

- **Supporting Document For J2EE Material on Servlets**

Servlet Examples

Example 1: Servlet generating Plain Text

```
import java.io.*;
import java.net.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class HelloWorld extends HttpServlet {
    public void doGet(HttpServletRequest request, HttpServletResponse response) throws
        ServletException, IOException
    {
        PrintWriter out = response.getWriter();
        out.println("Hello, world!");
    }
}
```

Example2: Servlet generating HTML

```
import java.io.*;
import java.net.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class HelloWorld extends HttpServlet {
    public void doGet(HttpServletRequest request, HttpServletResponse response) throws
        ServletException, IOException
    {
        PrintWriter out = response.getWriter();
        out.println("<html>\n" + "<head><title>Hello World</title></head>\n" +
            "<body>\n" + "<h1>Hello, world!</h1>\n" +
            "</body></html>");
    }
}
```

Example 3: Servlet Communicating with Database

```
import java.io.*;
import java.net.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class s1 extends HttpServlet
{
    private Connection conn;
    private Statement st;
    private ResultSet res;
    protected void processRequest(HttpServletRequest request,
                                   HttpServletResponse response)
                                   throws ServletException, IOException
    {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/e","root","amirtha");
            st=conn.createStatement();
            res=st.executeQuery("select * from employee2");
            int i=0;
            out.println("<html>");
            out.println("<body>");
            while(res.next())
            {
                out.println(res.getInt(1) );
                out.println( res.getString(2)+ "<br> ");
            }
            out.println("</body></html>");
            out.close(); st.close(); conn.close();
        }catch (ClassNotFoundException err) { }
        catch (SQLException err) { }
    }
}
```

```

protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
    processRequest(request, response);
}
protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
    processRequest(request, response);
}
}

```

- For the Example above create a table employee2(mysql) under database e with with 2 fields of type char array or varchar

Example 4: Servlet getting form information and processing it and storing it in database.

Client Side Form – HTML CODE

```

<html>
<head>
<script>
var flag = false;
var flag1 = false;
function validate()
{
    var s = form1.upwd.value;
    var repwd1 = /^\\w{6,8}$/;
    if ( !repwd1.test(s) )
    {
        alert("enter a alphanumeric set of min 6 or max 8 chars");
        form1.upwd.value= " ";
    }
    else
        flag = true;
}

```

```

function check()
{
if ( form1.upwd.value != form1.cpwd.value )
{
    alert("password doesn't match")
    form1.cpwd.value= " ";
}
else
flag = true;
}
function check()
{
if ( form1.upwd.value != form1.cpwd.value )
{
    alert("password doesn't match")
    form1.cpwd.value= " ";
}
else
flag1 = true;
}
</script>
</head>
<body>
<form name ="form1" action="Registration" method="GET">
<table border ="1" width=30px height=30px>
<tr><td>
<strong>User_Name:</strong>
<input type="text" name="user"></td></tr>
<tr><td><strong>Password:</strong>
<input type="password" name="upwd" onblur="validate()" ></td></tr>
<tr><td><strong>Confirm_Password:</strong>
<input type="password" name="cpwd" onblur="check()"></td></tr>
</table>
<input type="submit" name="button" value ="finalize">
</form>
</body>
</html>

```

Server Side Code - SERVLET CODE for Example 4

```
import java.io.*;
import java.net.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class Registration extends HttpServlet {
    protected void doGet(HttpServletRequest request,
        HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/e","root","amirtha");
            PreparedStatement st=con.prepareStatement("insert into re values (?,?)" );
            st.setString( 1 , request.getParameter("user") );
            st.setString( 2 , request.getParameter("upwd"));

            st.executeUpdate();
            con.commit();
            st.close();
            con.close();
        }catch (ClassNotFoundException err) { System.out.println(err); }
        catch (SQLException err) { System.out.println(err); }

        out.close();
    }
}
```

- **For the Example above create a table re(mysql)under database e with with 2 fields of type char array or varchar**

Example 5: Servlet getting information from database and form, processing using both information and storing it in database and display on the servlet window.

Client Form-HTML CODE

```
<html>
<head>
<title></title>
</head>
<body bgcolor="steel blue">
<form method="GET" action="vser">
<table border="1" align="center" style="font-size:20pt" bgcolor="antique white">
<th colspan="2">Vote for Ur Favourite Composer</th>
<tr><td>
<input type="radio" name="Composer" value="Illayaraja">Illayaraja<br \>
</td></tr>
<tr><td>
<input type="radio" name="Composer" value="Rehman">A.R.Rehman<br \>
</td></tr>
<tr><td>
<input type="radio" name="Composer" value="Yuvan">Yuvan Shankar Raja<br \>
</td></tr>
<tr><td>
<input type="radio" name="Composer" value="Harris Jeyraj">Harris Jeyraj<br \>
</td></tr>
<tr><td>
<input type="radio" name="Composer" value="G.V">G.V.Prakash<br \>
</td></tr>
<tr><td>
<input type="submit" name="vote" value="vote" style="font-size:20pt">
</td></tr>
</table>
</form>
</body>
</html>
```

