**18CSC481-OPEN LAB-III**

**ADVANCED JAVA PROGRAMMING**

**JSP PROJECT**

**ONLINE TENDER SYSTEM**

**C. HARSHITHA**

**CB.SC.I5DAS21119**

**Version Information:**

* **IDLE Version:** Apache NetBeans-22
* **Server Version:** Apache Tomcat 11.0.0
* **Java Version:** JDK 20
* **Database Connector:** PostgreSQL JDBC Driver 42.7.4

**Overview:**

The Online Tender System is an interactive platform designed for users to view, bid on, and manage tenders while enabling admins to efficiently manage tender listings. With an intuitive interface, the application ensures a smooth experience for accessing, posting, and managing tenders for both users and administrators. This system aims to streamline the tendering process, fostering transparency and encouraging participation in public tenders.

**Features:**

**User Login and Role-Based Access**

* Users can securely log in to the system to access tender-related functionalities.
* After successful login, users and admins are directed to the main page (dashboard.jsp), where they can view available tenders and manage their interactions based on their roles.

**Tender Viewing and Bidding**

* Users can view a list of all available tenders on the platform, displayed in an organized feed on viewTenders.jsp.
* For each tender, users have access to:
  + **Tender Details**: Information about the tender, including its description, deadline, and bidding requirements.
  + **Bid Option**: Users can place a bid on any available tender by navigating to placeBid.jsp and submitting their bid information.

**Tender and Bid Management**

* Admins have access to add and manage tenders through addTender.jsp and manageBids.jsp, allowing for efficient oversight of the bidding process.
* Bids submitted by users are tracked and accessible to the admins for review, approval, or rejection.

**Inbox Navigation**

* Users have access to an inbox (dashboard.jsp) where they can view notifications and updates about their bids and other interactions on the platform.
* Easy navigation links between viewTenders.jsp, placeBid.jsp, and dashboard.jsp ensure users can seamlessly switch between viewing tenders, placing bids, and checking messages.

**Technology Stack:**

* **Frontend**: HTML and CSS are utilized to create a clean, responsive, and professional user interface, enhancing the user experience across all pages.
* **Backend**: JSP files handle business logic and user request processing directly, ensuring efficient and streamlined operations without additional servlets.
* **Database**: PostgreSQL serves as the database for securely storing user details, tender information, bids, and other interactions within the system.
* **Server**: The application is hosted on Apache Tomcat, a reliable and robust Java-enabled web server optimized for Java-based applications.
* **IDE**: Development is conducted in Apache NetBeans-22, which supports effective code management, project structuring, and debugging.

**Implementation:**

**Project Setup**

1. **Create Java Web Project**: Set up the project in Apache NetBeans, configuring necessary project settings for JSP-based development.
2. **Database Setup**: Initialize a PostgreSQL database with tables for user data, tender information, and bids. Ensure the database structure accommodates user roles for role-based access and interaction tracking.
3. **Database Connection**: Use a DatabaseConnection class or similar configuration to manage database connections to PostgreSQL, optimizing resource usage and maintaining secure data handling.

