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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;

int main()
{
    vector<int> coll;
    vector<int>::iterator pos;

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

    // define an object for the predicate (using a lambda)
    auto isEven = [](int elem) {
        return elem%2==0;
    };

    // print whether all, any, or none of the elements are/is even
    cout << boolalpha << "all even?: "
        << all_of(coll.cbegin(),coll.cend(), isEven) << endl;
    cout << "any even?: "
        << any_of(coll.cbegin(),coll.cend(), isEven) << endl;
    cout << "none even?: "
        << none_of(coll.cbegin(),coll.cend(), isEven) << endl;
}

```