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## Experiment 9

Write a java program in which data is read from one file and should be written in another file line by line.

```
1  import java.io.BufferedReader;
2  import java.io.BufferedWriter;
3  import java.io.FileReader;
4  import java.io.FileWriter;
5  import java.io.IOException;
6
7  /**
8   * This program reads data from a source file and writes it to a destination file,
9   * line by line.
10  */
11  public class FileHandling {
12
13      public static void main(String[] args) {
14
15          String sourceFilePath = "input.txt";
16          String destinationFilePath = "output.txt";
17
18          try {
19              createSampleInputFile(sourceFilePath);
20
21              try (BufferedReader reader = new BufferedReader(new FileReader(sourceFilePath));
22                  BufferedWriter writer = new BufferedWriter(new FileWriter(destinationFilePath))) {
23
24                  String currentLine;
25
26                  while ((currentLine = reader.readLine()) != null) {
27                      writer.write(currentLine);
28                      writer.newLine();
29                  }
30
31                  System.out.println("File copied successfully from '" + sourceFilePath + "' to '" + destinationFi
32
33              }
34          } catch (IOException e) {
35              System.err.println("An error occurred during the file operation.");
36              e.printStackTrace();
37          }
38      }
39
40      /**
41       * Helper method to create a sample input file with some content.
42       * @param filePath The path of the file to create.
43       * @throws IOException If an I/O error occurs.
44       */
45      private static void createSampleInputFile(String filePath) throws IOException {
46          try (BufferedWriter writer = new BufferedWriter(new FileWriter(filePath))) {
47              writer.write("Hello World!");
48              writer.newLine();
49              writer.write("This is the second line of the file.");
50              writer.newLine();
51              writer.write("Java file I/O is being demonstrated here.");
52              writer.newLine();
53              writer.write("Each line is read and written sequentially.");
54              writer.newLine();
55          }
56      }
57  }
```

The screenshot shows the Eclipse IDE with the FileHandling.java file open. The code imports java.io.BufferedReader, java.io.BufferedWriter, java.io.FileReader, java.io.FileWriter, and java.io.IOException. It defines a public class FileHandling with a main method. The main method sets sourceFilePath to "input.txt" and destinationFilePath to "output.txt". It then creates a sample input file, reads it line by line using a BufferedReader, and writes each line to the destination file using a BufferedWriter. The console output shows the message: "File copied successfully from 'input.txt' to 'output.txt!'".

```
1 import java.io.BufferedReader;
2 import java.io.BufferedWriter;
3 import java.io.FileReader;
4 import java.io.FileWriter;
5 import java.io.IOException;
6
7 /**
8  * This program reads data from a source file and writes it to a destination file,
9  * line by line.
10 */
11 public class FileHandling {
12
13     public static void main(String[] args) {
14
15         String sourceFilePath = "input.txt";
16         String destinationFilePath = "output.txt";
17
18         try {
19             createSampleInputFile(sourceFilePath);
20
21             try (BufferedReader reader = new BufferedReader(new FileReader(sourceFilePath));
22                  BufferedWriter writer = new BufferedWriter(new FileWriter(destinationFilePath))) {
23
24                 String currentLine;
25
26                 while ((currentLine = reader.readLine()) != null) {
27                     writer.write(currentLine);
28                     writer.newLine();
29                 }
30
31                 System.out.println("File copied successfully from '" + sourceFilePath + "' to '" + destinationFilePath + "'!");
32
33             }
34         } catch (IOException e) {
35             e.printStackTrace();
36         }
37     }
38
39     private static void createSampleInputFile(String filePath) {
40         try (FileWriter writer = new FileWriter(filePath)) {
41             writer.write("Hello World!\n");
42             writer.write("This is the second line of the file.\n");
43             writer.write("Java file I/O is being demonstrated here.\n");
44             writer.write("Each line is read and written sequentially.\n");
45         } catch (IOException e) {
46             e.printStackTrace();
47         }
48     }
49 }
```

Console Output:

```
<terminated> FileHandling [Java Application] C:\Users\marku\p2\pool\plugins\org.eclipse.justjopenjdk.hotspot.jre.full.win32.x86_64.21.0.8.v20250724-1412\jre\bin\javaw.exe (14-Oct-2025, 12:23:52 am)
File copied successfully from 'input.txt' to 'output.txt'!
```

