

Heshan sandaruwan

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01.

```
import javax.swing.*;
class MainWindow extends JFrame {
public MainWindow() {
setTitle("My First Frame");
setSize(300, 300);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
}
}
public class demo{
public static void main(String args[]){
new MainWindow().setVisible(true);
}
}
```

02.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class MainWindow extends JFrame {
private JButton btn1;
private JButton btn2;
private JButton btn3;
private JButton btn4;
private JButton btn5;
public MainWindow() {
setTitle("My First Frame");
setSize(300, 300);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents() {
btn1=new JButton("North");

btn2=new JButton("East");
btn3=new JButton("South");
btn4=new JButton("West");
btn5=new JButton("Center");
add("North", btn1);
add("East", btn2);
add("South", btn3);
add("West", btn4);
add("Center", btn5);
```

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```
}  
}  
public class demo{  
public static void main(String args[]){  
new MainWindow().setVisible(true);  
}}
```

03.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class MainWindow extends JFrame{  
private JButton btn1;  
private JButton btn2;  
public MainWindow(){  
setTitle("Border Layout Window");  
setSize(400,200);  
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
setLocationRelativeTo(null);  
initComponents();  
}  
public void initComponents() {  
btn1=new JButton("This is the North Border");  
btn2=new JButton("This is the South Border");  
  
add("North",btn1);  
add("South",btn2);  
}  
}  
class demo{  
public static void main(String[] args) {  
new MainWindow().setVisible(true);  
}  
}
```

04.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class MainWindow extends JFrame{  
private JButton btn1;  
private JButton btn2;  
public MainWindow(){  
setTitle("Boder Leyout Window");  
setSize(400,200);  
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
setLocationRelativeTo(null);  
initComponents();  
}
```

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```
}  
public void initComponents() {  
    btn1=new JButton("This is the North Boder");  
    btn2=new JButton("This is the South Boder");  
    Font font = new Font("", 1, 20);  
    btn1.setFont(font);  
    btn2.setFont(font);  
    add("North",btn1);  
    add("South",btn2);  
}  
  
}  
class demo{  
    public static void main(String[] args) {  
        new MainWindow().setVisible(true);  
    }  
}
```

05.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class MainWindow extends JFrame {  
    private JPanel panel1;  
    private JButton btn1;  
    private JButton btn2;  
    private JButton btn3;  
    private JButton btn4;  
    public MainWindow() {  
        setTitle("“Flow Layout” window");  
        setSize(400, 300);  
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
        setLocationRelativeTo(null);  
        initComponents();  
    }  
    public void initComponents() {  
        panel1 = new JPanel();  
        btn1 = new JButton("Button 1");  
        btn2 = new JButton("This is a Button");  
        btn3 = new JButton("Button 2");  
  
        btn4 = new JButton("Execte");  
        panel1.add(btn1);  
        panel1.add(btn2);  
        panel1.add(btn3);  
        panel1.add(btn4);  
        add("Center", panel1);  
    }  
}
```

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```
}  
class Main {  
public static void main(String args[]){  
MainWindow w1 = new MainWindow();  
w1.setVisible(true);  
}  
}
```

06.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class Window extends JFrame {  
private JButton btn1;  
private JButton btn2;  
private JButton btn3;  
private JButton btn4;  
public Window() {  
setTitle("Flow Layout Window");  
setSize(400, 200);  
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
setLocationRelativeTo(null);  
setLayout(new FlowLayout(FlowLayout.LEADING));  
initComponents();  
}  
public void initComponents(){  
btn1 = new JButton("Button1");  
btn2 = new JButton("This is a Button");  
btn3 = new JButton("Button2");  
btn4 = new JButton("Execute Button");  
add(btn1);  
add(btn2);  
  
add(btn3);  
add(btn4);  
}  
}  
class Main {  
public static void main(String args[]){  
new Window().setVisible(true);  
}  
}
```

