

MergeSortWithQueueTest.java

```
package sort;

import java.util.ArrayList;
import java.util.List;
import java.util.Queue;
import java.util.concurrent.ConcurrentLinkedQueue;
import org.junit.Before;
import org.junit.Test;
import static org.junit.Assert.*;

/**
 *
 * @author tadaki
 */
public class MergeSortWithQueueTest {

    private Queue<List<Integer>> inputQueue, expResult;
    private List<Integer> list1, list2, list3;

    /**
     * データの準備（このメソッドが準備段階で実行される）
     *
     * @throws Exception
     */
    @Before
    public void setUp() throws Exception {
        inputQueue = new ConcurrentLinkedQueue<>();
        int data1[] = {1, 3, 5};
        int data2[] = {2, 4, 6};
        list1 = new ArrayList<>();
        for (int k : data1) {
            list1.add(k);
        }
        list2 = new ArrayList<>();
        for (int k : data2) {
            list2.add(k);
        }
        inputQueue.add(list1);
        inputQueue.add(list2);
        int data3[] = {1, 2, 3, 4, 5, 6};
        list3 = new ArrayList<>();
        for (int k : data3) {
            list3.add(k);
        }
        expResult = new ConcurrentLinkedQueue<>();
        expResult.add(list3);
    }
}
```

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```
}

/**
 * Test of mergeListWithQueue method, of class MergeSortWithQueue.
 * 待ち行列内に二つのリストが入っているものを整列統合し、待ち行列に戻す
 */
@Test
public void testMergeListWithQueue() {
    System.out.println("mergeListWithQueue");
    System.out.println("input queue :" + inputQueue);
    Queue<List<Integer>> result
        = MergeSortWithQueue.mergeListWithQueue(inputQueue);
    assertEquals(expResult.peek(), result.peek());
    System.out.println("result " + result.peek());
    System.out.println("expResult " + expResult.peek());
}

/**
 * Test of mergeList method, of class MergeSortWithQueue.
 * 二つのリストを整列統合する
 */
@Test
public void testMergeList() {
    System.out.println("mergeList");
    System.out.println("merge [" + list1 + "]" + list2 + "]");
    List result = MergeSortWithQueue.mergeList(list1, list2);
    System.out.println("result " + result);
    assertEquals(list3, result);
}

}
```