Swinburne University of Technology

COS20007 Object Oriented Programming

# Drawing Program - A Basic Shape

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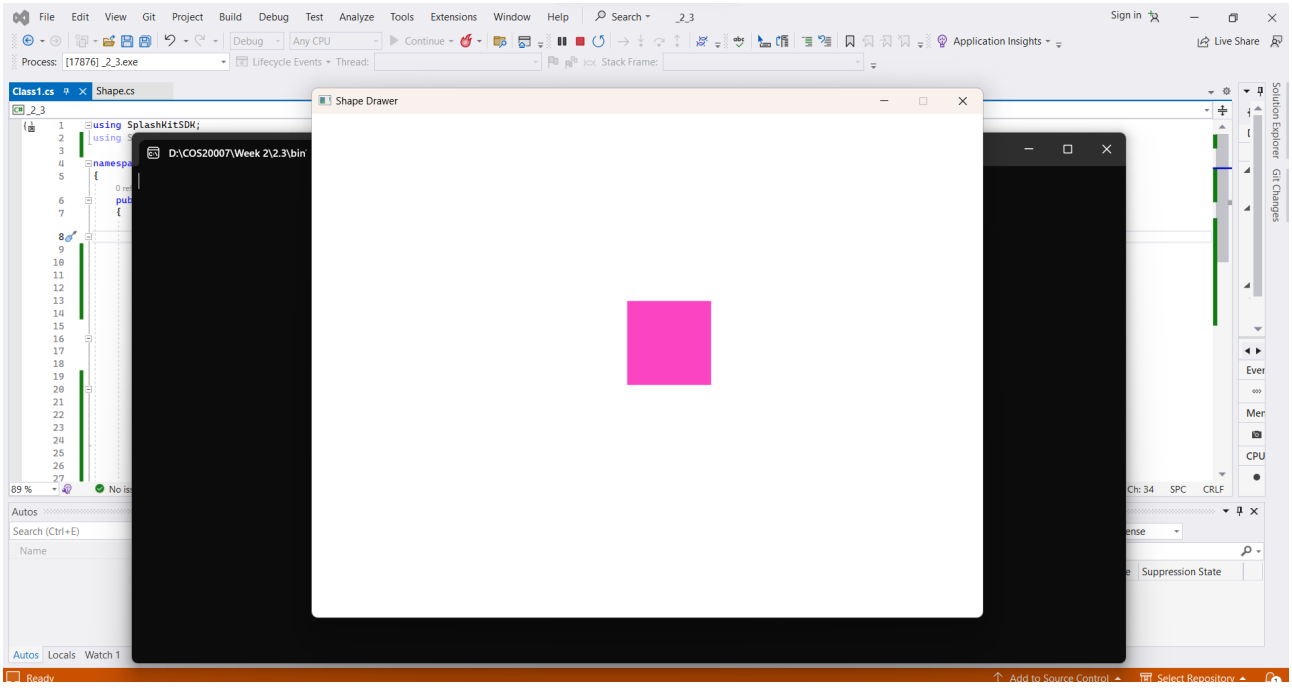
Produced by OOP Submission Formatter

```
using SplashKitSDK;
using System.Runtime.Intrinsics.X86;

namespace ShapeDrawer
{
    public class Program
    {
        public static void Main()
        {
            Shape myShape;

            myShape = new Shape();


            Window window = new Window("Shape Drawer", 800, 600);
            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 SplashKitSDK;
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

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; }
        }
        public int Width { set; get; }
        public int Height { set; get; }

        public void Draw()
        {
            SplashKit.FillRectangle(_color, _x, _y, _width, _height);
        }



        public bool IsAt(Point2D pt)
        {

            if (pt.X < _x + _width && pt.X > _x)
```

```
54              {
55                  if (pt.Y < _y + _height && pt.Y > _y)
56                  {
57                      return true;
58                  }
59              }
60              return false;
61          }
62
63      }
64  }
```


Shape Drawer
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