Java Server Pages(2)
Directive dan Action
Pemrograman Lanjut

Praktikum 1.

Contoh penggunaan page directives

```
<%@ page language="Java" import="java.util.*"
   session="true" buffer="12kb" autoFlush="true"
   errorPage="error.jsp" isThreadSafe="false"
%>

<HTML>
<HEAD>
   <TITLE>Contoh Page Directive pada JSP</TITLE>
</HEAD>
<BODY>
   <H1>
   Contoh Page Directive pada JSP
   </H1>
</BODY>
</HTML>
```

Praktikum 2.

Contoh include directive.
IncludeDirective.jsp

```
<HTML>
<HEAD>
   <TITLE>Contoh Include Directive pada JSP</TITLE>
</HEAD>
<BODY>
 <H1>
<%@ include file="IncludeDirective.html" %>
 </H1>
 <%@ include file="Date.jsp" %>
</BODY>
</HTML>
```

IncludeDirective.html

```
<HTML>
<HEAD>
   <TITLE></TITLE>
</HEAD>
<BODY>
   <P> Contoh Include Directive pada JSP </P> <BR>
</BODY>
</HTML>
```

```
<HTML>
<HEAD>
  <TITLE></TITLE>
</HEAD>
<BODY>
<%@ page import="java.util.Date" %>
<%="Tanggal hari ini : " + new Date() %>
</BODY>
</HTML>
```

Panggil IncludeDirective.jsp di browser.

Praktikum 3.
Contoh penggunaan <jsp:include>.
WhatsNew.jsp

```
<HTML>
<HEAD>
<TITLE>What's New at JspNews.com</TITLE>
<LINK REL=STYLESHEET
    HREF="JSP-Styles.css"
    TYPE="text/css">
</HEAD>

<BODY>
<TABLE BORDER=5 ALIGN="CENTER">
 <TR><TH CLASS="TITLE">
    What's New at JspNews.com</TABLE>
<P>
Here is a summary of our three most recent news stories:
<OL>
 <LI><jsp:include page="Item1.html" flush="true" />
 <LI><jsp:include page="Item2.html" flush="true" />
 <LI><jsp:include page="Item3.html" flush="true" />
</OL>
</BODY>
</HTML>
```

Item1.html

```
<B>Bill Gates acts humble.</B> In a startling and unexpected
development, Microsoft big wig Bill Gates put on an open act of
humility yesterday.
<A HREF="http://www.microsoft.com/Never.html">More details...</A>
```

Item2.html

```
<B>Scott McNealy acts serious.</B> In an unexpected twist,
wisecracking Sun head Scott McNealy was sober and subdued at
yesterday's meeting.
<A HREF="http://www.sun.com/Imposter.html">More details...</A>
```

```
<B>Larry Ellison acts conciliatory.</B> Catching his competitors
off guard yesterday, Oracle prez Larry Ellison referred to his
rivals in friendly and respectful terms.
<A HREF="http://www.oracle.com/Mistake.html">More details...</A>
```

Praktikum4.

Contoh penggunaan <jsp:forward>
Forward.jsp

```
<HTML>
<HEAD>
   <TITLE>Contoh jsp:forward</TITLE>
</HEAD>
<BODY>
<jsp:forward page="WhatsNew.jsp"/>
</BODY>
</HTML>
```

Perhatikan bahwa yang ditampilkan adalah hasil dari WhatsNew.jsp tetapi alamat
pada address bar adalah tetap Forward.jsp !.

Praktikum 5.

Contoh penggunaan contentType. Simpan sebagai JSP.

```
First    Last    Email Address
Marty   Hall    hall@corewebprogramming.com
Larry   Brown brown@corewebprogramming.com
Bill     Gates   gates@sun.com
Larry   Ellison ellison@microsoft.com
<%@ page contentType="application/vnd.ms-excel" %>
<%-- There are tabs, not spaces, between columns. --%>
```

Praktikum 6.