07.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class Window extends JFrame {
```

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```
private JButton btn1;
private JButton btn2;;
private JButton btn3;
private JButton btn4;;
public Window() {
setTitle("Flow Layout Window");
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new FlowLayout(FlowLayout.TRAILING));
initComponents();
}
public void initComponents(){
btn1 = new JButton("Button1");
btn2 = new JButton("This is a Button");
btn3 = new JButton("Button2");
btn4 = new JButton("Execute Button");
add(btn1);
add(btn2);
add(btn3);
add(btn4);
}
}
class Main {
public static void main(String args[]){
new Window().setVisible(true);
}
}
```

08.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

class Window extends JFrame {
private JButton btn1;
private JButton btn2;;
private JButton btn3;
private JButton btn4;;
public Window() {
setTitle("Grid Layout Window");
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new GridLayout(2, 2));
initComponents();
}
public void initComponents(){
```

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```
btn1 = new JButton("Button1");
btn2 = new JButton("Button2");
btn3 = new JButton("Button3");
btn4 = new JButton("Button4");
add(btn1);
add(btn2);
add(btn3);
add(btn4);
}
}
class Main {
public static void main(String args[]){
new Window().setVisible(true);
}
}
```

09.

```
import javax.swing.*;
import java.awt.*;
class Calculator extends JFrame {
private JButton btn1;
private JButton btn2;
private JButton btn3;
private JButton btn4;
private JButton btn5;
private JButton btn6;
private JButton btn7;
private JButton btn8;
private JButton btn9;
private JButton btn0;
private JButton btnMult;
private JButton btnDiv;
private JButton btnSum;

private JButton btnDif;
private JButton btnEqual;
private JButton btnDot;
Calculator() {
setSize(400, 300);
setTitle("Calc");
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new GridLayout(4, 4, 5, 5));
btn1 = new JButton("7");
btn2 = new JButton("8");
btn3 = new JButton("9");
btnMult = new JButton("*");
btn4 = new JButton("4");
```

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```
btn5 = new JButton("5");
btn6 = new JButton("6");
btnDiv = new JButton("/");
btn7 = new JButton("1");
btn8 = new JButton("2");
btn9 = new JButton("3");
btnSum = new JButton("+");
btn0 = new JButton("0");
btnDot = new JButton(".");
btnEqual = new JButton("=");
btnDif = new JButton("-");
add(btn1);
add(btn2);
add(btn3);
add(btnMult);
add(btn4);
add(btn5);
add(btn6);
add(btnDiv);
add(btn7);
add(btn8);
add(btn9);
add(btnSum);
add(btn0);
add(btnDot);
add(btnEqual);
add(btnDif);
}
}
class Main {
public static void main(String args[]){

Calculator c1 = new Calculator();
c1.setVisible(true);
}
}
```

10.

There is not an output when execute this programme. Here the class is extend the JPanel, not the JFrame,

11.

```
import javax.swing.*;
import java.awt.*;
class Window extends JFrame {
private JButton btn1;
private JButton btn2;
```

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```
private JButton btn3;
private JButton btn4;
private JButton btn5;
private JButton btn6;
private JButton btn7;
private JButton btn8;
private JPanel panel1;
Window(){
setTitle("Customer Manage");
setSize(300, 400);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents(){
btn1 = new JButton("North");
btn2 = new JButton("West");
btn3 = new JButton("South");
btn4 = new JButton("East");
btn5 = new JButton("Button1");
btn6 = new JButton("Button2");
btn7 = new JButton("Button3");
btn8 = new JButton("Button4");
panel1 = new JPanel();
panel1.setLayout(new GridLayout(2,2));
panel1.add(btn5);
panel1.add(btn6);
panel1.add(btn7);
panel1.add(btn8);
add("North",btn1);

add("West",btn2);
add("South",btn3);
add("East",btn4);
add("Center",panel1);
}
}
class Main {
public static void main(String args[]){
new Window().setVisible(true);
}
}
```

12.