**Code Structure**

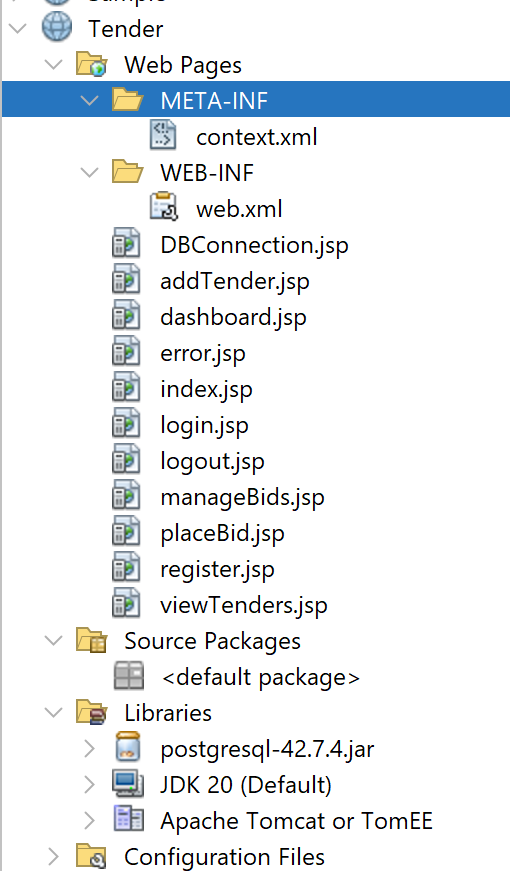
1. **JSP Pages**: The application’s user interface is built with JSP files, each catering to specific functionalities:
   1. **index.jsp**: The main landing page where users can log in or register.
   2. **login.jsp**: Handles user login.
   3. **register.jsp**: Allows new users to register for the platform.
   4. **viewTenders.jsp**: Displays all available tenders for users to browse.
   5. **placeBid.jsp**: Enables users to submit bids for tenders.
   6. **dashboard.jsp**: A shared dashboard for both users and admins, providing role-based access to relevant features.
   7. **addTender.jsp**: Allows admins to add new tenders to the platform.
   8. **manageBids.jsp**: Admins can review and manage submitted bids.
   9. **error.jsp**: Displays error messages for user guidance.
2. **Database Connection Class**: Manages all interactions with the PostgreSQL database, supporting efficient data retrieval, insertion, and transaction handling.

**User Flow**

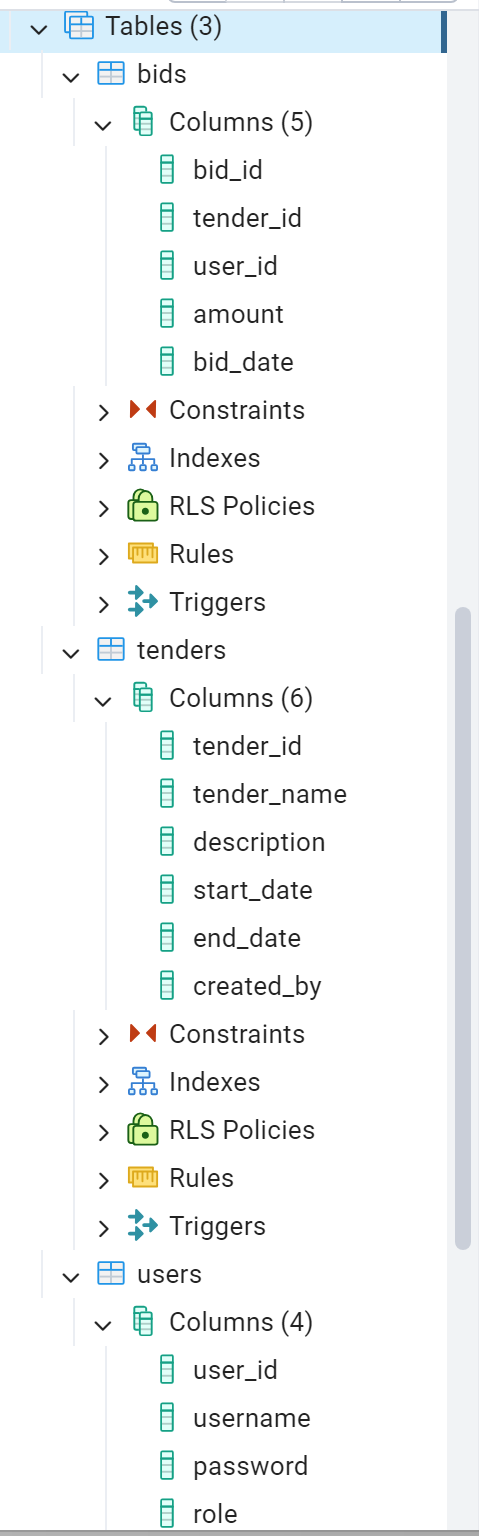
1. **Login**: Users log in via **login.jsp**. Successful authentication redirects users to **dashboard.jsp**.
2. **Tender Viewing and Bidding**:
   1. **viewTenders.jsp**: Users can view available tenders.
   2. **placeBid.jsp**: Users submit their bids for tenders they wish to participate in.
3. **Admin Management**:
   1. **addTender.jsp**: Admins can add new tenders to the system.
   2. **manageBids.jsp**: Admins can monitor and manage bids submitted by users.
4. **Role-Based Dashboard Navigation**:
   1. **dashboard.jsp**: Users and admins share this page, with content displayed based on their roles, allowing them to navigate to appropriate sections like viewing tenders or managing bids.

