

Validation of the User Login.

DESCRIPTION

Create a servlet-based web application that shows a login page and validates it. The correct values are hard-coded. On successful login, a dashboard page is shown. The dashboard will provide a link for logging out. Incorrect logins need to be handled by showing an error message page.

Background of the problem statement:

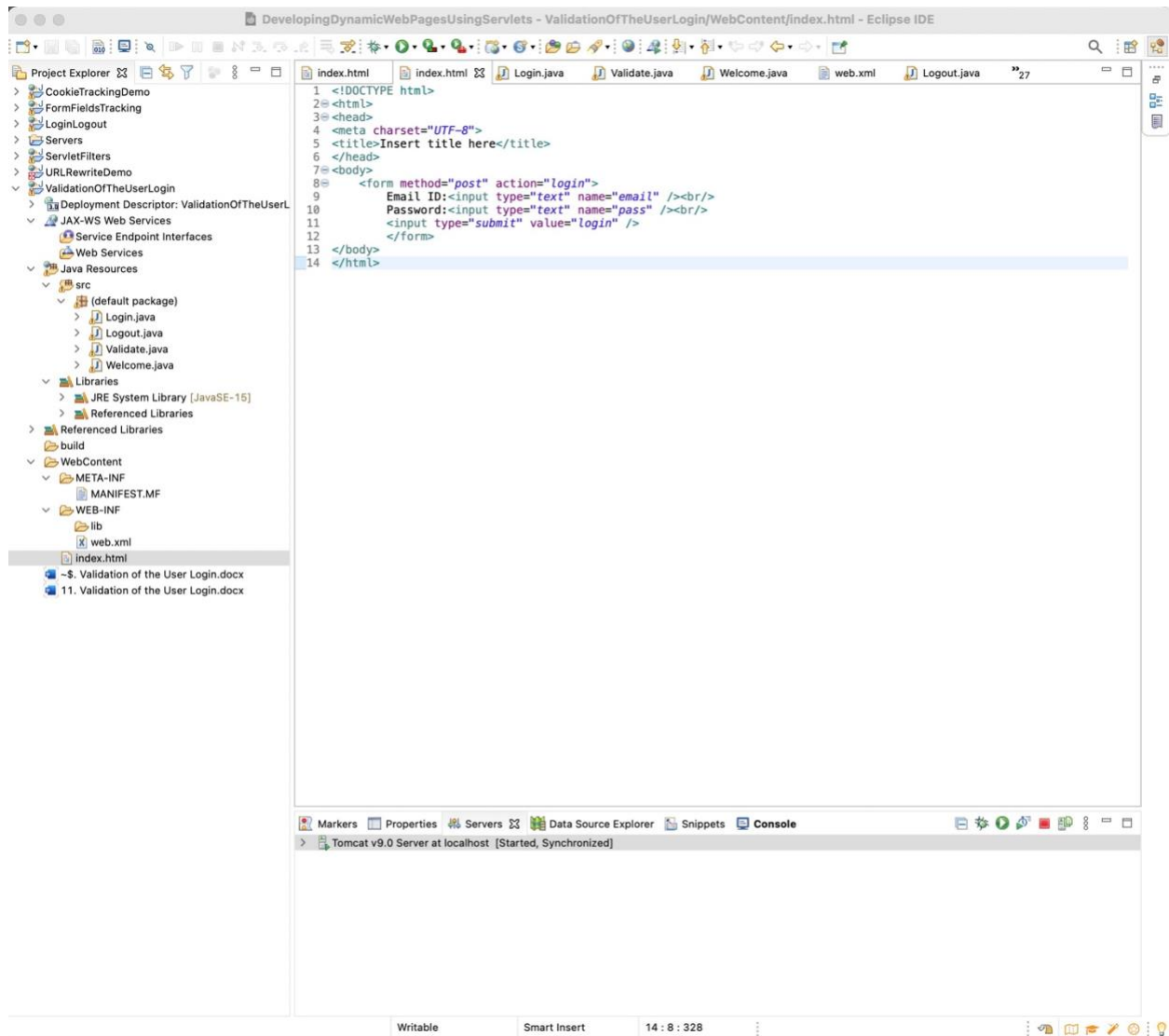
As a part of developing an e-commerce web application, you have to prototype a login scenario for the user. There is no database involved here, so you have to use fixed values for login email id and password.

