

```

1  package hyperDap.generator.presInterface;
2
3  import java.util.ArrayList;
4  import java.util.Map;
5  import java.util.Random;
6  import hyperDap.base.types.dataSet.ValueDataSet;
7  import hyperDap.generator.main.GenMain;
8
9  /**
10 * This class is used to make use of generator functionality from the {@link
11 * guiPresentation}
12 * module.
13 *
14 * @author soenk
15 */
16 public class PresGenerator {
17
18     private static double precision = 0.001;
19
20     public static ValueDataSet<Double> generate(Map<String, Double> map) {
21         Random rand = new Random();
22         double base = map.remove("base");
23         double step = map.remove("step");
24         Double precision = map.remove("precision");
25         if (precision == null) {
26             precision = PresGenerator.precision;
27         }
28         int length = map.remove("length").intValue();
29         int biasNumber = 0;
30         if (map.remove("bias") != null) {
31             biasNumber = rand.nextInt(length / 10) + 1;
32         }
33         Double noise = map.remove("noise");
34         if (noise == null) {
35             noise = 0.0;
36         } else {
37             noise = 0.01;
38         }
39         // convert encodings to correct format
40         ArrayList<String> encodings = new ArrayList<>();
41         for (String encoding : map.keySet()) {
42             encodings.add(encoding);
43         }
44         // add some randomness to encodings
45         if (encodings.size() > 1) {
46             for (int i = 0; i < encodings.size(); i++) {
47                 if (rand.nextBoolean() == true) {
48                     encodings.add(0, encodings.remove(i));
49                 }
50             }
51             for (int i = 0; i < encodings.size(); i++) {
52                 if (rand.nextInt(7) > 6) {
53                     encodings.add(encodings.get(i));
54                     length += 10;
55                 }
56             }
57         }
58         // complete
59         return GenMain.newDataSet(encodings, biasNumber, base, step, length, noise,
60             precision.doubleValue());
61     }
62
63     public void setPrecision(double precision) {
64
65     }
66
67 }
68

```