Contoh penggunaan Plug-In Applet. Taruh semua file.java di folder process/classes.
(jangan lupa compile dgn javac).
PluginApplet.java

```java
import javax.swing.*;

/** An applet that uses Swing and Java 2D and thus requires
 *  the Java Plug-In.
 */

public class PluginApplet extends JApplet {
  public void init() {
    WindowUtilities.setNativeLookAndFeel();
    setContentPane(new TextPanel());
  }
}
```

TextPanel.java

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

/** JPanel that places a panel with text drawn at various angles
 *  in the top part of the window and a JComboBox containing
 *  font choices in the bottom part.
 */

public class TextPanel extends JPanel
                implements ActionListener {
  private JComboBox fontBox;
  private DrawingPanel drawingPanel;

  public TextPanel() {
    GraphicsEnvironment env =
      GraphicsEnvironment.getLocalGraphicsEnvironment();
    String[] fontNames = env.getAvailableFontFamilyNames();
    fontBox = new JComboBox(fontNames);
    setLayout(new BorderLayout());
    JPanel fontPanel = new JPanel();
    fontPanel.add(new JLabel("Font:"));
    fontPanel.add(fontBox);
    JButton drawButton = new JButton("Draw");
    drawButton.addActionListener(this);
    fontPanel.add(drawButton);
    add(fontPanel, BorderLayout.SOUTH);
    drawingPanel = new DrawingPanel();
    fontBox.setSelectedItem("Serif");
    drawingPanel.setFontName("Serif");
    add(drawingPanel, BorderLayout.CENTER);
  }

  public void actionPerformed(ActionEvent e) {
    drawingPanel.setFontName((String)fontBox.getSelectedItem());
    drawingPanel.repaint();
  }
}
```

WindowUtilities.java

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

/** A few utilities that simplify using windows in Swing.
 */
public class WindowUtilities {

  /** Tell system to use native look and feel, as in previous
   *  releases. Metal (Java) LAF is the default otherwise.
   */
```

```java
public static void setNativeLookAndFeel() {
  try {
    UIManager.setLookAndFeel
      (UIManager.getSystemLookAndFeelClassName());
  } catch(Exception e) {
    System.out.println("Error setting native LAF: " + e);
  }
}

public static void setJavaLookAndFeel() {
  try {
    UIManager.setLookAndFeel
      (UIManager.getCrossPlatformLookAndFeelClassName());
  } catch(Exception e) {
    System.out.println("Error setting Java LAF: " + e);
  }
}

public static void setMotifLookAndFeel() {
  try {
    UIManager.setLookAndFeel
      ("com.sun.java.swing.plaf.motif.MotifLookAndFeel");
  } catch(Exception e) {
    System.out.println("Error setting Motif LAF: " + e);
  }
}

/** A simplified way to see a JPanel or other Container.
 *  Pops up a JFrame with specified Container
 *  as the content pane.
 */

public static JFrame openInJFrame(Container content,
                                  int width,
                                  int height,
                                  String title,
                                  Color bgColor) {
  JFrame frame = new JFrame(title);
  frame.setBackground(bgColor);
  content.setBackground(bgColor);
  frame.setSize(width, height);
  frame.setContentPane(content);
  //frame.addWindowListener(new ExitListener());
  frame.setVisible(true);
  return(frame);
}
```

```
  /** Uses Color.white as the background color. */

  public static JFrame openInJFrame(Container content,
                          int width,
                          int height,
                          String title) {
    return(openInJFrame(content, width, height, title, Color.white));
  }

  /** Uses Color.white as the background color, and the
   *  name of the Container's class as the JFrame title.
   */
  public static JFrame openInJFrame(Container content,
                          int width,
                          int height) {
    return(openInJFrame(content, width, height,
              content.getClass().getName(),
              Color.white));
  }
}
```

PluginApplet.jsp

```
<!-- Example of using jsp:plugin for an applet that uses Java 2. -->
<HTML>
<HEAD>
<TITLE>Using jsp:plugin</TITLE>
<LINK REL=STYLESHEET
    HREF="JSP-Styles.css"
    TYPE="text/css">
</HEAD>

<BODY>

<TABLE BORDER=5 ALIGN="CENTER">
  <TR><TH CLASS="TITLE">
    Using jsp:plugin</TABLE>
<P>
<CENTER>
<jsp:plugin type="applet"
        code="PluginApplet.class"
        width="370" height="420">
</jsp:plugin>
</CENTER>

</BODY>
</HTML>
```

