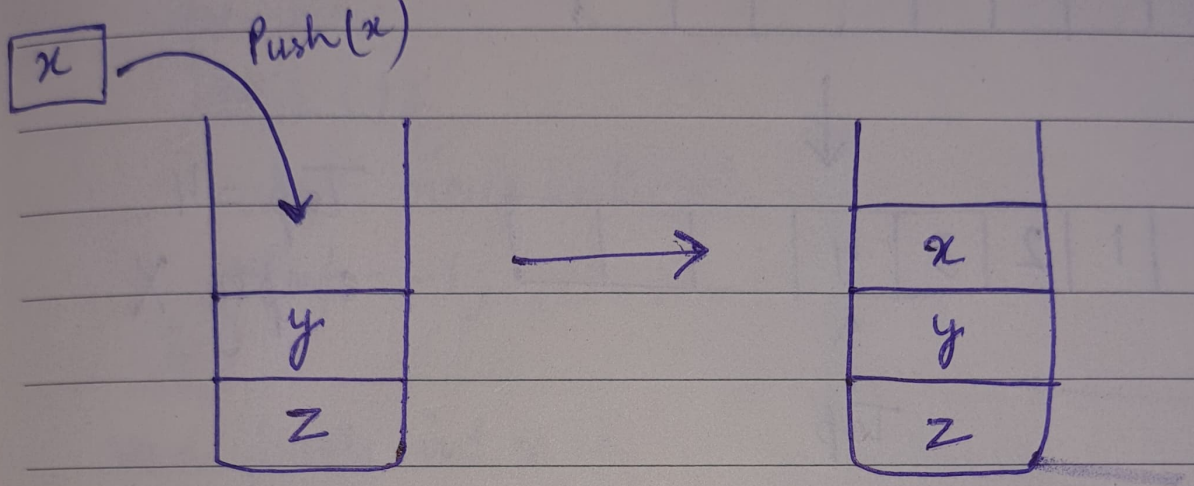
STACK : Stores a list of items in which an item can be added or removed from the list only at one end.

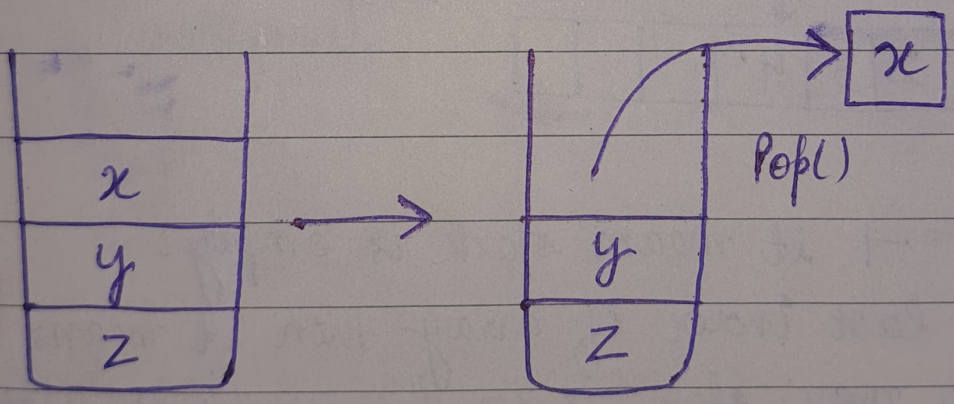
LIFO = Last in First Out

Operations performed in STACK

① Push(x) = To insert an element



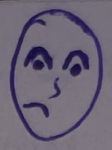
② Pop() = To remove an element.



