Li Xi

import org.junit.jupiter.api.Assertions;

import org.junit.jupiter.api.Test;

import java.util.Iterator;

public class DequeTests {

@Test

void isEmpty() {

Deque<Double> d = new Deque<Double>();

Assertions.assertTrue(d.isEmpty());

}

@Test

void zeroSize() {

Deque<Double> d = new Deque<Double>();

Assertions.assertEquals(d.size(), 0);

}

@Test

void addFirst() {

Deque<Double> d = new Deque<Double>();

d.addFirst(0.1);

d.addFirst(0.2);

Assertions.assertFalse(d.isEmpty());

Assertions.assertEquals(d.size(), 2);

}

@Test

void addLast() {

Deque<Double> d = new Deque<Double>();

d.addLast(0.3);

d.addLast(0.4);

Assertions.assertFalse(d.isEmpty());

Assertions.assertEquals(d.size(), 2);

}

@Test

void removeFirst() {

Deque<Double> d = new Deque<Double>();

d.addFirst(0.1);

d.addFirst(0.2);

Assertions.assertEquals(d.removeFirst(), 0.2);

Assertions.assertEquals(d.size(), 1);

Assertions.assertEquals(d.removeFirst(), 0.1);

Assertions.assertTrue(d.isEmpty());

Assertions.assertEquals(d.size(), 0);

}

@Test

void removeLast() {

Deque<Double> d = new Deque<Double>();

d.addFirst(0.1);

d.addFirst(0.2);

d.addLast(0.3);

d.addLast(0.4);

d.addLast(0.5);

Assertions.assertEquals(d.removeLast(), 0.5);

Assertions.assertEquals(d.size(), 4);

Assertions.assertFalse(d.isEmpty());

Assertions.assertEquals(d.removeLast(), 0.4);

Assertions.assertEquals(d.size(), 3);

Assertions.assertFalse(d.isEmpty());

d.removeLast();

d.removeLast();

d.removeLast();

Assertions.assertTrue(d.isEmpty());

Assertions.assertEquals(d.size(), 0);

}

@Test

void iterator() {

Deque<Double> d = new Deque<Double>();

d.addFirst(0.1);

d.addFirst(0.2);

d.addFirst(0.25);

d.addLast(0.3);

d.addLast(0.4);

d.addLast(0.45);

d.removeFirst();

d.removeFirst();

d.removeLast();

d.removeLast();

Iterator<Double> DI = d.iterator();

Assertions.assertTrue(DI.hasNext());

Assertions.assertEquals(DI.next(), 0.1);

}

}

Graphical user interface, text

Description automatically generated