**Project Architecture:**

* Structure of project :



* DATABASE TABLES:



**SOURCE CODE:**

1. **INDEX.JSP**

<%@ page contentType="text/html;charset=UTF-8" language="java" %>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

h2 {

color: #333;

text-align: center;

}

.container {

max-width: 800px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

.description {

margin: 20px 0;

text-align: justify;

line-height: 1.6;

}

.links {

text-align: center;

margin-top: 20px;

}

a {

text-decoration: none;

color: #007BFF;

font-weight: bold;

margin: 0 15px;

}

a:hover {

text-decoration: underline;

}

</style>

</head>

<body>

<div class="container">

<h2>Welcome to the Online Tender System</h2>

<%

String logoutMessage = request.getParameter("logout");

if ("true".equals(logoutMessage)) {

out.println("<p style='color: green;'>You have logged out successfully.</p>");

}

%>

<div class="description">

<p>

The Online Tender System is designed to streamline the tendering process, allowing users to easily view available tenders, place bids, and for admins to manage the entire process efficiently. Our platform aims to foster transparency and competitive bidding, ensuring that all participants have equal opportunities to submit their proposals.

</p>

<p>

Whether you are a bidder looking for the best opportunities or an administrator managing the tenders, our system provides an intuitive interface to help you navigate the process with ease.

</p>

</div>

<div class="links">

<a href="login.jsp">Login</a> | <a href="register.jsp">Register</a>

</div>

</div>

</body>

</html>

1. **DBCONNECTION.JSP**

<%@ page import="java.sql.\*" %>

<%!

public Connection getConnection() throws SQLException, ClassNotFoundException {

Class.forName("org.postgresql.Driver");

String url = "jdbc:postgresql://localhost:3157/tender\_system";

String user = "postgres";

String password = "9398040754";

return DriverManager.getConnection(url, user, password);

}

%>

1. REGISTER.JSP

<%@ include file="DBConnection.jsp" %>

<%

if (request.getMethod().equalsIgnoreCase("post")) {

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

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

String role = request.getParameter("role");

try (Connection conn = getConnection()) {

PreparedStatement ps = conn.prepareStatement("INSERT INTO users (username, password, role) VALUES (?, ?, ?)");

ps.setString(1, username);

ps.setString(2, password);

ps.setString(3, role);

ps.executeUpdate();

response.sendRedirect("login.jsp");

} catch (Exception e) {

e.printStackTrace();

response.sendRedirect("error.jsp");

}

}

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Register - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

.container {

max-width: 400px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h2 {

text-align: center;

color: #333;

}

input[type="text"], input[type="password"], select {

width: 100%;

padding: 10px;

margin: 10px 0;

border: 1px solid #ccc;

border-radius: 5px;

}

button {

width: 100%;

padding: 10px;

background-color: #007BFF;

border: none;

border-radius: 5px;

color: white;

font-size: 16px;

cursor: pointer;

}

button:hover {

background-color: #0056b3;

