

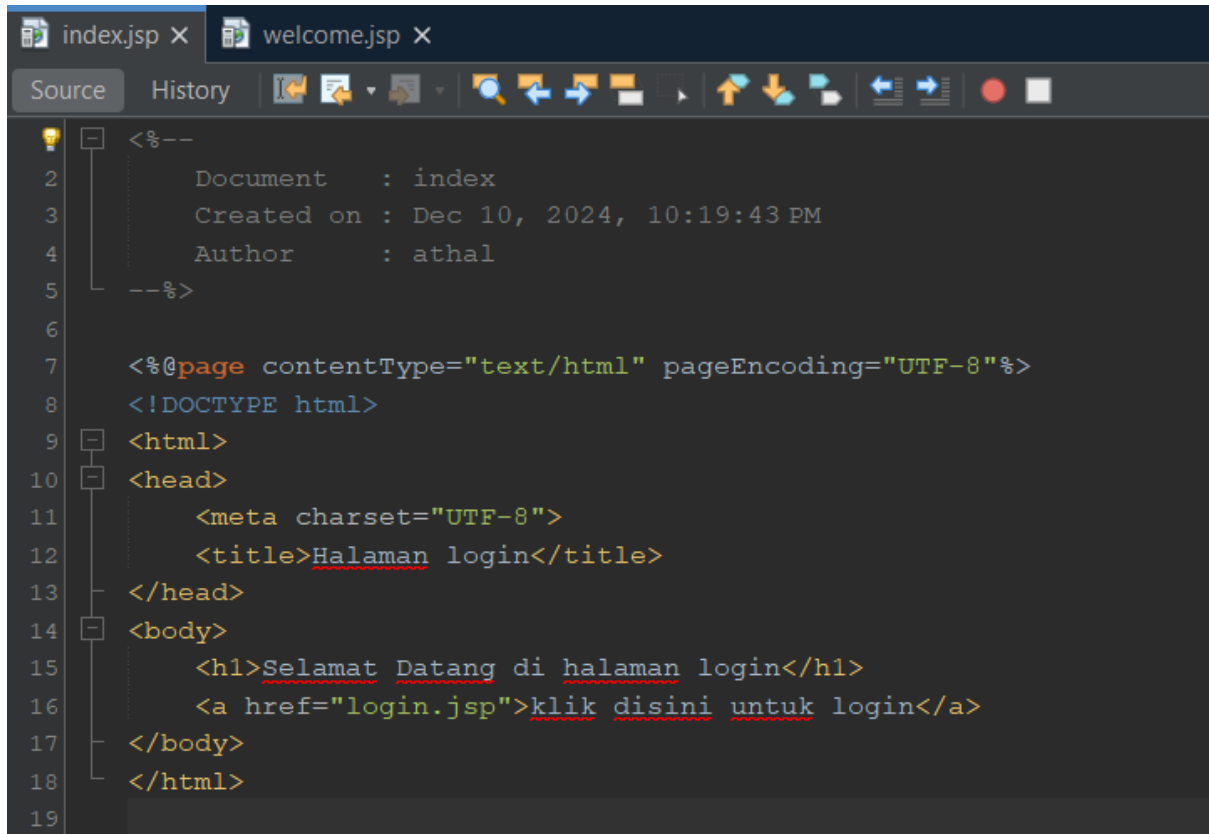
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Quiz Finish the Code

1. index.jsp

A screenshot of a code editor window with two tabs: 'index.jsp' and 'welcome.jsp'. The 'index.jsp' tab is active, showing a Java Server Page (JSP) code. The code includes a comment block with document information, a page directive for UTF-8 encoding, a DOCTYPE declaration, and an HTML structure with a head section containing a meta charset and a title, and a body section containing a welcome message and a link to 'login.jsp'.

```
<%--  
2      Document      : index  
3      Created on   : Dec 10, 2024, 10:19:43 PM  
4      Author      : athal  
5  --%>  
6  
7  <%@page contentType="text/html" pageEncoding="UTF-8"%>  
8  <!DOCTYPE html>  
9  <html>  
10 <head>  
11     <meta charset="UTF-8">  
12     <title>Halaman login</title>  
13 </head>  
14 <body>  
15     <h1>Selamat Datang di halaman login</h1>  
16     <a href="login.jsp">klik disini untuk login</a>  
17 </body>  
18 </html>  
19
```

