

```

1 using System;
2 using System.Linq;
3 using System.Windows;
4 using System.Windows.Controls;
5 using System.Windows.Input;
6 using System.Windows.Media;
7 using System.Windows.Shapes;
8
9 namespace painterDraw
10 {
11     /// <summary>
12     /// Interaction logic for MainWindow.xaml
13     /// </summary>
14     public partial class MainWindow : Window
15     {
16         string shapeType = "Line"; // 要有初始值
17         int strokeThickness = 1;
18         Color strokeColor = Colors.Red;
19         Color fillColor = Colors.Yellow;
20
21         Point start, dest;
22         public MainWindow()
23         {
24             InitializeComponent();
25             strokeColorPicker.SelectedColor = strokeColor;
26             fillColorPicker.SelectedColor = fillColor;
27         }
28
29         private void ShapeButton_Click(object sender, RoutedEventArgs e)
30         {
31             var targetRadioButton = sender as RadioButton;
32             shapeType = targetRadioButton.Tag.ToString();
33
34             //MessageBox.Show(shapeType);
35         }
36
37         private void strokeThicknessSlider_ValueChanged(object sender,
38             RoutedEventArgs e)
39         {
40             strokeThickness = Convert.ToInt32
41                 (strokeThicknessSlider.Value);
42         }
43
44         private void myCanvas_MouseMove(object sender, MouseEventArgs e)
45         {
46             dest = e.GetPosition(myCanvas);
47             DisplayStatus();
48             if(e.LeftButton == MouseButtonState.Pressed)
49             {
50                 switch (shapeType)
51                 {
52                     case "Line":
53                         DrawLine();
54                     case "Rectangle":
55                         DrawRectangle();
56                     case "Ellipse":
57                         DrawEllipse();
58                     case "Polygon":
59                         DrawPolygon();
60                     case "Polyline":
61                         DrawPolyline();
62                     case "Image":
63                         DrawImage();
64                     case "Text":
65                         DrawText();
66                     case "ImageBrush":
67                         DrawImageBrush();
68                     case "ImageScrubber":
69                         DrawImageScrubber();
70                     case "ImageScrubber2":
71                         DrawImageScrubber2();
72                     case "ImageScrubber3":
73                         DrawImageScrubber3();
74                     case "ImageScrubber4":
75                         DrawImageScrubber4();
76                     case "ImageScrubber5":
77                         DrawImageScrubber5();
78                     case "ImageScrubber6":
79                         DrawImageScrubber6();
80                     case "ImageScrubber7":
81                         DrawImageScrubber7();
82                     case "ImageScrubber8":
83                         DrawImageScrubber8();
84                     case "ImageScrubber9":
85                         DrawImageScrubber9();
86                     case "ImageScrubber10":
87                         DrawImageScrubber10();
88                     case "ImageScrubber11":
89                         DrawImageScrubber11();
90                     case "ImageScrubber12":
91                         DrawImageScrubber12();
92                     case "ImageScrubber13":
93                         DrawImageScrubber13();
94                     case "ImageScrubber14":
95                         DrawImageScrubber14();
96                     case "ImageScrubber15":
97                         DrawImageScrubber15();
98                     case "ImageScrubber16":
99                         DrawImageScrubber16();
100                    case "ImageScrubber17":
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102                    case "ImageScrubber18":
103                        DrawImageScrubber18();
104                    case "ImageScrubber19":
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111                        DrawImageScrubber22();
112                    case "ImageScrubber23":
113                        DrawImageScrubber23();
114                    case "ImageScrubber24":
115                        DrawImageScrubber24();
116                    case "ImageScrubber25":
117                        DrawImageScrubber25();
118                    case "ImageScrubber26":
119                        DrawImageScrubber26();
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127                        DrawImageScrubber30();
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142                    case "ImageScrubber38":
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265                        DrawImageScrubber99();
266                    case "ImageScrubber100":
267                        DrawImageScrubber100();
268                    case "ImageScrubber101":
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270                    case "ImageScrubber102":
271                        DrawImageScrubber102();
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274                    case "ImageScrubber104":
275                        DrawImageScrubber104();
276                    case "ImageScrubber105":
277                        DrawImageScrubber105();
278                    case "ImageScrubber106":
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290                    case "ImageScrubber112":
291                        DrawImageScrubber112();
292                    case "ImageScrubber113":
293                        DrawImageScrubber113();
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297                        DrawImageScrubber115();