}

.links {

text-align: center;

margin-top: 20px;

}

</style>

</head>

<body>

<div class="container">

<h2>Register</h2>

<form action="register.jsp" method="post">

<input type="text" name="username" placeholder="Username" required>

<input type="password" name="password" placeholder="Password" required>

<select name="role" required>

<option value="" disabled selected>Select your role</option>

<option value="user">User</option>

<option value="admin">Admin</option>

</select>

<button type="submit">Register</button>

</form>

<div class="links">

<p>Already have an account? <a href="login.jsp">Login here</a></p>

</div>

</div>

</body>

</html>

1. **LOGIN.JSP**

<%@ include file="DBConnection.jsp" %>

<%

if (request.getMethod().equalsIgnoreCase("post")) {

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

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

try (Connection conn = getConnection()) {

PreparedStatement ps = conn.prepareStatement("SELECT \* FROM users WHERE username = ? AND password = ?");

ps.setString(1, username);

ps.setString(2, password);

ResultSet rs = ps.executeQuery();

if (rs.next()) {

session.setAttribute("user\_id", rs.getInt("user\_id")); // Store user ID in session

session.setAttribute("username", rs.getString("username"));

session.setAttribute("role", rs.getString("role"));

response.sendRedirect("dashboard.jsp");

} else {

out.println("<p class='error'>Invalid credentials. Please try again.</p>");

}

} catch (Exception e) {

e.printStackTrace();

response.sendRedirect("error.jsp");

}

}

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Login - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

.container {

max-width: 400px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h2 {

text-align: center;

color: #333;

}

input[type="text"], input[type="password"] {

width: 100%;

padding: 10px;

margin: 10px 0;

border: 1px solid #ccc;

border-radius: 5px;

}

button {

width: 100%;

padding: 10px;

background-color: #007BFF;

border: none;

border-radius: 5px;

color: white;

font-size: 16px;

cursor: pointer;

}

button:hover {

background-color: #0056b3;

}

.error {

color: red;

text-align: center;

margin-top: 10px;

}

</style>

</head>

<body>

<div class="container">

<h2>Login</h2>

<form action="login.jsp" method="post">

<input type="text" name="username" placeholder="Username" required>

<input type="password" name="password" placeholder="Password" required>

<button type="submit">Login</button>

</form>

<div class="links">

<p>Don't have an account? <a href="register.jsp">Register here</a></p>

</div>

</div>

</body>

</html>

1. **DASHBOARD.JSP**

<%@ page import="java.sql.\*" %>

<%@ include file="DBConnection.jsp" %>

<%

// Check if the user is logged in; if not, redirect to the login page

if (session.getAttribute("username") == null) {

response.sendRedirect("login.jsp");

}

// Get the user's role from the session

String role = (String) session.getAttribute("role");

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Dashboard - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

.container {

max-width: 800px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h1 {

color: #333;

text-align: center;

}

h2 {

color: #555;

}

ul {

list-style-type: none;

padding: 0;

}

li {

margin: 10px 0;

}

a {

text-decoration: none;

color: #007BFF;

font-weight: bold;

}

a:hover {

text-decoration: underline;

}

.logout {

display: block;

margin-top: 20px;

text-align: center;

background-color: #ff4444;

color: white;

padding: 10px;

border-radius: 5px;

text-decoration: none;

}

.logout:hover {

background-color: #c0392b;

}

</style>

</head>

<body>

<div class="container">

<h1>Welcome, <%= session.getAttribute("username") %></h1>

<h2>Available Actions:</h2>

<ul>

<li><a href="viewTenders.jsp">View Tenders</a></li>

<li><a href="placeBid.jsp">Place Bid</a></li>

<li><a href="manageBids.jsp">Manage Bids</a></li> <!-- Accessible to both users and admins -->

