

Practical 4 – Working with JSP applications

Theory :-

JSP Technology

Life Cycle of JSP page

- a) Develop a simple JSP application to display values obtained from the use of intrinsic objects of various types.

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<html><head><title>JSP Page</title></head>
<body>
<h1>Use of Intrinsic Objects in JSP</h1>
<h1>Request Object </h1>
Query String <%=request.getQueryString() %><br>
Context Path <%=request.getContextPath() %><br>
Remote Host <%=request.getRemoteHost() %><br>
<h1>Response Object </h1>
Character Encoding Type <%=response.getCharacterEncoding() %><br>
Content Type <%=response.getContentType() %><br>
Locale <%=response.getLocale() %><br>
<h1>Session Object </h1>
ID <%=session.getId() %><br>
Creation Time <%=new java.util.Date(session.getCreationTime()) %><br>
Last Access Time<%=new java.util.Date(session.getLastAccessedTime()) %><br>
</body>
</html>
```

4b. Develop a simple JSP application to pass values from one page to another with validations. (Name-txt, age-txt, hobbies-checkbox, email-txt, gender-radio button).

index.html

```
<html><head><title>User Information Paage</title>
</head>
<body>
<form action="Validate.jsp">
Enter Your Name<input type="text" name="name" ><br>
Enter Your Age<input type="text" name="age" ><br>
Select Hobbies
<input type="checkbox" name="hob" value="Singing">Singing
<input type="checkbox" name="hob" value="Reading">Reading Books
<input type="checkbox" name="hob" value="Football">Playing Football<br>
Enter E-mail<input type="text" name="email" ><br>
Select Gender
<input type="radio" name="gender" value="male">Male
<input type="radio" name="gender" value="female">Female
<input type="radio" name="gender" value="other">Other<br>
<input type="hidden" name="error" value="">
<input type="submit" value="Submit Form">
</form>
```

Validate.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8" import="mypack.*"%>
<html>
<head>
<title>JSP Page</title>
</head>
<body>
<h1>Validation Page</h1>
<jsp:useBean id="obj" scope="request"
class="mypack.CheckerBean" >
<jsp:setProperty name="obj" property="*" />
</jsp:useBean>
<%if(obj.validate())
{%>
<jsp:forward page="successful.jsp"/>
<% }
else {%>
<jsp:include page="index.html"/>
<%}%>
<%=obj.getError() %>
</body>
</html>
```

CheckerBean.java

```
package mypack;
import java.beans.*;
import java.io.Serializable;
import java.util.regex.Matcher;
import java.util.regex.Pattern;
```

```

public class CheckerBean {
String name,hob,email,gender,error;
int age;
public CheckerBean()
{ name=""; hob=""; email=""; gender=""; error=""; age=0; }
public void setName(String n)
{ name=n; }
public String getName()
{ return name; }
public void setAge(int a)
{ age=a; }
public int getAge()
{ return age; }
public void setHob(String h)
{ hob=h; }
public String getHob()
{ return hob; }
public void setEmail(String e)
{ email=e; }
public String getEmail()
{ return email; }
public void setGender(String g)
{ gender=g; }
public String getGender()
{ return gender; }
public String getError()
{ return error; }
public boolean validate()
{ boolean res=true;
if(name.trim().equals(""))
{
error+="

```

Successful.jsp

```

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPEhtml>
<html>
<head>

```

```
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>
<h1>DATA VALIDATED SUCCESSFULLY</h1>
</body>
</html>
```

4c. Create a registration and login JSP application to register and authenticate the user based on username and password using JDBC.

Register.html

```
<html><head><title>New User Registration Page</title></head>
<body>
<form action="Register.jsp" >
<h1> New User Registration Page</h1>
Enter User Name <input type="text" name="txtName" ><br>
Enter Password <input type="password" name="txtPass1" ><br>
Re-Enter Password<input type="password" name="txtPass2" ><br>
Enter Email<input type="text" name="txtEmail" ><br>
Enter Country Name <input type="text" name="txtCon" ><br>
<input type="reset" ><input type="submit" value="REGISTER" >
</form>
</body>
</html>
```

Register.jsp

```
<%@page contentType="text/html" import="java.sql.*"%>
<html><body>
<h1>Registration JSP Page</h1>
<%
String uname=request.getParameter("txtName");
String pass1 = request.getParameter("txtPass1");
String pass2 = request.getParameter("txtPass2");
String email = request.getParameter("txtEmail");
String ctry = request.getParameter("txtCon");
if(pass1.equals(pass2)){
try{
Class.forName("com.mysql.cj.jdbc.Driver");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/logindb?autoReconnect=true&useSSL=false", "root", "tiger");
PreparedStatement stmt = con.prepareStatement("insert into user values (?, ?, ?, ?)");
stmt.setString(1, uname); stmt.setString(2, pass1);
stmt.setString(3, email); stmt.setString(4, ctry);
int row = stmt.executeUpdate();
if(row==1) { out.println("Registration Successful"); }
else {
out.println("Registration FFFFFAAAIILLLL !!!!");
%><jsp:include page="Register.html" ></jsp:include>
<%
}
} catch(Exception e) {out.println(e);}
}
else
{
out.println("<h1>Password Mismatch</h1>");
%>
<jsp:include page="Register.html" ></jsp:include>
<% } }
```

```
%>
</body>
</html>
```

Login.html

```
<html>
<body>
<h1>Login Page</h1>
<form action="Login.jsp" >
Enter User Name <input type="text" name="txtName" ><br>
Enter Password <input type="password" name="txtPass" ><br>
<input type="reset" ><input type="submit" value="~~~LOGIN~~" >
</form>
</body>
</html>
```

Login.jsp

```
<%@page contentType="text/html" import="java.sql.*"%>
<html><body>
<h1>Registration JSP Page</h1>
<%
String uname=request.getParameter("txtName");
String pass = request.getParameter("txtPass");
ResultSet rs=null;
try{
Class.forName("com.mysql.cj.jdbc.Driver");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/logindb?autoReconnect=true&useSSL=false", "root", "tiger");
Statement stmt=con.createStatement();
rs=stmt.executeQuery("select password from user where username='"+uname+"'");
rs.next();
if(pass.equals(rs.getString(1)))
{
out.println("<h1>~~~LOGIN SUCCESSFULL~~~</h1>");
}
else
{
out.println("<h1>password does not match!!!!</h1>");
}%>
<jsp:include page="Register.html" ></jsp:include>
<%
}
} catch(Exception e){
out.println("<h1>User does not exist!!!!</h1>");
}%>
<jsp:include page="Register.html" ></jsp:include>
<%
}
}%>
</body>
</html>
```