You must use the following:

- Eclipse as the IDE
- Apache Tomcat as the web server
- HTML pages for the front end
- Servlets for backend processing

Following requirements should be met:

- Show a login form in HTML
- Handle invalid logins and show appropriate error messages using servlets
- Show the dashboard page using servlets
- Handle logouts using servlets
- Document the step-by-step process involved in completing this task



Index.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<title>Insert title here</title>
```

```
</head>
```

```
<body>
```

```
    <form method="post" action="login">
```

```
        Email ID:<input type="text" name="email" /><br/>
```

```

Password:<input type="text" name="pass"/><br/>

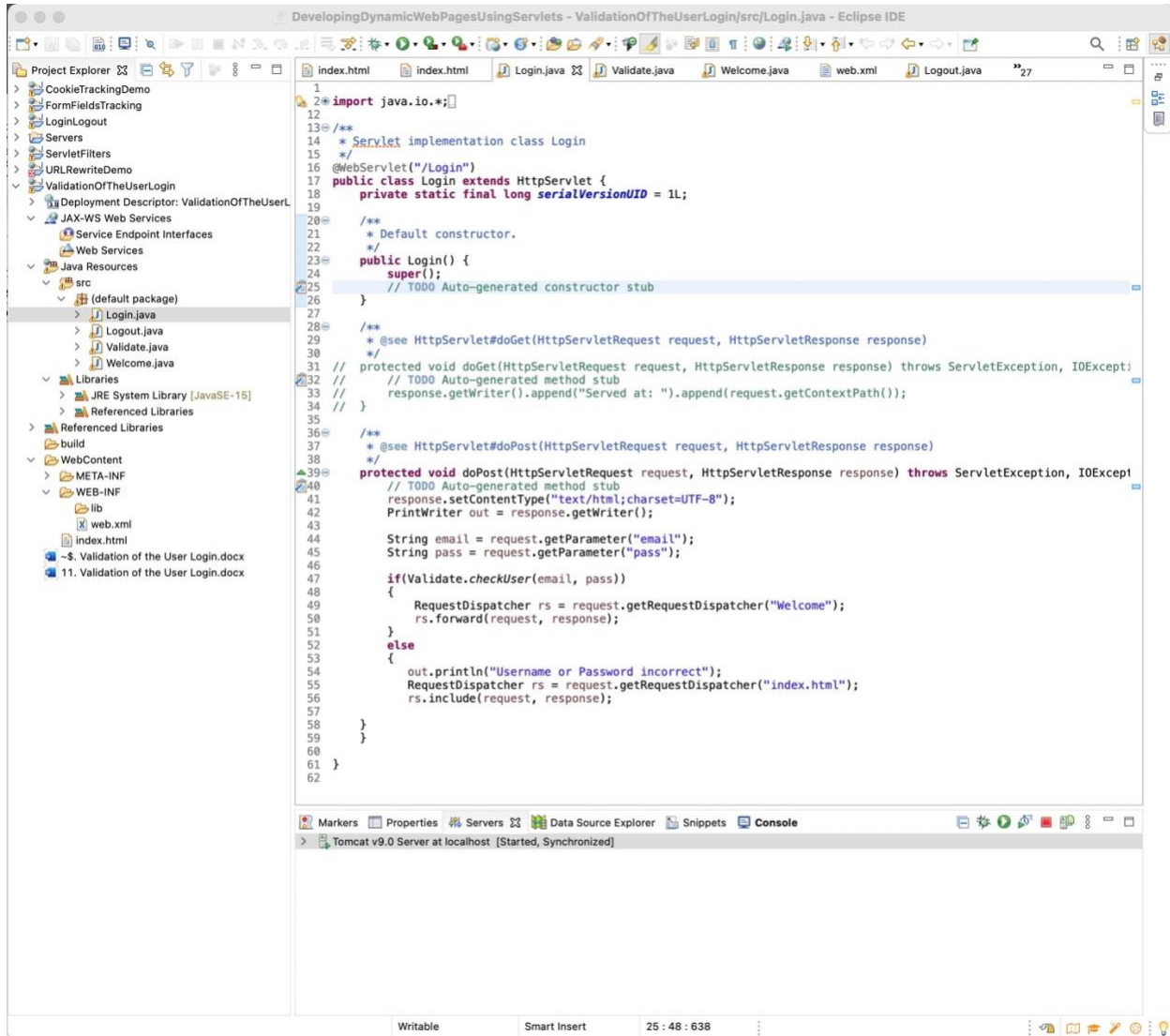
<input type="submit" value="login" />

</form>

</body>

</html>

```



Login.java

```

import java.io.*;
import javax.servlet.*;