Perubahan: mengubah index.html menjadi index.jsp

2. login.jsp

```
login.jsp X
Source History
1 <%--
2     Document    : login
3     Created on  : 26 Nov 2024, 10.58.49
4     Author     : helmy
5 --%>
6
7 <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
8
9 <html>
10 <head>
11     <title>Halaman Login</title>
12 </head>
13 <body>
14     <h2>Login</h2>
15
16     <form action="login" method="post">
17         <label for="username">Username:</label>
18         <input type="text" id="username" name="username" required><br><br>
19
20         <label for="password">Password:</label>
21         <input type="password" id="password" name="password" required><br><br>
22
23         <button type="submit">Login</button>
24     </form>
25
26     <!-- Tampilkan pesan error jika login gagal -->
27     <c:if test="${not empty errorMessage}">
28         <p style="color:red;">${errorMessage}</p>
29     </c:if>
30
31     <!-- Cek apakah pengguna sudah login, jika sudah, redirect ke welcome.jsp -->
32     <c:if test="${not empty user}">
33         <p>You are already logged in. <a href="welcome.jsp">Go to Welcome Page</a></p>
```

Perubahan: tidak ada perubahan

3. welcome.jsp

```
index.jsp X welcome.jsp X
Source History
1 <%--
2     Document    : welcome
3     Created on  : 26 Nov 2024, 11.03.33
4     Author     : helmy
5 --%>
6
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
9
10 <html>
11 <head>
12     <title>Welcome Page</title>
13 </head>
14 <body>
15     <h2>Selamat datang, ${user.username}! anda berhasil Login!</h2> <!-- Menampilkan nama pengguna yang login -->
16     <a href="UserList">Go to User List</a>
17     <!-- Tombol untuk logout -->
18     <form action="logout" method="get">
19         <p> <button type="submit">Logout</button> </p>
20     </form>
21 </body>
22 </html>
23
24
```

Perubahan: Menambahkan button untuk bisa ke page UserList

4. UserList.jsp

```
UserList.jsp X
Source History
23         <td>Username</td>
24         <th>Full Name</th>
25         <th>Actions</th>
26     </tr>
27 </thead>
28 <tbody>
29     <c:forEach var="user" items="${users}">
30         <tr>
31             <td>${user.id}</td>
32             <td>${user.username}</td>
33             <td>${user.fullName}</td>
34
35             <td>
36                 <a href="editUser?id=${user.id}">Edit</a> |
37                 <a href="deleteUser?id=${user.id}">Delete</a>
38             </td>
39         </tr>
40     </c:forEach>
41 </tbody>
42 </table>
43
44 <a href="addUser.jsp">Tambah User Baru</a>
45 <p> <button onclick="document.location='welcome.jsp'">Back to Welcome Page</button> </p>
46 </body>
47 </html>
```

Perubahan: menambahkan baris table untuk user.fullName

5. addUser.jsp

```
UserList.jsp X  addUser.jsp X
Source History
1  <!--
2      Document      : addUser
3      Created on    : Dec 10, 2024, 9:52:15 PM
4      Author       : athal
5  -->
6
7  <%@ page contentType="text/html;charset=UTF-8" language="java" %>
8  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
9
10 <html>
11 <head>
12     <title>Add User</title>
13 </head>
14 <body>
15     <h2>Add User</h2>
16
17     <form action="addUser" method="post">
18         <label for="username">Username:</label>
19         <input type="text" name="username" required><br><br>
20
21         <label for="password">Password:</label>
22         <input type="password" name="password" required><br><br>
23
24         <label for="fullName">Full Name:</label>
25         <input type="text" name="fullName" required><br><br>
26
27         <button type="submit">Add User</button>
28     </form>
29 </body>
30 </html>
31
```

Perubahan: menambahkan file addUser.jsp untuk tampilan add user.

