

## Stack - last in first out

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arr[s]

arr[top] = 10

	[4]		116
	[3]		112
	[2]		108
	[1]		104
top	[0]	10	100
	[-1]		

top = top + 1  
-1 + 1  
top = 0

arr[0] = 10X  
arr[top] = 10  
[P.S → top = data]

push()  
(1) Increment the top  
(2) Insert the data at the top position  
arr[top] = data.

### 3 basic operations of stack

- 1) Push → add the element on the stack
- 2) Pop → delete the element from the stack
- 3) Peek → check the current element

#### Push :

- 1) Increment the top by 1
- 2) Insert the element at top position

#### Pop :

- 1) Decrement the top by 1

#### Peek :

- 1) Return the value at top position

#### Stack empty condition :

top == -1

#### Stack full condition :

top == SIZE-1

10 20 (30) → add\_last } ✓  
10 20 → delete last } ✓

(30) 20 10 → add\_first }  
→ delete\_first }