```java
import java.awt.Color;
import java.awt.Graphics;
public class Ball
{
    private double x;
    private double y;
    private int radius;
    private double dY = 0;
    private double friction;
    private Color color;
    private boolean falling;

    public Ball(double x, double y, int radius, Color color)
    {
        this.x = x;
        this.y = y;
        this.radius = radius;
        this.color = color;

        dY = 0;
        friction = (Math.random() * (0.80 - 0.65)) + 0.65;
        falling = false;
    }

    public void draw(Graphics g)
    {
        int r;

        for (int i = 0; i < 5; i++)
        {
            // faire un effet de gradient (Farbverlauf)
            int red = 200 + 10 * i;
            g.setColor(new Color(red, 10, 10, 250));
            r = radius - ((int) (radius / 5.0) * i);
            g.fillOval((int) (x - r), (int) (y - r), 2 * r, 2 * r);
        }
    }

    public boolean isFalling()
    {
        return falling;
    }

    public void drop()
    {
        falling = true;
    }

    public void move(int height)
    {
        if (falling)
        {
            dY = dY + 0.981;
            y = y + dY;
            if (y + radius >= height)
            {
                y = height - radius;
                dY = -dY * friction;
            }
        }
    }
}
```

```java
import java.awt.Color;
import java.awt.Graphics;
import java.util.ArrayList;
public class Balls
{
    private ArrayList<Ball> alBalls = new ArrayList<>();

    public int random(int min, int max)
    {
        return (int) (Math.random() * (max - min + 1)) + min;
    }

    public Balls(int n, int width, int height)
    {
        for (int i = 0; i < n; i++)
        {
            int radius = random(20, 50);
            double x = random(radius, width - radius);
            double y = random(radius, height - radius);
            Ball ball = new Ball(x, y, radius, Color.RED);
            alBalls.add(ball);
        }
    }

    public void draw(Graphics g)
    {
        for (int i = 0; i < alBalls.size(); i++)
        {
            alBalls.get(i).draw(g);
        }
    }

    public void dropBall()
    {
        boolean found = false;
        int i = 0;
        while (!found && i < alBalls.size())
        {
            if (!alBalls.get(i).isFalling())
                found = true;
            else
                i++;
        }
        if (found)
            alBalls.get(i).drop();
    }

    public void move(int height)
    {
        for (int i = 0; i < alBalls.size(); i++)
        {
            alBalls.get(i).move(height);
        }
    }
}
```

```java
import java.awt.Color;
import java.awt.Graphics;
public class DrawPanel extends javax.swing.JPanel
{
    private Balls balls = null;

    public DrawPanel()
    {
        initComponents();
    }

    public void setBalls(Balls balls)
    {
        this.balls = balls;
    }

    public void paintComponent(Graphics g)
    {
        g.setColor(Color.GRAY);
        g.fillRect(0, 0, getWidth(), getHeight());

        if (balls != null)
            balls.draw(g);
    }
// Skipped: ... initComponents { ... }
    // Variables declaration - do not modify//GEN-BEGIN:variables
    // End of variables declaration//GEN-END:variables
}
```

```java
import javax.swing.Timer;
public class MainFrame extends javax.swing.JFrame
{
    private Balls balls = null;
    private Timer timerDrop = null;
    private Timer timerMove = null;

    public MainFrame()
    {
        initComponents();
        timerDrop = new Timer(90, dropButton.getActionListeners()[0]);
        timerMove = new Timer(40, stepButton.getActionListeners()[0]);
        stepButton.setVisible(false);
        dropButton.setVisible(false);
    }
// Skipped: ... initComponents { ... }
    private void startButtonActionPerformed(java.awt.event.ActionEvent evt)//GEN-FIRST:event_startButtonActionPerformed
    {//GEN-HEADEREND:event_startButtonActionPerformed
        balls = new Balls(numberOfBallsSlider.getValue(), drawPanel.getWidth(), drawPanel.getHeight() / 4);
        drawPanel.setBalls(balls);
        timerDrop.start();
        timerMove.start();
        repaint();
    }//GEN-LAST:event_startButtonActionPerformed

    private void dropButtonActionPerformed(java.awt.event.ActionEvent evt)//GEN-FIRST:event_dropButtonActionPerformed
    {//GEN-HEADEREND:event_dropButtonActionPerformed
        balls.dropBall();
    }//GEN-LAST:event_dropButtonActionPerformed

    private void stepButtonActionPerformed(java.awt.event.ActionEvent evt)//GEN-FIRST:event_stepButtonActionPerformed
    {//GEN-HEADEREND:event_stepButtonActionPerformed
        balls.move(drawPanel.getHeight());
        repaint();
    }//GEN-LAST:event_stepButtonActionPerformed
// Skipped: ... Look & Feel
    // Variables declaration - do not modify//GEN-BEGIN:variables
    private DrawPanel drawPanel;
    private javax.swing.JButton dropButton;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JSlider numberOfBallsSlider;
    private javax.swing.JButton startButton;
    private javax.swing.JButton stepButton;
    // End of variables declaration//GEN-END:variables
}
```