

Section Activity #6: Implement `delete(ElementType)`

Your Names: _____

Directions: In groups of two (or three, if need be), complete the following activity. This section activity will be graded; all students in the group will receive the same score. Make sure that the names of all group members are on the page you submit to your section leader. Section Meeting 10 (2014/03/26-27)

Task: Earlier, we looked at the implementation of `delete(int)`, which removed from the list the element at the given index. More frequently, the user will want to remove a specific value from the list – that is, the user would like a second `delete()` method that offers different semantics.

Complete the following `CS227ArrayList` method that deletes from the list the first (left-most, lowest-indexed) object that represents the same value as does the formal parameter `value`. Return -1 if no matching value exists in the list, or 0 if a matching value did exist and was successfully deleted.

This method is meant to be an addition to `CS227ListInterface`. This means that the other methods are available for your use, should you wish to use them. `CS227ListInterface` is provided on the back, for reference.

```
private int delete (ElementType value)
{
```

```
}
```

```
interface CS227ListInterface<ElementType>
{
    public          int    append (ElementType item);
    public          int    prepend (ElementType item);
    public          int    insert (int location, ElementType item);
    public ElementType    delete (int location);
    public          boolean isEmpty ();
    public          boolean isFull ();
    public          int    size ();
    public          int    capacity ();
    public          String toString ();
}
```

For Additional Practice:

1. Think of good test cases (list content and to-be-deleted values) that `delete(ElementType)` needs to handle.
2. Re-write `delete(ElementType)` so that it removes all matching values, not just the first ... and think of test cases for it, too!