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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 <list>
#include <algorithm>
using namespace std;

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

    // find position of element with value 5
    list<int>::const_iterator pos;
    pos = find (coll.cbegin(), coll.cend(), // range
               5);                          // value

    // print value of the element
    cout << "pos:  " << *pos << endl;

    // convert iterator to reverse iterator
    list<int>::const_reverse_iterator rpos(pos);

    // print value of the element to which the reverse iterator refers
    cout << "rpos:  " << *rpos << endl;

    // convert reverse iterator back to normal iterator
    list<int>::const_iterator rrpos;
    rrpos = rpos.base();

    // print value of the element to which the normal iterator refers
    cout << "rrpos:  " << *rrpos << endl;
}

```