Screenshot of different pages:

Login Page

Username:	
Password:	
Login	

Welcome page

Welcome, john

Login Time: 2024-01-22 19:53:36



Logout

User_sessions table:



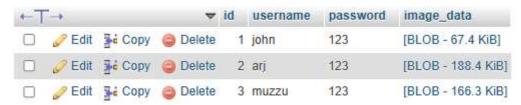
Already Logged In

You are already logged in!

Login Time: Mon Jan 22 19:56:06 IST 2024



Log table



Screenshot of code

Logout.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%@ page import="java.sql.Connection, java.sql.DriverManager, java.sql.PreparedState</pre>
                                                                                                                                   ment, java.sql.Timestamp, java.util.Date"%>
      HttpSession session1 = request.getSession(false);
      Timestamp Ttime = null;
     if (session1 != null && session1.getAttribute("username") != null) {
   String username = (String) session1.getAttribute("username");
                 Date loginTime = (Date) session1.getAttribute("loginTime");
                 Ttime = new Timestamp(loginTime.getTime());
                 ("class.forName("com.mysql.cj.jdbc.Driver");
Connection con = DriverManager.getConnection("jdbc:mysql://localhost/Login", "root", "");
String query = "UPDATE user_sessions SET logout_time = ? WHERE username = ? AND login_time
try (PreparedStatement pst = con.prepareStatement(query)) {
    Timestamp currentTime = new Timestamp(System.currentTimeMillis());
    pst.setTimestamp(1, currentTime);
                                                                                                       ? WHERE username = ? AND login_time = ? ";
                       pst.setString(2, username);
pst.setTimestamp(3, Ttime);
                       pst.executeUpdate();
                  con.close();
            } catch (Exception e) {
             session1.invalidate()
           response.sendRedirect("index.html");
```

alreadyLoggedIn.jsp

Welcome.jsp

LoginServlet.java

```
* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
   * Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Servlet.java to edit this template
  */
import jakarta.servlet.*;
   import jakarta.servlet.http.HttpServlet;
   import jakarta.servlet.http.HttpServletRequest;
   import jakarta.servlet.http.HttpServletResponse;
   import jakarta.servlet.http.HttpSession;
   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 java.sql.Timestamp;
   import java.util.Base64;
   import java.util.Date;
   public class LoginServlet extends HttpServlet {
       protected void doPost (HttpServletRequest request, HttpServletResponse response)
              throws ServletException, IOException {
           response.setContentType("text/html;charset=UTF-8");
           String username = request.getParameter("username");
           String password = request.getParameter("password");
           try {
              Class.forName("com.mysql.cj.jdbc.Driver");
              Connection con = DriverManager.getConnection("jdbc:mysql://localhost/Login", "root", "");
               // Check if the user is already logged in
              HttpSession existingSession = request.getSession(false);
               if (existingSession != null && existingSession.getAttribute("username") != null) {
                   // User is already logged in
                   response.sendRedirect("alreadyLoggedIn.jsp");
                  con.close();
                   return:
```

```
PreparedStatement pst = con.prepareStatement("SELECT * FROM Log WHERE username=? AND password=?");
                  pst.setString(1, username);
                  pst.setString(2, password);
                  ResultSet rs = pst.executeQuery();
                  if (rs.next()) {
                      HttpSession session = request.getSession();
                      session.setAttribute("username", username);
                      byte[] imageData = rs.getBytes("image_data");
                      String base64Image = Base64.getEncoder().encodeToString(imageData);
                      session.setAttribute("profileImage", base64Image);
                       session.setAttribute("loginTime", new Date());
                      insertLoginRecord(con, username, false);
                      response.sendRedirect("welcome.jsp");
                  } else {
                      // Login failed
                      PrintWriter out = response.getWriter();
                      out.println("Invalid username or password");
                  con.close();
             } catch (Exception e) {
                  e.printStackTrace();
   private void insertLoginRecord (Connection con, String username, boolean isLogout) throws Exception {
String columnName = isLogout ? "logout time" : "login time";
String query = "UPDATE user_sessions SET " + columnName + " = ? WHERE username = ?";
try (PreparedStatement pst = con.prepareStatement(query)) {
早
             pst.setTimestamp(1, new Timestamp(System.currentTimeMillis()));
             pst.setString(2, username);
             pst.executeUpdate();
```

Index.html