DrawingPanel.java

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

/** A window with text drawn at an angle. The font is
 *  set by means of the setFontName method.
 */

class DrawingPanel extends JPanel {
  private Ellipse2D.Double circle =
    new Ellipse2D.Double(10, 10, 350, 350);
  private GradientPaint gradient =
    new GradientPaint(0, 0, Color.red, 180, 180, Color.yellow,
              true); // true means to repeat pattern
  private Color[] colors = { Color.white, Color.black };

  public void paintComponent(Graphics g) {
    super.paintComponent(g);
    Graphics2D g2d = (Graphics2D)g;
    g2d.setPaint(gradient);
    g2d.fill(circle);
    g2d.translate(185, 185);
    for (int i=0; i<16; i++) {
      g2d.rotate(Math.PI/8.0);
      g2d.setPaint(colors[i%2]);
      g2d.drawString("jsp:plugin", 0, 0);
    }
  }

  public void setFontName(String fontName) {
    setFont(new Font(fontName, Font.BOLD, 35));
  }
}
```

Praktikum 7. Contoh penggunaan contentType. Simpan sebagai JSP.

```html
<HTML>
<HEAD>
<TITLE>Mengakses Excel</TITLE>
</HEAD>
<BODY>
<%@ page contentType="application/vnd.ms-excel" %>
<B>DAFTAR PENJUALAN PRODUK A</B>
<TABLE BORDER="1">
<TR><TH>Kota</TH><TH>2002</TH><TH>2003</TH></TR>
<TR><TD>Semarang</TD><TD>500</TD><TD>403</TD></TR>
<TR><TD>Solo</TD><TD>400</TD><TD>410</TD></TR>
<TR><TD>Kudus</TD><TD>200</TD><TD>230</TD></TR>
<TR><TD>Pati</TD><TD>150</TD><TD>167</TD></TR>
</TABLE>
</BODY>
</HTML>
```

Praktikum 8. Penggunaan atribut isErrorPage.
errorPage.jsp

```
<HTML>
<HEAD>
<TITLE>Tes Atribut errorPage</TITLE>
</HEAD>
<BODY>

<%@ page errorPage="pesan.jsp" %>

<%
  String strBilA = request.getParameter("bila");
  String strBilB = request.getParameter("bilb");

  float bilA = Float.valueOf(strBilA).floatValue();
  float bilB = Float.valueOf(strBilB).floatValue();

  out.println(bilA + "/" + bilB + " = " + bilA / bilB);
%>

</BODY>
</HTML>
```

pesan.jsp

```
<HTML>
<HEAD>
<TITLE>Halaman Pesan Kesalahan</TITLE>
</HEAD>
<BODY>

<%@ page isErrorPage="true" %>

Pesan kesalahan ini berasal dari<BR>
dokumen errorpage.jsp karena ada<BR>
kesalahan berikut:<BR>
<B><%= exception %></B><BR>

</BODY>
</HTML>
```

Jalankan program dengan cara sebagai berikut:
http://localhost:8080/process/errorPage.jsp?bila=23&bilb=2
http://localhost:8080/process/errorPage.jsp?bila=23&bilb=b

Praktikum 9. Contoh penggunaan <jsp:forward> yang melibatkan <jsp:param>
forward2.jsp

```
<HTML>
<HEAD>
<TITLE>Contoh jsp:forward</TITLE>
</HEAD>
<BODY>
<jsp:forward page="hitung.jsp">
  <jsp:param name="bila" value="10" />
  <jsp:param name="bilb" value="20" />
</jsp:forward>
</BODY>
</HTML>
```

hitung.jsp

```
<HTML>
<HEAD>
<TITLE>Contoh Dokumen di-forward</TITLE>
</HEAD>
<BODY>

<%
  String StrBilA = request.getParameter("bila");
  String StrBilB = request.getParameter("bilb");

  int bilA = Integer.valueOf(StrBilA).intValue();
  int bilB = Integer.valueOf(StrBilB).intValue();

  out.println(bilA + " + " + bilB + " = " +
        (bilA + bilB));
%>

</BODY>
</HTML>
```

Praktikum 10 jspmurni.jsp
Contoh penggunaan `<%@ page contentType%>`

```
<%@ page contentType="text/plain" %>

<html>
    <head>
        <title>JSP Page</title>
    </head>
    <body>
        <%
         out.println("INI ADALAH FILE TEKS BIASA") ;
         out.println("Waktu Sekarang = " + new java.util.Date()) ;
        %>

    </body>
</html>
```

Ubahlah menjadi **<%@ page contentType="text/html" %>** apa yang terjadi ?