Swinburne University of Technology

COS20007 Object Oriented Programming

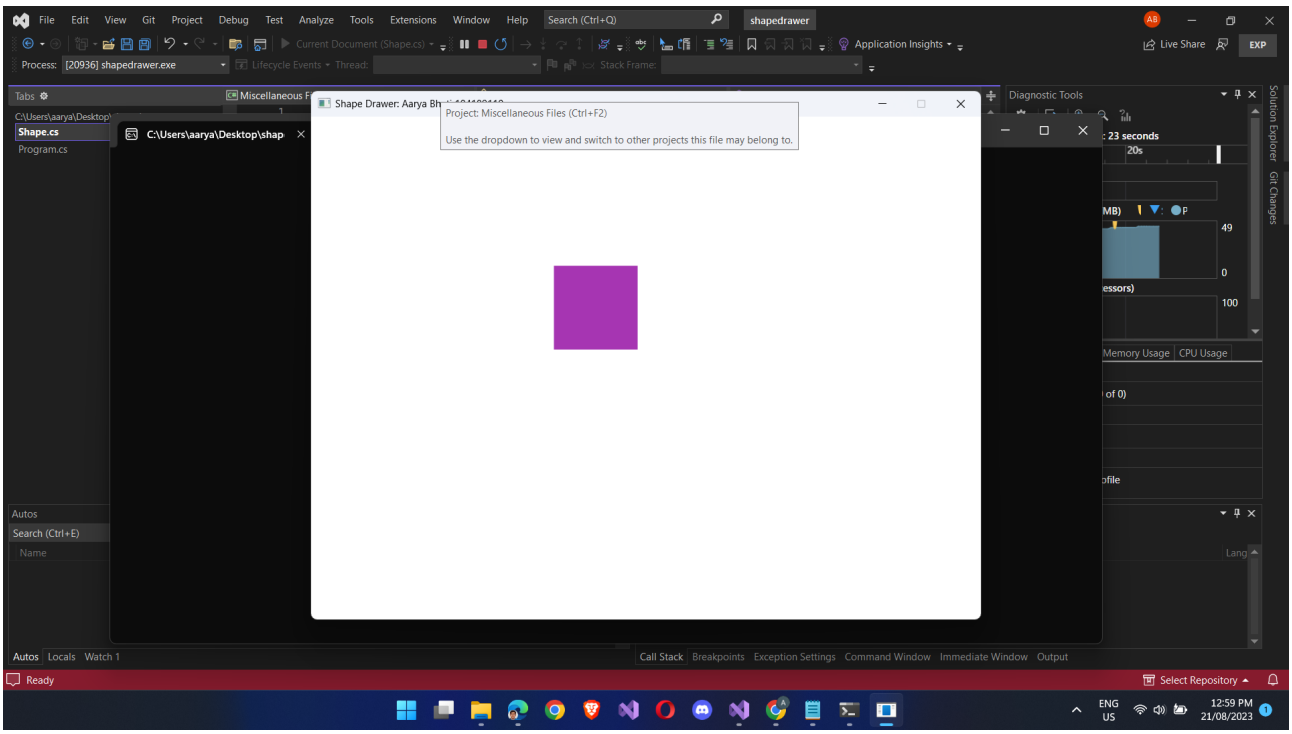
Drawing Program - A Basic Shape

PDF generated at on Monday 21st August, 2023

```
using SplashKitSDK;


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

            do
            {
                SplashKit.ProcessEvents();
                SplashKit.ClearScreen();
                Point2D pt = SplashKit.MousePosition();


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

                  if(myShape.IsAt(SplashKit.MousePosition()))
                {
                    if(SplashKit.KeyDown(KeyCode.SpaceKey))
                    {
                        myShape.Color = Color.RandomRGB(255);
                    }
                }

                myShape.Draw();

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

```

```
using SplashKitSDK;

namespace ShapeDrawer
{
    public class Shape
    {

        private Color _color;
        private float _x;
        private float _y;
        private int _width;
        private int _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
        {
            get { return _width; }
            set { _width = value; }
        }

        public int Height
        {
            get { return _height; }
            set { _height = value; }
        }

        public void Draw()
```

```
54          {
55              SplashKit.FillRectangle(_color, _x, _y, _width, _height);
56          }
57
58          public bool IsAt(Point2D pt)
59          {
60
61              if (_x < pt.X && pt.X < (_x + _width) && _y < pt.Y && pt.Y < (_y +
    ↪  _height))
62              {
63                  return true;
64              }
65              else
66              {
67                  return false;
68              }
69          }
70      }
71  }
```


Shape Drawer: Aarya Bh
Project: Miscellaneous Files (Ctrl+F2)
Use the dropdown to view and switch to other projects this file may belong to.
C:\Users\aarya\Desktop\shap
Shape.cs
Program.cs
Diagnostic Tools
Memory Usage
CPU Usage
Autos
Locals
Watch 1
Call Stack
Breakpoints
Exception Settings
Command Window
Immediate Window
Output
Ready
Select Repository
12:59 PM
21/08/2023