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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()
{
    vector<string> coll1 = { "Hello", "this", "is", "an", "example" };
    list<string> coll2;

    // copy elements of coll1 into coll2
    // - use back inserter to insert instead of overwrite
    // - use copy() because the elements in coll1 are used again
    copy (coll1.cbegin(), coll1.cend(),           // source range
          back_inserter(coll2));                  // destination range

    // print elements of coll2
    // - copy elements to cout using an ostream iterator
    // - use move() because these elements in coll2 are not used again
    move (coll2.cbegin(), coll2.cend(),           // source range
          ostream_iterator<string>(cout, " "));   // destination range
    cout << endl;

    // copy elements of coll1 into coll2 in reverse order
    // - now overwriting (coll2.size() still fits)
    // - use move() because the elements in coll1 are not used again
    move (coll1.crbegin(), coll1.crend(),         // source range
          coll2.begin());                         // destination range

    // print elements of coll2 again
    // - use move() because the elements in coll2 are not used again
    move (coll2.cbegin(), coll2.cend(),           // source range
          ostream_iterator<string>(cout, " "));   // destination range
    cout << endl;
}

```