



**KONGU ENGINEERING
COLLEGE**



JAVA PROJECT

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ROLL NO : 22ITR035

CLASS : IT – ‘A’

**TOPIC : WEATHER INFORMATION
SYSTEM**

COURSE : OOPS

COURSE CODE : 22ITC22

WEATHER INFORMATION SYSTEM

Coding:

```
import java.awt.*;
import java.awt.event.*;
import java.util.Random;

public class WeatherInformationSystem extends Frame
{
    private Panel panel1, panel2, panel3, panel4;
    private Button button1, button2, button3;
    private Label nameLabel, emailLabel, passwordLabel, cityLabel, tempLabel,
    airQualityLabel, humidityLabel, historyLabel;
    private TextField nameField, emailField, passwordField, cityField, tempField,
    airQualityField, humidityField;
    private ImagePanel imagePanel1, imagePanel2 , imagePanel22, imagePanel3,
    imagePanel4, imagePanel5;
    private String enteredCity;
    private int randomTemp, randomAirQuality, randomMoisture;

    private Font largeFont;
    private Font textFieldFont;

    public WeatherInformationSystem()
    {
```

```
setSize(1400, 800);
```

```
setLayout(null);
```

```
largeFont = new Font(Font.SANS_SERIF, Font.PLAIN, 20);
```

```
textFieldFont = new Font(Font.SANS_SERIF, Font.PLAIN, 20);
```

```
panel1 = new Panel();
```

```
panel1.setLayout(null);
```

```
panel1.setBounds(0, 0, 1300, 700);
```

```
Label l = new Label("Welcome to the Weather Information System");
```

```
l.setBounds(460, 20, 400, 120);
```

```
l.setFont(new Font(Font.SANS_SERIF, Font.BOLD, 18));
```

```
imagePanel1 = new ImagePanel("image1.jpg");
```

```
imagePanel1.setBounds(400, 100, 500, 500);
```

```
panel1.add(imagePanel1);
```

```
panel1.add(l);
```

```
button1 = new Button("Next");
```

```
button1.setBounds(605, 620, 100, 40);
```

```
    button1.setFont(largeFont);
```

```
button1.addActionListener(new ActionListener()
```

```
{
```

```
public void actionPerformed(ActionEvent e)
{
    remove(panel1);
    add(panel2);
    repaint();
}
});
panel1.add(button1);
```

```
panel2 = new Panel();
panel2.setLayout(null);
panel2.setBounds(0, 0, 1300, 700);
```

```
nameLabel = new Label("Name:");
nameLabel.setBounds(500, 300, 150, 50);
nameLabel.setFont(largeFont);
panel2.add(nameLabel);
```

```
nameField = new TextField();
nameField.setBounds(650, 300, 200, 40);
nameField.setFont(textFieldFont);
panel2.add(nameField);
```

```
passwordLabel = new Label("Password:");  
passwordLabel.setBounds(500, 350, 150, 50);  
passwordLabel.setFont(largeFont);  
panel2.add(passwordLabel);
```

```
passwordField = new TextField();  
passwordField.setBounds(650, 350, 200, 40);  
passwordField.setFont(textFieldFont);  
panel2.add(passwordField);
```

```
cityLabel = new Label("City:");  
cityLabel.setBounds(500, 400, 150, 50);  
cityLabel.setFont(largeFont);  
panel2.add(cityLabel);
```

```
cityField = new TextField();  
cityField.setBounds(650, 400, 200, 40);  
cityField.setFont(textFieldFont);  
panel2.add(cityField);
```

```
imagePanel2 = new ImagePanel("image2.jpg");  
imagePanel2.setBounds(400, 50, 500, 170);  
panel2.add(imagePanel2);
```

```
imagePanel22 = new ImagePanel("save.jpg");  
imagePanel22.setBounds(900, 300, 300, 250);  
panel2.add(imagePanel22);
```

```
button2 = new Button("Login");  
button2.setBounds(620, 500, 100, 30);  
button2.addActionListener(new ActionListener() {  
    public void actionPerformed(ActionEvent e) {  
        remove(panel2);  
        enteredCity = cityField.getText();  
        cityLabel.setText("City: " + enteredCity);
```

```
  
        Random random = new Random();  
        randomTemp = random.nextInt(10) + 24;  
        randomAirQuality = random.nextInt(62);  
        randomMoisture = random.nextInt(36) + 33;  
        add(panel3);  
        tempField.setText(String.valueOf(randomTemp));  
        airQualityField.setText(String.valueOf(randomAirQuality));  
        humidityField.setText(String.valueOf(randomMoisture));  
        repaint();  
    }  
}
```

```
});
```

```
panel2.add(button2);
```

```
panel3 = new Panel();
```

```
panel3.setLayout(null);
```

```
panel3.setBounds(0, 0, 1400, 800);
```

```
cityLabel = new Label("City: " + enteredCity);
```

```
cityLabel.setBounds(220, 150, 220, 40);
```

```
cityLabel.setFont(largeFont);
```

```
panel3.add(cityLabel);
```

```
tempLabel = new Label("Temperature:");
```

```
tempLabel.setBounds(155, 250, 155, 30);
```

```
tempLabel.setFont(largeFont);
```

```
panel3.add(tempLabel);
```

```
tempField = new TextField();
```

```
tempField.setBounds(350, 250, 80, 30);
```

```
tempField.setFont(textFieldFont);
```

```
panel3.add(tempField);
```

```
airQualityLabel = new Label("Air Quality Index:");  
airQualityLabel.setBounds(155, 300, 155, 30);  
airQualityLabel.setFont(largeFont);  
panel3.add(airQualityLabel);
```

```
airQualityField = new TextField();  
airQualityField.setBounds(350, 300, 80, 30);  
airQualityField.setFont(textFieldFont);  
panel3.add(airQualityField);
```

```
humidityLabel = new Label("Moisture:");  
humidityLabel.setBounds(155, 350, 155, 30);  
humidityLabel.setFont(largeFont);  
panel3.add(humidityLabel);
```

```
humidityField = new TextField();  
humidityField.setBounds(350, 350, 80, 30);  
humidityField.setFont(textFieldFont);  
panel3.add(humidityField);
```

```
Label three = new Label("The weather is Slightly warmer");  
Label three1 = new Label(" Possibility of rain is less..!");  
three.setBounds(180, 450, 280, 30);  
three1.setBounds(180, 510, 250, 30);
```



```
three.setFont(largeFont);
three1.setFont(largeFont);
panel3.add(three);
panel3.add(three1);
```

```
imagePanel3 = new ImagePanel("imageworld.jpg");
imagePanel3.setBounds(1, 1, 1400, 800);
panel3.add(imagePanel3);
button3 = new Button("See Forecast");
button3.setBounds(220, 590, 200, 30);
button3.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        remove(panel3);
        add(panel4);
        repaint();
    }
});
```

```
    Button forecastButton = new Button("Summary");
forecastButton.setBounds(220, 640, 200, 30);
```

```
forecastButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String forecast = "Forecast : Sunny";
```

```
Dialog dialog = new Dialog(WeatherInformationSystem.this, "Forecast");
dialog.setLayout(null);
dialog.setSize(300, 150);
Label forecastLabel = new Label(forecast);
forecastLabel.setBounds(80, 50, 200, 30);
dialog.add(forecastLabel);
```

```
Button closeButton = new Button("Close");
closeButton.setBounds(100, 90, 60, 20);
closeButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        dialog.dispose();
    }
});
dialog.add(closeButton);
```

```
dialog.setVisible(true);
}
});
```

```
imagePanel3.add(forecastButton);
```

```
imagePanel3.add(button3);
```

```
panel4 = new Panel();  
panel4.setLayout(null);  
panel4.setBounds(0, 0, 1400, 800);
```

```
historyLabel = new Label("Weather History");  
historyLabel.setBounds(570, 90, 160, 30);  
historyLabel.setFont(largeFont);  
panel4.add(historyLabel);
```

```
imagePanel4 = new ImagePanel("image4.jpg");  
imagePanel4.setBounds(380, 150, 550, 290);  
panel4.add(imagePanel4);
```

```
Label qrLabel = new Label("For more details, scan the QR code below..");  
qrLabel.setBounds(870, 520, 270, 20);  
panel4.add(qrLabel);
```

```
ImagePanel imagePanelBottomRight = new ImagePanel("image6.jpg");
```

