

```
1 namespace StarField
2 {
3     public partial class Form1 : Form
4     {
5
6         //declare an array to store the stars
7         Label[] Universe = new Label[8];
8         System.Random r = new System.Random((int)
9         System.DateTime.Now.Ticks);
10
11         public Form1()
12         {
13             InitializeComponent();
14         }
15
16         private void Form1_Load(object sender, EventArgs e)
17         {
18             //assign each star a position in the Array
19             Universe[0] = star0;
20             Universe[1] = star1;
21             Universe[2] = star2;
22             Universe[3] = star3;
23             Universe[4] = star4;
24             Universe[5] = star5;
25             Universe[6] = star6;
26             Universe[7] = star7;
27
28             for (int n = 0; n < Universe.Length; n++)
29             {
30                 int randomX = r.Next(0, this.Width);
31                 int randomY = r.Next(0, this.Height);
32                 Universe[n].Left = randomX;
33                 Universe[n].Top = randomY;
34                 int theWidth = r.Next(1, 11);
35                 Universe[n].Width = theWidth;
36                 Universe[n].Height = theWidth;
37             }
38         }
39
40         private void growStars()
41         {
42             //grow the stars
43             for (int i = 0; i < Universe.Length; i++)
44             {
45                 int xMod = 0;
46                 int yMod = 0;
47                 Universe[i].Width += 1;
48                 Universe[i].Height += 1;
49             }
50         }
51     }
52 }
```

```
50         if (Universe[i].Top > this.Height / 2)
51             yMod = 10;
52         else
53             yMod = -10;
54
55         if (Universe[i].Left > this.Width / 2)
56             xMod = 10;
57         else
58             xMod = -10;
59
60         Universe[i].Left += xMod;
61         Universe[i].Top += yMod;
62
63         if (Universe[i].Width > 10 || Universe[i].Left > this.Width >
64             || Universe[i].Left < 0 || Universe[i].Top > this.Height >
65             || Universe[i].Top < 0)
66         {
67             int randomX = r.Next(0, this.Width);
68             int randomY = r.Next(0, this.Height);
69             Universe[i].Left = randomX;
70             Universe[i].Top = randomY;
71             Universe[i].Width = 1;
72             Universe[i].Height = 1;
73         }
74     }
75
76     private void timer1_Tick(object sender, EventArgs e)
77     {
78         growStars();
79     }
80 }
```