

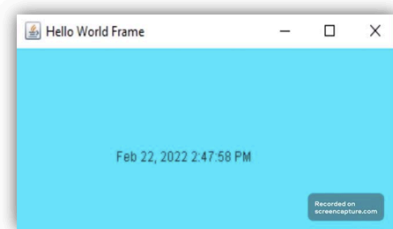
Java lab 5

Lab Exercises

lab1:

Simple Date and Time JFrameApplication.

- ▶ Simple Date and Time JFrame Application.



**Open Netbeans write this
in MyPanel.java:**

```
package com.mycompany.mavenproject1;
```

```
import java.awt.Color;
import java.awt.Graphics;
import java.util.Date;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JPanel;
```

```
/**
 *
 * @author nadam
 */
```

```
public class MyPanel extends JPanel implements Runnable {
```

```
    public MyPanel() {
        this.setBackground(Color.yellow);
```

```
    new Thread(this).start();  
}
```

```
@Override  
public void paintComponent(Graphics g) {  
    super.paintComponent(g);  
    g.drawString(new Date().toLocaleString(), 50, 50);  
}
```

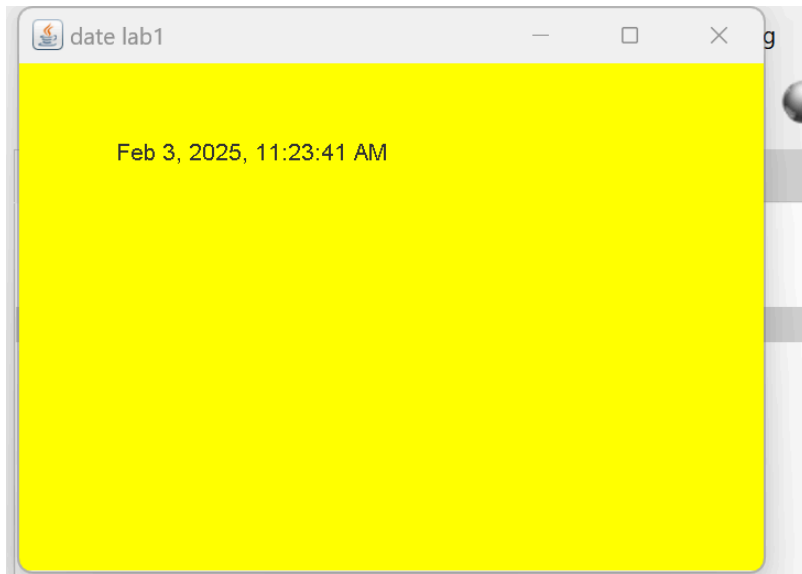
```
@Override  
public void run() {  
    // This method will be executed when the thread starts  
    while (true) {  
        try {  
            this.repaint();  
            Thread.sleep(1000);  
        } catch (InterruptedException e) {
```

```
        Logger.getLogger(MyPanel.class.getName()).log(Level.SEVERE,null,e);  
    }  
}  
}  
}
```

In main.java

```
package com.mycompany.mavenproject1;  
import javax.swing.JFrame;  
/**  
 *  
 * @author nadam  
 */  
public class Mavenproject1 {  
  
    public static void main(String[] args) {  
        JFrame f = new JFrame("date lab1");  
        MyPanel myPanel = new MyPanel();
```

```
f.setContentPane(myPanel);  
f.setSize(400, 300);  
f.setVisible(true);  
}  
  
}
```



lab2:

Make a text marquee (is a scrolling piece of text displayed horizontally across your App

**Open Netbeans write this
in MyPanel.java:**

```
package com.mycompany.textmarquee;
```

```
import java.awt.Color;
import java.awt.Graphics;
import java.util.Date;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JPanel;
```

```
/**
```

```
*
```

```
* @author nadam
```

```
*/
```

```
public class MyPanel extends JPanel implements Runnable {
```

```
    private int x = 30;
```

```
    public MyPanel() {
```

```
        // Constructor can be used to initialize variables or set up the panel
```

```
        this.setBackground(Color.yellow);
```

```
        new Thread(this).start();
```

```
    }
```

```
    @Override
```

```
    public void paintComponent(Graphics g) {
```

```
        super.paintComponent(g);
```

```
        g.drawString("Hello, I am Nada", x, (this.getHeight()/2));
```

```
    }
```

```
    @Override
```

```
    public void run() {
```

```
        while (true) {
```

```

        try {
            x+=5;
            if(x>=this.getWidth()) x=0;
            this.repaint();
            Thread.sleep(100);
        } catch (InterruptedException e) {

Logger.getLogger(MyPanel.class.getName()).log(Level.SEVERE,null,e);
        }
    }
}

