

Q3

Assignment Content



Quiz_03.pdf



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COSC 237 Quiz 03

Complete the below program and test it with the provided client.

```
public class Box<T ... > implements Comparable< ... > {
    private int size;
    private T item;

    // TODO: Default and alternate constructors
    // TODO: Getters and setters
    // TODO: toString() and equals()

    public int compareTo ( ... ) {
        /*
        --- returns ---
        1 if this.size is greater than obj's size and this.item is greater than obj's item

        0 if this.size equals obj's size and this.item equals obj's item

        -1 otherwise
        */
    }

    public static void main(String[] args) { // the testing client
        Box<Integer> intBox1 = new Box<Integer>();
        intBox1.setSize(50);
        intBox1.setItem(new Integer(237));
        System.out.println("intBox1--size == " + intBox1.getSize());
        System.out.println("intBox1--item == " + intBox1.getItem());
        intBox1.set(20, new Integer(200));

        Box<Integer> intBox2 = new Box<Integer>();
        intBox2.set(10, new Integer(100));

        System.out.println("intBox1.equals(intBox2) == " + intBox1.equals(intBox2));
        System.out.println("intBox1.compareTo(intBox2) == " + intBox1.compareTo(intBox2));

        Box<String> strBox1 = new Box<String>();
        strBox1.setSize(150);
        strBox1.setItem(new String("RAIN"));
        System.out.println("strBox1--size == " + intBox1.getSize());
        System.out.println("strBox1--item == " + intBox1.getItem());
        strBox1.set(5, new String("COSC236"));
        System.out.println(strBox1);

        Box<String> strBox2 = new Box<String>(150, new String("COSC236"));
        System.out.println("strBox1.equals(strBox2) == " + strBox1.equals(strBox2));
        strBox2.set(150, new String("COSC237"));
        System.out.println("strBox1.compareTo(strBox2) == " + strBox1.compareTo(strBox2));
    }
}
```

Submission

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