

# User Login Web Application Documentation

## Introduction

The User Login Web Application is a servlet-based web application developed to prototype a user login scenario for an e-commerce web application. The application allows users to log in with a hardcoded email and password, displays a dashboard upon successful login, handles invalid logins with appropriate error messages, and supports user logout.

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## Setup Instructions

Follow these steps to set up and run the User Login Web Application:

### Prerequisites

- Java Development Kit (JDK)
- Eclipse IDE (or any Java IDE of your choice)
- Apache Tomcat (or another servlet container)

### Steps

- Install Eclipse IDE and Apache Tomcat.
- Create a Dynamic Web Project in Eclipse.
- Add HTML, Servlets, and JSP files to the project.
- Configure Tomcat server in Eclipse.
- Run the project on the Tomcat server.

## Project Structure

The project follows a basic structure with HTML, Java Servlets, and JSP files. The main components include:

- **WebContent:** Contains HTML and JSP files.
  - **login.html:** HTML login form.
  - **ErrorPage.jsp:** JSP page for displaying login error messages.
- **src:** Contains Java Servlets.
  - **LoginServlet.java:** Handles user login validation.
  - **DashboardServlet.java:** Displays the dashboard page.

- **LogoutServlet.java**: Handles user logout.

## HTML Login Form

The **login.html** file contains the HTML code for the login form. It includes fields for email and password and a submit button. The form action is set to the **LoginServlet** for handling the login process.

## Login Servlet

The **LoginServlet.java** file contains the Java code for handling user login validation. It retrieves user input, compares it with hardcoded values, and redirects to the dashboard on successful login or to the error page for invalid login attempts.

## Dashboard Servlet

The **DashboardServlet.java** file contains the Java code for displaying the dashboard page. Upon successful login, users are redirected to this servlet, where a simple welcome message and a logout link are displayed.

## Logout Servlet

The **LogoutServlet.java** file contains the Java code for handling user logout. It performs actions such as invalidating the session and redirecting the user to the login page.

## Error Page

The **ErrorPage.jsp** file is a JSP page that displays error messages for invalid login attempts. It provides a link to return to the login page.

## Deployment and Testing

- Configure Tomcat server in Eclipse.
- Run the project on the Tomcat server.
- Access the login page at <http://localhost:8080/UserLoginWebApp/login.html>.
- Test login functionality with hardcoded credentials.
- Verify the dashboard at <http://localhost:8080/UserLoginWebApp/DashboardServlet>.
- Test the logout functionality at <http://localhost:8080/UserLoginWebApp/LogoutServlet>.