Programming Assignment 5: Merging Two Ordered Lists

Due: Wednesday, April 20.

Write a class named ListUtilities with two static methods: one to check if an ArrayList of Strings is in ascending (lexicographic) order and one that takes two ArrayLists of Strings that are in order and merges them into a single ArrayList that is in order.

The first of these methods was written for Programming Assignment 4. The second method is the purpose of this assignment. This method is to take two ArrayLists of Strings and first check that each is in ascending order using the first method. Then merge the two lists into a new list that is in order and return the new list.

Programming notes:
- Be sure that your code doesn't modify either of the two original lists.
- Do not use other Java classes to do the job for you, you are to implement the merge algorithm.

Write a JUnit class to test the two methods. You can use the tests from Programming Assignment 4 for the first method (if they are appropriate). Include a minimum of 4 tests for each method. Be sure to test thoroughly.

Notes:
- Document your code with Javadoc comments as we have illustrated in the programs encountered in the lab assignments.
- Follow the programming style we have illustrated in terms of indentation, meaningful identifiers, and spacing.

Turn in:
- Listing of the source code of your program (both classes).
- E-mail a copy of your source code files to your instructor as an e-mail attachment.

The project is due Wednesday, April 20, at 4:00 p.m.

This assignment is to be completed by each student individually. It is governed by the Help Policy described below.

Assignment Type: Individual
Help Policy In Effect for This Assignment: Individual Project Without Collaboration.
In particular, you may receive help from the following persons, in addition to an instructor in this course: NONE. You may use the following materials produced by other students: NONE.