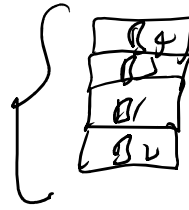


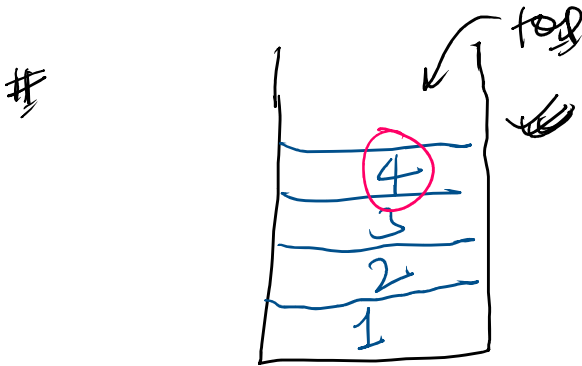
→ Data Structure



Types of DS

→ Linear DS: Arrays, Array list, Linked list, Stacks, Queues

→ Non-Linear DS: Trees and Graphs



⊙ The only way to access a stack is using top.

→ LIFO: Last In First Out

⊙ Setor

Internally Stack in Java is implemented using Vector

Operations on a Stack

→ push(2): adding an element to the top of the stack

→ pop(): removes and returns the top element.



→ peek(): returns the top but never removes it.

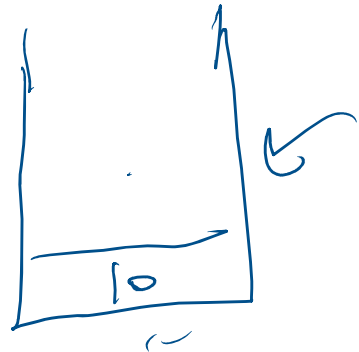
Q)

push (10);
push (20);
push (30);
pop();
peek();

push (40);
peek();
push (50);
pop(); ✓
pop();

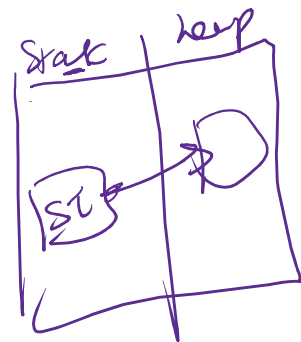
push (60);
pop();
pop();

30, 20, 40, 50, 40,
60, 20



Code Usage

Stack <Integer> st = new Stack();
String ✓
Double ✓
Person ✓



Ⓢ while doing peek() or pop() operation on a Stack, always first check whether there

Stack, always first check whether the stack is empty or not.

$(st.is\ Empty())$

Where to think of Stack

- Problems involving parentheses.
- Problems involving Span of an array.