

Deck of Cards

Your assignment is to code, in an objected-oriented programming language, a set of classes that represent a deck of poker-style playing cards. (Fifty-two playing cards in four suits: hearts, spades, clubs, diamonds, with face values of Ace, 2-10, Jack, Queen, and King.)

Within one of your classes, you must provide two operations:

<code>shuffle()</code>

Shuffle returns no value, but results in the cards in the deck being randomly permuted. Please <i>do not</i> use library-provided “shuffle” operations to implement this function. You may use library-provided random number generators in your solution.
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<code>deal_one_card()</code>

This function should return one card from the deck to the caller.

Specifically, a call to `shuffle` followed by 52 calls to `deal_one_card` should result in the caller being provided all 52 cards of the deck in a random order. If the caller then makes a 53rd call to `deal_one_card`, no card is dealt.

We have intentionally left many details of this assignment vague. You should follow the principle of least surprise in making reasonable decisions regarding the implementation.

While this is a trivial assignment, pretend that this code will become a foundational part of a new Amazon product. Take whatever measures you feel are required for your code to meet this bar. We are not concerned with how quickly you complete this assignment. **Take your time** and “do it right.”