✓ **Congratulations! You passed!**

TO PASS 1% or higher

GRADE
100%

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Interview Questions: Stacks and Queues (ungraded)

TOTAL POINTS 3

1. **Queue with two stacks.** Implement a queue with two stacks so that each queue operations takes a constant amortized number of stack operations.　　　　`1 / 1 point`

   Note: these interview questions are ungraded and purely for your own enrichment. To get a hint, submit a solution.

   > I dont know

   ✓ **Correct**
   > *Hint*: If you push elements onto a stack and then pop them all, they appear in reverse order. If you repeat this process, they're now back in order.

2. **Stack with max.** Create a data structure that efficiently supports the stack operations (push and pop) and also a return-the-maximum operation. Assume the elements are real numbers so that you can compare them.　　　　`1 / 1 point`

   > Its so hard

   ✓ **Correct**
   > *Hint:* Use two stacks, one to store all of the items and a second stack to store the maximums.

3. **Java generics.** Explain why Java prohibits generic array creation.　　　　`1 / 1 point`

   > Ask James

   ✓ **Correct**
   > *Hint:* to start, you need to understand that Java arrays are *covariant* but Java generics are not: that is, `String[]` is a subtype of `Object[]`, but `Stack < String >` is not a subtype of `Stack < Object >`.