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1  /*
2      - Overall design  ok
3      - Runtime interaction Ok
4
5
6      Marks allocated subject to demo and
7      also you pass the plagiarism test
8
9      6 / 6
10 */
11
12 //Full Name - Hay Munn Hnin Wai
13 //Tutorial - T04
14 //Dear Sir, This is my own work & Kindly check the code below.
15 import javax.swing.JFrame;
16 import javax.swing.JLabel;
17 import javax.swing.JButton;
18 import javax.swing.Icon;
19 import javax.swing.ImageIcon;
20 import javax.swing.JOptionPane;
21 import java.awt.Font;
22 import java.awt.Color;
23 import java.awt.FlowLayout;
24
25 import java.util.Arrays;
26 import java.util.Collections;
27 import java.util.List;
28
29 import java.awt.GridLayout;
30 import java.awt.event.ActionListener;
31 import java.awt.event.ActionEvent;
32 import java.util.Random;
33
34 class LuckyDraw extends JFrame
35 {
36     //private final JTextField jtf;
37     private final JButton [] buttonArray;
38     private final Icon ic,icl;
39     private final String [] buttonLabel;
40     private final String[] LuckyArray = new String [7];
41     private final int [] LuckyNo = new int [7];
42
43     private int [] numArray = new int[49];
44
45     private void initialisation()                // For JButton C/W Images
46     {
47         Random rand = new Random();
48
49         for ( int i = 0; i < numArray.length;i++) //Add Images to Each of
Jbuttons
50         {
51             if(i % 2 == 0)
52             {
53                 buttonArray[i] = new JButton(ic);
54             }
55             else
56             {
57                 buttonArray[i] = new JButton(icl);
58             }
59             add(buttonArray[i]);
60         }
61     }
62
63     private void CreateLabel ()                //Create Labels for
Each Button
64     {
65         for (int i = 0; i < buttonArray.length; i++)
66             buttonLabel[i] = String.format("%s",i+1);    //From 1 to 49,Store i
buttonLabel Array
67     }
68 }
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69         private void ShuffleArray()                                // Shuffle Array for bot
JButton & Label
70     {
71         String [] buttonNo = new String [49];
72         for (int i = 0; i < buttonArray.length; i++)
73         {
74             buttonNo[i] = String.format ("%s",i);
75             buttonLabel[i] = String.format ("%s",i+1);
76         }
77         List <String>alist = Arrays.asList(buttonNo);
78         List <String>alist1 = Arrays.asList(buttonLabel);
79
80         Collections.shuffle(alist);                                //Shuffle the ButtonArray
81         Collections.shuffle(alist1);                                //Shuffle the LabelArray
82
83     }
84     private void GetLuckyNo()                                        // Get 7 Lucky Nos Array
85     {
86         for (int i = 0; i < LuckyArray.length; i++)
87         {
88             LuckyArray [i] = buttonLabel[i];                      // Set
ButtonLabel[i] to LuckyArray[i]
89             LuckyNo[i] = Integer.parseInt(LuckyArray [i]);        //Convert
LuckyArray to Int For Sorting
90         }
91     }
92 }
93
94 public LuckyDraw ()
95 {
96     super("Good Luck to you");
97     setLayout (new GridLayout (7,7));                             //Create GridLayout
98
99     //Initialization
100     ic = new ImageIcon ("ic.png");                                // Import Image1
101     ic1 = new ImageIcon ("ic1.png");                              // Import Image2
102     buttonArray = new JButton[numArray.length];                  //Jbutton Length
103     buttonLabel = new String [numArray.length];                  // ButtonArray lengt
104     initialisation();                                             //Initial JButton
105     CreateLabel();
106     ShuffleArray();                                                // ShuffleArray for Jbuttons &
JLabels
107
108     GetLuckyNo();                                                  // Get 7 Lucky Nos
109     ShuffleArray();
110
111     registerEvent();
112 }
113 private void registerEvent ()    // Register Event
114 {
115     for (int i = 0; i < numArray.length; i++)
116     {
117         buttonArray [i].addActionListener (new DriveDemo());
118     }
119 }
120
121 //Private Inner Class to Handle the Events
122 private class DriveDemo implements ActionListener
123 {
124     //Reset the list to Clear the Lists and Start Over
125     private void Reset ()
126     {
127         for (int i = 0; i < buttonArray.length; i++)
128         {
129             buttonArray[i].setBackground(null);                  //Clear
Background Colour
130             buttonArray[i].setFont(new Font("Arial",Font.BOLD,12));
131             buttonArray[i].setForeground(Color.BLACK);            // Set The
ForeGround to Black
132         }
133     }

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134     }
135     private void SortArray()                //Sorting the LuckyNo Arrays
136     {
137         int temp = 0;
138         for (int i = 0; i < LuckyArray.length ; i++)
139         {
140             for (int j = i+1; j < LuckyArray.length; j++)
141             {
142                 if (LuckyNo[i] > LuckyNo[j])
143                 {
144                     temp = LuckyNo[i];
145                     LuckyNo[i] = LuckyNo[j];
146                     LuckyNo[j] = temp;
147                 }
148             }
149         }
150     }
151     @Override
152     public void actionPerformed (ActionEvent e)
153     {
154         ShuffleArray();
155         Reset();
156
157         for ( int i = 0; i < numArray.length;i++)
158         {
159             for ( int j = 0; j < 7 ; j ++ )
160             {
161                 if ((LuckyArray[0].equals (buttonLabel[i])))
162                 {
163                     buttonArray[i].setBackground(Color.GREEN);
164                     buttonArray[i].setFont(new Font ("",Font.BOLD,25));
165                     buttonArray[i].setForeground(Color.RED);
166                 }
167                 else if (LuckyArray[j] .equals (buttonLabel[i]))
168                 {
169                     buttonArray[i].setBackground(Color.YELLOW);
170                     buttonArray[i].setFont(new
171 Font("Arial",Font.BOLD,25));
172                 }
173             }
174         }
175         //Set the buttonLabel into the button
176         buttonArray[i].setText(buttonLabel[i]);
177     }
178     Icon cg = new ImageIcon ("cg1.gif");    //Import Gif File
179     int top_prize = LuckyNo[0];             //Set LuckyNo[0] to Top
180
181     Price
182     SortArray();
183
184     String str = "[";
185     for ( int i = 0; i <= 6; i++)
186     {
187         if( LuckyNo[i] == top_prize)
188         {
189             if ( i == 6 )
190                 str += String.format("]%n");
191         }
192         else
193         {
194             if (i<5)
195                 str += String.format("%d, ",LuckyNo[i]);
196             else if (i == 5)
197                 str += String.format("%d",LuckyNo[i]);
198             else
199                 str += String.format(",%d]%n",LuckyNo[i]);
200         }
201     }
202     GetLuckyNo();

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202         str += String.format("Top prize %d",top_prize);
203         JOptionPane.showMessageDialog (null, str, "Hope you enjoy the
game!",
204         JOptionPane.INFORMATION_MESSAGE,cg);
205     }
206 }
207 }
208 class HayMunnHninWai_59_A3
209 {
210     public static void main ( String[] args)
211     {
212         LuckyDraw d = new LuckyDraw();
213         d.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
214         d.setSize(450,500);
215         d.setVisible(true);
216     }
217 }
218 }
219 }
220
221
222
223
```