Swinburne University of Technology

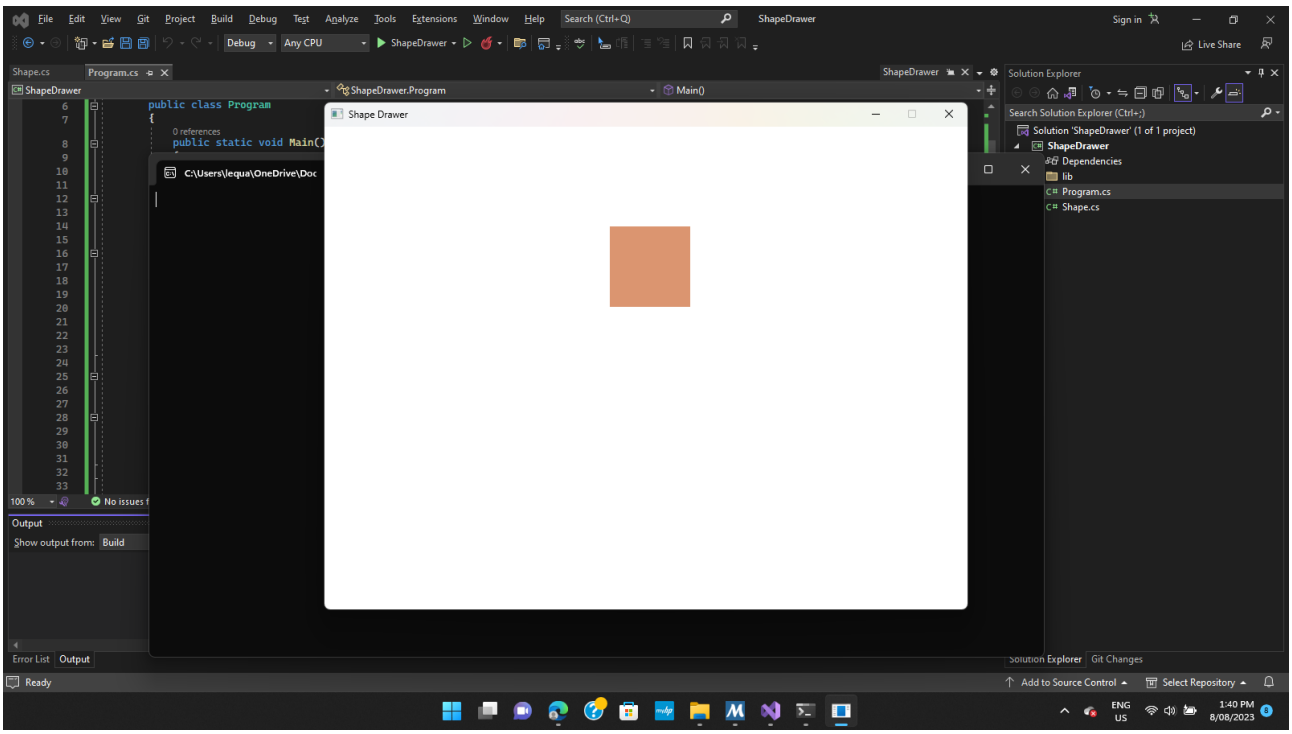
COS20007 Object Oriented Programming

Drawing Program - A Basic Shape

PDF generated at 13:41 on Tuesday 8th August, 2023

```
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))
                    {
                        float mouseX = SplashKit.MouseX();
                        float mouseY = SplashKit.MouseY();

                        myShape.X = mouseX;
                        myShape.Y = mouseY;
                    }

                    if (SplashKit.KeyTyped(KeyCode.SpaceKey))
                    {
                        Point2D mousePosition = new Point2D { X = SplashKit.MouseX(),
↪   Y = SplashKit.MouseY() };
                        if (myShape.IsAt(mousePosition))
                        {
                            myShape.Color = SplashKit.RandomRGBColor(255);
                        }
                    }
                    myShape.Draw();


                    SplashKit.RefreshScreen();

                } while (!window.CloseRequested);
            }
        }
    }

```

```
using SplashKitSDK;

public class Shape
{
    private Color _color;
    private float _X, _Y;
    private int _height, _width;

    public Shape()
    {
        _color = Color.Green;
        _X = _Y = 0;
        _height = _width = 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; }
    }
    public int Height
    {
        get { return _height; }
        set { _height = value; }
    }
    public int Width
    {
        get { return _width; }
        set { _width = value; }
    }
    public void Draw()
    {
        SplashKit.FillRectangle(_color, _X, _Y, _width, _height);
    }
    public bool IsAt(Point2D pt)
    {
        return pt.X >= _X && pt.X <= _X + _width &&
               pt.Y >= _Y && pt.Y <= _Y + _height;
    }
}
```


Shape Drawer
public class Program
public static void Main()
C:\Users\lequa\OneDrive\Doc
Solution Explorer
Solution 'ShapeDrawer' (1 of 1 project)
ShapeDrawer
Dependencies
lib
Program.cs
Shape.cs
Output
Ready