples of stack

### Recursion / function call

$f_1() \rightarrow f_2() \rightarrow f_3() \rightarrow f_4()$

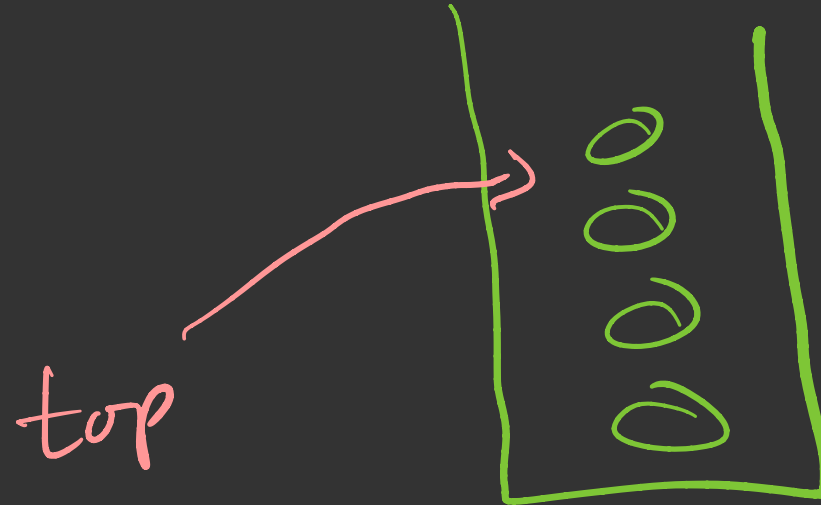


# Operations on STACK

Insert      PUSH()

Delete      POP()

View top  
element      PEEK()



# Ways to implement STACK

- ① using Arrays
- ② using Dyn Arrays
- ③ using Linked List

