

## Lab 2

A stack is an ordered collection of items into which new item may be inserted & from which items may be removed from only one end. i.e. Top of Stack (TOS)

It follows is a linear data structure that follows LIFO order. The pointer which points topmost element of ~~stack~~ stack is known as the top pointer.

### # Algorithms of different stack operation

1) POP Let's assume the stack's highest element is ~~arr~~ [max]  
& initially,  $top = -1$

1) POP()

a) start

b) if  $(top \leq -1)$   
    print "Stack underflow"

    else

$top--$

c) exit



2) Push (item)

a) Start

b) if ( $top \geq max - 1$ )

print "Stack overflow"

else

$top++$

$arr[top] = item$

c) exit

3) Traverse()

a) Start

b) if ( $top \leq -1$ )

print "No items to traverse"

else

for ( $i = top; i \geq 0; i--$ ) {

print  $arr[i]$

c) exit