CPAN 222 Lab 6

## Goals

To learn how to create and use exceptions

## Description

You can create your own list class (MyList) which will be able to hold any number of items up to the actual size of the array. Your class will maintain a counter of the actual number of items stored in the array. The array will be of type Object so that your array can contain any Object or subclass of Object. Your class should provide the following methods:

* void append(Object o) – appends the object onto the end of the list. Throws a ListFullException if the list is full.
* Object at(int index) – returns the object at the indicated position or throws an ArrayIndexOutOfBoundsException if the index is not valid.
* void remove(int index) – remove the element at the index and moves elements after it down to fill the empty space. Throws ArrayIndexOutOfBoundsException if the index is not valid and ListEmptyException if the list is empty and there is nothing to remove.
* MyList(int size) – constructor which takes the size to make the array.

You should write the MyList class and the necessary exception classes. You should test your class to show that you can add, access and remove some Strings. You should demonstrate that your exceptions all work as expected.

## Deliverables

When finished, show the program to your instructor and demonstrate that it works.