Experiment 10

Implement the web applications with Database using

(a) PHP, (b) Servletsand (c) JSP.

• **A user validation web application, where the user submits the login name &password to the server.**
The name and password are checked against the data already available in Database and if the data
matches, a successful login pageis returned. Otherwise failure message is shown to the user.

1. Using PHP

```php
<?php
$host = "localhost";
$user = "root";
$pass = "";
$dbname = "user_db";

$conn = new mysqli($host, $user, $pass, $dbname);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
?>
```

2. Using Servlet

```java
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
```

```java
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

@WebServlet("/LoginServlet")
public class LoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

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

        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/user_db", "root", "");
            PreparedStatement stmt = conn.prepareStatement("SELECT * FROM users WHERE username=? AND password=MD5(?)");
            stmt.setString(1, username);
            stmt.setString(2, password);
            ResultSet rs = stmt.executeQuery();

            if (rs.next()) {
                HttpSession session = request.getSession();
                session.setAttribute("username", username);
                response.sendRedirect("welcome.jsp");
            } else {
                out.println("Invalid credentials. <a href='index.html'>Try again</a>");
            }
            conn.close();
        } catch (Exception e) {
```

```java
            out.println("Database Error: " + e.getMessage());
        }
    }
}
```

3. Using JSP

```jsp
<%@ page import="java.sql.*" %>
<%
String username = request.getParameter("username");
String password = request.getParameter("password");
boolean validUser = false;

if (username != null && password != null) {
    try {
        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/user_db", "root", "");
        PreparedStatement stmt = conn.prepareStatement("SELECT * FROM users WHERE username=? AND
password=MD5(?)");
        stmt.setString(1, username);
        stmt.setString(2, password);
        ResultSet rs = stmt.executeQuery();

        if (rs.next()) {
            session.setAttribute("username", username);
            validUser = true;
        }
        conn.close();
    } catch (Exception e) {
        out.println("Database Error: " + e.getMessage());
    }
}
```

```
if (validUser) {

    response.sendRedirect("welcome.jsp");

} else {

%>

    <p>Invalid credentials. <a href="index.jsp">Try again</a></p>

<%

}

%>
```