

```
1 //Programmer: Aaron Yoon
2 //Date: 9/30/22
3 //Project: Dice Rolling Simulator
4
5 using System.ComponentModel;
6
7 namespace Dice_Game
8 {
9     public partial class Form1 : Form
10    {
11        //make variables to track how many times a number was rolled
12        double totalRolls = 0;
13        int rolled2 = 0;
14        int rolled3 = 0;
15        int rolled4 = 0;
16        int rolled5 = 0;
17        int rolled6 = 0;
18        int rolled7 = 0;
19        int rolled8 = 0;
20        int rolled9 = 0;
21        int rolled10 = 0;
22        int rolled11 = 0;
23        int rolled12 = 0;
24
25        double prob2 = 0;
26        double prob3 = 0;
27        double prob4 = 0;
28        double prob5 = 0;
29        double prob6 = 0;
30        double prob7 = 0;
31        double prob8 = 0;
32        double prob9 = 0;
33        double prob10 = 0;
34        double prob11 = 0;
35        double prob12 = 0;
36
37        //generate random numbers
38        System.Random r = new System.Random((int)
39            System.DateTime.Now.Ticks);
40        public Form1()
41        {
42            InitializeComponent();
43        }
44        private void Form1_Load(object sender, EventArgs e)
45        {
46
47        }
48    }
```

```
49     private void btnQUIT_Click(object sender, EventArgs e)
50     {
51         this.Close();
52     }
53
54     private void btnRoll_Click(object sender, EventArgs e)
55     {
56
57         totalRolls += 1;
58         arbiString.Visible = true;
59         lblNumRolled.Visible = true;
60
61         int randomizer1 = r.Next(1, 7);
62         int randomizer2 = r.Next(1, 7);
63         int numRolled = randomizer1 + randomizer2;
64
65
66         lblRoll1.Text = randomizer1.ToString();
67         lblRoll2.Text = randomizer2.ToString();
68         lblNumRolled.Text = numRolled.ToString();
69
70         picSetter(picRoll1, randomizer1);
71         picSetter(picRoll2, randomizer2);
72
73         setNumRolled(numRolled);
74
75         prob2 = rolled2 / totalRolls * 100;
76         prob3 = rolled3 / totalRolls * 100;
77         prob4 = rolled4 / totalRolls * 100;
78         prob5 = rolled5 / totalRolls * 100;
79         prob6 = rolled6 / totalRolls * 100;
80         prob7 = rolled7 / totalRolls * 100;
81         prob8 = rolled8 / totalRolls * 100;
82         prob9 = rolled9 / totalRolls * 100;
83         prob10 = rolled10 / totalRolls * 100;
84         prob11 = rolled11 / totalRolls * 100;
85         prob12 = rolled12 / totalRolls * 100;
86
87         lblStats.Text =
88             totalRolls.ToString() + "\n"
89             + "Rolled 2: " + rolled2.ToString() + "\n"
90             + "Probability of Rolling 2: " + prob2.ToString("F") +
91             "\n"
92             + "Rolled 3: " + rolled3.ToString() + "\n"
93             + "Probability of Rolling 3: " + prob3.ToString("F") +
94             "\n"
95             + "Rolled 4: " + rolled4.ToString() + "\n"
96             + "Probability of Rolling 4: " + prob4.ToString("F") +
97             "\n"
```

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195         + "Rolled 5: " + rolled5.ToString() + "\n"
196         + "Probability of Rolling 5: " + prob5.ToString("F") +
           "\n"
197         + "Rolled 6: " + rolled6.ToString() + "\n"
198         + "Probability of Rolling 6: " + prob6.ToString("F") +
           "\n"
199         + "Rolled 7: " + rolled7.ToString() + "\n"
200         + "Probability of Rolling 7: " + prob7.ToString("F") +
           "\n"
201         + "Rolled 8: " + rolled8.ToString() + "\n"
202         + "Probability of Rolling 8: " + prob8.ToString("F") +
           "\n"
203         + "Rolled 9: " + rolled9.ToString() + "\n"
204         + "Probability of Rolling 9: " + prob9.ToString("F") +
           "\n"
205         + "Rolled 10: " + rolled10.ToString() + "\n"
206         + "Probability of Rolling 10: " + prob10.ToString("F") +
           "\n"
207         + "Rolled 11: " + rolled11.ToString() + "\n"
208         + "Probability of Rolling 11: " + prob11.ToString("F") +
           "\n"
209         + "Rolled 12: " + rolled12.ToString() + "\n"
210         + "Probability of Rolling 12: " + prob12.ToString("F") +
           "\n";
211     }
212
213
214     private void picSetter(PictureBox picture, int number)
215     {
216         if (number == 1)
217             picture.Image = picDice1.Image;
218         else if (number == 2)
219             picture.Image = picDice2.Image;
220         else if (number == 3)
221             picture.Image = picDice3.Image;
222         else if (number == 4)
223             picture.Image = picDice4.Image;
224         else if (number == 5)
225             picture.Image = picDice5.Image;
226         else if (number == 6)
227             picture.Image = picDice6.Image;
228     }
229
230     private void setNumRolled(int num)
231     {
232         if (num == 2)
233             rolled2 += 1;
234         if (num == 3)
235             rolled3 += 1;
```

```
136         if (num == 4)
137             rolled4 += 1;
138         if (num == 5)
139             rolled5 += 1;
140         if (num == 6)
141             rolled6 += 1;
142         if (num == 7)
143             rolled7 += 1;
144         if (num == 8)
145             rolled8 += 1;
146         if (num == 9)
147             rolled9 += 1;
148         if (num == 10)
149             rolled10 += 1;
150         if (num == 11)
151             rolled11 += 1;
152         if (num == 12)
153             rolled12 += 1;
154     }
155
156     private void picRoll1_Click(object sender, EventArgs e)
157     {
158
159     }
160
161     private void arbiString_Click(object sender, EventArgs e)
162     {
163
164     }
165 }
166 }
```