Drawing.cs


```
1  using SplashKitSDK;
2  using System.ComponentModel;
3  using System.Security.Cryptography.X509Certificates;
4
5  namespace ShapeDrawer
6  {
7      internal class Drawing
8      {
9          private readonly List<Shape> _shapes;
10         private Color _background;
11
12         public Color Background
13         {
14             get => _background;
15             set => _background = value;
16         }
17
18         public Drawing(Color background)
19         {
20             _shapes = new List<Shape>();
21             _background = background;
22         }
23
24         public Drawing() : this (Color.White)
25         {
26             _shapes = new List<Shape>();
27             _background  = Color.White;
28         }
29
30         public int ShapeCount
31         {
32             get => _shapes.Count;
33         }
34
35         public void AddShape(Shape shape)
36         {
37             _shapes.Add(shape);
38         }
39
40         public void RemoveShape(Shape shape)
41         {
42             _= _shapes?.Remove(shape);
43         }
44
45         public void Draw()
46         {
47             SplashKit.ClearScreen(_background);
48             for (int i = 0; i < _shapes.Count; i++)
49             {
```

```
50                  if (_shapes[i].Selected)
51                  {
52                      _shapes[i].DrawOutline();
53                  }
54                  _shapes[i].Draw();
55              }
56          }
57
58          public void SelectShapesAt(Point2D point)
59          {
60              foreach (Shape s in _shapes)
61              {
62                  s.Selected = s.IsAt(point);
63              }
64          }
65
66          public List<Shape> SelectedShapes
67          {
68              get
69              {
70                  List<Shape> result = new List<Shape>();
71                  foreach (Shape s in _shapes)
72                  {
73                      if (s.Selected)
74                      {
75                          result.Add(s);
76                      }
77                  }
78                  return result;
79              }
80          }
81      }
82  }
83
```

Shape.cs


```
1  using SplashKitSDK;
2
3  namespace ShapeDrawer
4  {
5      internal class Shape
6      {
7          private Color _color;
8          private float _x;
9          private float _y;
10         private int _width;
11         private int _height;
12         private bool _selected;
13
14         public Shape()
15         {
16             _color = Color.Green;
17             _x = _y = 0.0f;
18             _width = _height = 100;
19         }
20
21         public bool Selected
22         {
23             get => _selected;
24             set => _selected = value;
25         }
26
27         public Color Color
28         {
29             get => _color;
30             set => _color = value;
31         }
32
33         public float X
34         {
35             get => _x;
36             set => _x = value;
37         }
38
39         public float Y
40         {
41             get => _y;
42             set => _y = value;
43         }
44
45         public int Width
46         {
47             get => _width;
48             set => _width = value;
49         }
```

```
50
51          public int Height
52          {
53              get => _height;
54              set => _height = value;
55          }
56
57          public void Draw()
58          {
59              SplashKit.FillRectangle(_color, _x, _y, _width, _height);
60          }
61
62          public bool IsAt(Point2D point)
63          {
64              if (point.X >= _x && point.X <= _x + _width)
65              {
66                  if (point.Y >= _y && point.Y <= _y + _height)
67                  {
68                      return true;
69                  }
70              }
71              return false;
72          }
73
74          public void DrawOutline()
75          {
76              SplashKit.FillRectangle(Color.Black, _x - 2, _y - 2, _width +
                  4, _height + 4);
77          }
78      }
79  }
80
```

Program.cs


```
1  using System;
2  using Microsoft.VisualBasic;
3  using SplashKitSDK;
4
5  namespace ShapeDrawer
6  {
7      public class Program
8      {
9          public static void Main()
10         {
11             Window window = new Window("Shape Drawer", 800, 600);
12             Drawing myDrawing;
13
14             myDrawing = new Drawing();
15
16             do
17             {
18                 SplashKit.ProcessEvents();
19                 SplashKit.ClearScreen();
20
21                 Point2D myPoint = new Point2D()
22                 {
23                     X = SplashKit.MouseX(),
24                     Y = SplashKit.MouseY()
25                 };
26
27                 if (SplashKit.MouseClicked(MouseButton.LeftButton))
28                 {
29                     Shape myShape = new Shape();
30                     myShape.X = SplashKit.MouseX();
31                     myShape.Y = SplashKit.MouseY();
32
33                     myDrawing.AddShape(myShape);
34                 }
35
36                 if (SplashKit.KeyTyped(KeyCode.SpaceKey))
37                 {
38                     myDrawing.Background = SplashKit.RandomColor();
39                 }
40
41                 if (SplashKit.MouseClicked(MouseButton.RightButton))
42                 {
43                     myDrawing.SelectShapesAt(myPoint);
44                 }
45
46                 if ((SplashKit.KeyTyped(KeyCode.DeleteKey)) |
                      (SplashKit.KeyTyped(KeyCode.BackspaceKey)))
47                 {
48                     foreach (Shape shape in myDrawing.SelectedShapes)
```

```
49                      {
50                          myDrawing.RemoveShape(shape);
51                      }
52                  }
53
54                  myDrawing.Draw();
55
56                  SplashKit.RefreshScreen();
57              }
58              while (!window.CloseRequested);
59          }
60      }
61  }
62
```

Program Output