

Implement a queue with 2 stacks. Your queue should have an enqueue and a dequeue method and it should be "first in first out" (FIFO).

Optimize for the time cost of m calls on your queue. These can be any mix of enqueue and dequeue calls.

Assume you already have a stack implementation and it gives $O(1)$ time push and pop.

Gotchas

We can get $O(m)$ runtime for m calls. Crazy, right?

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