Interview Questions: Stacks and Queues (ungraded)   **3/3 points (100%)**

Practice Quiz, 3 questions

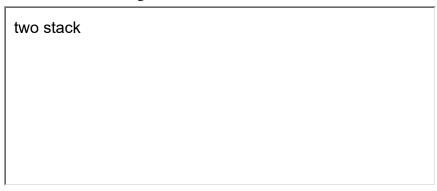✔ **Congratulations! You passed!**

✔ 1 / 1
points

1.

Queue with two stacks. Implement a queue with two stacks so that each queue operations takes a constant amortized number of stack operations.

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

two stack

Your answer cannot be more than 10000 characters.

Thank you for your response.
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.

✔ 1 / 1
points

3/3 points (100%)

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 reals numbers so that you can compare them.

```
two stack
```

Your answer cannot be more than 10000 characters.

Thank you for your response.

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

✔ 1 / 1
points

3.

Java generics. Explain why Java prohibits generic array creation.

```
two stack
```

Your answer cannot be more than 10000 characters.

Thank you for your response.

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 >`.

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