6. editUser.jsp

```
editUser.jsp X
Source History
<!--
Document : editUser
Created on : Dec 3, 2024, 7:10:29 AM
Author : helmy
-->

<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>

<html>
<head>
<title>Edit User</title>
</head>
<body>
<h2>Edit User</h2>

<form action="editUser" method="post">
<input type="hidden" name="id" value="${user.id}">
<label for="username">Username:</label>
<input type="text" name="username" value="${user.username}" required><br><br>

<label for="password">Password:</label>
<input type="password" name="password" value="${user.password}" required><br><br>

<label for="fullName">Full Name:</label>
<input type="text" name="fullName" value="${user.fullName}" required><br><br>

<button type="submit">Update User</button>
</form>
</body>
</html>
```

Perubahan: mengisi value yang kosong sesuai dengan labelnya

7. LoginController.java

```
LoginController.java X
Source History
17
18 @WebServlet("/login")
19 public class LoginController extends HttpServlet {
20
21     @Override
22     protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
23         try {
24             // Ambil parameter dari view form login
25             String username = request.getParameter("username");
26             String password = request.getParameter("password");
27
28             // create objek User dari inputan form login
29             User user = new User(username, password);
30
31             // panggil method Validasi login dari objek User
32             if (user.isValidUser()) {
33                 // Jika login berhasil, arahkan ke halaman welcome.jsp
34                 HttpSession session = request.getSession();
35                 session.setAttribute("user", user); // Menyimpan objek User dalam session
36                 response.sendRedirect("welcome.jsp");
37             } else {
38                 // Jika login gagal, set error message dan tampilkan lagi login.jsp
39                 request.setAttribute("errorMessage", "username atau password anda salah!");
40                 request.getRequestDispatcher("/login.jsp").forward(request, response);
41             }
42         } catch (ServletException | IOException e) {
43             // Jika ada error, tampilkan error page
44             response.sendError(HttpServletResponse.SC_INTERNAL_SERVER_ERROR, "Terjadi kesalahan dalam memproses request");
45         }
46     }
47
48 }
```

Perubahan: Tidak ada perubahan, hanya uncomment code

8. UserListServlet.java

```
UserListServlet.java X
Source History
25 @WebServlet("/UserList")
26 public class UserListServlet extends HttpServlet {
27
28     @Override
29     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
30         List<User> users = new ArrayList<>();
31         try (Connection conn = DBUtil.getConnection()) {
32             String query = "SELECT * FROM users";
33             try (Statement stmt = conn.createStatement()) {
34                 ResultSet rs = stmt.executeQuery(query);
35                 while (rs.next()) {
36                     User user = new User(
37                         rs.getInt("id"),
38                         rs.getString("username"),
39                         rs.getString("password"),
40                         rs.getString("full_name")
41                     );
42                     users.add(user);
43                 }
44             }
45             request.setAttribute("users", users);
46             request.getRequestDispatcher("/UserList.jsp").forward(request, response);
47         } catch (SQLException e) {
48             e.printStackTrace();
49             response.sendRedirect("error.jsp");
50         }
51     }
52 }
53
```

