```
 1  // joi/9/copy/Copy1.java
 2  //
 3  //
 4  // Copyright 2003 Bill Campbell and Ethan Bolker
 5
 6  import java.io.*;
 7
 8  /**
 9   * Simple read-a-char, write-a-char loop to exercise file I/O.
10   *
11   * Usage: java Copy1 inputfile outputfile
12   */
13
14  public class Copy1
15  {
16      private static final int EOF = -1;  // end of file character rep.
17
18      /**
19       * All work is done here.
20       *
21       * @param args names of the input file and output file.
22       */
23
24      public static void main( String[] args )
25      {
26          FileReader inStream  = null;
27          FileWriter outStream = null;
28          int ch;
29
30          try {
31              // open the files
32              inStream  = new FileReader( args[0] );
33              outStream = new FileWriter( args[1] );
34
35              // copy
36              while ((ch = inStream.read()) != EOF) {
37                  outStream.write( ch );
38              }
39          }
40          catch (IndexOutOfBoundsException e) {
41              System.err.println(
42                  "usage: java Copy1 sourcefile targetfile" );
43          }
44          catch (FileNotFoundException e) {
45              System.err.println( e );  // rely on e's toString()
46          }
47          catch (IOException e) {
48              System.err.println( e );
49          }
50          finally { // close the files
51              try {
52                  if (inStream != null) {
53                      inStream.close();
54                  }
55              }
56              catch (Exception e) {
```



```
57                  System.err.println("Unable to close input stream.");
58              }
59              try {
60                  if (outStream != null) {
61                      outStream.close();
62                  }
63              }
64              catch (Exception e) {
65                  System.err.println("Unable to close output stream.");
66              }
67          }
68      }
69  }
```