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/**
 * File: Game.java
 *
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 * @version December, 2007
 *
 * Demonstrates how to immerse students in Java programming using
 * the game "Breakout" without the bricks.
 *
 * The main class that controls the game.
 */

import acm.program.*;
import acm.graphics.*;
import java.awt.*;
import java.awt.event.*;

public class Game extends GraphicsProgram
{
    private Arena gameArena;
    private Ball gameBall;
    private Paddle gamePaddle;
    private Score gameScore;

    public void init()
    {
        gameArena = new Arena(10, 10, 320, 480, Color.RED);
        this.add(gameArena);

        gameBall = new Ball(10, 10, 10, 10, Color.BLUE, 1, 2);
        this.add(gameBall);

        gamePaddle = new Paddle(100, 450, 50, 10, Color.BLACK);
        this.add(gamePaddle);

        gameScore = new Score(350, 100, Color.BLACK);
        this.add(gameScore);

        this.addMouseListener();
    }

    public void run()
    {
        waitForClick();

        while (true)
        {
            gameBall.move(gameArena, gamePaddle, gameScore);
            pause(5);
        }
    }

    public void mouseMoved(MouseEvent e)
    {
        gamePaddle.move(e.getX(), gameArena);
    }
}
```

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}  
}
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