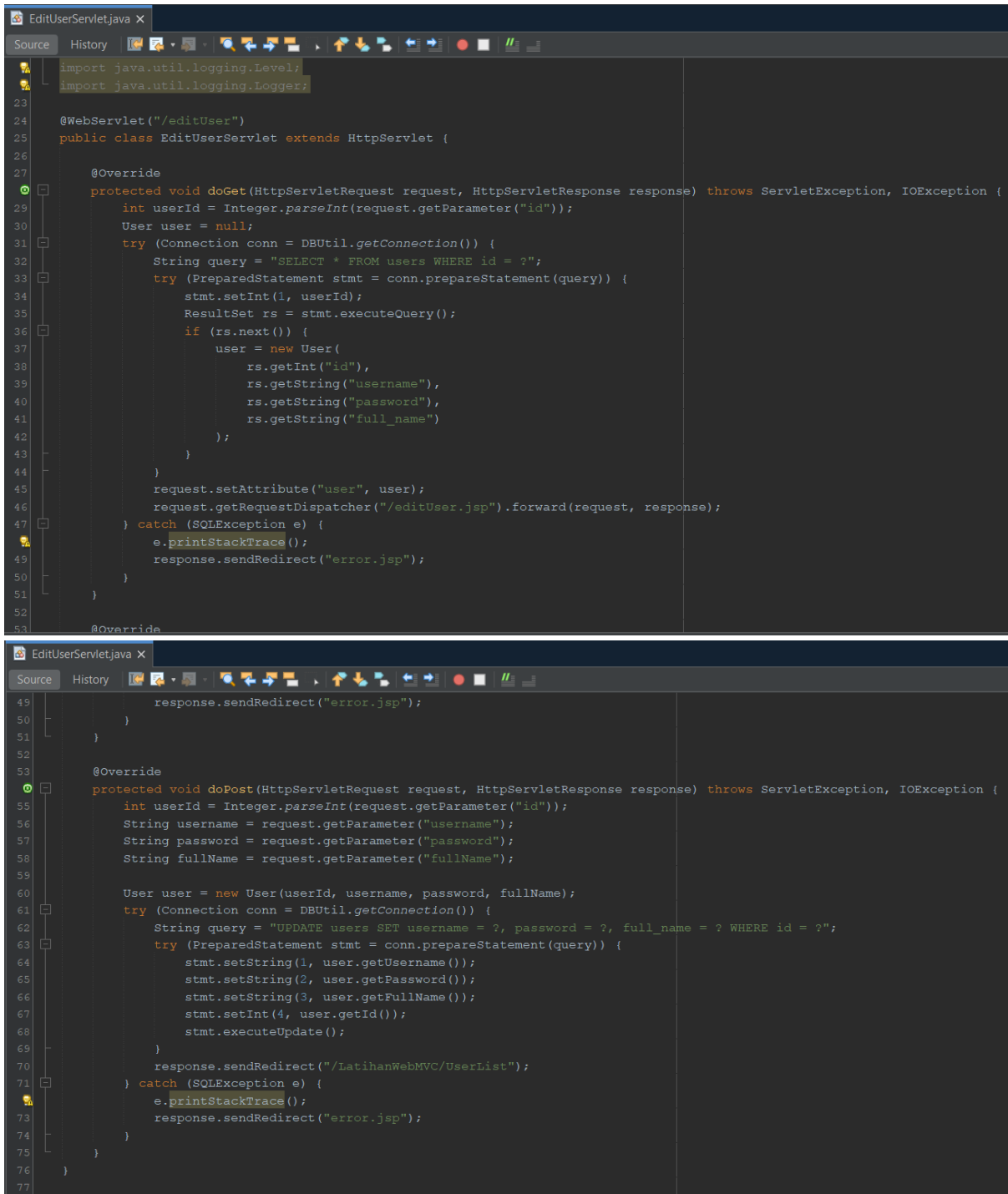
Perubahan: mengisi rs.getString() yang masih kosong valuenya

9. AddUserServlet.java

```
AddUserServlet.java X
Source History
17 import java.io.IOException;
18 import java.sql.Connection;
19 import java.sql.PreparedStatement;
20 import java.sql.SQLException;
21
22
23 @WebServlet("/addUser")
24 public class AddUserServlet extends HttpServlet {
25
26     @Override
27     protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
28         String username = request.getParameter("username");
29         String password = request.getParameter("password");
30         String fullName = request.getParameter("fullName");
31
32         User user = new User(username, password, fullName);
33         try (Connection conn = DBUtil.getConnection()) {
34             String query = "INSERT INTO users (username, password, full_name) VALUES (?, ?, ?)";
35             try (PreparedStatement stmt = conn.prepareStatement(query)) {
36                 stmt.setString(1, user.getUsername());
37                 stmt.setString(2, user.getPassword());
38                 stmt.setString(3, user.getFullName());
39                 stmt.executeUpdate();
40             }
41             response.sendRedirect("/LatihanWebMVC/UserList"); // Redirect ke halaman list setelah berhasil
42         } catch (SQLException e) {
43             e.printStackTrace();
44             response.sendRedirect("error.jsp");
45         }
46     }
47 }
```

Perubahan: mengisi stmt.setString yang masih kosong valuenya, dan mengubah isi sendRedirect agar tidak terjadi error

