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/* The following code example is taken from the book
 * "The C++ Standard Library – A Tutorial and Reference, 2nd Edition"
 * by Nicolai M. Josuttis, Addison-Wesley, 2012
 *
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 */
#include <iterator>
#include <iostream>
#include <deque>
#include <algorithm>
using namespace std;

void print (int elem)
{
    cout << elem << ' ';
}

int main()
{
    // create deque with elements from 1 to 9
    deque<int> coll = { 1, 2, 3, 4, 5, 6, 7, 8, 9 };

    // find position of element with value 2
    deque<int>::const_iterator pos1;
    pos1 = find (coll.cbegin(), coll.cend(),    // range
                2);                             // value

    // find position of element with value 7
    deque<int>::const_iterator pos2;
    pos2 = find (coll.cbegin(), coll.cend(),    // range
                7);                             // value

    // print all elements in range [pos1,pos2)
    for_each (pos1, pos2,    // range
              print);        // operation
    cout << endl;

    // convert iterators to reverse iterators
    deque<int>::const_reverse_iterator rpos1(pos1);
    deque<int>::const_reverse_iterator rpos2(pos2);

    // print all elements in range [pos1,pos2) in reverse order
    for_each (rpos2, rpos1,    // range
              print);          // operation
    cout << endl;
}

```