Swinburne University of Technology

COS20007 Object Oriented Programming

Drawing Program - A Basic Shape

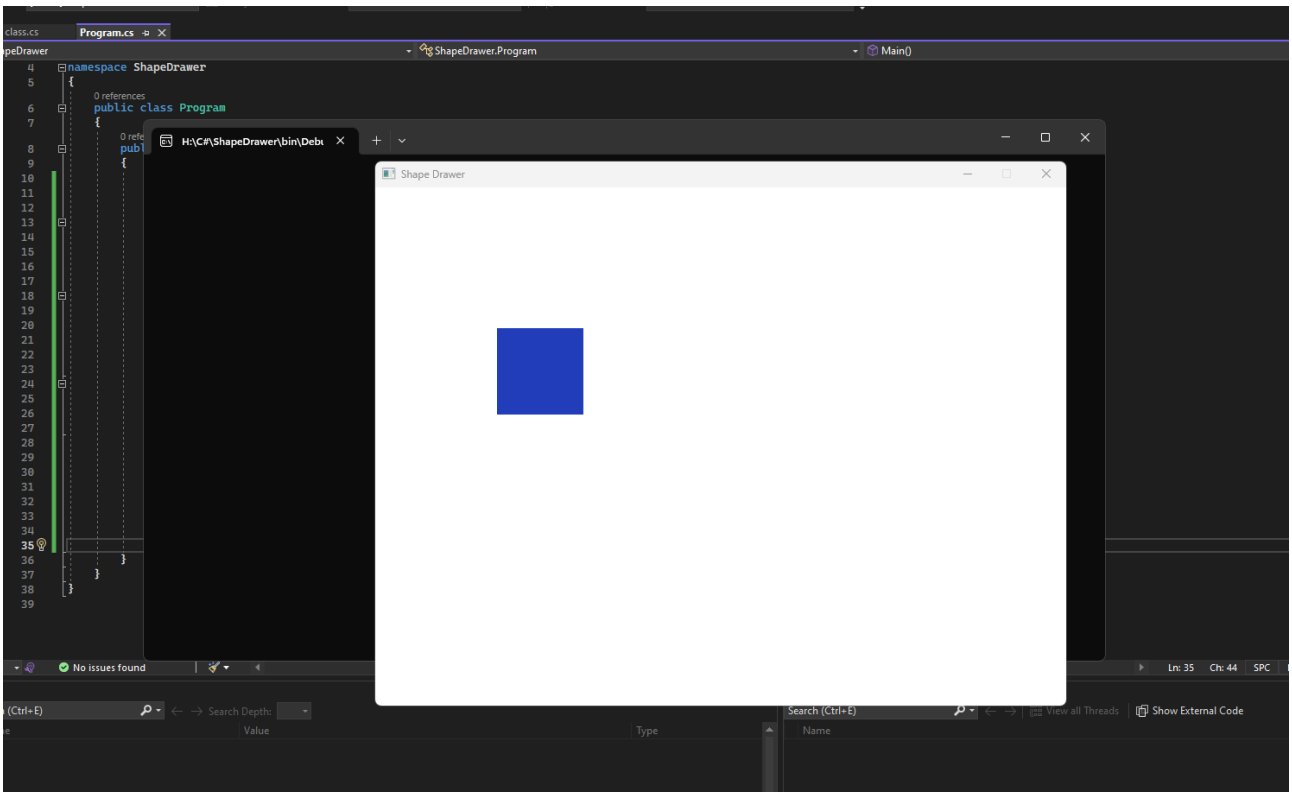
PDF generated at 23:31 on Wednesday 16th August, 2023

Produced by OOP Submission Formatter

```
using System;
using SplashKitSDK;

namespace ShapeDrawer
{
    public class Program
    {
        public static void Main()
        {
            Window window = new Window("Shape Drawer", 800, 600);
            Shape myShape = new Shape();

            do
            {
                SplashKit.ProcessEvents();
                SplashKit.ClearScreen();

                if (SplashKit.MouseClicked(MouseButton.LeftButton))
                {
                    myShape.X = SplashKit.MouseX();

                    myShape.Y = SplashKit.MouseY();
                }
                if(myShape.IsAt(SplashKit.MousePosition()) &&
    SplashKit.KeyTyped(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;
        private float _x, _y;
        private int _width, _height;

        public Shape()
        {
            _color = Color.Green;
            _x = 0;
            _y = 0;
            _width = 100;
            _height = 100;

        }
        public Color Color
        {
            get
            {
                return _color;
            }
            set
            {
                _color = value;
            }
        }
        public float X
        {
            get
            {
                return _x;
            }
            set
            {
                _x = value;
            }
        }
        public float Y
        {
            get
            {
                return _y;
            }
            set
            {
                _y = value;
```

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


Program.cs
ShapeDrawer.Program
Main()
namespace ShapeDrawer
{
0 references
public class Program
{
H:\C#\ShapeDrawer\bin\Debu
Shape Drawer
No issues found
Ln: 35
Ch: 44
SPC
Search Depth:
Value
Type
Search (Ctrl+E)
Name
Show External Code