

点类一样，是一个嵌套类。

```
1 private static class BinaryNode<AnyType>
2 {
3     // Constructors
4     BinaryNode( AnyType theElement )
5     { this( theElement, null, null ); }
6
7     BinaryNode( AnyType theElement, BinaryNode<AnyType> lt, BinaryNode<AnyType> rt )
8     { element = theElement; left = lt; right = rt; }
9
10    AnyType element;           // The data in the node
11    BinaryNode<AnyType> left;   // Left child
12    BinaryNode<AnyType> right;  // Right child
13 }
```

图 4-16 BinaryNode 类

图 4-17 显示 BinarySearchTree 类架构，其中唯一的数据域是对根节点的引用，这个引用对于空树来说是 null。这些 public 方法使用了调用诸 private 递归方法的一般技巧。

现在描述某些私有方法。

```
1 public class BinarySearchTree<AnyType extends Comparable<? super AnyType>>
2 {
3     private static class BinaryNode<AnyType>
4     { /* Figure 4.16 */ }
5
6     private BinaryNode<AnyType> root;
7
8     public BinarySearchTree( )
9     { root = null; }
10
11    public void makeEmpty( )
12    { root = null; }
13    public boolean isEmpty( )
14    { return root == null; }
15
16    public boolean contains( AnyType x )
17    { return contains( x, root ); }
18    public AnyType findMin( )
19    { if( isEmpty( ) ) throw new UnderflowException( );
20      return findMin( root ).element;
21    }
22    public AnyType findMax( )
23    { if( isEmpty( ) ) throw new UnderflowException( );
24      return findMax( root ).element;
25    }
26    public void insert( AnyType x )
27    { root = insert( x, root ); }
28    public void remove( AnyType x )
```

图 4-17 二叉查找树架构