

```

/* 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;

void printCollection (const list<int>& l)
{
    PRINT_ELEMENTS(l);
}

bool lessForCollection (const list<int>& l1, const list<int>& l2)
{
    return lexicographical_compare
        (l1.cbegin(), l1.cend(), // first range
         l2.cbegin(), l2.cend()); // second range
}

int main()
{
    list<int> c1, c2, c3, c4;

    // fill all collections with the same starting values
    INSERT_ELEMENTS(c1, 1, 5);
    c4 = c3 = c2 = c1;

    // and now some differences
    c1.push_back(7);
    c3.push_back(2);
    c3.push_back(0);
    c4.push_back(2);

    // create collection of collections
    vector<list<int>> cc;
    cc.insert ( cc.begin(), { c1, c2, c3, c4, c3, c1, c4, c2 } );

    // print all collections
    for_each (cc.cbegin(), cc.cend(),
              printCollection);
    cout << endl;

    // sort collection lexicographically
    sort (cc.begin(), cc.end(), // range
          lessForCollection); // sorting criterion

    // print all collections again
    for_each (cc.cbegin(), cc.cend(),
              printCollection);
}

```