<% if ("admin".equals(role)) { %>

<li><a href="addTender.jsp">Add Tender</a></li>

<% } %>

</ul>

<a class="logout" href="logout.jsp">Logout</a>

</div>

</body>

</html>

1. **ADDTENDER.JSP**

<%@ include file="DBConnection.jsp" %>

<%

// Check if the user is logged in and has admin privileges

if (session.getAttribute("username") == null || !"admin".equals(session.getAttribute("role"))) {

response.sendRedirect("login.jsp");

}

// Process form submission

if (request.getMethod().equalsIgnoreCase("post")) {

String tenderName = request.getParameter("tenderName");

String description = request.getParameter("description");

String startDate = request.getParameter("startDate");

String endDate = request.getParameter("endDate");

int createdBy = (int) session.getAttribute("user\_id"); // Assume user\_id is set at login

try (Connection conn = getConnection()) {

// Prepare SQL statement for inserting a new tender

PreparedStatement ps = conn.prepareStatement("INSERT INTO tenders (tender\_name, description, start\_date, end\_date, created\_by) VALUES (?, ?, ?, ?, ?)");

ps.setString(1, tenderName);

ps.setString(2, description);

ps.setDate(3, Date.valueOf(startDate));

ps.setDate(4, Date.valueOf(endDate));

ps.setInt(5, createdBy);

ps.executeUpdate();

response.sendRedirect("dashboard.jsp");

} catch (Exception e) {

e.printStackTrace();

response.sendRedirect("error.jsp");

}

}

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Add Tender - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

.container {

max-width: 600px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h2 {

color: #333;

text-align: center;

}

label {

display: block;

margin: 10px 0 5px;

}

input[type="text"], input[type="date"], textarea {

width: 100%;

padding: 10px;

margin-bottom: 15px;

border: 1px solid #ccc;

border-radius: 5px;

}

button {

width: 100%;

padding: 10px;

background-color: #007BFF;

border: none;

border-radius: 5px;

color: white;

font-size: 16px;

cursor: pointer;

}

button:hover {

background-color: #0056b3;

}

</style>

</head>

<body>

<div class="container">

<h2>Add New Tender</h2>

<form action="addTender.jsp" method="post">

<label for="tenderName">Tender Name:</label>

<input type="text" name="tenderName" placeholder="Tender Name" required>

<label for="description">Description:</label>

<textarea name="description" placeholder="Description" required></textarea>

<label for="startDate">Start Date:</label>

<input type="date" name="startDate" required>

<label for="endDate">End Date:</label>

<input type="date" name="endDate" required>

<button type="submit">Add Tender</button>

</form>

</div>

</body>

</html>

1. **PLACEBID.JSP**

<%@ include file="DBConnection.jsp" %>

<%

// Check if user is logged in

if (session.getAttribute("username") == null) {

response.sendRedirect("login.jsp");

}

// Check if form is submitted

if (request.getMethod().equalsIgnoreCase("post")) {

int tenderId = Integer.parseInt(request.getParameter("tenderId"));

double amount = Double.parseDouble(request.getParameter("amount"));

int userId = (int) session.getAttribute("user\_id"); // Assume user\_id is set at login

// Insert the bid into the database

try (Connection conn = getConnection()) {

PreparedStatement ps = conn.prepareStatement("INSERT INTO bids (tender\_id, user\_id, amount) VALUES (?, ?, ?)");

ps.setInt(1, tenderId);

ps.setInt(2, userId);

ps.setDouble(3, amount);

ps.executeUpdate();

// Redirect to manageBids.jsp after successful bid

response.sendRedirect("manageBids.jsp");

} catch (Exception e) {

e.printStackTrace();

response.sendRedirect("error.jsp");

}

}

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Place Bid - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

.container {

max-width: 600px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h2 {

color: #333;

text-align: center;

}

input[type="number"], input[type="text"] {

width: 100%;

padding: 10px;

margin-bottom: 15px;

border: 1px solid #ccc;

border-radius: 5px;