298                    case "ImageScrubber116":
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320                    case "ImageScrubber127":
321                        DrawImageScrubber127();
322                    case "ImageScrubber128":
323                        DrawImageScrubber128();
324                    case "ImageScrubber129":
325                        DrawImageScrubber129();
326                    case "ImageScrubber130":
327                        DrawImageScrubber130();
328                    case "ImageScrubber131":
329                        DrawImageScrubber131();
330                    case "ImageScrubber132":

```

```
50         case "Line":
51             var line = myCanvas.Children.OfType<Line>
52             ().LastOrDefault();
53             line.X2 = dest.X;
54             line.Y2 = dest.Y;
55             break;
56         case "Rectangle":
57             Point origin2 = new Point
58             {
59                 X = Math.Min(start.X, dest.X),
60                 Y = Math.Min(start.Y, dest.Y)
61             };
62             var rect = myCanvas.Children.OfType<Rectangle>
63             ().LastOrDefault();
64             rect.SetValue(Canvas.LeftProperty, origin2.X);
65             rect.SetValue(Canvas.TopProperty, origin2.Y);
66             rect.Width = Math.Abs(dest.X - start.X);
67             rect.Height = Math.Abs(dest.Y - start.Y);
68             break;
69         case "Ellipse":
70             Point origin3 = new Point
71             {
72                 X = Math.Min(start.X, dest.X),
73                 Y = Math.Min(start.Y, dest.Y)
74             };
75             var ellipse = myCanvas.Children.OfType<Ellipse>
76             ().LastOrDefault();
77             ellipse.SetValue(Canvas.LeftProperty, origin3.X);
78             ellipse.SetValue(Canvas.TopProperty, origin3.Y);
79             ellipse.Width = Math.Abs(dest.X - start.X);
80             ellipse.Height = Math.Abs(dest.Y - start.Y);
81             break;
82         }
83     }
84
85     private void myCanvas_MouseLeftButtonDown(object sender,
86     MouseButtonEventArgs e)
87     {
88         start = e.GetPosition(myCanvas);
89         myCanvas.Cursor = Cursors.Cross;
90         switch (shapeType)
91         {
92             case "Line":
93                 DrawLine(Colors.Gray, 1);
94                 break;
95             case "Rectangle":
96                 var rect = new Rectangle
```

```
97         Stroke = Brushes.Gray,
98         StrokeThickness = 1,
99         Fill = Brushes.LightGray
100     };
101     myCanvas.Children.Add(rect);
102     rect.SetValue(Canvas.LeftProperty, start.X);
103     rect.SetValue(Canvas.TopProperty, start.Y);
104     break;
105     case "Ellipse":
106         var ellipse = new Ellipse
107         {
108             Stroke = Brushes.Gray,
109             StrokeThickness = 1,
110             Fill = Brushes.LightGray
111         };
112         myCanvas.Children.Add(ellipse);
113         ellipse.SetValue(Canvas.LeftProperty, start.X);
114         ellipse.SetValue(Canvas.TopProperty, start.Y);
115         break;
116     }
117     DisplayStatus();
118 }
119
120
121 private void DisplayStatus()
122 {
123     int LineCount = myCanvas.Children.OfType<Line>().Count();
124     int rectCount = myCanvas.Children.OfType<Rectangle>().Count();
125     int ElliCount = myCanvas.Children.OfType<Ellipse>().Count();
126     coordinateLabel.Content = $"座標點:({Math.Round(start.X)} , {Math.Round(start.Y)}) : ({Math.Round(dest.X)} , {Math.Round(dest.Y)})";
127     shapeLabel.Content = $"Line : {LineCount} Rectangle : {rectCount} Ellipse : {ElliCount}";
128 }
129
130 private void strokeColorPicker_SelectedColorChanged(object sender, RoutedPropertyChangedEventArgs<Color?> e)
131 {
132     strokeColor = (Color)strokeColorPicker.SelectedColor;
133 }
134
135 private void fillColorPicker_SelectedColorChanged(object sender, RoutedPropertyChangedEventArgs<Color?> e)
136 {
137     fillColor = (Color)fillColorPicker.SelectedColor;
138 }
139
140 private void myCanvas_MouseLeftButtonUp(object sender, MouseButtonEventArgs e)
141 {
```

```
142         switch (shapeType)
143         {
144             case "Line":
145                 var line = myCanvas.Children.OfType<Line>
146                     ().LastOrDefault();
147                 line.Stroke = new SolidColorBrush(strokeColor);
148                 line.StrokeThickness = strokeThickness;
149                 break;
150             case "Rectangle":
151                 var rect = myCanvas.Children.OfType<Rectangle>
152                     ().LastOrDefault();
153                 rect.Stroke = new SolidColorBrush(strokeColor);
154                 rect.Fill = new SolidColorBrush(fillColor);
155                 rect.StrokeThickness = strokeThickness;
156                 break;
157             case "Ellipse":
158                 var elli = myCanvas.Children.OfType<Ellipse>
159                     ().LastOrDefault();
160                 elli.Stroke = new SolidColorBrush(strokeColor);
161                 elli.StrokeThickness = strokeThickness;
162                 elli.Fill = new SolidColorBrush(fillColor);
163                 break;
164         }
165         myCanvas.Cursor = Cursors.Arrow;
166     }
167
168     private void MenuItem_Click(object sender, RoutedEventArgs e)
169     {
170         myCanvas.Children.Clear();
171     }
172
173     private void DrawLine(Color color, int thickness)
174     {
175         Brush stroke = new SolidColorBrush(color);
176         Line line = new Line
177         {
178             Stroke = stroke,
179             X1 = start.X,
180             Y1 = start.Y,
181             X2 = dest.X,
182             Y2 = dest.Y
183         };
184         myCanvas.Children.Add(line);
185     }
186 }
```