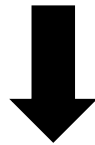


YouTube video link for step to step guidance for building pong game in java from scratch : <https://www.youtube.com/watch?v=xIqeK2hzx1I>

Code link where I learn how to implement the libraries in IntelliJ using Java : <https://codereview.stackexchange.com/questions/27197/pong-game-in-java>

Class Pong

```
public Pong() {  
    setSize(WIDTH, HEIGHT);  
    setTitle("Pong");  
    setBackground(Color.WHITE);  
    setResizable(false);  
    setVisible(true);  
    setDefaultCloseOperation(EXIT_ON_CLOSE);  
    panel = new PongPanel(this);  
    add(panel);  
}
```



```
public Pong()  
{  
    Timer timer = new Timer( delay: 20, listener: this); //displaying 20 secs late  
    random = new Random(); //construct new obj  
  
    JFrame jframe = new JFrame( title: "EXTREMEpong");  
  
    renderer = new Renderer();  
  
    jframe.setSize( width: width + 20, height: height + 50); //set frame size  
    jframe.setVisible(true);  
    jframe.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
    jframe.add(renderer);  
    jframe.addKeyListener( l: this); // receiving keyboard events  
  
    timer.start();  
}
```

Class Ball

```
public void update() {
    x += xa;
    y += ya;
    if (x < 0) {
        game.getPanel().increaseScore(1);
        x = game.getWidth() / 2;
        xa = -xa;
    }
    else if (x > game.getWidth() - WIDTH - 7) {
        game.getPanel().increaseScore(2);
        x = game.getWidth() / 2;
        xa = -xa;
    }
    else if (y < 0 || y > game.getHeight() - HEIGHT - 29)
        ya = -ya;
    if (game.getPanel().getScore(1) == 10)
        JOptionPane.showMessageDialog(null, "Player 1 wins", "Pong", JOptionPane.PLAIN_MESSAGE);
    else if (game.getPanel().getScore(2) == 10)
        JOptionPane.showMessageDialog(null, "Player 2 wins", "Pong", JOptionPane.PLAIN_MESSAGE);
    checkCollision();
}
```



```

public void update(Paddle paddle1, Paddle paddle2)
{
    int speed = 10;    //speed of both paddle

    this.x += motionX * speed;    //movement up and down of paddle
    this.y += motionY * speed;

    if (this.y + height - motionY > pong.height || this.y + motionY < 0)
    {
        if (this.motionY < 0)
        {
            this.y = 0;
            this.motionY = random.nextInt( bound 4);    //creating random movement of ball
                                                    // after hitting the paddle

            if (motionY == 0)    ///motionY == 0, the ball is not moving in y-direction
            {
                motionY = 1;    //making the ball move upwards
            }
        }
        else
        {
            this.motionY = -random.nextInt( bound 4);    //creating random movement of ball
                                                    // after hitting the paddle
            this.y = pong.height - height;

            if (motionY == 0)    //motionY == 0, the ball is not moving in y-direction
            {
                motionY = -1;    //making the ball move downwards
            }
        }
    }
}

```