

RandomDemo.java

```

1 package class5;
2
3 import java.util.Random;
4
5
6 public class RandomDemo {
7
8     public static void main(String[] args) {
9         // random integer generator
10        System.out.println("----- RANDOM INTEGER GENERATOR
-----");
11        Scanner userInput = new Scanner(System.in);
12        System.out.println("Please enter the maximum integer you want: ");
13        int max = Integer.valueOf(userInput.nextLine()); // this is called function chaining
14        Random rng = new Random();
15        System.out.println("A random integer between 0 and " + max + " is: " +
rng.nextInt(max));
16
17        // random integer generator
18        System.out.println("----- RANDOM DECIMAL GENERATOR
-----");
19        double randomDecimal = rng.nextDouble() * 10;
20        System.out.println("A random decimal value between 0 and 10 is: " + randomDecimal);
21
22        // random generator offsets
23        System.out.println("----- RANDOM GENERATOR OFFSETS
-----");
24        System.out.println("Please enter the minimum integer to generate: ");
25        int minimum = Integer.valueOf(userInput.nextLine());
26        System.out.println("Please enter the maximum integer to generate: ");
27        int maximum = Integer.valueOf(userInput.nextLine());
28        int window = maximum - minimum;
29        int example = rng.nextInt(window) + minimum;
30        System.out.println("A random integer between " + minimum + " and " + maximum + " is: "
+ example);
31
32        System.out.println("Please enter the minimum decimal to generate: ");
33        double minimum2 = Double.valueOf(userInput.nextLine());
34        System.out.println("Please enter the maximum decimal to generate: ");
35        double maximum2 = Double.valueOf(userInput.nextLine());
36        double window2 = maximum2 - minimum2;
37        double example2 = rng.nextDouble() * window2 + minimum2;
38        System.out.println("A random decimal between " + minimum2 + " and " + maximum2 + " is:
" + example2);
39
40        // Math class functions
41        System.out.println("----- MATH CLASS FUNCTIONS
-----");
42        System.out.println(Math.sqrt(25.0));
43        System.out.println(Math.abs(-27));
44        System.out.println(Math.pow(2, 3));
45
46    } // end RandomDemo
47
48 } // end main

```