STACK:-

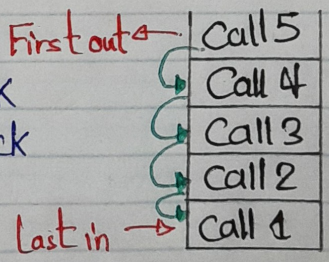
we will start with Linear-data Structure
Specifically STACK-Structure

Def: The stack is one of the powerful Arrays which uses LIFO Last in-first out principle

we can use the stack in reversing problems reverse strings for example and when you call some number of methods, every call will be stored in the stack

The followin figure will show you LIFO stack
we can import it from java.util.~~collections~~;

every call will be removed from the TOP of the stack untill we make The stack empty



The Stack have some performance properties:

1. Size: Dynamic بطريقة متتابعة
2. Memory: as the array Must be free Consecutive as Linkedlist not need Consecutive
3. Access: O(n) worst case
4. Delete: O(1) top but O(n) worst case
5. Insert: O(1) top but O(n) worst case
6. Search: O(n)