Assignment - List Implementation (Part Two)

**Due** Apr 30 by 11:59pm - **Points** 100 - **Submitting** a file upload - **File Types** zip

**Overview**

This assignment is a continuation of your first List implementation. You will be implementing most of the remaining methods in your list class (all methods that are marked in the part-two section). Also, you can complete a few of the most challenging method as extra credit (these can be found at the bottom of the class you were given for part one).

**Methods**

* public boolean addAll(Collection<? extends T> other): Appends all elements from other to the end of this list.
* public boolean addAll(int index, Collection<? extends T> other): Inserts all elements from other into this list at the given position.
* public boolean containsAll(Collection<?> other): Returns true if this list contains all of the elements of the specified collection, otherwise false.
* public boolean removeAll(Collection<?> other): Removes from this list all of its elements that are contained in other.
* public boolean retainAll(Collection<?> other): Retains only the elements in this list that are contained in other. (ie. you should remove all elements that are not in other)
* public List<T> subList(int fromIndex, int toIndex): Returns a new list that contains the elements in this list from fromIndex to toIndex.
* public Object[] toArray(): Returns an array containing all of the elements in this list in proper sequence (from first to last element).
* public <T> T[] toArray(T[] toFill): Fills the array toFill with all elements in this list.
* public Iterator<T> iterator(): Returns an iterator for this list class.
  + This method requires that you build a private inner class that implements the Iterator class.
  + You should return a working instance of your inner class from the iterator() method.

**Testing**

As part of your submission, please download the following [test fileiew in a new window](https://egator.greenriver.edu/courses/1273210/files/63631549/download?wrap=1). The file contains several methods that should be completed by you. Each method should thoroughly tests the new methods in your list class. Part of my assessment of this assignment will based on how accurately you test your methods. I will base my assessment on the method descriptions above.

**Extra Credit**

If you plan on attempting the extra credit methods, please contact me for instructions.