ITL 3 PRACTICAL - 07

**AIM**

**Design reusable components of the form using taglib.**

**The JSP taglib directive is used to define a tag library that defines many tags. We use the TLD (Tag Library Descriptor) file to define the tags. In the custom tag section we will use this tag so it will be better to learn it in custom tag.**

**Syntax JSP Taglib directive**

**<%@ taglib uri="uriofthetaglibrary" prefix="prefixoftaglibrary" %>**

**Form handling:**

**package foo;**

**import java.util.\*;**

**public class FormBean {**

**private String firstName;**

**private String lastName;**

**private String email;**

**private String userName;**

**private String password1;**

**private String password2;**

**private String zip;**

**private String[] subjects;**

**private String genders;**

**private Hashtable errors;**

**public boolean validate() {**

**boolean allOk=true;**

**if (firstName.equals("")) {**

**errors.put("Please enter your first name");**

**firstName="";**

**allOk=false;**

**}**

**if (lastName.equals("")) {**

**errors.put("Please enter your last name");**

**lastName="";**

**allOk=false;**

**}**

**if (email.equals("") || (email.indexOf('@') == -1)) {**

**errors.put("Please enter a valid email address");**

**email="";**

**allOk=false;**

**}**

**if (userName.equals("")) {**

**errors.put("Please enter a username");**

**userName="";**

**allOk=false;**

**}**

**if (password1.equals("") ) {**

**errors.put("Please enter a valid password");**

**password1="";**

**allOk=false;**

**}**

**if (!password1.equals("") && (password2.equals("") || !password1.equals(password2))) {**

**errors.put("Please confirm your password");**

**password2="";**

**allOk=false;**

**}**

**if (zip.equals("") || zip.length() !=6 ) {**

**errors.put("Please enter a valid zip code");**

**zip="";**

**allOk=false;**

**} else {**

**try {**

**int x = Integer.parseInt(zip);**

**}**

**catch (NumberFormatException e) {**

**errors.put("Please enter a valid zip code");**

**zip="";**

**allOk=false;**

**}**

**}**

**return allOk;**

**}**

**public String getErrorMsg(String s) {**

**String errorMsg =(String)errors.get(s.trim());**

**return (errorMsg == null) ? "":errorMsg;**

**}**

**public FormBean() {**

**firstName="";**

**lastName="";**

**email="";**

**userName="";**

**password1="";**

**password2="";**

**zip="";**

**subjects = new String[] { "1" };**

**genders="";**

**errors = new Hashtable();**

**}**

**public String getFirstName() {**

**return firstName;**

**}**

**public String getLastName() {**

**return lastName;**

**}**

**public String getEmail() {**

**return email;**

**}**

**public String getUserName() {**

**return userName;**

**}**

**public String getPassword1() {**

**return password1;**

**}**

**public String getPassword2() {**

**return password2;**

**}**

**public String getZip() {**

**return zip;**

**}**

**public String getGender() {**

**return genders;**

**}**

**public String[] getSubjects() {**

**return subjects;**

**}**

**public String isCbSelected(String s) {**

**boolean found=false;**

**if (!subjects[0].equals("1")) {**

**for (int i = 0; i < subjects.length; i++) {**

**if (subjects[i].equals(s)) {**

**found=true;**

**break;**

**}**

**}**

**if (found) return "checked";**

**}**

**return "";**

**}**

**public String isRbSelected(String s) {**

**return (genders.equals(s))? "checked" : "";**

**}**

**public void setFirstName(String fname) {**

**firstName =fname;**

**}**

**public void setLastName(String lname) {**

**lastName =lname;**

**}**

**public void setEmail(String eml) {**

**email=eml;**

**}**

**public void setUserName(String u) {**

**userName=u;**

**}**

**public void  setPassword1(String p1) {**

**password1=p1;**

**}**

**public void  setPassword2(String p2) {**

**password2=p2;**

**}**

**public void setZip(String z) {**

**zip=z;**

**}**

**public void setSubjects(String[] Subjects) {**

**subjects= Subjects;**

**}**

**public void setErrors(String key, String msg) {**

**errors.put(key,msg);**

**}**

**public void setGender(String n) {**

**genders=n;**

**}}**

**process.jsp**

**<%@ page import="java.util.\*" %>**

**<%!**

**ResourceBundle bundle =null;**

**public void jspInit() {**

**bundle = ResourceBundle.getBundle("forms");**

**}**

**%>**

**<jsp:useBean id="formHandler" class="foo.FormBean" scope="request">**

**<jsp:setProperty name="formHandler" property="\*"/>**

**</jsp:useBean>**

**<%**

**if (formHandler.validate()) {**

**%>**

**<jsp:forward page="<%=bundle.getString(\"process.success\")%>"/>**

**<%**

**}  else {**

**%>**

**<jsp:forward page="<%=bundle.getString(\"process.retry\")%>"/>**

**<%**

**}**

**%>**

**success.jsp**

**<jsp:useBean id="formHandler" class="foo.FormBean" scope="request"/>**

**<html>**

**<body>**

**<center>**

**<table cellpadding=4 cellspacing=2 border=0>**

**<th bgcolor="#CCCCFF" colspan=2>**

**<font size=5>USER REGISTERATION SUCCESSFUL!</font>**

**</th>**

**<font size=4>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<b>First Name</b>**

**<br>**

**<jsp:getProperty name="formHandler" property="firstName"/>**

**</td>**

**<td valign=top>**

**<b>Last Name</b>**

**<br>**

**<jsp:getProperty name="formHandler" property="lastName"/>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<b>E-Mail</b>**