import javax.servlet.annotation.*;
import javax.servlet.http.*;
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class Login
 */
@WebServlet("/Login")
public class Login extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * Default constructor.
     */
    public Login() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    // protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
    ServletException, IOException {

```

```

//          // TODO Auto-generated method stub
//          response.getWriter().append("Served at: ").append(request.getContextPath());
//      }

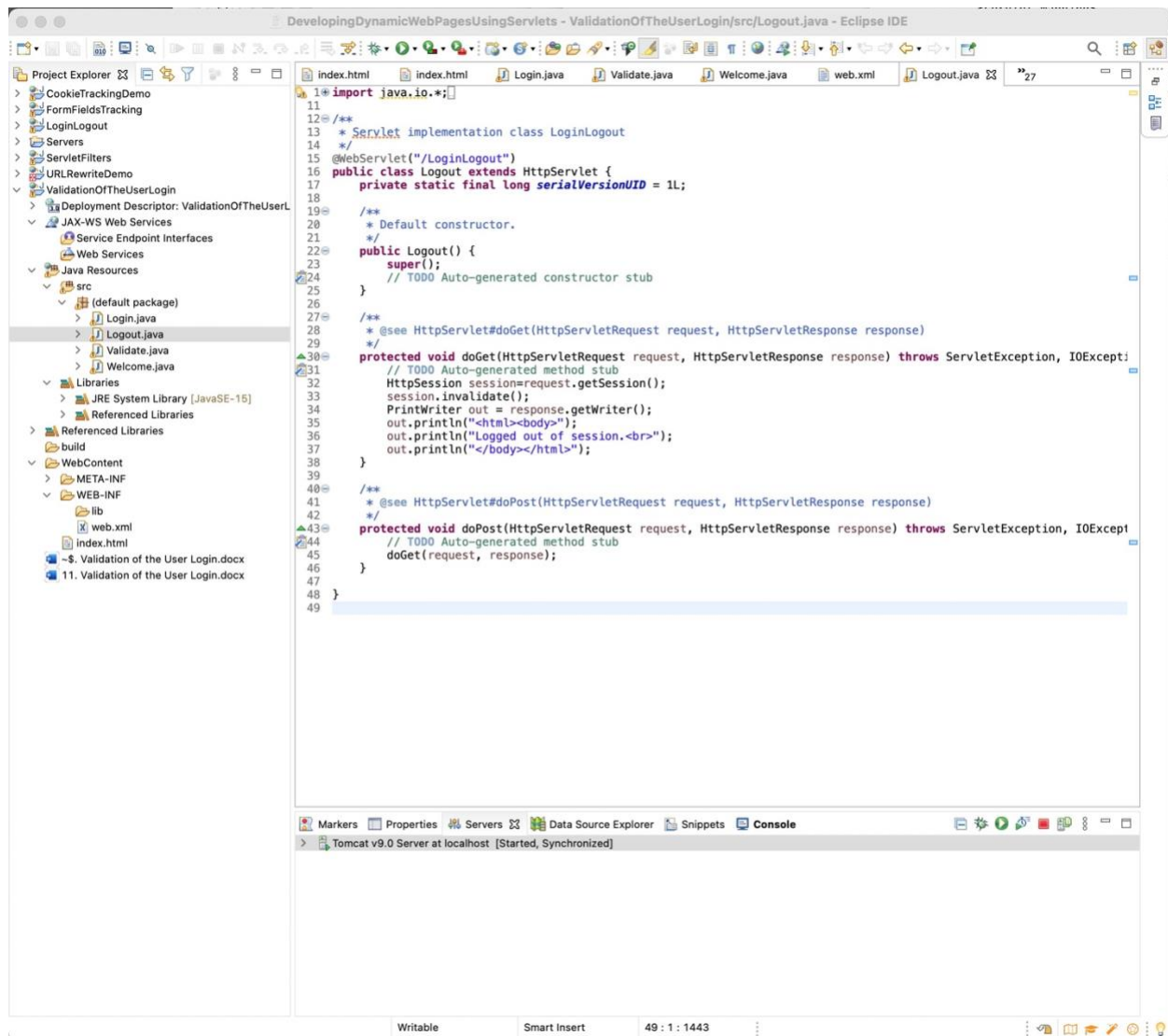
/**
 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
 */
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
    // TODO Auto-generated method stub
    response.setContentType("text/html;charset=UTF-8");
    PrintWriter out = response.getWriter();

