

```
1 import java.io.*;
2
3 public class FileSystem extends File
4 {
5     // Constructor
6     public FileSystem( String name )
7     {
8         super( name );
9     }
10
11     // Output file name with indentation
12     public void printName( int depth )
13     {
14         for( int i = 0; i < depth; i++ )
15             System.out.print( "\t" );
16         System.out.println( getName( ) );
17     }
18
19     // Public driver to list all files in directory
20     public void listAll( )
21     {
22         listAll( 0 );
23     }
24
25     // Recursive method to list all files in directory
26     private void listAll( int depth )
27     {
28         printName( depth );
29
30         if( isDirectory( ) )
31         {
32             String [ ] entries = list( );
33
34             for( int i = 0; i < entries.length; i++ )
35             {
36                 FileSystem child = new FileSystem( getPath( )
37                     + separatorChar + entries[ i ] );
38                 child.listAll( depth + 1 );
39             }
40         }
41     }
42
43     // Simple main to list all files in current directory
44     public static void main( String [ ] args )
45     {
46         FileSystem f = new FileSystem( "." );
47         f.listAll( );
48     }
49 }
```

Figure 17.10 Java implementation for a directory listing