13.

```
import javax.swing.*;
import java.awt.*;
class Calculator extends JFrame {
```


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```
private JButton btn1;
private JButton btn2;
private JButton btn3;
private JButton btn4;
private JButton btn5;
private JButton btn6;
private JButton btn7;
private JButton btn8;
private JButton btn9;
private JButton btn0;
private JButton btnMult;
private JButton btnDiv;
private JButton btnSum;
private JButton btnDif;
private JButton btnEqual;
private JButton btnDot;
private JTextField txt1;
private JPanel panel1;
private JPanel panel2;
Calculator() {
setSize(400, 300);
setTitle("Calc");
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
panel1 = new JPanel();
txt1 = new JTextField(40);
txt1.setPreferredSize(new Dimension(275, 50));

panel1.add(txt1);
panel2 = new JPanel();
panel2.setLayout(new GridLayout(4,4,5,5));
btn1 = new JButton("7");
btn2 = new JButton("8");
btn3 = new JButton("9");
btnMult = new JButton("*");
btn4 = new JButton("4");
btn5 = new JButton("5");
btn6 = new JButton("6");
btnDiv = new JButton("/");
btn7 = new JButton("1");
btn8 = new JButton("2");
btn9 = new JButton("3");
btnSum = new JButton("+");
btn0 = new JButton("0");
btnDot = new JButton(".");
btnEqual = new JButton("=");
btnDif = new JButton("-");
panel2.add(btn1);
```

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```
panel2.add(btn2);
panel2.add(btn3);
panel2.add(btnMult);
panel2.add(btn4);
panel2.add(btn5);
panel2.add(btn6);
panel2.add(btnDiv);
panel2.add(btn7);
panel2.add(btn8);
panel2.add(btn9);
panel2.add(btnSum);
panel2.add(btn0);
panel2.add(btnDot);
panel2.add(btnEqual);
panel2.add(btnDif);
add("North",panel1);
add("Center",panel2);
}
}
class Main {
public static void main(String args[]){
Calculator c1 = new Calculator();
c1.setVisible(true);
}
```

14.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
private JTextField txt1;
private JPanel panel1;
public Window() {
setTitle("Demonstrate TextField");
setSize(400,200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents() {
panel1 = new JPanel();
txt1 = new JTextField();
txt1.setPreferredSize(new Dimension(250,50));
txt1.setFont(new Font("Serif", Font.BOLD, 20));
txt1.setHorizontalAlignment(JTextField.RIGHT);
txt1.addActionListener((e) -> {
System.out.println(txt1.getText());
});
}
```

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```
panel1.add(txt1);
add("North",panel1);
}
}
class Main{
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```

20.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
private JLabel label1;
private JLabel label2;
private JLabel label3;
private JLabel label4;
private JTextField txt1;
private JTextField txt2;
private JTextField txt3;
private JTextField txt4;
public Window() {
setTitle("Demonstrate TextField");
setSize(400,200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new GridLayout(4,2));
initComponents();
}
public void initComponents(){
txt1 = new JTextField();
txt2 = new JTextField();
txt3 = new JTextField();
txt4 = new JTextField();
label1 = new JLabel("Student Id");
label2 = new JLabel("Name");
label3 = new JLabel("Address");
label4 = new JLabel("Phone No");
add(label1);
add(txt1);
add(label2);
add(txt2);
add(label3);
add(txt3);
add(label4);
```

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```
add(txt4);
}
}
class Main{
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
```

21.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
private JPanel panel1;
private JPanel panel2;
private JPanel panel3;
private JLabel label1;
private JLabel label2;
private JLabel label3;
private JLabel label4;
private JLabel label5;
private JTextField txt1;
private JTextField txt2;
private JTextField txt3;
private JTextField txt4;
private JButton btn1;
private JButton btn2;
public Window() {
setTitle("Demonstrate TextField");
setSize(400,200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents(){
panel1 = new JPanel();
label1 = new JLabel("Student Details Form");
panel1.add(label1);
panel2 = new JPanel();
panel2.setLayout(new GridLayout(4,2));
txt1 = new JTextField();
txt2 = new JTextField();
txt3 = new JTextField();
txt4 = new JTextField();
label2 = new JLabel("Student Id");
label3 = new JLabel("Name");
label4 = new JLabel("Address");
```