    String email = request.getParameter("email");
    String pass = request.getParameter("pass");

    if(Validate.checkUser(email, pass))
    {
        RequestDispatcher rs = request.getRequestDispatcher("Welcome");
        rs.forward(request, response);
    }
    else
    {
        out.println("Username or Password incorrect");
        RequestDispatcher rs = request.getRequestDispatcher("index.html");
        rs.include(request, response);

    }
}
}

```



Logout.java

```
import java.io.*;
```

```
import java.io.PrintWriter;
```

```
import javax.servlet.http.HttpSession;
```

```
import java.io.IOException;
```

```
import javax.servlet.ServletException;
```

```

import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class LoginLogout
 */
@WebServlet("/LoginLogout")
public class Logout extends HttpServlet {
    private static final long serialVersionUID = 1L;

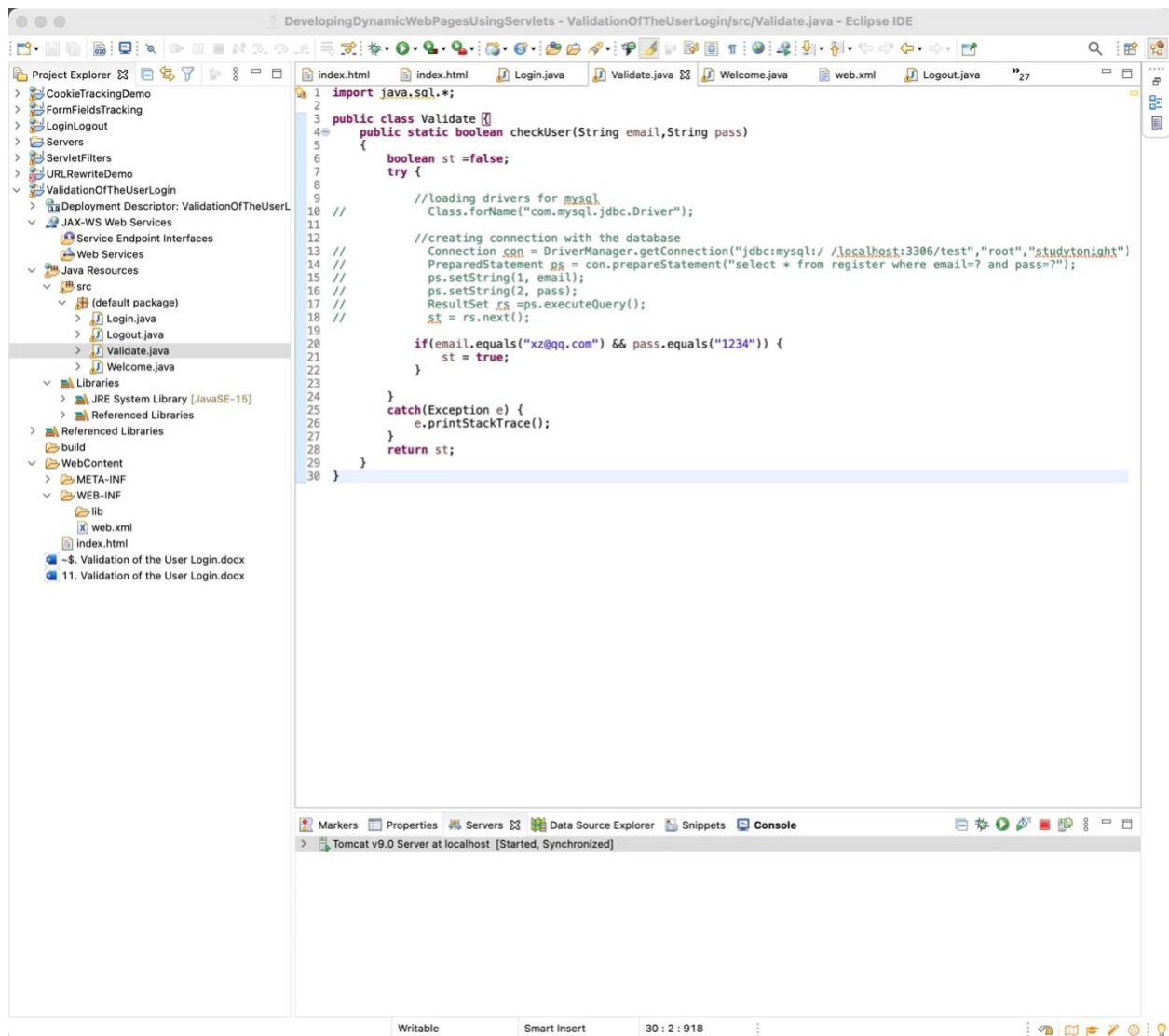
    /**
     * Default constructor.
     */
    public Logout() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // TODO Auto-generated method stub
        HttpSession session=request.getSession();
        session.invalidate();
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("Logged out of session.<br>");
    }
}

```

