

225. Implement Stack using Queues

Easy

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Implement a last-in-first-out (LIFO) stack using only two queues. The implemented stack should support all the functions of a normal stack

Implement the `MyStack` class:

- `void push(int x)` Pushes element `x` to the top of the stack.
- `int pop()` Removes the element on the top of the stack and returns it.
- `int top()` Returns the element on the top of the stack.
- `boolean empty()` Returns `true` if the stack is empty, `false` otherwise.

Notes:

- You must use **only** standard operations of a queue, which means that only `push` to back, `peek/pop` from front, `size` and `is empty`
- Depending on your language, the queue may not be supported natively. You may simulate a queue using a list or deque (double-ended)

Example 1:

Input
["MyStack", "push", "push", "top", "pop", "empty"]
[[], [1], [2], [], [], []]
Output
[null, null, null, 2, 2, false]

Explanation
`MyStack myStack = new MyStack();`
`myStack.push(1);`
`myStack.push(2);`
`myStack.top(); // return 2`
`myStack.pop(); // return 2`
`myStack.empty(); // return False`

Constraints:

- $1 \leq x \leq 9$
- At most `100` calls will be made to `push`, `pop`, `top`, and `empty`.
- All the calls to `pop` and `top` are valid.

Follow-up: Can you implement the stack using only one queue?

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Yes No

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