```
/* 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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 * warranty, and with no claim as to its suitability for any purpose.
 */
#include <cstdlib>
#include "algostuff.hpp"
using namespace std;

class MyRandom {
  public:
    ptrdiff_t operator() (ptrdiff_t max) {
        double tmp;
        tmp = static_cast<double>(rand())
                / static_cast<double>(RAND_MAX);
        return static_cast<ptrdiff_t>(tmp * max);
    }
};

int main()
{
    vector<int> coll;

    INSERT_ELEMENTS(coll,1,9);
    PRINT_ELEMENTS(coll,"coll:     ");

    // shuffle all elements randomly
    random_shuffle (coll.begin(), coll.end());

    PRINT_ELEMENTS(coll,"shuffled: ");

    // sort them again
    sort (coll.begin(), coll.end());
    PRINT_ELEMENTS(coll,"sorted:   ");

    /* shuffle elements with self-written random number generator
     * - to pass an lvalue we have to use a temporary object
     */
    MyRandom rd;
    random_shuffle (coll.begin(), coll.end(),    // range
                    rd);                 // random number generator

    PRINT_ELEMENTS(coll,"shuffled: ");
}
```