```
out.println("</body></html>");
    }

    /**
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // TODO Auto-generated method stub
        doGet(request, response);
    }
}
```

Validate.java

import java.sql.*;

```
public class Validate {
    public static boolean checkUser(String email,String pass)
    {
        boolean st =false;
        try {
```

//loading drivers for mysql

```

//      Class.forName("com.mysql.jdbc.Driver");

      //creating connection with the database
//      Connection con = DriverManager.getConnection("jdbc:mysql:/
/localhost:3306/test","root","studytonight");
//      PreparedStatement ps = con.prepareStatement("select * from register where email=? and
pass=?");
//      ps.setString(1, email);
//      ps.setString(2, pass);
//      ResultSet rs =ps.executeQuery();
//      st = rs.next();

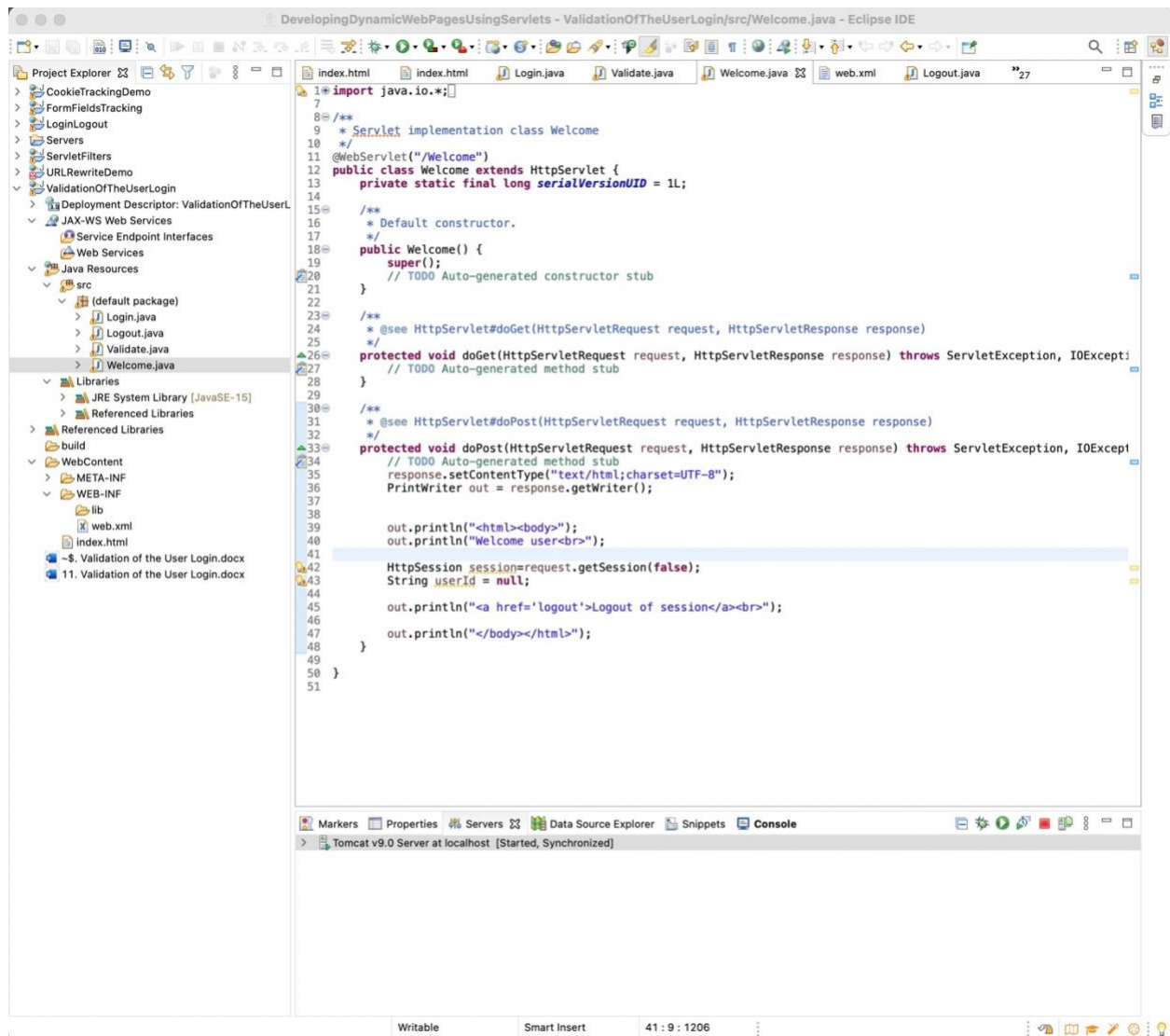
      if(email.equals("xz@qq.com") && pass.equals("1234")) {
          st = true;
      }

  }

  catch(Exception e) {
      e.printStackTrace();
  }

  return st;
}
}

```



Welcome.java

```
import java.io.*;
```

```
import javax.servlet.*;
```

```
import javax.servlet.annotation.*;
```

```
import javax.servlet.http.*;
```

```
import javax.servlet.ServletException;
```

```

import javax.servlet.annotation.WebServlet;

/**
 * Servlet implementation class Welcome
 */
@WebServlet("/Welcome")
public class Welcome extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * Default constructor.
     */
    public Welcome() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // TODO Auto-generated method stub
    }

    /**
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // TODO Auto-generated method stub
    }

```

```
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();

