COS20007 – Object Oriented Programming

Pass Task 2.3: Drawing Program – A Basic Shape

Show Wai Yan/105293041

# Shape.cs

using SplashKitSDK;

namespace ShapeDrawer

{

class Shape

{

private Color \_color;

private float \_x;

private float \_y;

private int \_width;

private int \_height;

public Shape(int param)

{

\_color = Color.Chocolate;

\_x = 0.0f; \_y = 0.0f;

\_width = param; \_height = param;

}

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()

{

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) ;

}

}

}

Program.cs  
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(141);

do

{

SplashKit.ProcessEvents();

SplashKit.ClearScreen();

if (SplashKit.MouseClicked(MouseButton.LeftButton))

{

myShape.X = SplashKit.MouseX();

myShape.Y = SplashKit.MouseY();

}

if (SplashKit.KeyTyped(KeyCode.SpaceKey) && myShape.IsAt(SplashKit.MousePosition()))

{

myShape.Color = SplashKit.RandomColor();

}

myShape.Draw();

SplashKit.RefreshScreen();

} while (!window.CloseRequested);

}

}

}

# Screenshot of the Splashkit Window showing the drawing A screenshot of a computer AI-generated content may be incorrect.