Swinburne University of Technology

COS20007 Object Oriented Programming

2.3P - Drawing Program - A Basic Shape

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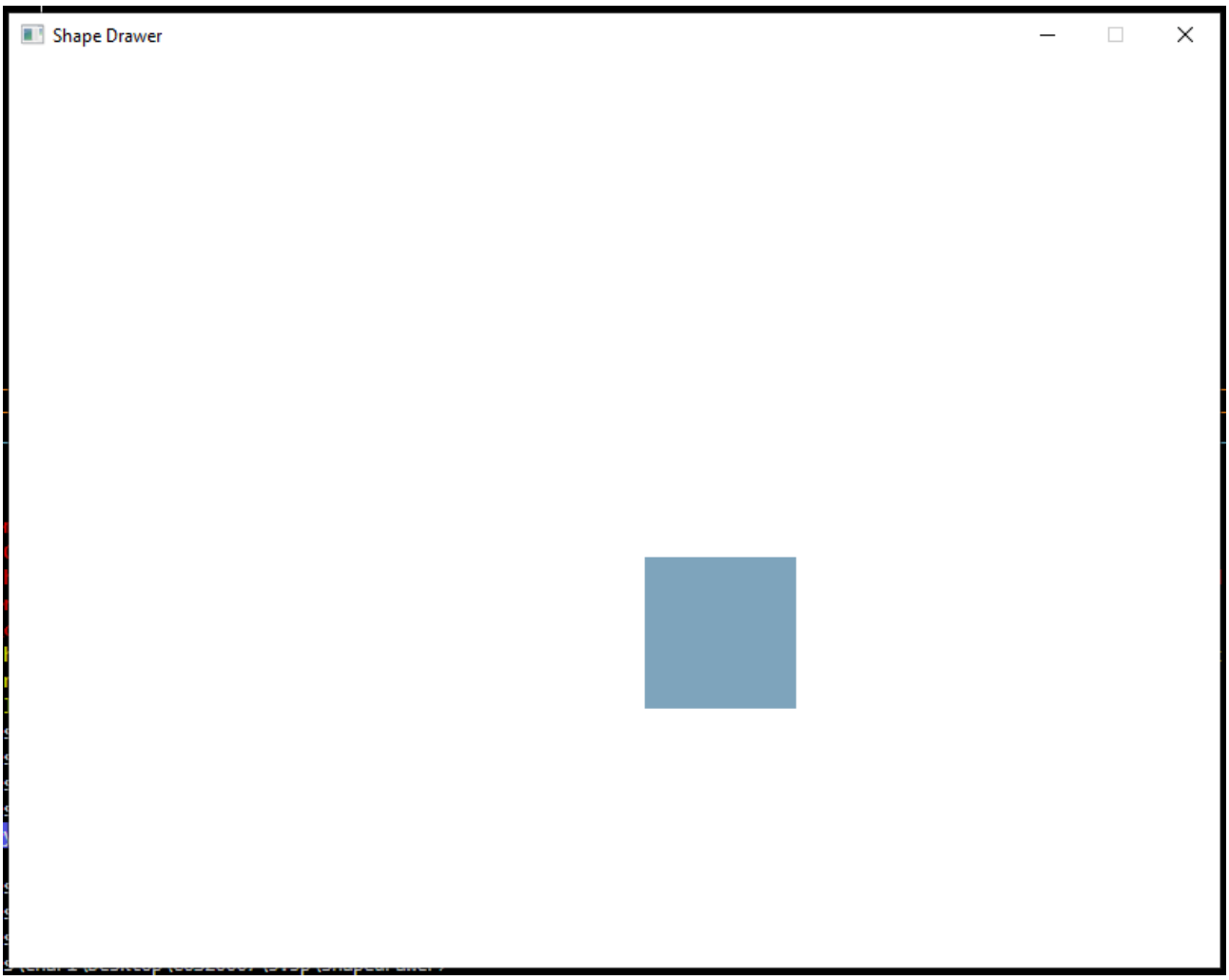
```
using System;
using SplashKitSDK;

namespace ShapeDrawer
{
    public class Program
    {

        private static Shape myShape = new Shape();
        public static void Main()
        {

            Window window = new Window("Shape Drawer", 800, 600);

            do {

                SplashKit.ProcessEvents();
                SplashKit.ClearScreen();
                if (SplashKit.MouseClicked(SplashKitSDK.MouseButton.LeftButton)) {
                    myShape.X = SplashKit.MouseX();
                    myShape.Y = SplashKit.MouseY();
                }
                if (myShape.IsAt(SplashKit.MousePosition()) &&
↪   SplashKit.KeyReleased(SplashKitSDK.KeyCode.SpaceKey)) {
                    myShape.Color = SplashKit.RandomRGBColor(255);
                }
                myShape.Draw();
                SplashKit.RefreshScreen();
            } while (!window.CloseRequested);
        }
    }
}
```

```
using System;
using SplashKitSDK;

namespace ShapeDrawer
{

        public class Shape {

            private Color _color = Color.Green;

            private float _x = 0;

            private float _y = 0;

            private int _width = 100;

            private int _height = 100;

            public Color Color { set{ _color = value;}  get { return _color; } }
            public float X { set { _x = value; } get { return _x; } }
            public float Y { set { _y = value; } get { return _y; } }
            public int Height {  get { return _height; } }
            public int Width { get { return _width; } }


            public void Draw() {

                SplashKit.FillRectangle(_color, _x, _y, _width, _height);
            }

            public bool IsAt(Point2D pt) {

                if (pt.X > _x && pt.X < (_x + _width) && pt.Y > _y && pt.Y < (_y +
    _height)) {

                    return true;

                } else {

                    return false;

                }
            }
        }
}
```


Shape Drawer