

```

/*****
 * mud.Vertex
 *****/

package mud;

import java.util.Map;
import java.util.HashMap;
import java.util.List;
import java.util.Vector;
import java.util.Iterator;

// Represents a location in the MUD (a vertex in the graph).
class Vertex
{
    public String _name;           // Vertex name
    public String _msg = "";       // Message about this location
    public Map<String,Edge> _routes; // Association between direction
                                   // (e.g. "north") and a path
                                   // (Edge)
    public List<String> _things;   // The things (e.g. players) at
                                   // this location

    public Vertex( String nm )
    {
        _name = nm;
        _routes = new HashMap<String,Edge>(); // Not synchronised
        _things = new Vector<String>();       // Synchronised
    }

    public String toString()
    {
        String summary = "\n";
        summary += _msg + "\n";
        Iterator iter = _routes.keySet().iterator();
        String direction;
        while (iter.hasNext()) {
            direction = (String)iter.next();
            summary += "To the " + direction + " there is " + ((Edge)_routes.get
( direction ))._view + "\n";
        }
        iter = _things.iterator();
        if (iter.hasNext()) {
            summary += "You can see: ";
            do {
                summary += iter.next() + " ";
            } while (iter.hasNext());
        }
        summary += "\n\n";
        return summary;
    }
}

```