

```
1 using SplashKitSDK;
2 using System;
3 using System.Collections.Generic;
4 using System.Linq;
5 using System.Text;
6 using System.Threading.Tasks;
7
8 namespace DrawingShape
9 {
10     internal class Shape
11     {
12         private Color _color;
13         private float _x, _y;
14         private int _width, _height;
15         private bool _selected;
16
17         public Shape()
18         {
19             _color = Color.Green;
20             _x = 0;
21             _y = 0;
22             _width = 100;
23             _height = 100;
24         }
25         public Color Color
26         {
27             get { return _color; }
28             set { _color = value; }
29         }
30         public float X
31         {
32             get { return _x; }
33             set { _x = value; }
34         }
35         public float Y
36         {
37             get { return _y; }
38             set { _y = value; }
39         }
40
41         public bool Selected { get; internal set; }
42
43         public void DrawOutline()
44         {
45             SplashKit.FillRectangle(Color.Black, _x - 2, _y - 2, _width + 4, _height + 4);
46         }
47
48         public void Draw()
```

```
49     {
50         if (Selected)
51         {
52             DrawOutline();
53         }
54         SplashKit.FillRectangle(_color, _x, _y, _width, _height);
55     }
56
57     public bool IsAt(Point2D pt)
58     {
59         return SplashKit.PointInRectangle(pt, SplashKit.RectangleFrom ↗
60             (X, Y, _width, _height));
61     }
62 }
63
```

```
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2 using System;
3 using System.Collections.Generic;
4 using System.Linq;
5 using System.Text;
6 using System.Threading.Tasks;
7
8 namespace DrawingShape
9 {
10     internal class Drawing
11     {
12         private readonly List<Shape> _shapes;
13         private Color _background;
14
15         public Color Background
16         {
17             get { return _background; }
18             set { _background = value; }
19         }
20
21         public List<Shape> Shapes
22         {
23             get { return _shapes; }
24         }
25
26         public Drawing(Color background)
27         {
28             _shapes = new List<Shape>();
29             _background = background;
30         }
31
32         public Drawing() : this(Color.White)
33         {
34
35         }
36
37         public int ShapeCount
38         {
39             get { return _shapes.Count; }
40         }
41
42         public void AddShape(Shape s)
43         {
44             _shapes.Add(s);
45         }
46
47         public void Draw()
48         {
49             SplashKit.ClearScreen(_background);
```

```
50         foreach (Shape s in _shapes)
51         {
52             s.Draw();
53         }
54         SplashKit.RefreshScreen();
55     }
56
57     public List<Shape> SelectedShapes
58     {
59         get
60         {
61             List<Shape> result = new List<Shape>();
62             foreach (Shape s in _shapes)
63             {
64                 if (s.Selected)
65                 {
66                     result.Add(s);
67                 }
68             }
69             return result;
70         }
71     }
72 }
73 }
74
```

```
1 using System;
2 using System.Collections.Generic;
3 using SplashKitSDK;
4
5 namespace DrawingShape
6 {
7     public class Program
8     {
9         public static void Main()
10        {
11            Window window = new Window("Shape Drawer", 800, 600);
12            Drawing myDrawing = new Drawing();
13            do
14            {
15                SplashKit.ProcessEvents();
16                SplashKit.ClearScreen();
17                if (SplashKit.MouseClicked(MouseButton.LeftButton))
18                {
19                    Shape myShape = new Shape();
20                    myShape.X = SplashKit.MouseX();
21                    myShape.Y = SplashKit.MouseY();
22                    myDrawing.AddShape(myShape);
23                }
24                Point2D pt = SplashKit.MousePosition();
25                if(SplashKit.KeyTyped(KeyCode.SpaceKey))
26                {
27                    myDrawing.Background = SplashKit.RandomRGBColor(255);
28                }
29                if(SplashKit.MouseClicked(MouseButton.RightButton))
30                {
31                    foreach(Shape s in myDrawing.Shapes)
32                    {
33                        if(s.IsAt(pt))
34                        {
35                            s.Selected = !s.Selected;
36                        }
37                    }
38                }
39                if(SplashKit.KeyTyped(KeyCode.DeleteKey) ||
40                   SplashKit.KeyTyped(KeyCode.BackspaceKey))
41                {
42                    for (int i = myDrawing.ShapeCount - 1; i >= 0; i--)
43                    {
44                        if (myDrawing.Shapes[i].Selected)
45                        {
46                            myDrawing.Shapes.RemoveAt(i);
47                        }
48                    }
49                }
50            }
51        }
52    }
53 }
```

```
49         myDrawing.Draw();
50         SplashKit.RefreshScreen();
51     } while (!window.CloseRequested);
52     }
53 }
54 }
55
```