**<br>**

**<jsp:getProperty name="formHandler" property="email"/>**

**<br>**

**</td>**

**<td valign=top>**

**<b>Zip Code</b>**

**<br>**

**<jsp:getProperty name="formHandler" property="zip"/>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top colspan=2>**

**<b>User Name</b>**

**<br>**

**<jsp:getProperty name="formHandler" property="userName"/>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td colspan=2 valign=top>**

**<b>Subjects></b>**

**<br>**

**<%**

**String[] subjects = formHandler.getSubjects();**

**if (!subjects[0].equals("1")) {**

**out.println("<ul>");**

**for (int i=0; i<subjects.length; i++)**

**out.println("<li>"+subjects[i]);**

**out.println("</ul>");**

**} else out.println("Nothing was selected");**

**%>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td colspan=2 valign=top>**

**<b>Gender</b>**

**<br>**

**<jsp:getProperty name="formHandler" property="genders"/>**

**</td>**

**</tr>**

**</font>**

**</table>**

**</center>**

**</body>**

**</html>**

**retry.jsp**

**<jsp:useBean id="formHandler" class="foo.FormBean" scope="request"/>**

**<html>**

**<body>**

**<form action="process.jsp" method=post>**

**<center>**

**<table cellpadding=4 cellspacing=2 border=0>**

**<th bgcolor="#CCCCFF" colspan=2>**

**<font size=5>USER REGISTERATION</font>**

**<br>**

**<font size=1><sup>\*</sup> Required Fields </font>**

**</th>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<B>First Name<sup>\*</sup></B>**

**<br>**

**<input type="text" name="firstName" value='<%=formHandler.getFirstName()%>' size=15 maxlength=20>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("firstName")%></font>**

**</td>**

**<td valign=top>**

**<B>Last Name<sup>\*</sup></B>**

**<br>**

**<input type="text" name="lastName" value='<%=formHandler.getLastName()%>' size=15 maxlength=20>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("lastName")%></font>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<B>E-Mail<sup>\*</sup></B>**

**<br>**

**<input type="text" name="email" value='<%=formHandler.getEmail()%>' size=25  maxlength=125>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("email")%></font>**

**</td>**

**<td  valign=top>**

**<B>Zip Code<sup>\*</sup></B>**

**<br>**

**<input type="text" name="zip" value='<%=formHandler.getZip()%>' size=5  maxlength=5>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("zip")%></font>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top colspan=2>**

**<B>User Name<sup>\*</sup></B>**

**<br>**

**<input type="text" name="userName" size=10 value='<%=formHandler.getUserName()%>'  maxlength=10>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("userName")%></font>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<B>Password<sup>\*</sup></B>**

**<br>**

**<input type="password" name="password1" size=10 value='<%=formHandler.getPassword1()%>'  maxlength=10>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("password1")%></font>**

**</td>**

**<td  valign=top>**

**<B>Confirm Password<sup>\*</sup></B>**

**<br>**

**<input type="password" name="password2" size=10 value='<%=formHandler.getPassword2()%>'  maxlength=10>**

**<br><font size=2 color=red><%=formHandler.getErrorMsg("password2")%></font>**

**</td>**

**<br>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td colspan=2 valign=top>**

**<B>What music are you interested in?</B>**

**<br>**

**<input type="checkbox" name="subjects" value="Computer Science" <%=formHandler.isCbSelected("Computer")%>>Computer Science&nbsp;&nbsp;&nbsp;**

**<input type="checkbox" name="subjects" value="Data Science" <%=formHandler.isCbSelected("Data")%>>Data Science&nbsp;&nbsp;**

**<input type="checkbox" name="subjects" value="Mathematics" <%=formHandler.isCbSelected("Mathematics")%>>Mathematics<br>**

**<input type="checkbox" name="subjects" value="Music" <%=formHandler.isCbSelected("Music")%>>Music&nbsp;&nbsp;**

**<input type="checkbox" name="subjects" value="Physics" <%=formHandler.isCbSelected("Physics")%>>Physics&nbsp;&nbsp;**

**<input type="checkbox" name="subjects" value="Biology" <%=formHandler.isCbSelected("Biology")%>>Biology<br>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td colspan=2 valign=top>**