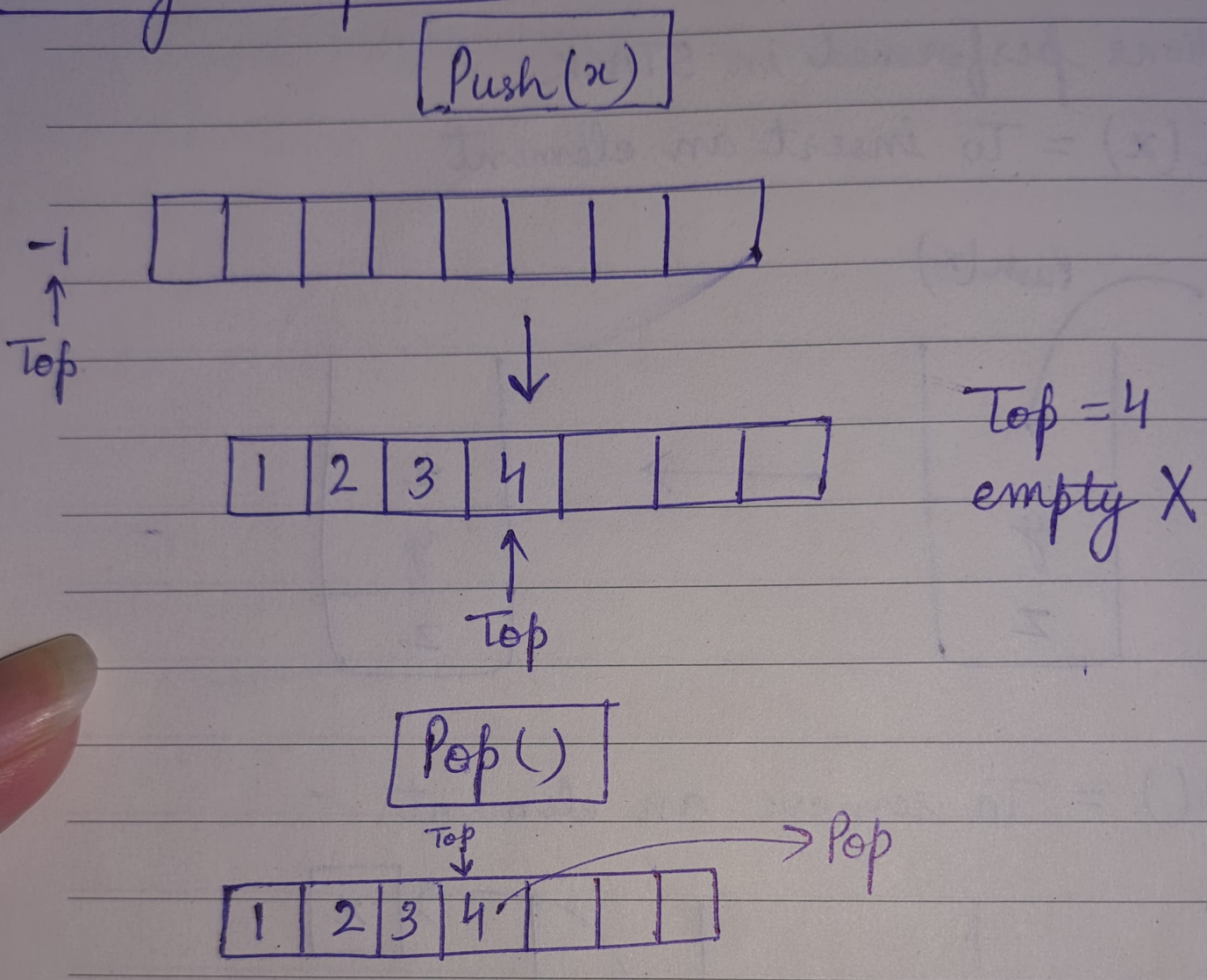
③ Top() = Top element from the previous example is y.

④ empty() = Tells the current cond^n of stack either empty or full.

यह सारे operations constant time में होते हैं। O(1)

How to implement ?  ???

Array implementation



★ जब Top = -1 it means stack is empty.

★ जब Top = last index of array then it means we cannot fill more elements in the array as array is now full. If we want to insert more elements then we have to take a new array.

Push(x) का मतलब top++ करना है।
Pop() का मतलब है top-- करना।