

2021/12/10 上午3:04	Decoder.java	Decoder.java
1 /*	2 * To change this template, choose Tools   Templates	59 while (scanner.hasNextLine())
2 * and open the template in the editor.	3 */	60 System.out.println(scanner.nextLine());
4 */	5 package lab7.solution;	61 }
5	6	62 }
7 import java.io.BufferedReader;	8 import java.io.BufferedOutputStream;	63 }
9 import java.io.File;	10 import java.io.FileInputStream;	64
11 import java.io.FileNotFoundException;	12 import java.io.FileOutputStream;	
13 import java.io.IOException;	14 import java.util.Scanner;	
15	16 /**	
17 *	18 * @author vanting	
19 */	20 public class Decoder {	
21	22 public static void main(String[] args) throws IOException {	
23	24 decode("bean.dat", "bean.txt");	
25	25 showPic("bean.txt");	
26	26 }	
27	27 public static void decode(String src, String tar) throws IOException {	
28	28	
29	29 BufferedInputStream in = new BufferedInputStream(new FileInputStream(src));	
30	30 BufferedOutputStream out = new BufferedOutputStream(new	
31	31 FileOutputStream(tar));	
32	32	
33 int codeSymbol = 0;	33 int codeCount = 0;	
34	34	
35	35	
36	36 try {	
37 while (true) {	37 codeSymbol = in.read();	
38	38 codeCount = in.read();	
39	39 if (codeCount == -1) {	
40	40 break;	
41	41 } else {	
42	42 for (int i = 0; i < codeCount; i++) {	
43	43 out.write(codeSymbol);	
44	44 }	
45	45 }	
46	46 }	
47	47 }	
48	48	
49	49 } catch (IOException ioe) {	
50	50 System.out.println("IO Error during decoding" + ioe);	
51	51 } finally {	
52	52 in.close();	
53	53 out.close();	
54	54 }	
55	55 }	
56	56	
57	57 public static void showPic(String filename) throws FileNotFoundException {	
58	58 Scanner scanner = new Scanner(new File(filename));	
localhost:4649/?mode=click	1/2	localhost:4649/?mode=click

```
1 package lab7.solution;
2
3 import java.io.File;
4 import java.io.IOException;
5 import java.io.PrintWriter;
6 import java.util.Scanner;
7
8 /**
9  *
10  * @author wanting
11  */
12 public class PuzzleRotator {
13
14     public static final String PUZZLE_NAME = "9-killer";
15
16     public static void main(String[] args) {
17
18         File row = new File(PUZZLE_NAME + ".txt");
19         File col = new File(PUZZLE_NAME + "-rotated.txt");
20
21         try (Scanner scanner = new Scanner(row); PrintWriter printer = new
22             PrintWriter(col)) {
23
24             int size = scanner.nextInt();
25             int[][] puzzle = new int[size][size];
26
27             for (int i = 0; i < size; i++) {
28                 for (int j = 0; j < size; j++) {
29                     puzzle[i][j] = scanner.nextInt();
30                 }
31             }
32
33             rotateMatrixInplace(puzzle);
34
35             printer.println(size);
36             for (int i = 0; i < size; i++) {
37                 for (int j = 0; j < size; j++) {
38                     printer.printf("%3d", puzzle[i][j]);
39                 }
40                 printer.println();
41             }
42
43             } catch (IOException e) {
44                 System.err.println("IO Error.\n" + e.getMessage());
45             }
46         }
47
48     /**
49      * Position of p1 to p4 at start:
50      *
51      * 1 x x 2 x x x x x x 4 x x 3
52      *
53      * @param matrix
54      */
55     public static void rotateMatrixInplace(int[][] matrix) {
56         int length = matrix.length - 1;
57
58         for (int i = 0; i <= (length) / 2; i++) { // i: layer # counting inward
```

```
59 for (int j = i; j < length - i; j++) { // j: n-th # on the layer
60
61     int p1 = matrix[i][j]; // top-left
62     int p2 = matrix[j][length - i]; // top-right
63     int p3 = matrix[length - i][length - j]; // bottom-right
64     int p4 = matrix[length - j][i]; // bottom-left
65
66     // Swap values of 4 coordinates.
67     matrix[j][length - i] = p1;
68     matrix[length - i][length - j] = p2;
69     matrix[length - j][i] = p3;
70     matrix[i][j] = p4;
71 }
72
73 }
74 }
75 }
```