

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Drawing Program - A Basic Shape

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```
1  using System;
2  using SplashKitSDK;
3
4  namespace ShapeDrawer
5  {
6      public class Program
7      {
8          public static void Main()
9          {
10              Window window = new Window("Shape Drawer", 800, 600);
11              Shape myShape = new Shape();
12
13              do
14              {
15                  SplashKit.ProcessEvents();
16                  SplashKit.ClearScreen();
17
18                  myShape.Draw();
19
20                  if (SplashKit.MouseClicked(MouseButton.LeftButton))
21                  {
22                      myShape.X = SplashKit.MouseX();
23                      myShape.Y = SplashKit.MouseY();
24                  }
25
26                  if (myShape.IsAt(SplashKit.MousePosition()) &&
↪      SplashKit.KeyTyped(KeyCode.SpaceKey))
27                  {
28                      myShape.Color = SplashKit.RandomRGBColor(255);
29                  }
30
31                  SplashKit.RefreshScreen();
32              } while (!window.CloseRequested);
33          }
34      }
35  }
```

```
1  using System;
2  using SplashKitSDK;
3
4  namespace ShapeDrawer
5  {
6      public class Shape
7      {
8          private Color _color;
9          private float _x, _y;
10         private int _width, _height;
11
12         public Shape()
13         {
14             _color = Color.Green;
15             _x = 0;
16             _y = 0;
17             _width = 100;
18             _height = 100;
19         }
20
21         public Color Color
22         {
23             get { return _color; }
24             set { _color = value; }
25         }
26
27         public float X
28         {
29             get { return _x; }
30             set { _x = value; }
31         }
32
33         public float Y
34         {
35             get { return _y; }
36             set { _y = value; }
37         }
38
39         public int Width
40         {
41             get { return _width; }
42             set { _width = value; }
43         }
44
45         public int Height
46         {
47             get { return _height; }
48             set { _height = value; }
49         }
50
51         public void Draw()
52         {
53             SplashKit.FillRectangle(_color, _x, _y, _width, _height);
```

```
54         }
55
56         public bool IsAt(Point2D pt)
57         {
58             return (pt.X >= _x && pt.X <= _x + _width && pt.Y >= _y && pt.Y <= _y +
↪ _height);
59         }
60     }
61 }
```

