

```

1  /**
2   *      ---Collisionhandler by Henrik---
3   *
4   * Allows for multithreaded calculation of collisions
   between Kugel objects.
5   *
6   * I had to go out of my way for that commenting.
   Looks almost like disassembly mnemonic
7   */
8
9  import java.util.ArrayList;
10
11 public class Collisionhandler extends Thread{
12     ArrayList<Kugel> table;
13     int radius;
14     Collisionhandler(ArrayList<Kugel> table, double
radius) {
15         this.table=table;
16         this.radius= (int) radius;
17     }
18
19     @Override
20     public void run() {
21         // Construct x and y Array lists
22         var x = new ArrayList<Integer>();
23         var y = new ArrayList<Integer>();
24
25         // add X positions from subject table array
to x memory
26         for (Kugel kugel : table) { // for every
Kugel Object
27             x.add((int) kugel.GetX()); // Add x
Positions to
28             }
29
30
31         try {
32             for (int i = 0; i < x.size(); i++) { //
for every kugel in X-Array
33                 // create temp array list from
sublist which only includes values of nearby

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33 Positions
34         var temp = new ArrayList<>(x.subList
    ((x.get(i) - radius), (x.get(i) + radius))); // add x
    values in range of (int)radius to sublist. Save
    sublist as ArrayList Temp
35         // Re-Reference Temp list entrys with
    Kugel Objects.
36         for (int o = 0; o < temp.size(); o
    ++ ) { // For every Item in Reference Sublist
37             for (Kugel kugel : table) { //
    For every kugel Object
38                 // Check for X matching
39                 if (kugel.GetX() == x.get(o
    )) {
40                     // Check for Y also
    matching
41                     if (kugel.GetY() < table.
    get(i).GetY() + radius && kugel.GetY() > table.get(i
    ).GetY() - radius) {
42
43                         kugel.collission(
    kugel.GetX(), kugel.GetY());
44
45                     }
46                 }
47             }
48         }
49         System.out.println(temp);
50     }
51     } catch (Exception e) {
52         System.out.println("Exception in arrays."
    );
53     }
54 }
55 }
56

```