

```
1 package ticTacToe.component;
2
3 import java.awt.Dimension;
10
11 public abstract class AbstractComponent implements Paintable{
12
13     protected Point position;
14     protected Dimension dimension;
15     protected boolean mouseOver = false;
16
17     public AbstractComponent() {
18         this.position = new Point(0,0);
19         this.dimension = new Dimension(50,50);
20     }
21
22     public AbstractComponent(int x, int y) {
23         this();
24         setPosition(x,y);
25     }
26
27     public AbstractComponent(int x, int y,int width, int height) {
28         this(x,y);
29         setSize(width,height);
30     }
31
32     public void setPosition(int x, int y) {
33         this.position = new Point(x,y);
34     }
35
36     public Point getPosition() {
37         return (Point) this.position.clone();
38     }
39
40     public void setSize(int width, int height) {
41         this.dimension = new Dimension(width,height);
42     }
43
44     public Dimension getSize() {
45         return (Dimension) this.dimension.clone();
46     }
47
48     public int width() {
49         return this.dimension.width;
50     }
51
52     public int height() {
53         return this.dimension.height;
54     }
55
56     public boolean isOver(Point point) {
57
58         int xLeft = this.position.x;
59         int yTop = this.position.y;
60         int xRight = xLeft + this.width();
61         int yBotton = yTop + this.height();
62
63         return ( (point.x > xLeft && point.x < xRight) &&
64                 (point.y > yTop && point.y < yBotton) );
65     }
66
67     public MouseMotionListener mouseMotionListener() {
68         return new MouseMotionAdapter() {
```

```
69         @Override
70         public void mouseMoved(MouseEvent me) {
71             boolean inside = isOver(me.getPoint());
72             if (mouseOver != inside) {
73                 mouseOver = inside;
74                 me.getComponent().repaint();
75             }
76         }
77     };
78 }
79 }
80 }
```