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/* The following code example is taken from the book
 * "The C++ Standard Library – A Tutorial and Reference"
 * by Nicolai M. Josuttis, Addison-Wesley, 1999
 *
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 */
#include <string>
#include <iostream>
#include <algorithm>
using namespace std;

bool nocase_compare (char c1, char c2)
{
    return toupper(c1) == toupper(c2);
}

int main()
{
    string s1("This is a string");
    string s2("STRING");

    // compare case insensitive
    if (s1.size() == s2.size() &&          // ensure same sizes
        equal (s1.begin(), s1.end(),      // first source string
              s2.begin(),                  // second source string
              nocase_compare)) {          // comparison criterion
        cout << "the strings are equal" << endl;
    }
    else {
        cout << "the strings are not equal" << endl;
    }

    // search case insensitive
    string::iterator pos;
    pos = search (s1.begin(), s1.end(),    // source string in which to search
                  s2.begin(), s2.end(),    // substring to search
                  nocase_compare);         // comparison criterion
    if (pos == s1.end()) {
        cout << "s2 is not a substring of s1" << endl;
    }
    else {
        cout << "'" << s2 << "\" is a substring of \""
              << s1 << "\" (at index " << pos - s1.begin() << ")"
              << endl;
    }
}

```