

```
import java.util.Map;
import java.util.HashMap;
import java.util.Iterator;

/**
 * Demonstrate the HashMap class, and an Iterator.
 *
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 * 2004/02/09 03:33:38 ian Exp $
 */
public class HashMapDemo {

    public static void main(String[] argv) {

        // Construct and load the hash. This simulates loading a
        // database or reading from a file, or wherever the data is.

        Map<String, String> map = new HashMap<String, String>();

        // The hash maps from company name to address.
        // In real life this might map to an Address object...
        map.put("Adobe", "Mountain View, CA");
        map.put("IBM", "White Plains, NY");
        map.put("Learning Tree", "Los Angeles, CA");
        map.put("Microsoft", "Redmond, WA");
        map.put("Netscape", "Mountain View, CA");
        map.put("O'Reilly", "Sebastopol, CA");
        map.put("Sun", "Mountain View, CA");

        // Two versions of the "retrieval" phase.
        // Version 1: get one pair's value given its key
        // (presumably the key would really come from user input):
        String queryString = "O'Reilly";
        System.out.println("You asked about " + queryString + ".");
        String resultString = map.get(queryString);
        System.out.println("They are located in: " + resultString);
        System.out.println();

        // Version 2: get ALL the keys and pairs
        // (maybe to print a report, or to save to disk)
        Iterator<String> k = map.keySet().iterator();
        while (k.hasNext()) {
            String key = k.next();
            System.out.println("Key " + key + "; Value " + map.get(key));
        }
    }
}
```