10. EditUserServlet.java



```
import java.util.logging.Level;
import java.util.logging.Logger;

@WebServlet("/editUser")
public class EditUserServlet extends HttpServlet {

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        int userId = Integer.parseInt(request.getParameter("id"));
        User user = null;
        try (Connection conn = DBUtil.getConnection()) {
            String query = "SELECT * FROM users WHERE id = ?";
            try (PreparedStatement stmt = conn.prepareStatement(query)) {
                stmt.setInt(1, userId);
                ResultSet rs = stmt.executeQuery();
                if (rs.next()) {
                    user = new User(
                        rs.getInt("id"),
                        rs.getString("username"),
                        rs.getString("password"),
                        rs.getString("full_name")
                    );
                }
            }
        }
        request.setAttribute("user", user);
        request.getRequestDispatcher("/editUser.jsp").forward(request, response);
    } catch (SQLException e) {
        e.printStackTrace();
        response.sendRedirect("error.jsp");
    }
}

@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
    int userId = Integer.parseInt(request.getParameter("id"));
    String username = request.getParameter("username");
    String password = request.getParameter("password");
    String fullName = request.getParameter("fullName");

    User user = new User(userId, username, password, fullName);
    try (Connection conn = DBUtil.getConnection()) {
        String query = "UPDATE users SET username = ?, password = ?, full_name = ? WHERE id = ?";
        try (PreparedStatement stmt = conn.prepareStatement(query)) {
            stmt.setString(1, user.getUsername());
            stmt.setString(2, user.getPassword());
            stmt.setString(3, user.getFullName());
            stmt.setInt(4, user.getId());
            stmt.executeUpdate();
        }
        response.sendRedirect("/LatihanWebMVC/UserList");
    } catch (SQLException e) {
        e.printStackTrace();
        response.sendRedirect("error.jsp");
    }
}
```

Perubahan: menambahkan stmt.setString() untuk password, fullname, dan id pada line 65-67, dan mengubah isi sendRedirect agar tidak terjadi error

11. DeleteUserServlet.java

```
DeleteUserServlet.java X
Source History
10  */
11  import com.mycompany.latihanwebmvc.Database.DBUtil; //import class DBUtil
12  import com.mycompany.latihanwebmvc.Model.User; //import class User dari Package Model
13  import jakarta.servlet.ServletException;
14  import jakarta.servlet.http.*;
15  import jakarta.servlet.annotation.WebServlet;
16  import java.io.IOException;
17  import java.sql.Connection;
18  import java.sql.PreparedStatement;
19  import java.sql.SQLException;
20  import java.util.logging.Level;
21  import java.util.logging.Logger;
22
23  @WebServlet("/deleteUser")
24  public class DeleteUserServlet extends HttpServlet {
25
26      @Override
27      protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
28          int userId = Integer.parseInt(request.getParameter("id"));
29          try (Connection conn = DBUtil.getConnection()) {
30              String query = "DELETE FROM users WHERE id = ?";
31              try (PreparedStatement stmt = conn.prepareStatement(query)) {
32                  stmt.setInt(1, userId);
33                  stmt.executeUpdate();
34              }
35              response.sendRedirect("/LatihanWebMVC/UserList");
36          } catch (SQLException e) {
37              e.printStackTrace();
38              response.sendRedirect("error.jsp");
39          }
40      }
41  }
```