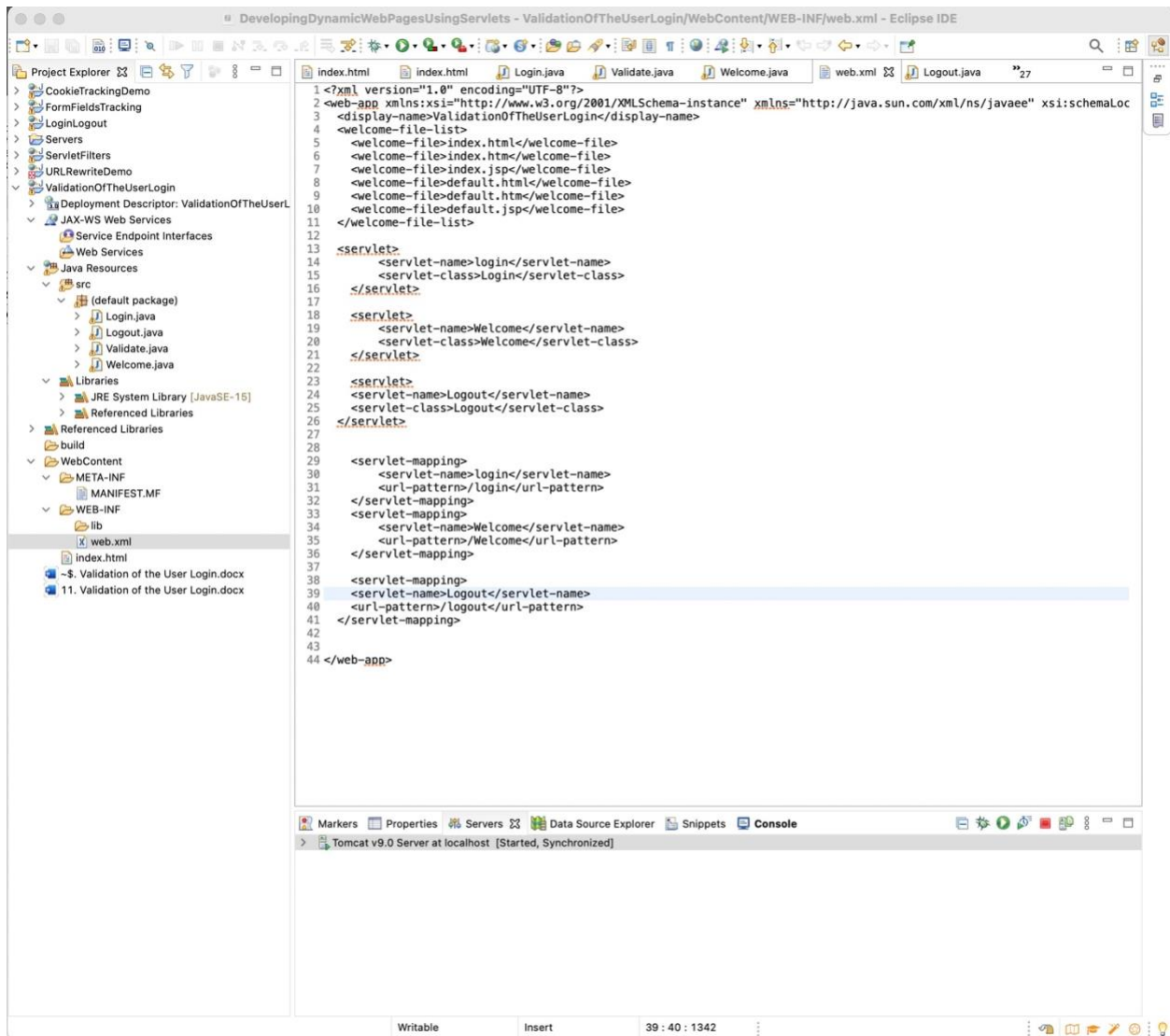
        out.println("<html><body>");
        out.println("Welcome user<br>");

        HttpSession session=request.getSession(false);
        String userId = null;

        out.println("<a href='logout'>Logout of session</a><br>");

        out.println("</body></html>");
    }

}
```



web.xml

<?xml version="1.0" encoding="UTF-8"?>

<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns="http://java.sun.com/xml/ns/javaee" xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd" id="WebApp_ID" version="3.0">

<display-name>ValidationOfTheUserLogin</display-name>

<welcome-file-list>

<welcome-file>index.html</welcome-file>

<welcome-file>index.htm</welcome-file>

<welcome-file>index.jsp</welcome-file>

```
<welcome-file>default.html</welcome-file>
<welcome-file>default.htm</welcome-file>
<welcome-file>default.jsp</welcome-file>
</welcome-file-list>
```

<servlet>

```
<servlet-name>login</servlet-name>
<servlet-class>Login</servlet-class>
```

</servlet>

<servlet>

```
<servlet-name>Welcome</servlet-name>
<servlet-class>Welcome</servlet-class>
```

</servlet>

<servlet>

```
<servlet-name>Logout</servlet-name>
<servlet-class>Logout</servlet-class>
```

</servlet>

<servlet-mapping>

```
<servlet-name>login</servlet-name>
<url-pattern>/login</url-pattern>
```

</servlet-mapping>

<servlet-mapping>

