

3.0 Iterator interface

Write a class that implements the `Iterator` interface found in the `java.util` package. Your class will contain an array containing the 13 cards in a suit from a deck of cards in increasing order (a simple `char[]` should be enough here). The first call to `next` method returns `'2'`, the subsequent call returns the next card, `'3'`, and so on, up to `'A'`. The `hasNext` and `remove` implementations are quite self explanatory.

After you finished and tested the first implementation, consider changing the type of your array from `char` to `Card`; create a new class for that. It is up to you what attributes you define inside the `Card` class, but you should be able to at least identify a card by its suit and number. Create another interface `OrderedIterator` which extends the `Iterator` interface with the `int put(Comparable comparable)` method. The implementation of this method should add an element to the original array in order as long as the element does not exist in the array already. You can either use the `Comparable` interface we have written during the last lab or the one from the `java.lang` package.

Consider writing some unit tests as well!