YEAR II **SEM** III

CS8392

OBJECT ORIENTED PROGRAMMING
(Common to CSE, EEE, EIE, ICE, IT)

UNIT NO 5

EVENT DRIVEN PROGRAMMING

5.7 Swing Components --Text Fields, Text Areas, Buttons

COMPUTER SCIENCE & ENGINEERING

Swing Components

Text Fields

The object of a JTextField class is a text component that allows the editing of a single line text. It inherits JTextComponent class.

JTextField class declaration

public class JTextField extends JTextComponent implements SwingConstants

JTextField()   - Creates a new TextField
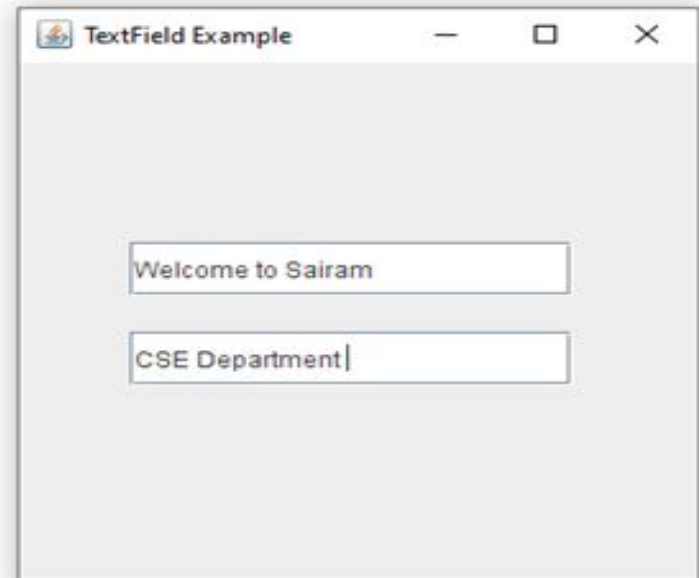
JTextField(String text)   - Creates a new TextField initialized with the specified text.

JTextField(String text, int columns) -   Creates a new TextField initialized with the specified

text and columns.

JTextField(int columns)   - Creates a new empty TextField with the specified number of

columns.

Swing Components - Text Fields

```java
import javax.swing.*;

class TextFieldExample

{

public static void main(String args[])

  {

  JFrame f= new JFrame("TextField Example");

  JTextField t1,t2;

  t1=new JTextField("Welcome to Sairam");

  t1.setBounds(50,100, 200,30);

  t2=new JTextField();

  t2.setBounds(50,150, 200,30);

  f.add(t1); f.add(t2);

  f.setSize(400,400);

  f.setLayout(null);

  f.setVisible(true);

  }

}
```

Swing Components - Text Areas

Text Areas

The object of a JTextArea class is a multi line region that displays text. It allows the editing of multiple line text. It inherits JTextComponent class

JTextArea class declaration

> **public class** JTextArea **extends** JTextComponent

JTextArea()   - Creates a text area that displays no text initially.

JTextField(String text)   - Creates a text area that displays specified text initially.

JTextArea(int row, int columns) -   Creates a new TextArea initialized with the specified

                               number of rows and columns.

JTextArea(String s, int row, int columns) - Creates a text area with the specified number

                               of rows and columns that displays specified text.
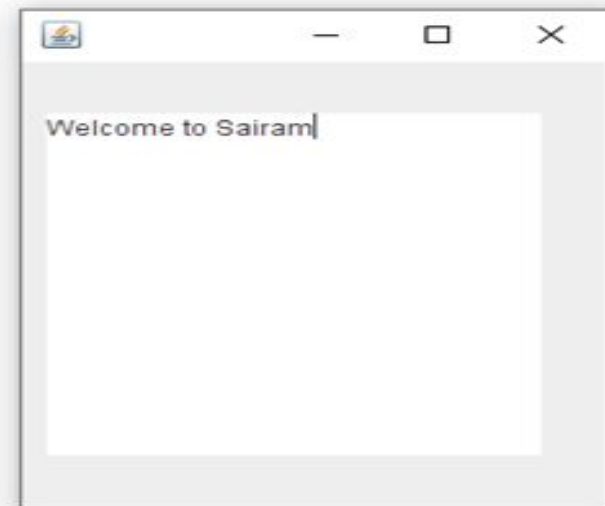
Swing Components - Text Areas

```java
import javax.swing.*;

public class TextAreaExample
{
    TextAreaExample(){
        JFrame f= new JFrame();
        JTextArea area=new JTextArea();
        area.setBounds(10,30, 200,200);
        f.add(area);
        f.setSize(300,300);
        f.setLayout(null);
        f.setVisible(true);
    }

    public static void main(String args[])
    {
        new TextAreaExample();
    }
}
```


Welcome to Sairam

Swing Components - JButton

JButton

The JButton class is used to create a labeled button that has platform independent implementation. The application result in some action when the button is pushed. It inherits AbstractButton class.
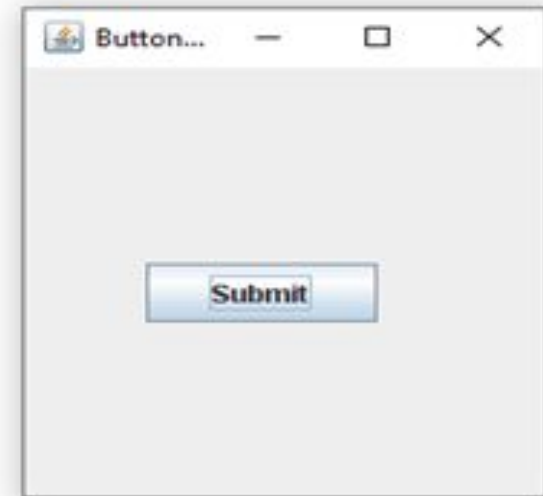
JButton class declaration

public class JButton **extends** AbstractButton **implements** Accessible

JButton()   -   It creates a button with no text and icon.

JButton(String s) -   It creates a button with the specified text.

JButton(Icon i)   -   It creates a button with the specified icon object.

Swing Components - Text Areas

```java
import javax.swing.*;

public class ButtonExample {

public static void main(String[] args) {

    JFrame f=new JFrame("Button Example");

    JButton b=new JButton("Submit");

    b.setBounds(50,100,95,30);

    f.add(b);

    f.setSize(400,400);

    f.setLayout(null);

    f.setVisible(true);

}

}
```

Swing Components

JTextField and Action, Focus, Document listener