```
/* 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 <string>
#include <regex>
#include <iostream>
#include <iomanip>
using namespace std;

int main()
{
    string data = "XML tag: <tag-name>the value</tag-name>.";
    cout << "data:              " << data << "\n\n";

    smatch m;  // for returned details of the match
    bool found = regex_search (data,
                               m,
                               regex("<(.*)>(.*)</(\\1)>"));

    // print match details:
    cout << "m.empty():        " << boolalpha << m.empty() << endl;
    cout << "m.size():         " << m.size() << endl;
    if (found) {
        cout << "m.str():          " << m.str() << endl;
        cout << "m.length():       " << m.length() << endl;
        cout << "m.position():     " << m.position() << endl;
        cout << "m.prefix().str(): " << m.prefix().str() << endl;
        cout << "m.suffix().str(): " << m.suffix().str() << endl;
        cout << endl;

        // iterating over all matches (using the match index):
        for (int i=0; i<m.size(); ++i) {
            cout << "m[" << i << "].str():       " << m[i].str() << endl;
            cout << "m.str(" << i << "):         " << m.str(i) << endl;
            cout << "m.position(" << i << "):    " << m.position(i)
                 << endl;
        }
        cout << endl;

        // iterating over all matches (using iterators):
        cout << "matches:" << endl;
        for (auto pos = m.begin(); pos != m.end(); ++pos) {
            cout << " " << *pos << " ";
            cout << "(length: " << pos->length() << ")" << endl;
        }
    }
}
```