

Code files:

E:\COS20007\week2\Task2_3P\ShapeDrawer\Program.cs

1

```
1 using System;
2 using SplashKitSDK;
3
4 namespace ShapeDrawer
5 {
6     public class Program
7     {
8         public static void Main()
9         {
10             Shape myShape = new Shape(173);
11
12             Window window = new Window("Shape Drawer", 800, 600);
13
14             do
15             {
16                 SplashKit.ProcessEvents();
17                 SplashKit.ClearScreen();
18
19                 myShape.Draw();
20
21                 if(SplashKit.MouseClicked(MouseButton.LeftButton))
22                 {
23                     myShape.X = SplashKit.MouseX();
24                     myShape.Y = SplashKit.MouseY();
25                 }
26
27                 if(SplashKit.KeyTyped(KeyCode.SpaceKey) && myShape.IsAt      ↗
28                     (SplashKit.MousePosition()))
29                 {
30                     myShape.Color = SplashKit.RandomColor();
31                 }
32
33                 myShape.Draw();
34
35                 SplashKit.RefreshScreen();
36             } while (!window.CloseRequested);
37         }
38     }
39 }
```

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

```
50         return _y;
51     }
52     set
53     {
54         _y = value;
55     }
56 }
57
58 public int Width
59 {
60     get
61     {
62         return _width;
63     }
64     set
65     {
66         _width = value;
67     }
68 }
69
70 public int Height
71 {
72     get
73     {
74         return _height;
75     }
76     set
77     {
78         _height = value;
79     }
80 }
81
82 public void Draw()
83 {
84     SplashKit.FillRectangle(_color, _x, _y, _width, _height);
85 }
86
87 public Boolean IsAt(Point2D pt)
88 {
89     if(pt.X>_x && pt.X<_x+_width && pt.Y>_y && pt.Y<_y+_height)
90     {
91         return true;
92     }
93     else
94     {
95         return false;
96     }
97 }
98 }
```

```
99 }  
100
```

Screenshots:



