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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;

bool lessLength (const string& s1, const string& s2)
{
    return s1.length() < s2.length();
}

int main()
{
    // fill two collections with the same elements
    vector<string> coll1 = { "1xxx", "2x", "3x", "4x", "5xx", "6xxxx",
                           "7xx", "8xxx", "9xx", "10xxx", "11", "12",
                           "13", "14xx", "15", "16", "17" };
    vector<string> coll2(coll1);

    PRINT_ELEMENTS(coll1, "on entry:\n ");

    // sort (according to the length of the strings)
    sort (coll1.begin(), coll1.end(),           // range
          lessLength);                          // criterion
    stable_sort (coll2.begin(), coll2.end(),    // range
                lessLength);                   // criterion

    PRINT_ELEMENTS(coll1, "\nwith sort():\n ");
    PRINT_ELEMENTS(coll2, "\nwith stable_sort():\n ");
}

```