**<B>Gender</B>**

**<br>**

**<input type="radio" name="genders" value="Male" <%=formHandler.isRbSelected("Male")%>>Male &nbsp;&nbsp;&nbsp;&nbsp;**

**<input type="radio" name="genders" value="Female" <%=formHandler.isRbSelected("Female")%>>Female**

**<br><br>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td colspan=2 align=center>**

**<input type="submit" value="Submit"> <input type="reset"  value="Reset">**

**</td>**

**</tr>**

**</table>**

**</center>**

**</form>**

**</body>**

**</html>**

**register.html**

**<html>**

**<body>**

**<form action="/examples/jsp/forms/process.jsp" method=post>**

**<center>**

**<table cellpadding=4 cellspacing=2 border=0>**

**<th bgcolor="#CCCCFF" colspan=2>**

**<font size=5>USER REGISTRATION</font>**

**<br>**

**<font size=1><sup>\*</sup> Required Fields</font>**

**</th>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<b>First Name<sup>\*</sup></b>**

**<br>**

**<input type="text" name="firstName" value="" size=15 maxlength=20>**

**</td>**

**<td  valign=top>**

**<b>Last Name<sup>\*</sup></b>**

**<br>**

**<input type="text" name="lastName" value="" size=15 maxlength=20>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<b>E-Mail<sup>\*</sup></b>**

**<br>**

**<input type="text" name="email" value="" size=25  maxlength=125>**

**<br>**

**</td>**

**<td  valign=top>**

**<b>Zip Code<sup>\*</sup></b>**

**<br>**

**<input type="text" name="zip" value="" size=5  maxlength=5>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top colspan=2>**

**<b>User Name<sup>\*</sup></b>**

**<br>**

**<input type="text" name="userName" size=10 value=""  maxlength=10>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td valign=top>**

**<b>Password<sup>\*</sup></b>**

**<br>**

**<input type="password" name="password1" size=10 value=""**

**maxlength=10>**

**</td>**

**<td valign=top>**

**<b>Confirm Password<sup>\*</sup></b>**

**<br>**

**<input type="password" name="password2" size=10 value="" maxlength=10>**

**</td>**

**<br>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td  valign=top colspan=2>**

**<b>Subjects interested in?</b>**

**<br>**

**<input type="checkbox" name="subjects" value="Computer">Computer Science**

**<input type="checkbox" name="subjects" value="Data">Data Science**

**<input type="checkbox" name="subjects" value="Mathematics">Mathematics<br>**

**<input type="checkbox" name="subjects" value="Music">Music**

**<input type="checkbox" name="subjects" value="Physics">Physics**

**<input type="checkbox" name="subjects" value="Biology">Biology<br>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td  valign=top colspan=2>**

**<b>Gender</b>**

**<br>**

**<input type="radio" name="genders" value="Male" checked>Male**

**<input type="radio" name="genders" value="Female" >Female**

**<br><br>**

**</td>**

**</tr>**

**<tr bgcolor="#c8d8f8">**

**<td  align=center colspan=2>**

**<input type="submit" value="Submit"> <input type="reset"**

**value="Reset">**

**</td>**

**</tr>**

**</table>**

**</center>**

**</form>**

**</body>**

**</html>**

**Database Handler:**

**import javax.servlet.\*;**

**import javax.servlet.http.\*;**

**import java.util.\*;**

**import foo.FormBean;**

**public class DBHandler extends HttpServlet {**

**public void doPost (HttpServletRequest request, HttpServletResponse response) {**

**try {**

**FormBean f = (FormBean) request.getAttribute("formHandler");**

**boolean userExists = false;**

**if (userExists) {**

**f.setErrors("userName","Duplicate User: Try a different username");**

**getServletConfig().getServletContext().**

**getRequestDispatcher("/jsp/forms/retry.jsp").**

**forward(request, response);**

**} else {**

**//retrieve the bean properties and store them**

**// into the database.**

**getServletConfig().getServletContext().**

**getRequestDispatcher("/jsp/forms/success.jsp").**

**forward(request, response);**

**}**

**} catch (Exception ex) {**

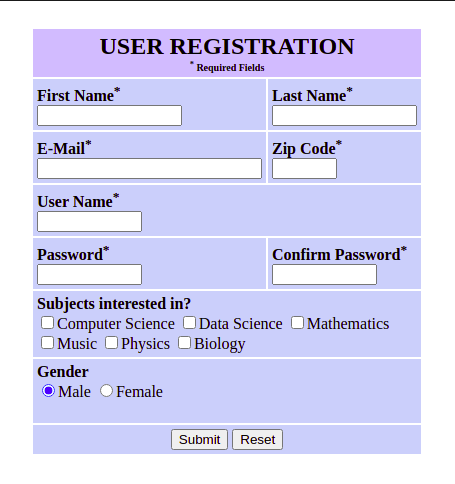
**ex.printStackTrace();**

**}**

**}**

**}**

**OUTPUT**

****