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```
label5 = new JLabel("Phone No");
panel2.add(label2);
panel2.add(txt1);
panel2.add(label3);

panel2.add(txt2);
panel2.add(label4);
panel2.add(txt3);
panel2.add(label5);
panel2.add(txt4);
panel3 = new JPanel();
panel3.setLayout(new FlowLayout(FlowLayout.TRAILING));
btn1 = new JButton("Add Student");
btn2 = new JButton("Cancel");
panel3.add(btn1);
panel3.add(btn2);
add("North",panel1);
add("Center",panel2);
add("South",panel3);
}
}
class Main{
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```

23.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
private JPanel panel1;
private JPanel panel2;
private JPanel panel3;
private JPanel panel4;
private JPanel panel5;
private JPanel panel6;
private JPanel panel7;
private JPanel panel8;
private JPanel panel9;
private JPanel panel10;
private JTextField txt1;
private JTextField txt2;
private JLabel label1;
private JLabel label2;
private JLabel label3;
```

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```
private JLabel label4;

private JButton btn1;
private JButton btn2;
public Window() {
setTitle("Demonstrate TextField");
setSize(400,200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents() {
panel1 = new JPanel();
label1 = new JLabel("Student Detail");
label1.setFont(new Font("", Font.ITALIC, 30));
panel1.add(label1);
txt1 = new JTextField();
txt1.setPreferredSize(new Dimension(500, 30));
txt2 = new JTextField();
txt2.setPreferredSize(new Dimension(500, 30));
label2 = new JLabel("Name ");
label2.setFont(new Font("", Font.BOLD, 13));
label3 = new JLabel("Address ");
label3.setFont(new Font("", Font.BOLD, 13));
label4 = new JLabel("Gender ");
label4.setFont(new Font("", Font.BOLD, 13));
panel2 = new JPanel();
panel2.setLayout(new GridLayout(3,1));
panel3 = new JPanel();
panel3.setSize(100,40);
panel3.add(label2);
panel4 = new JPanel();
panel4.setSize(300,40);
panel4.add(txt1);
JPanel line1 = new JPanel();
line1.add(panel3);
line1.add(panel4);
panel5 = new JPanel();
panel5.setSize(100,40);
panel5.add(label3);
panel6 = new JPanel();
panel6.setSize(300,40);
panel6.add(txt2);
JPanel line2 = new JPanel();
line2.add(panel5);
line2.add(panel6);
panel7 = new JPanel();
panel7.setSize(100,40);
```

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```
panel7.setLayout(new FlowLayout(FlowLayout.LEADING));
panel7.add(label4);
panel8 = new JPanel();
panel8.setSize(300, 40);
JRadioButton fbtn = new JRadioButton("Female");
fbtn.setPreferredSize(new Dimension(150, 40));
JRadioButton mbtn = new JRadioButton("Male");
mbtn.setPreferredSize(new Dimension(150, 40));
panel8.add(fbtn);
panel8.add(mbtn);
JPanel line3 = new JPanel();
line3.add(panel7);
line3.add(panel8);
panel2.add(line1);
panel2.add(line2);
panel2.add(line3);
panel9 = new JPanel();
panel9.setLayout(new FlowLayout(FlowLayout.TRAILING));
btn1 = new JButton("Save");
btn2 = new JButton("Cancel");
panel9.add(btn1);
panel9.add(btn2);
add("North",panel1);
add("West",panel2);
add("South",panel9);
}
}
class Main{
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```

24.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
private JCheckBox check1;
private JCheckBox check2;
private JCheckBox check3;
private JCheckBox check4;
public Window() {
setTitle("RadioButton Test");
setSize(400, 200);
```

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```
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new FlowLayout());
initComponents();
}
public void initComponents(){
check1 = new JCheckBox("Plain");
check2 = new JCheckBox("Bold");
check3 = new JCheckBox("Italic");
check4 = new JCheckBox("Bold/Italic");
add(check1);
add(check2);
add(check3);
add(check4);
}
}
class Main{
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```

25.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.util.*;
class Window extends JFrame {
private JPanel panel1;
private JPanel panel2;
private JLabel label1;
private JLabel label2;
private JComboBox<Integer> Box1;
private JComboBox<String> Box2;
private JComboBox<Integer> Box3;
public Window() {
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new GridLayout(2,1));
initComponents();
}
public void initComponents(){
panel1 = new JPanel();
label1 = new JLabel("ComboBox Demo");
```


