GroceryList Collections assignment

1. Make a new project in IntelliJ (if you prefer to refactor, it's ok).

2. Copy your GroceryItemOrder-class into your new project.

3. This time, instead of making a class called GroceryList, you should make an interface named GroceryList. This interface should have the method signatures from your 1. week recap GroceryList-class, and the additional methods size(), get(int index), add(int index, GroceryItemOrder), and remove(int index).

4. Make a new class called GroceryArrayList, and make it implement the GroceryList interface. Add all the method signatures from the interface, and copy-paste the method bodies from the recap assignment into the ones you already made. Remember to make the curly brackets for the methods you didn't write yet, but just leave them empty for now.

5. Write the size() method so that it returns how many GroceryItemOrder objects you have in your GroceryArrayList.

6. Write the get(int index) method so that it returns the GroceryItemOrder at the index given as parameter.

   For the next two methods, you can get help by reading the paragraph named "Working with the middle of the list" in your Java book (p. 944-949).

7. Write the add (int index, GroceryItemOrder order) method, so that it adds the GroceryItemOrder at the given index.
8. Write a method remove(int index) that removes the GroceryItemOrder at the index given as parameter.

9. Re-write your GroceryArrayList so it will double the size of the array when the array runs out of space for new GroceryItemOrder objects. Remove the Exception-handling regarding space from the recap assignment - your GroceryArrayList is now supposed to be dynamic.

   VOLUNTARY PART OF THE ASSIGNMENT

   Write a class called GroceryLinkedList that uses a linked list to store the GroceryItemOrders. This class should also implement the GroceryList interface. For inspiration and help, you might want to consult the chapter on linked lists in your Java book (16.1, 16.2, p. 979-1006).