```
<servlet-name>Welcome</servlet-name>
<url-pattern>/Welcome</url-pattern>
```

</servlet-mapping>

<servlet-mapping>

```
<servlet-name>Logout</servlet-name>  
<url-pattern>/logout</url-pattern>  
</servlet-mapping>
```

```
</web-app>
```


Checking for servlet-api.jar

- Before building the project, we need to add **servlet-api.jar** to the project
- Servlet-api.jar file is already present in your practice lab. (Refer FSD: Lab Guide - Phase 2)
- To add it to the project, follow the below mentioned steps:
 - In the Project Explorer, right click on **ValidationOfTheUserLogin** and choose **Properties**
 - Select **Java Build Path** from the options on the left
 - Click on **Libraries** tab on the right
 - Under **ClassPath**, expand the node that says **Apache Tomcat**
 - If there is an existing entry for the **servlet-api.jar**, then click on **Cancel** and exit the window
 - If it is not there, then click on **Classpath** entry and click on the **Add External JARs** button on the right
 - From the file list, select the **servlet-api.jar** file and click on **Ok**
 - Click on **Apply and Close**

Building the project

- From the **Project** menu at the top, click on **Build**
- If any compile errors are shown, fix them as required

Publishing and starting the project

- If you do not see the **Servers** tab near the bottom of the IDE, go to **Window** menu and click on **Show View->Servers**
- Right click on the **Server** entry and choose **Add and Remove**
- Click the **Add** button to move **ValidationOfTheUserLogin** from the **Available** list to the **Configured** list

- Click on **Finish**
- Right click on the **Server** entry and click on **Publish**
- Right click on the **Server** entry and click on **Start**
- This will start the server

Running the project

- To run the project, open a web browser and type:
<http://localhost:8080/ValidationOfTheUserLogin>

Step 1.10.11: Pushing the code to your GitHub repositories

- Open your command prompt and navigate to the folder where you have created your files.

cd <folder path>

- Initialize your repository using the following command:

git init

- Add all the files to your git repository using the following command:

git add .

- Commit the changes using the following command:

git commit . -m "Changes have been committed."

- Push the files to the folder you initially created using the following command:

git push -u origin master

Insert title here

localhost:8080/ValidationOfTheUserLogin/

Email ID:

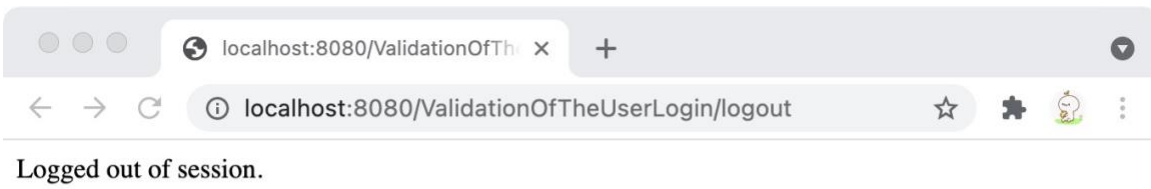
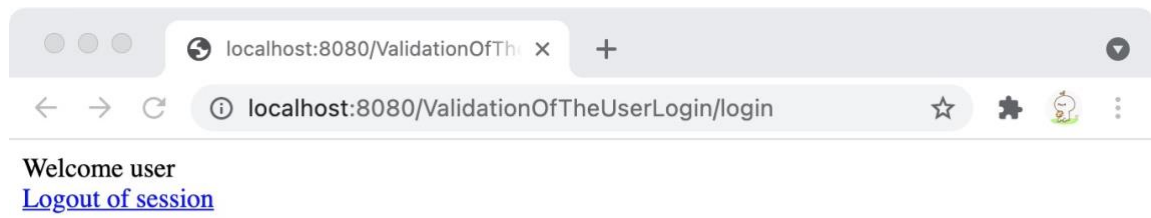
Password:

Insert title here

localhost:8080/ValidationOfTheUserLogin/

Email ID:

Password:



Insert title here

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localhost:8080/ValidationOfTheUserLogin/

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Email ID:

Password:

login

Insert title here

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localhost:8080/ValidationOfTheUserLogin/login

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Username or Password incorrect

Email ID:

Password:

login