

In this implementation, a queue is simulated using two stacks: `inStack` and `outStack`. The enqueue operation simply pushes the new element onto `inStack`, which takes constant time $O(1)$. The dequeue operation checks if `outStack` is empty. If it is, all elements from `inStack` are moved to `outStack`, which takes $O(n)$ time in the worst case. However, because this shifting happens only when `outStack` is empty, the **amortized** time complexity for dequeue becomes $O(1)$ over many operations. The `front()` operation behaves similarly.

When compared to the standard `std::queue` from the C++ Standard Library, which is usually implemented using `std::deque`, the standard queue provides $O(1)$ time for both enqueue and dequeue operations in all cases, not just amortized. This makes it more efficient under heavy use.

Conclusion:

While the two-stack method is a clever workaround, the standard `std::queue` is better for systems like a self-serve coffee kiosk, where consistent and fast response time is important. The standard queue provides reliable constant time operations with no worst-case delays.