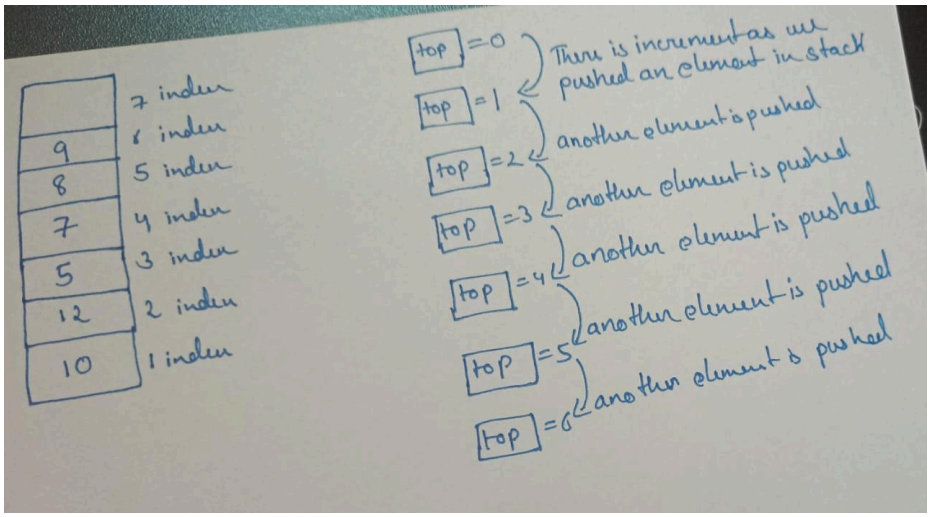
Stacks→

1. A stack is a data structure which follows the principal of LIFO(last in first out)
2. The element inserted in the last is the one to be removed first.
3. There is only one end in a stack -TOP.
→If you want to insert a new element it will only on the top.
→if you want to remove an element it can only be from top.
4. The TOP term used for the index(subscript) of the element inserted in the last. The value of the top is incremented by one when pushing take place.

Representation Of Stacks→



1. Using Arrays
2. Using Linkedlist

Some Important Point→

1. Inserting an element is called pushing.
2. Removing of the element is called popping.
3. If the value of top is equal to the array size and user trie to push a new element, it is called a overflow error.
4. If the value of top is 0 and the user tries to remove an element it called underflow error.

Algorithm for Pushing element into a Stack→

1. Set Top:=Top+1 [incrementing the value of top by 1]
2. Set stack[Top]:=Val [Pushing the new VAlue into the stack]
3. Return [Sending control back to the calling Algo]

Algorithm for Popping and element from a Stack→

1. Set Val:=Stack[Top] [Assigning the popped element into a variable]
2. Top=Top-1 [Decrementing the Value of Top]
3. Return [Sending control back to calling Algorihtm]