

```

1  package Lab_Exam_2;
2
3
4  import Media.*;                // for Turtle, Picture, PictureDisplay, etc.
5  import BasicIO.*;              // for ASCIIDataFile, etc. ReportWriter &
    BasicForm
6  import java.awt.*;              // for Color class
7  import static BasicIO.Formats.*; // for getCurrencyInstance, etc.
8  import static java.lang.Math.*; // for math constants and functions & random
9  import static java.awt.Color.*; // for Color constants (e.g. RED)
10
11
12 public class Question5 {
13
14     // Instance variable declarations
15     private BasicForm display;
16
17     public Question5 () {
18         int first = 0;
19         int second = 0;
20         int third = 0;
21         int fourth = 0;
22         int fifth = 0;
23         int last = 0;
24         int button = 0;
25
26         display = new BasicForm("Generate","Enter","Quit");
27         buildForm();
28
29         for( ; ; ){
30
31             sort(first,second,third,fourth,fifth);
32             button = display.accept();
33             last = 0;
34             switch(button){
35                 case 0:{
36                     last = (int) (Math.random()*100)+1;
37                     display.writeInt("last",last);
38                     last = display.readInt("last");
39                     if (last>first&&last>second&&last>third&&last>fourth&&last>fifth) {
40                         display.clearAll();
41                         continue;}
42                     else{
43                         last = (int) (Math.random()*100)+1;
44                         display.writeInt("last",last);
45                         display.readInt("last");
46                         continue;}
47                     }
48                 case 1:{
49                     display.readInt("last");
50                     if (last>first&&last>second&&last>third&&last>fourth&&last>fifth) {
51                         continue;}
52                     else{
53                         last = (int) (Math.random()*100)+1;
54                         display.writeInt("last",last);
55                         display.readInt("last");
56                         continue;}
57                     }
58                 case 2:{
59                     break;
60                 }
61             }
62             break;
63         }
64         display.close();
65     }; // constructor
66
67     // Method declarations
68     private void buildForm(){
69         display.addTextField("first","1st",5,10,10);

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70     display.setEditable("first",false);
71     display.addTextField("second","2nd",5,80,10);
72     display.setEditable("second",false);
73     display.addTextField("third","3rd",5,160,10);
74     display.setEditable("third",false);
75     display.addTextField("fourth","4th",5,240,10);
76     display.setEditable("fourth",false);
77     display.addTextField("fifth","5th",5,320,10);
78     display.setEditable("fifth",false);
79     display.addTextField("last","Last",5,155,40);
80 }
81
82 private void sort(int first, int second, int third, int fourth, int fifth){
83     first = (int)(Math.random()*999)+1;
84     second = (int)(Math.random()*999)+1;
85     third = (int)(Math.random()*999)+1;
86     fourth = (int)(Math.random()*999)+1;
87     fifth = (int)(Math.random()*999)+1;
88
89     int temp;
90
91     for(int count=0 ;count<4 ;count++ ){
92         if(second < first){
93             temp = first;
94             first = second;
95             second = temp;
96         }
97         display.writeInt("first",first);
98         if(third<second){
99             temp = second;
100            second = third;
101            third = temp;
102        }
103        display.writeInt("second",second);
104        if(fourth<third){
105            temp = third;
106            third = fourth;
107            fourth = temp;
108        }
109        display.writeInt("third",third);
110        if(fifth <fourth){
111            temp = fourth;
112            fourth=fifth;
113            fifth = temp;
114        }
115        display.writeInt("fourth",fourth);
116        display.writeInt("fifth",fifth);
117    }
118 }
119 public static void main ( String[] args ) { Question5 c = new Question5(); };
120
121 }

```