8. a) Write a JSP for User validation web application, where the user submits a login name and password to the server. Then name and password are checked against the data already available in Database and if the data matches, a successful login page is returned. Otherwise a failure message is shown to the user.

Login.html

```
<form action=" Loginprocess.jsp" method="post">

Name:<input type="text" name="username"/><br/><br/>

Password:<input type="password" name="userpass"/><br/><br/>

<input type="submit" value="login"/>

</form>
```

Uservalid.jsp

```
<%@ page import="java.sql.*" %>

<%@ page import="java.io.*" %>


<html>

<body>

<%

String n=request.getParameter("username");

        String p=request.getParameter("userpass");

try {

String URL = "jdbc:mysql://localhost:3306/mydb";

Connection conn = null;

Class.forName("com.mysql.jdbc.Driver").newInstance();
```

```
conn = DriverManager.getConnection(URL, "root", "Gcet@123");

if(!conn.isClosed())

out.println("Successfully connected to MySQL");

Statement stmt = conn.createStatement();

String sql= "SELECT * FROM user WHERE name=n and pass=p";

ResultSet rs = stmt.executeQuery(sql);

if(rs.next())

                        out.println("Welcome "+n);

else

                        out.println("Sorry username or password error");

            rs.close();

            stmt.close();

            conn.close();

}

catch(Exception ex){

out.println("Unable to connect to database.");

}

%>

</body>

</html>
```

8 .b) Write a JSP for A simple calculator web application that takes two numbers and an operator (+,-, /,*and %) from an HTML page and returns the result page with the operation performed on the operands.

Calc.html

```
<html>
<head>
<title>Basic Calculator</title>
</head>
<body>
<form action="calculator.jsp" method="get">
<label for="num1">Number 1</label>
<input type="text" name="num1"><br>
<label for="num2">Number 2</label>
<input type="text" name="num2"><br>
<input type="radio" name="r1" value="add" />addition<br />
<input type="radio" name="r1" value="sub" />subtraction <br />
<input type="radio" name="r1" value="mul" />multiplication<br />
<input type="radio" name="r1" value="div" />division<br />
<input type="submit" value="Calculate" />
</form>
</body>
</html>
```

Calculator.jsp

```
<html>

<head>

<title>Calculator</title>

</head>
```

```
<body>

<%@page language="java" %>

<%

int n1= Integer.parseInt(request.getParameter("num1"));

int n2= Integer.parseInt(request.getParameter("num2"));

String op = request.getParameter("r1");

if(op.equals("add"))

out.println("<h1>Addition is </h1>"+(n1+n2));

else if (op.equals("sub"))

out.println("<h1>Subtraction is </h1>"+(n1-n2));

else if (op.equals("mul"))

out.println("<h1>Multiplication is </h1> "+(n1*n2));

else if (op.equals("div"))

out.println("<h1>Division</h1>"+(n1/n2));

else

out.println("Please select the operator");

%>

</body>

</html>
```

9. a) Write a JSP for web application that lists all cookies stored in the browser on clicking "List Cookies" button. Add cookies if necessary.

Cookie.html

```
<html>
```

```
<body>
<h3>Cookie Example</h3>
<form method="get" action="ListCookies.jsp">
Enter Name <input type="text" name="name"><br>
Enter Age <input type="text" name="age"><br>
<input type="submit" value="Add Cookie" name="add">
<input type="submit" value="List Cookies" name="list">
</form>
</body>
</html>
```

ListCookies.jsp

```
<html>
<body>
<%
String str1 = request.getParameter("name");
String str2 = request.getParameter("age");
String str3 = request.getParameter("add");
String str4 = request.getParameter("list");
if(str3 != null){
Cookie c1 = new Cookie(str1, str2);
response.addCookie(c1);
}
else if(str4 != null){
Cookie clientCookies[] = request.getCookies();
for( int i = 0; i < clientCookies.length; i++){
out.print("<b>" + clientCookies[i].getName() + " : " + clientCookies[i].getValue() +
"</b><br>");
}
}
%>
</body>
</html>
```

b) Write JSP for a web application that takes name and age from an HTML page. If the age is less than 18, it should send a page with "Hello <name>, you are not authorized to visit this site" message, where <name> should be replaced with the entered name. Otherwise it should send "Welcome <name> to this site" message.

Age.html
```
<html>
```

```html
<body>
<form action="age.jsp">
Username:<input type="text" name="username"> <br>
Age:<input type="text" name="age" > <br>
<input type="submit" name="submit">
</form>
</body>
</html>
```

Age.jsp

```jsp
<%
        String name=request.getParameter("username");
        int age=Integer.parseInt(request.getParameter("age"));
if(age < 18){
                out.println("Hello "+name+ " you are not authorized to visit this site" );
        } else{
                out.println("Welcome " + name + " to this site");
        }
%>
```