

```
1  /****
2  *
3  * TreeNode3 extends TreeNode by adding three child components, which are
4  * references other TreeNodes. Hence, TreeNode3 is used to represent ternary
5  * syntactic constructs in a parse tree.
6  *
7  */
8  public class TreeNode3 extends TreeNode {
9
10     /**
11      * Construct this with the given id and child TreeNode references.
12      */
13     public TreeNode3(int id, TreeNode child1, TreeNode child2,
14                     TreeNode child3) {
15         super(id);
16         this.child1 = child1;
17         this.child2 = child2;
18         this.child3 = child3;
19     }
20
21     /**
22      * Return the String representation of this subtree, which is the String
23      * value of its ID, followed on the next three indented lines by the
24      * recursive toString of its three children. See the documentation for <a
25      * href= "TreeNode.html#toString()">TreeNode.toString() </a> for a general
26      * description the way trees are represented as strings.
27      */
28     public String toString(int level) {
29         String indent = "";
30         for (int i = 0; i < level; i++) {
31             indent += " ";
32         }
33         return symPrint(id) + "\n" +
34             indent + " " + (child1 == null ? "null" : child1.toString(level+1)) + "\n" +
35             indent + " " + (child2 == null ? "null" : child2.toString(level+1)) + "\n" +
36             indent + " " + (child3 == null ? "null" : child3.toString(level+1));
37     }
38
39     /** Reference to the left child of this node. */
40     public TreeNode child1;
41
42     /** Reference to the middle child of this node. */
43     public TreeNode child2;
44
45     /** Reference to the right child of this node. */
46     public TreeNode child3;
47
48 }
```