```
 1 using System;
 2 using System.Collections.Generic;
 3 using SplashKitSDK;
 4
 5 namespace DrawingShape
 6 {
 7     public class Program
 8     {
 9         private enum ShapeKind
10         {
11             Rectangle,
12             Circle,
13             Line
14         }
15
16         public static void Main()
17         {
18             ShapeKind kindToAdd = ShapeKind.Circle;
19             Window window = new Window("Shape Drawer", 800, 600);
20             Drawing myDrawing = new Drawing();
21             do
22             {
23                 SplashKit.ProcessEvents();
24                 SplashKit.ClearScreen();
25                 if (SplashKit.KeyTyped(KeyCode.RKey))
26                 {
27                     kindToAdd = ShapeKind.Rectangle;
28                 }
29                 if (SplashKit.KeyTyped(KeyCode.CKey))
30                 {
31                     kindToAdd = ShapeKind.Circle;
32                 }
33                 if (SplashKit.KeyTyped(KeyCode.LKey))
34                 {
35                     kindToAdd = ShapeKind.Line;
36                 }
37                 if (SplashKit.MouseClicked(MouseButton.LeftButton))
38                 {
39                     Shape newShape;
40                     switch (kindToAdd)
41                     {
42                         case ShapeKind.Circle:
43                             newShape = new MyCircle();
44                             newShape.X = SplashKit.MouseX();
45                             newShape.Y = SplashKit.MouseY();
46                             break;
47
48                         case ShapeKind.Line:
49                             newShape = new MyLine();
```

```
50                              newShape.X = SplashKit.MouseX();
51                              newShape.Y = SplashKit.MouseY();
52                              break;
53
54                          default:
55                              newShape = new MyRectangle();
56                              newShape.X = SplashKit.MouseX();
57                              newShape.Y = SplashKit.MouseY();
58
59                              break;
60                      }
61                      myDrawing.AddShape(newShape);
62                  }
63                  Point2D pt = SplashKit.MousePosition();
64                  if(SplashKit.KeyTyped(KeyCode.SpaceKey))
65                  {
66                      myDrawing.Background = SplashKit.RandomRGBColor(255);
67                  }
68                  if(SplashKit.MouseClicked(MouseButton.RightButton))
69                  {
70                      foreach(Shape s in myDrawing.Shapes)
71                      {
72                          if(s.IsAt(pt))
73                          {
74                              s.Selected = !s.Selected;
75                          }
76                      }
77                  }
78                  if(SplashKit.KeyTyped(KeyCode.DeleteKey)||
                      SplashKit.KeyTyped(KeyCode.BackspaceKey))
79                  {
80                      for (int i = myDrawing.ShapeCount - 1; i >= 0; i--)
81                      {
82                          if (myDrawing.Shapes[i].Selected)
83                          {
84                              myDrawing.Shapes.RemoveAt(i);
85                          }
86                      }
87                  }
88                  if (SplashKit.KeyTyped(KeyCode.SKey))
89                  {
90                      try
91                      {
92                          myDrawing.Save("D:\\workspace\\COS20007\\COS20007-
                       working\\5.3C - Drawing Program - Saving and Loading\
                       \DrawingShape\\TestDrawing.txt");
93                      }
94                      catch (Exception e)
95                      {
```

```
 96                          Console.WriteLine("Error saving file: " +
                         e.Message);
 97                          }
 98                  }
 99                  if (SplashKit.KeyTyped(KeyCode.OKey))
100                  {
101                      try
102                      {
103                          myDrawing.Load("D:\\workspace\\COS20007\\COS20007-
                         working\\5.3C - Drawing Program - Saving and Loading\
                         \DrawingShape\\TestDrawing.txt");
104                      }
105                      catch (Exception e)
106                      {
107                          Console.WriteLine("Error loading file: " +
                         e.Message);
108                      }
109                  }
110                  myDrawing.Draw();
111                  SplashKit.RefreshScreen();
112              } while (!window.CloseRequested);
113          }
114      }
115  }
116
```