**Assignment 1 on Chapter 1 and 2**

The **union**of two collections consists of their contents combined into a new collection. Add a method union to the interface **BagInterface** for the ADT bag that returns as a new bag the union of the bag receiving the call to the method and the bag that is the method’s one argument. Include sufficient comments to fully specify the method. Also implement the method **union** for the class **ResizableArrayBag**

Note that the union of two bags might contain duplicate items. For example, if object *x* occurs five times in one bag and twice in another, the union of these bags contains *x* seven times. Specifically, suppose that bag1 and bag2 are Bag objects, where Bag implements **BagInterface**; bag1 contains the String objects a, b, and c; and bag2 contains the String objects b, b, d, and e. After the statement

BagInterface<String> everything = bag1.union(bag2);

executes, the bag everything contains the strings a, b, b, b, c, d, and e. Note that union does not affect the contents of bag1 and bag2.

**What to submit:**

1. The modified **BagInterface.java** that includes the union method definition
2. The modified **ResizableArrayBag.java** that includes the union method implementation
3. The **Test.java** file that test the new method union