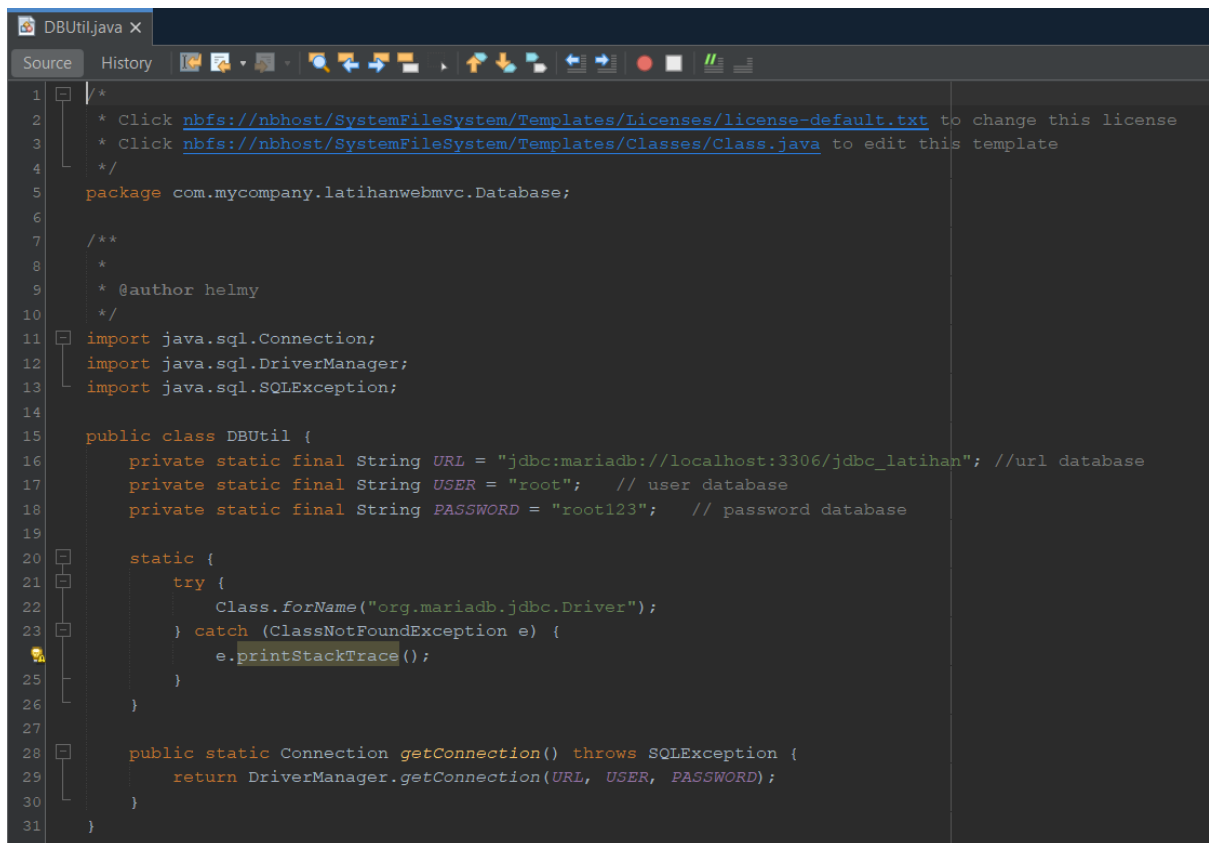
Perubahan: mengisi value yang kosong pada conn.prepareStatement() dengan query, dan mengubah isi sendRedirect agar tidak terjadi error

12. LogoutController.java

```
LogoutController.java X
Source History
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4   */
5  package com.mycompany.latihanwebmvc.Controller;
6
7  /**
8   *
9   * @author helmy
10  */
11
12  import jakarta.servlet.ServletException;
13  import jakarta.servlet.annotation.WebServlet;
14  import jakarta.servlet.http.*;
15  import java.io.IOException;
16
17  @WebServlet("/logout")
18  public class LogoutController extends HttpServlet {
19
20      @Override
21      protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
22          // Menghapus session pengguna
23          HttpSession session = request.getSession(false);
24          if (session != null) {
25              session.invalidate(); // Menghapus session yang aktif
26          }
27          response.sendRedirect("login.jsp"); // Arahkan ke halaman login setelah logout
28      }
29  }
```

