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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 "alghostuff.hpp"
using namespace std;

int main()
{
    deque<int> coll;
    list<int> subcoll;

    INSERT_ELEMENTS(coll, 1, 7);
    INSERT_ELEMENTS(coll, 1, 7);
    INSERT_ELEMENTS(subcoll, 3, 6);

    PRINT_ELEMENTS(coll, "coll: ");
    PRINT_ELEMENTS(subcoll, "subcoll: ");

    // search first occurrence of subcoll in coll
    deque<int>::iterator pos;
    pos = search (coll.begin(), coll.end(),           // range
                  subcoll.begin(), subcoll.end());    // subrange

    // loop while subcoll found as subrange of coll
    while (pos != coll.end()) {
        // print position of first element
        cout << "subcoll found starting with element "
              << distance(coll.begin(), pos) + 1
              << endl;

        // search next occurrence of subcoll
        ++pos;
        pos = search (pos, coll.end(),                // range
                      subcoll.begin(), subcoll.end()); // subrange
    }
}

```