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```
label1.setFont(new Font("", Font.ITALIC, 30));
panel1.add(label1);
panel2 = new JPanel();
panel2.setLayout(new GridLayout(1,4));
label2 = new JLabel("Date");
JPanel panel3 = new JPanel();
panel3.add(label2);
Box1 = new JComboBox<>();
for (int i = 1; i <= 31; i++) {
    Box1.addItem(i);
}
Box1.setSelectedIndex(5);
JPanel panel4 = new JPanel();
panel4.add(Box1);
String[] months = {"January", "February", "March", "April", "May", "June","July",
    "August", "September", "October", "November","December"};
Box2 = new JComboBox<>(months);
Box2.setSelectedIndex(3);
JPanel panel5 = new JPanel();
panel5.add(Box2);
Box3 = new JComboBox<>();
int currentYear = Calendar.getInstance().get(Calendar.YEAR);
for (int year = currentYear - 15; year <= currentYear + 10; year++) {
    Box3.addItem(year);
}
Box3.setSelectedIndex(4);
JPanel panel6 = new JPanel();
panel6.add(Box3);
panel2.add(panel3);
panel2.add(panel6);
panel2.add(panel5);
panel2.add(panel4);
add(panel1);
add(panel2);
}
}
class Main {
    public static void main(String args[]){
        Window w1 = new Window();
        w1.setVisible(true);
    }
}
```

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26.

```
import javax.swing.*;
import java.awt.*;

import java.awt.event.*;
class Window extends JFrame{
private JPanel panel1;
private JPanel panel2;
private JLabel label1;
private JSlider slider1;
private JSlider slider2;
private JSlider slider3;
private JSlider slider4;
private JSlider slider5;
private JSlider slider6;
private JSlider slider7;
private JSlider slider8;
private JSlider slider9;
private JSlider slider10;
public Window(){
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new GridLayout(2,1));
initComponents();
}
public void initComponents(){
panel1 = new JPanel();
label1 = new JLabel("Equalizer");
label1.setFont(new Font("", Font.ITALIC, 40));
panel1.add(label1);
panel2 = new JPanel();
panel2.setLayout(new GridLayout(1,10));
slider1 = new JSlider(JSlider.VERTICAL, 0, 1000, 20);
slider2 = new JSlider(JSlider.VERTICAL, 0, 100, 10);
slider3 = new JSlider(JSlider.VERTICAL, 0, 100, 35);
slider4 = new JSlider(JSlider.VERTICAL, 0, 100, 15);
slider5 = new JSlider(JSlider.VERTICAL, 0, 100, 20);
slider6 = new JSlider(JSlider.VERTICAL, 0, 100, 25);
slider7 = new JSlider(JSlider.VERTICAL, 0, 100, 10);
slider8 = new JSlider(JSlider.VERTICAL, 0, 100, 30);
slider9 = new JSlider(JSlider.VERTICAL, 0, 100, 10);
slider10 = new JSlider(JSlider.VERTICAL, 0, 100, 20);
panel2.add(slider1);
panel2.add(slider2);
panel2.add(slider3);
panel2.add(slider4);
panel2.add(slider5);
```

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```
panel2.add(slider6);
panel2.add(slider7);
```

```
panel2.add(slider8);
panel2.add(slider9);
panel2.add(slider10);
add("North",panel1);
add("Center",panel2);
}
}
class Main {
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```

27.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
private JPanel panel1;
private JPanel panel2;
private JPanel panel3;
private JPanel panel4;
private JPanel panel5;
private JPanel panel6;
public Window(){
setTitle("Login");
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setLayout(new GridLayout(2,1));
initComponents();
}
public void initComponents() {
panel1 = new JPanel();
panel1.setBorder(BorderFactory.createEmptyBorder(10,10,10,10));
panel1.setLayout(new GridLayout(3,1,30,30));
JLabel label1 = new JLabel("User Name:");
JLabel label2 = new JLabel("Password:");
JLabel label3 = new JLabel("Database:");
panel1.add(label1);
panel1.add(label2);
panel1.add(label3);
panel2 = new JPanel();
panel2.setBorder(BorderFactory.createEmptyBorder(5,5,10,10));
```

