

```

1  /*****
2  *  Assessment.mud.cs3524.solutions.mud
3  *****/
4
5  package mud;
6
7  import java.util.Map;
8  import java.util.HashMap;
9  import java.util.List;
10 import java.util.Vector;
11 import java.util.Iterator;
12
13 // Represents a location in the MUD (a vertex in the graph).
14 class Vertex {
15     public String _name;           // Vertex name
16     public String _msg = "";       // Message about this location
17     public Map<String, Edge> _routes; // Association between direction
18     // (e.g. "north") and a path
19     // (Edge)
20     public List<String> _things;    // The things (e.g. players) at
21     // this location
22
23     public Vertex(String nm) {
24         _name = nm;
25         _routes = new HashMap<String, Edge>(); // Not synchronised
26         _things = new Vector<String>();        // Synchronised
27     }
28
29     public String toString() {
30         String summary = "\n";
31         summary += _msg + "\n";
32         Iterator iter = _routes.keySet().iterator();
33         String direction;
34         while (iter.hasNext()) {
35             direction = (String) iter.next();
36             summary += "To the " + direction + " there is " + ((Edge) _routes.get(direction)).
37             _view + "\n";

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37         }
38         iter = _things.iterator();
39         if (iter.hasNext()) {
40             summary += "You can see: ";
41             do {
42                 summary += iter.next() + " ";
43             } while (iter.hasNext());
44         }
45         return summary;
46     }
47 }
48
49
```