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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 <string>
#include <iostream>
#include <unordered_set>
#include "hashval.hpp"
#include "print.hpp"
using namespace std;

class Customer {
private:
    string fname;
    string lname;
    long   no;
public:
    Customer (const string& fn, const string& ln, long n)
        : fname(fn), lname(ln), no(n) {
    }
    string firstname() const {
        return fname;
    };
    string lastname() const {
        return lname;
    };
    long number() const {
        return no;
    };
    friend ostream& operator << (ostream& strm, const Customer& c) {
        return strm << "[" << c.fname << "," << c.lname << ","
            << c.no << "]\n";
    }
};

int main()
{
    // lambda for user-defined hash function
    auto hash = [] (const Customer& c) {
        return hash_val(c.firstname(), c.lastname(), c.number());
    };

    // lambda for user-defined equality criterion
    auto eq = [] (const Customer& c1, Customer& c2) {
        return c1.number() == c2.number();
    };

    // create unordered set with user-defined behavior
    unordered_set<Customer,
        decltype(hash), decltype(eq)> custset(10, hash, eq);
}

```

```
custset.insert(Customer("nico", "josuttis", 42));  
PRINT_ELEMENTS(custset);
```

```
}
```