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```
panel2.setLayout(new GridLayout(3,1,20,20));

JTextField txt1 = new JTextField("admin");
JTextField txt2 = new JTextField();
String[] databse = {"common"};
JComboBox<String> box = new JComboBox<>(databse);
panel2.add(txt1);
panel2.add(txt2);
panel2.add(box);
panel3 = new JPanel();
panel3.setBorder(BorderFactory.createEmptyBorder(10,10,10,10));
panel3.setLayout(new GridLayout(3,1,10,10));
JButton btn1 = new JButton("OK");
btn1.setPreferredSize(new Dimension(50, 10));
JButton btn2 = new JButton("Close");
JButton btn3 = new JButton("Help");
panel3.add(btn1);
panel3.add(btn2);
panel3.add(btn3);
panel4 = new JPanel();
panel4.setLayout(new GridLayout(2,1));
panel5 = new JPanel();
JCheckBox check = new JCheckBox("Remember Password");
panel5.add(check);
panel6 = new JPanel();
panel6.setLayout(new FlowLayout(FlowLayout.LEADING));
JLabel label4 = new JLabel("Encryption status: Unencrypted");
panel6.add(label4);
panel4.add(panel5);
panel4.add(panel6);
add("West",panel1);
add("Center",panel2);
add("East",panel3);
add("South",panel4);
}
}
class Main {
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```

28.

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class Window extends JFrame {
```

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```
private JPanel panel1;
private JPanel panel2;
JLabel picture;
public Window() {
setTitle("RadioButtonDemo");
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents() {
JRadioButton bird = new JRadioButton("Bird");
JRadioButton cat = new JRadioButton("Cat");
JRadioButton dog = new JRadioButton("Dog");
JRadioButton rabbit = new JRadioButton("Rabbit");
JRadioButton pig = new JRadioButton("Pig");
ButtonGroup group = new ButtonGroup();
group.add(bird);
group.add(cat);
group.add(dog);
group.add(rabbit);
group.add(pig);
RadioListener myListener = new RadioListener();
bird.addActionListener(myListener);
cat.addActionListener(myListener);
dog.addActionListener(myListener);
rabbit.addActionListener(myListener);
pig.addActionListener(myListener);
picture = new JLabel(new ImageIcon("images/" + "Bird" + ".gif"));
picture.setPreferredSize(new Dimension(177, 122));
JPanel radioPanel = new JPanel();
radioPanel.setLayout(new GridLayout(0, 1));
radioPanel.setBorder(BorderFactory.createEmptyBorder(20,20,20,20));
radioPanel.add(bird);
radioPanel.add(cat);
radioPanel.add(dog);
radioPanel.add(rabbit);
radioPanel.add(pig);
add("West",radioPanel);
add("Center",picture);
}
class RadioListener implements ActionListener {
public void actionPerformed(ActionEvent e) {
picture.setIcon(new ImageIcon("images/" + e.getActionCommand()+ ".gif"));
}
}
}
```

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```
class Main {  
public static void main(String args[]){  
Window w1 = new Window();  
w1.setVisible(true);  
}}
```

30.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class Window extends JFrame {  
private JMenuItem i1, i2, i3, i4, i5, i6, i7;  
public Window() {  
setTitle("RadioButtonDemo");  
setSize(400, 200);  
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
setLocationRelativeTo(null);  
initComponents();  
}  
public void initComponents() {  
JMenuBar mb = new JMenuBar();  
JMenu file = new JMenu("File");  
JMenu edit = new JMenu("Edit");  
JMenu format = new JMenu("Format");  
JMenu view = new JMenu("View");  
JMenu help = new JMenu("Help");  
i1 = new JMenuItem("New Ctrl+N");  
i2 = new JMenuItem("Open.. Ctrl+O");  
i3 = new JMenuItem("Save Ctrl+S");  
i4 = new JMenuItem("Save As...");  
i5 = new JMenuItem("Page Setup...");  
i6 = new JMenuItem("Print.. Ctrl+P");  
i7 = new JMenuItem("Exit ");  
file.add(i1);  
file.add(i2);  
file.add(i3);  
file.add(i4);  
file.add(i5);  
file.add(i6);  
file.add(i7);  
mb.add(file);  
  
mb.add(edit);  
mb.add(format);  
mb.add(view);  
mb.add(help);  
add("North",mb);  
}
```

