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**CST-150 Programming in C# I**

**Activity 10 Code Correction**

**Due Date: 11/28/21**

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# GitHub Link

# Observation and Problems

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1. The sets and the union contain duplicate values
2. The union is only returning set B
3. After the union method, Set B is appended to Set A

# Problem 1: Sets Contain Duplicate Values

## addElement Method

The first thing I noticed is the “sets” contain duplicate values when, by definition, they should not be able to. This Boolean function is setup correctly; however, it sometimes returns true when it should be returning false and should not add the value to the set.

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## ContainsElement For Loop

Moving on, the problem of duplicate values lies in this for loop because it is unable to iterate since it can return both true and false within the same if statement breaking the loop and leaving it unable to iterate. It only ever checks the first index, determines if true/false and does not check the others.

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## Fix

Commenting out fixes the duplicate values in the sets but the union now returns only B and after this method, Set A is modified.

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# Problem 2: Union

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Stepping into this method, “this” is Set A and rhs is Set B. Set A changes because unique elements from set B are getting appended in this.addElement(rhs.elements[i]);

# Fix

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To fix this, I added a new Set as a placeholder for the union so Set A is never changed and we can display the original values.

# Final Output

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