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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 <map>
#include <string>
#include <iostream>
#include <algorithm>
using namespace std;

int main()
{
    map<string, double> coll { { "tim", 9.9 },
                              { "struppi", 11.77 }
                             };

    // square the value of each element:
    for_each (coll.begin(), coll.end(),
              [] (pair<const string, double>& elem) {
                  elem.second *= elem.second;
              });

    // print each element:
    for_each (coll.begin(), coll.end(),
              [] (const map<string, double>::value_type& elem) {
                  cout << elem.first << ": " << elem.second << endl;
              });
}

```