Perubahan: tidak ada perubahan

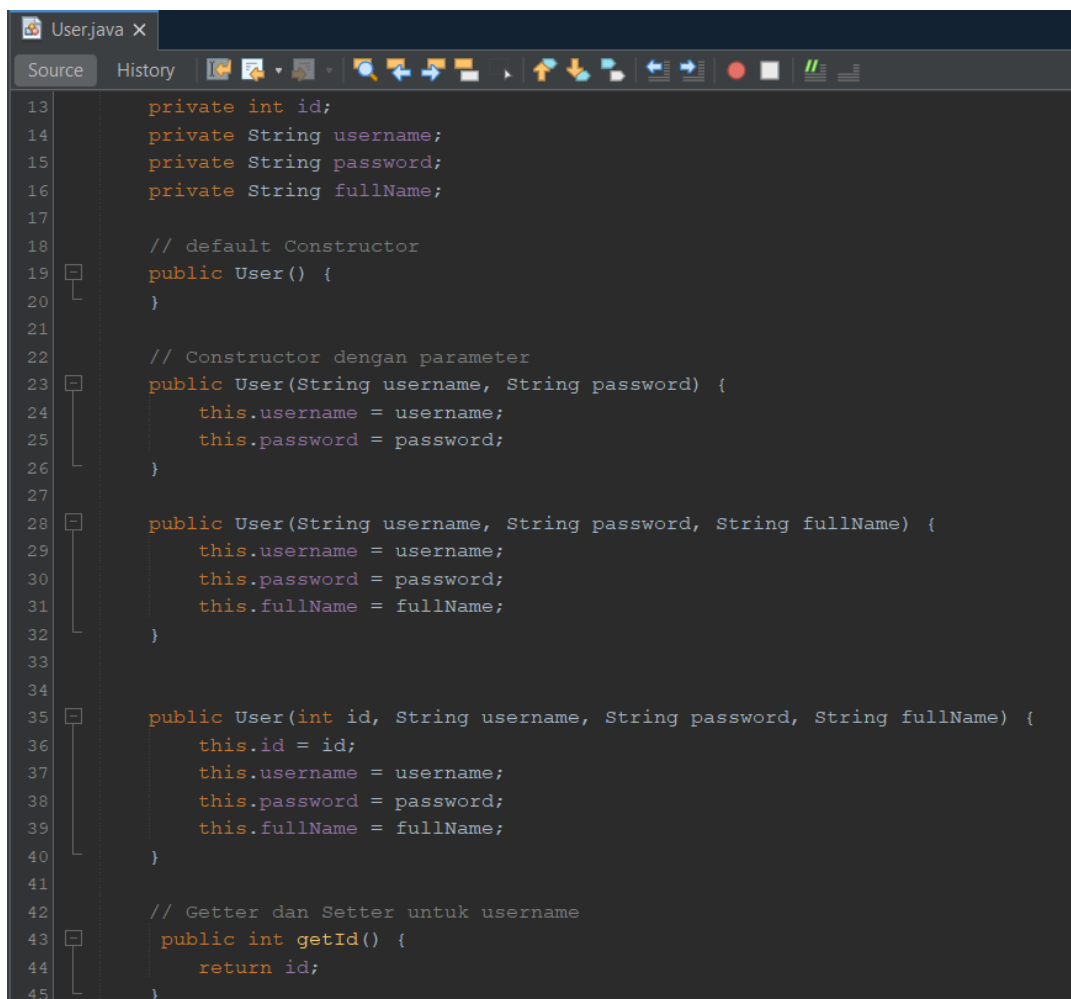
12. DBUtil.java



```
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4   */
5   package com.mycompany.latihanwebmvc.Database;
6
7   /**
8    *
9    * @author helmy
10   */
11  import java.sql.Connection;
12  import java.sql.DriverManager;
13  import java.sql.SQLException;
14
15  public class DBUtil {
16      private static final String URL = "jdbc:mariadb://localhost:3306/jdbc_latihan"; //url database
17      private static final String USER = "root"; // user database
18      private static final String PASSWORD = "root123"; // password database
19
20      static {
21          try {
22              Class.forName("org.mariadb.jdbc.Driver");
23          } catch (ClassNotFoundException e) {
24              e.printStackTrace();
25          }
26      }
27
28      public static Connection getConnection() throws SQLException {
29          return DriverManager.getConnection(URL, USER, PASSWORD);
30      }
31  }
```

Perubahan: hanya mengubah password sesuai password database

13. User.java



```
13     private int id;
14     private String username;
15     private String password;
16     private String fullName;
17
18     // default Constructor
19     public User() {
20     }
21
22     // Constructor dengan parameter
23     public User(String username, String password) {
24         this.username = username;
25         this.password = password;
26     }
27
28     public User(String username, String password, String fullName) {
29         this.username = username;
30         this.password = password;
31         this.fullName = fullName;
32     }
33
34
35     public User(int id, String username, String password, String fullName) {
36         this.id = id;
37         this.username = username;
38         this.password = password;
39         this.fullName = fullName;
40     }
41
42     // Getter dan Setter untuk username
43     public int getId() {
44         return id;
45     }
```

Perubahan: mengubah Constructor dari 3 constructor menjadi 4 constructor yaitu:

1. Default constructor
2. Constructor dengan parameter username dan password
3. Constructor dengan parameter username, password, dan fullName
4. Constructor dengan parameter id, username, password, dan fullName