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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 <iostream>
#include <set>
using namespace std;

int main ()
{
    set<int> c;

    c.insert(1);
    c.insert(2);
    c.insert(4);
    c.insert(5);
    c.insert(6);

    cout << "lower_bound(3): " << *c.lower_bound(3) << endl;
    cout << "upper_bound(3): " << *c.upper_bound(3) << endl;
    cout << "equal_range(3): " << *c.equal_range(3).first << " "
        << *c.equal_range(3).second << endl;

    cout << endl;
    cout << "lower_bound(5): " << *c.lower_bound(5) << endl;
    cout << "upper_bound(5): " << *c.upper_bound(5) << endl;
    cout << "equal_range(5): " << *c.equal_range(5).first << " "
        << *c.equal_range(5).second << endl;
}

```