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```
}  
class Main {  
public static void main(String args[]){  
Window w1 = new Window();  
w1.setVisible(true);  
}  
}
```

31.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
class Window extends JFrame {  
public Window() {  
setTitle("RadioButtonDemo");  
setSize(400, 200);  
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
setLocationRelativeTo(null);  
initComponents();  
}  
public void initComponents() {  
JSlider slider = new JSlider(JSlider.HORIZONTAL, 0, 50, 25);  
slider.setPreferredSize(new Dimension(200,10));  
slider.setMinorTickSpacing(2);  
slider.setMajorTickSpacing(10);  
slider.setPaintTicks(true);  
slider.setPaintLabels(true);  
add(slider);  
}  
}  
class Main {  
public static void main(String args[]){  
Window w1 = new Window();  
w1.setVisible(true);  
}  
}
```

32.

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;  
  
class Window extends JFrame {  
private JPanel panel1;  
private JPanel panel2;  
private JPanel panel3;  
private JPanel panel4;  
private JPanel panel5;  
private JPanel panel6;
```

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```
private JPanel panel7;
private JPanel panel8;
private JPanel panel9;
public Window() {
setTitle("RadioButtonDemo");
setSize(400, 200);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
initComponents();
}
public void initComponents() {
panel1 = new JPanel();
panel1.setLayout(new GridLayout(2,1));
panel4 = new JPanel();
panel4.setLayout(new FlowLayout(FlowLayout.LEADING));
panel5 = new JPanel();
JLabel label1 = new JLabel("J Slider Without Tick Marks");
panel4.add(label1);
JSlider slider1 = new JSlider(JSlider.HORIZONTAL, 0, 50, 20);
slider1.setPreferredSize(new Dimension(300,30));
panel5.add(slider1);
panel1.add(panel4);
panel1.add(panel5);
panel2 = new JPanel();
panel2.setLayout(new GridLayout(2,1));
panel6 = new JPanel();
panel6.setLayout(new FlowLayout(FlowLayout.LEADING));
panel7 = new JPanel();
JLabel label2 = new JLabel("J Slider With Tick Marks");
panel6.add(label2);
JSlider slider2 = new JSlider(JSlider.HORIZONTAL, 0, 50, 35);
slider2.setPreferredSize(new Dimension(300,50));
slider2.setMinorTickSpacing(5);
slider2.setMajorTickSpacing(20);
slider2.setPaintTicks(true);
panel7.add(slider2);
panel2.add(panel6);
panel2.add(panel7);
panel3 = new JPanel();

panel3.setLayout(new GridLayout(2,1));
panel8 = new JPanel();
panel8.setLayout(new FlowLayout(FlowLayout.LEADING));
panel9 = new JPanel();
JLabel label3 = new JLabel("J Slider With Tick Marks and Labels");
panel8.add(label3);
JSlider slider3 = new JSlider(JSlider.HORIZONTAL, 0, 100, 25);
slider3.setPreferredSize(new Dimension(300,30));
```


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```
slider3.setMinorTickSpacing(5);
slider3.setMajorTickSpacing(20);
slider3.setPaintTicks(true);
slider3.setPaintLabels(true);
panel9.add(slider3);
panel3.add(panel8);
panel3.add(panel9);
add("North",panel1);
add("Center",panel2);
add("South",panel3);
}
}
class Main {
public static void main(String args[]){
Window w1 = new Window();
w1.setVisible(true);
}
}
```