Server Side Code-SERVLET for Example 5

```
import java.io.*;
import java.util.*;
import java.net.*;
import java.sql.*;
import java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;

class Cpr
{
    public String name;
    public int count;
    public Cpr( String n , int c)
    {
        name = n;
        count = c;
    }
}

public class vser extends HttpServlet {
    public Cpr rSet(HttpServletRequest req,HttpServletResponse response) throws
    ServletException, IOException
    {
        Cpr cobj[]= new Cpr[ 5 ];
        int i = 0;
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/e","root","amirtha");
            Statement st1 = conn.createStatement();
            ResultSet res;
            res=st1.executeQuery("select * from poll");
            while(res.next())
                cobj[i++] = new Cpr(res.getString(1),res.getInt(2));
            st1.close();
        }
    }
}
```

```

        conn.close();
    } catch (ClassNotFoundException err) { }
    catch (SQLException err) { }
    int j = 0;
    for (j = 0 ; j < cobj.length ; j++ )
    {
        if (cobj[ j ].name.equalsIgnoreCase(req.getParameter("Composer")))
        {
            cobj[ j ].count++;
            break;
        }
    }
    displayServlet(cobj,response);
    return cobj[j];
}

public void displayServlet(Cpr c1[], HttpServletResponse response)
throws ServletException, IOException
{
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html><title>Display Form</title>" +
        "<BODY BGCOLOR=\"orange\">\n" +
        "<H1 ALIGN=\"CENTER\">" + "MOST FAVOURITE COMPOSER" + "</H1>\n" +
        "<TABLE BORDER=1 ALIGN=CENTER>\n" +
        "<TR BGCOLOR=\"red\">\n" +
        "<TH style=\"color :orange\"><h2>Composer Name</h2><TH><h3>vote</h3>");
    out.println("<UL>");
    for(int i=0; i<c1.length; i++) {

        out.println("<TR BGCOLOR=\"red\">");
        out.println("<TD style=\"font-size:20pt ; color :orange\">" + c1[i].name);
        out.println("<TD style=\"font-size:20pt\">" + c1[i].count);
        out.println("</TR>");
    }
    out.println("</TABLE>\n</BODY></HTML>");
}

public void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();

```



```

Cpr co = rSet(request ,response);
try
{

    Class.forName("com.mysql.jdbc.Driver");
Connection
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/e","root","amirtha");
    PreparedStatement st = conn.prepareStatement("update poll set vct = ? Where name =?");
        st.setInt(1,co.count);
        st.setString(2,co.name);
        st.executeUpdate();
        st.close();
        conn.commit();
        conn.close();
    }catch (ClassNotFoundException err) { }
    catch (SQLException err) { }
}
}

```

- For the Example above create a table poll(mysql) under database e with name(varchar/char(20) and vct(int/number) as fields

Example 6: Servlet processing form information and displaying the information on servlet window.

Client Form –HTML CODE using XHTML RULES and usage of <pre> and tags(deprecated)

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
    <TITLE>E-BILLING</TITLE>
</HEAD>
<BODY BGCOLOR="aqua">
<H1 ALIGN="CENTER">ORDER FORM</H1>
<FORM name = "f1" id="f" ACTION="showParameters" METHOD="post">
    <font face="Times Roman" size="6px" color="red">
    <pre>
Item Name      :<INPUT TYPE="TEXT" NAME="itemNum" >
Quantity       :<INPUT TYPE="TEXT" NAME="quantity">

```

```

Price Each      :<INPUT TYPE="TEXT" NAME="price" >
First Name      :<INPUT TYPE="TEXT" NAME="firstName">
Last Name       :<INPUT TYPE="TEXT" NAME="lastName">
Middle Initial  :<INPUT TYPE="TEXT" NAME="initial">
Shipping Address:<TEXTAREA NAME="address" ROWS=3 COLS=40></TEXTAREA>
Card Details    :
                <INPUT TYPE="RADIO" NAME="cardType" VALUE="Visa">Visa
                <INPUT TYPE="RADIO" NAME="cardType" VALUE="Master Card">Master Card
                <INPUT TYPE="RADIO" NAME="cardType" VALUE="Mastero">Mastero
                <INPUT TYPE="RADIO" NAME="cardType" VALUE="credit">Credit
                <INPUT TYPE="RADIO" NAME="cardType" VALUE="other">other
Credit Card Number:<INPUT TYPE="PASSWORD" NAME="cardNum">
Pin Num         :<INPUT TYPE="PASSWORD" NAME="cardNum">
</font>
</PRE>
<CENTER>
  <INPUT TYPE="SUBMIT" VALUE="Submit Order">
</CENTER>
</FORM>
</BODY>
</HTML>

```

**Server Side Code-Servlet Code for Example 6 using `getParameterNames ()`
and `getParameterValues ()`**

```

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;
public class showParameters extends HttpServlet {
    public void doPost(HttpServletRequest request,HttpServletResponse response)
        throws ServletException, IOException
    {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String title = "Reading All Request Parameters";
        out.println("<html><title>Display Form</title>" +
            "<BODY BGCOLOR=\"yellow\">\n" +
            "<H1 ALIGN=CENTER>" + title + "</H1>\n" +

```

```
"<TABLE BORDER=1 ALIGN=CENTER>\n" +  
"<TR BGCOLOR=\"#FFAD00\">\n" +  
"<TH>Parameter Name<TH>Parameter Value(s)");
```

```
Enumeration paramNames = request.getParameterNames();
```

```
while(paramNames.hasMoreElements())
```

```
{  
    String paramName = (String)paramNames.nextElement();  
    out.println("<TR><TD>" + paramName + "\n<TD>");  
    String[] paramValues = request.getParameterValues(paramName);
```

```
    if (paramValues.length == 1)
```

```
{  
        String paramValue = paramValues[0];  
        if (paramValue.length() == 0)  
            out.print("<I>No Value</I>");  
        else  
            out.print(paramValue);  
    }
```

```
else
```

```
{  
    out.println("<UL>");  
    for(int i=0; i<paramValues.length; i++)  
        out.println("<LI>" + paramValues[i]);  
    out.println("</UL>");  
}
```

```
}  
out.println("</TABLE>\n</BODY></HTML>");
```

```
}  
}
```