```

In main.java

```

package com.mycompany.textmarquee;

import javax.swing.JFrame;
/**
 *
 * @author nadam
 */
public class TextMarquee {

    public static void main(String[] args) {
        JFrame f = new JFrame("TextMarquee lab2");
        MyPanel myPanel = new MyPanel();
        f.setContentPane(myPanel);
        f.setSize(400, 300);
        f.setVisible(true);
    }
}

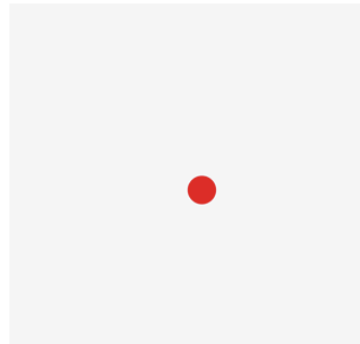
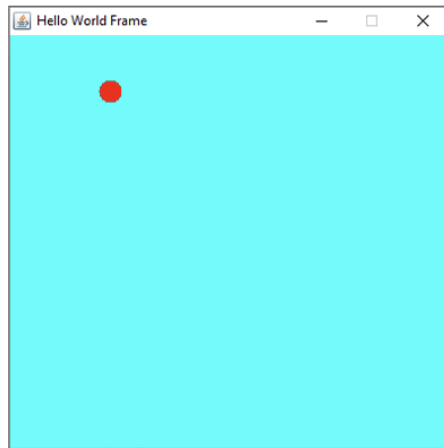
```



lab2:

Make a Bouncing Ball App

► Make a Bouncing Ball App.



**Open Netbeans write this
in MyPanel.java:**

```
package com.mycompany.bouncingball;
```

```
import java.awt.Color;  
import java.awt.Graphics;  
import java.util.Date;  
import java.util.logging.Level;  
import java.util.logging.Logger;  
import javax.swing.JPanel;
```

```
/**
```

```
*
```

```
* @author nadam
```

```
*/
```

```
public class MyPanel extends JPanel implements Runnable {
```

```
    private int x = 0;
```

```
    private int y = 0;
```

```
    private int xDirection = 5;
```

```

private int yDirection = -5;
public MyPanel() {
    // Constructor can be used to initialize variables or set up the panel
    this.setBackground(Color.yellow);
    new Thread(this).start();
}

```

```

@Override
public void paintComponent(Graphics g) {
    super.paintComponent(g);
//    g.drawOval(100, 200, 20, 20);
    if (y == 0) {
        y = this.getHeight() / 2 - 30 / 2;
    }
    g.setColor(Color.RED);
    g.fillOval(x, y, 30, 30);
}

```

```

@Override
public void run() {
    while (true) {
        try {
            x += xDirection;
            y += yDirection;

            if (x <= 0 || x >= this.getWidth() - 30) {
                xDirection *= -1;
            }
            if (y <= 0 || y >= this.getHeight() - 30) {
                yDirection *= -1;
            }
            this.repaint();
            Thread.sleep(50);
        } catch (InterruptedException e) {

```

```

Logger.getLogger(MyPanel.class.getName()).log(Level.SEVERE, null, e);

```



```
    }  
  }  
}
```

In main.java

```
package com.mycompany.textmarquee;  
  
import javax.swing.JFrame;  
/**  
 *  
 * @author nadam  
 */  
public class TextMarquee {  
  
    public static void main(String[] args) {  
        JFrame f = new JFrame("bouncing ball lab3");  
        MyPanel myPanel = new MyPanel();  
        f.setContentPane(myPanel);  
        f.setSize(400, 300);  
        f.setVisible(true);  
    }  
}
```

