Summary:

The addElement method checks if the containsElement method has a value. If the containsElement method has no value, it adds a value to the List "elements." However, the containsElement method checks if the value that was added is equal to the value in the List "elements." If it is true, it returns true. If it is false, it returns false twice which is a logic error. Concerning the union method, as it is originally written, "A" contains the elements of "A union B" after the union operation. "A union B" contains the elements of "B" before union operation. I created an object and added another for loop because we don't want to change the sets. We only want to form a union of the first and second sets.