imagePanelBottomRight.setBounds(880, 560, 100, 100); // Adjust the coordinates and size accordingly

panel4.add(imagePanelBottomRight);

Button backButton = new Button("Go to home");

backButton.setBounds(620, 680, 100, 30);

backButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

remove(panel4);

add(panel1);

repaint();

}

});

panel4.add(backButton);

add(panel1);

setVisible(true);

addWindowListener(new WindowAdapter() {

public void windowClosing(WindowEvent e) {

System.exit(0);

}

});

```
}
```

```
public static void main(String[] args) {
```

```
    WeatherInformationSystem weatherinformationsystem = new  
    WeatherInformationSystem();
```

```
}
```

```
}
```

```
class ImagePanel extends Panel {
```

```
    private Image image;
```

```
    public ImagePanel(String imagePath) {
```

```
        image = Toolkit.getDefaultToolkit().getImage(imagePath);
```

```
}
```

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

```
        super.paint(g);
```

```
        g.drawImage(image, 0, 0, getWidth(), getHeight(), this);
```

```
}
```

```
}
```

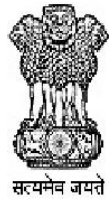
Output:



Welcome to the Weather Information System



Next



india.gov.in
national portal of india

Name:

Immanuvel

Password:

@123

City:

Perundurai

Login



City: Perundurai

Temperature: 31

Air Quality Index: 56

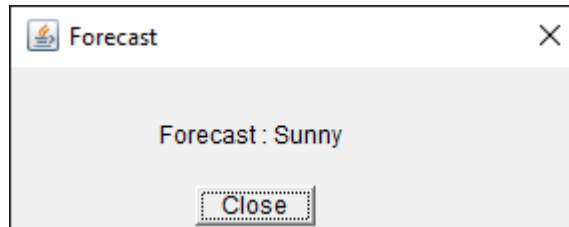
Moisture: 47

The weather is Slightly warmer

Possibility of rain is less..!

See Forecast

Summary



Weather History



For more details, scan the QR code below..



Go to home