

```
1: // Copyright 2015 <Angel Z'heondre Calcano>
2: // PS5a
3: #define BOOST_TEST_DYN_LINK
4: #define BOOST_TEST_MODULE Main
5: #include <boost/test/unit_test.hpp>
6: #include <stdexcept>
7: #include <exception>
8: #include <iostream>
9: #include <string>
10: #include "RingBuffer.hpp"
11:
12: BOOST_AUTO_TEST_CASE(RingBufferconstruct) {
13:     BOOST_REQUIRE_NO_THROW(RingBuffer(100));
14:     BOOST_CHECK_THROW(RingBuffer(0), std::exception);
15:     BOOST_REQUIRE_THROW(RingBuffer(0), std::invalid_argument);
16: }
17: BOOST_AUTO_TEST_CASE(Enqueue_Dequeue_peek) {
18:     RingBuffer a(3);
19:     a.enqueue(3);
20:     a.enqueue(2);
21:     a.enqueue(1);
22:     BOOST_REQUIRE(a.peek() == 3);
23:     BOOST_REQUIRE(a.dequeue() == 3);
24:     BOOST_REQUIRE(a.dequeue() == 2);
25:     BOOST_REQUIRE(a.dequeue() == 1);
26:     BOOST_REQUIRE_THROW(a.dequeue(), std::runtime_error);
27: }
28: BOOST_AUTO_TEST_CASE(EnqueueFullbuffer) {
29:     RingBuffer b(3);
30:     b.enqueue(5);
31:     b.enqueue(9);
32:     b.enqueue(7);
33:     BOOST_REQUIRE_THROW(b.enqueue(9), std::runtime_error);
34: }
35: BOOST_AUTO_TEST_CASE(peekonemptybuffer) {
36:     RingBuffer c(1);
37:     c.enqueue(5);
38:     BOOST_REQUIRE(c.dequeue() == 5);
39:     BOOST_CHECK_THROW(c.peek(), std::runtime_error);
40: }
```