***LECTURE 13 – 14***

1. [***Java Action Listener***](https://www.javatpoint.com/java-actionlistener)
2. [***Java Mouse Listener***](https://www.javatpoint.com/java-mouselistener)

import java.awt.\*;

import java.awt.event.WindowAdapter;

import java.awt.event.WindowEvent;

public class Example2 {

public static void main(String[] args) {

Frame frame;

Label l;

frame = new Frame();

frame.setSize(300, 300);

frame.setLayout(null);

frame.setVisible(true);

l = new Label();

l.setBounds(20, 50, 100, 20);

frame.add(l);

frame.addWindowListener(new WindowAdapter() {

public void windowClosing(WindowEvent e) {

System.exit(0);

}

});

frame.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent e) {

l.setText("Mouse Clicked");

}

public void mouseEntered(java.awt.event.MouseEvent e) {

l.setText("Mouse Entered");

}

public void mouseExited(java.awt.event.MouseEvent e) {

l.setText("Mouse Exited");

}

public void mousePressed(java.awt.event.MouseEvent e) {

l.setText("Mouse Pressed");

}

public void mouseReleased(java.awt.event.MouseEvent e) {

l.setText("Mouse Released");

}

});

}

}

1. [***Java Mouse Motion Listener***](https://www.javatpoint.com/java-mousemotionlistener)

import java.awt.\*;

import java.awt.event.\*;

public class Main {

public static void main(String[] args) {

Frame frame;

frame = new Frame();

frame.setSize(300, 300);

frame.setLayout(null);

frame.setVisible(true);

frame.addWindowListener(new WindowAdapter() {

public void windowClosing(WindowEvent e) {

System.exit(0);

}

});

frame.addMouseMotionListener(new MouseMotionAdapter() {

public void mouseDragged(MouseEvent e) {

Graphics g = frame.getGraphics();

g.setColor(Color.BLUE);

g.fillOval(e.getX(), e.getY(), 20, 20);

}

});

}

}

1. [***Java Item Listener***](https://www.javatpoint.com/java-itemlistener)

import javax.swing.\*;

import java.awt.event.\*;

public class ItemExample5 {

public static void main(String[] args) {

SwingUtilities.invokeLater(() -> {

JFrame frame = new JFrame("Item Listener Example");

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setSize(300, 200);

JPanel panel = new JPanel();

frame.add(panel);

JCheckBox checkBox = new JCheckBox("Enable Label");

panel.add(checkBox);

JLabel label = new JLabel("Label is disabled");

panel.add(label);

// Add an ItemListener to the checkbox

checkBox.addItemListener(new ItemListener() {

public void itemStateChanged(ItemEvent e) {

if (e.getStateChange() == ItemEvent.SELECTED) {

label.setText("Label is enabled");

} else {

label.setText("Label is disabled");

}

}

});

frame.setVisible(true);

});

}

}

1. ***Java JOptionPane***

import javax.swing.\*;

public class Example3 {

public static void main(String[] args) {

String input = JOptionPane.showInputDialog(null,"Enter your name:");

JOptionPane.showMessageDialog(null, "Hello, " + input + "!");

}

}

import javax.swing.\*;

public class Example4 {

public static void main(String[] args) {

SwingUtilities.invokeLater(() -> {

JFrame parentFrame = new JFrame("JOptionPane Example");

parentFrame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

parentFrame.setSize(400, 200);

parentFrame.setVisible(true);

String input = JOptionPane.showInputDialog(parentFrame, "Enter your name:");

JOptionPane.showMessageDialog(parentFrame, "Hello, " + input + "!");

});

}

}

***Class Activity***

* Create a login frame with all basic login components.
* Create a signup button on login page as well which is when clicked the frame is switched to signup frame which contains all basic signup page components.
* Create a Joptionpane which displays a message “successfully logged in” when clicked on log in and successfully displays a message “successfully signed up” when clicked on a sign-up button.