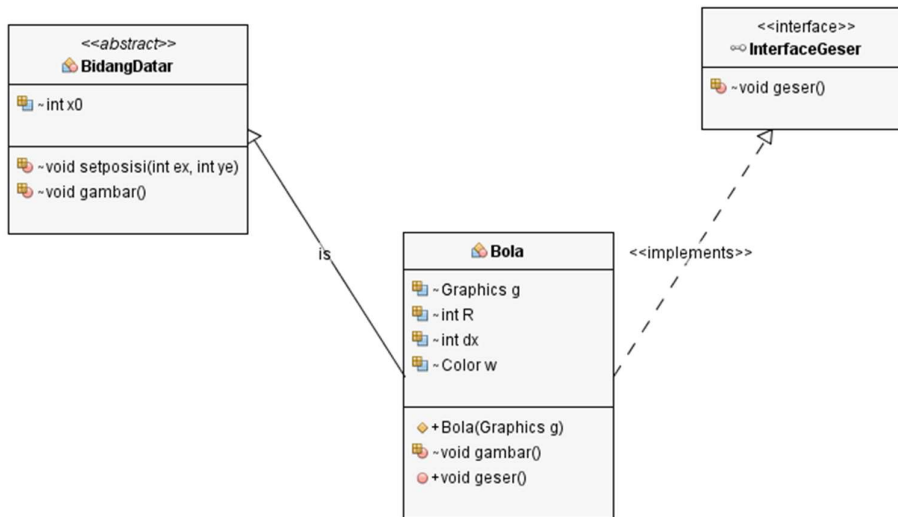


Dipunyai diagram UML sbb:



```

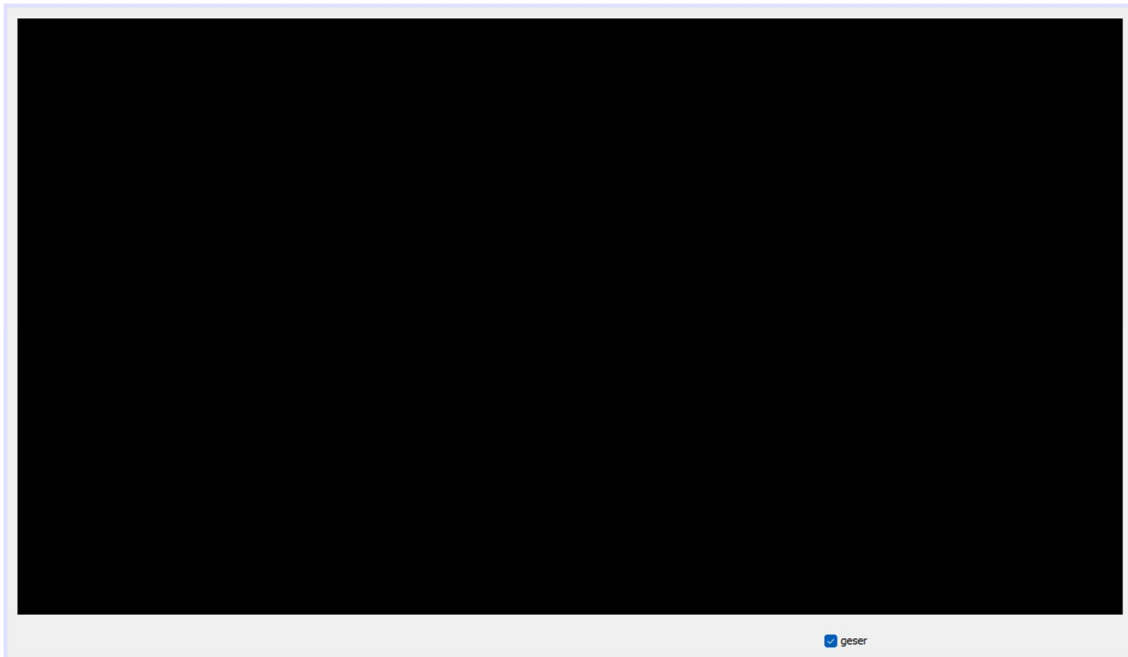
1 public abstract class BidangDatar {
2     int x0,y0;
3     void setposisi(int ex, int ye){
4         x0 = ex; y0 = ye;
5     }
6     abstract void gambar();
7 }
8
9
10 public interface InterfaceGeser {
11     void geser();
12 }
13
14
  
```

```

16 public class Bola extends BidangDatar implements InterfaceGeser{
17     Graphics g;
18     int R;
19     int dx, dy;
20     Color w;
21
22     public Bola(Graphics g) {
23         this.g = g;
24         Random r = new Random();
25         this.g = g;
26         float m = r.nextFloat();
27         float h = r.nextFloat();
28         float b = r.nextFloat();
29         w = new Color(m, h, b);
30         R = (2 + r.nextInt(10)) * 10;
31         dx = 10 - r.nextInt(5);
32         dy = 8 - r.nextInt(4);
33     }
34
35     @Override
36     void gambar() {
37         g.fillOval(x0, y0, R, R);
38     }
39
40
41     @Override
42     public void geser() {
43         g.setColor(Color.black);
44         gambar();
45         g.setColor(w);
46         x0 += dx;
47         y0 += dy;
48         if ((x0 < 0) || (x0 > (1250 - R))) {
49             dx = -dx;
50         }
51         if ((y0 < 0) || (y0 > (650 - R))) {
52             dy = -dy;
53         }
54         gambar();
55     }

```

Rancangan Form:



Kode program:

```
22     Graphics g;  
23     int N = 10;  
24     Bola[] bol = new Bola[N];  
25     javax.swing.Timer t1;  
26  
27     public FormInterface() {  
28         initComponents();  
29         g = jPanel1.getGraphics();  
30         for (int i = 0; i < N; i++) {  
31             bol[i] = new Bola(g);  
32             bol[i].setposisi(300, 200);  
33         }  
34         t1 = new javax.swing.Timer(5, new geser());  
35         t1.start();  
36     }  
  
99     private void jCheckBox1ActionPerformed(java.awt.event.ActionEvent evt) {  
100         if (jCheckBox1.isSelected()) {  
101             t1.start();  
102         } else {  
103             t1.stop();  
104         }  
105     }
```

```
148 private class geser implements ActionListener {
149
150     public geser() {
151     }
152
153     @Override
154     public void actionPerformed(ActionEvent e) {
155         for (int i = 0; i < N; i++) {
156             bol[i].geser();
157         }
158     }
159 }
```