}

button {

width: 100%;

padding: 10px;

background-color: #007BFF;

border: none;

border-radius: 5px;

color: white;

font-size: 16px;

cursor: pointer;

}

button:hover {

background-color: #0056b3;

}

</style>

</head>

<body>

<div class="container">

<h2>Place Your Bid</h2>

<form action="placeBid.jsp" method="post">

<input type="number" name="tenderId" placeholder="Tender ID" required>

<input type="text" name="amount" placeholder="Bid Amount" required>

<button type="submit">Place Bid</button>

</form>

</div>

</body>

</html>

1. **VIEWTENDERS.JSP**

<%@ include file="DBConnection.jsp" %>

<%

// Check if the user is logged in

if (session.getAttribute("username") == null) {

response.sendRedirect("login.jsp");

return; // Ensure no further processing occurs

}

// Retrieve the success or error message from the session

String message = (String) session.getAttribute("tenderMessage");

session.removeAttribute("tenderMessage"); // Clear the message after displaying it

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>View Tenders - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

h2 {

color: #333;

text-align: center;

}

.container {

max-width: 800px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

table {

width: 100%;

border-collapse: collapse;

margin-top: 20px;

}

th, td {

padding: 10px;

text-align: left;

border: 1px solid #ccc;

}

th {

background-color: #007BFF;

color: white;

}

tr:nth-child(even) {

background-color: #f2f2f2;

}

.message {

color: green;

text-align: center;

font-weight: bold;

}

</style>

</head>

<body>

<div class="container">

<h2>Available Tenders</h2>

<% if (message != null) { %>

<p class="message"><%= message %></p>

<% } %>

<!-- Display tenders from the database -->

<table>

<thead>

<tr>

<th>Tender ID</th> <!-- Added Tender ID header -->

<th>Tender Name</th>

<th>Description</th>

<th>Start Date</th>

<th>End Date</th>

</tr>

</thead>

<tbody>

<%

try (Connection conn = getConnection()) {

PreparedStatement ps = conn.prepareStatement("SELECT tender\_id, tender\_name, description, start\_date, end\_date FROM tenders");

ResultSet rs = ps.executeQuery();

while (rs.next()) {

%>

<tr>

<td><%= rs.getInt("tender\_id") %></td> <!-- Display Tender ID -->

<td><%= rs.getString("tender\_name") %></td>

<td><%= rs.getString("description") %></td>

<td><%= rs.getDate("start\_date") %></td>

<td><%= rs.getDate("end\_date") %></td>

</tr>

<%

}

} catch (Exception e) {

e.printStackTrace();

}

%>

</tbody>

</table>

</div>

</body>

</html>

1. **MANAGEBIDS.JSP**

<%@ include file="DBConnection.jsp" %>

<%

// Check if the user is logged in

if (session.getAttribute("username") == null) {

response.sendRedirect("login.jsp");

return; // Ensure no further processing occurs

}

// Get the user's role to check if they are an admin

String role = (String) session.getAttribute("role");

%>

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Manage Bids - Online Tender System</title>

<link rel="stylesheet" href="styles.css"> <!-- Link to your CSS file -->

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

background-color: #f4f4f4;

}

.container {

max-width: 800px;

margin: auto;

background: white;

padding: 20px;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h2 {

color: #333;

text-align: center;

}

table {

width: 100%;

border-collapse: collapse;

margin-top: 20px;

}

th, td {

padding: 10px;

text-align: left;

border: 1px solid #ccc;

}

th {

background-color: #007BFF;

color: white;

}

tr:nth-child(even) {

background-color: #f2f2f2;

}

.message {

color: green;

text-align: center;

font-weight: bold;

}

</style>

</head>

<body>

<div class="container">

<%

if (!"admin".equals(role)) {

// Query to get bids for the logged-in user

try (Connection conn = getConnection()) {

String sql = "SELECT b.bid\_id, b.amount, b.bid\_date, t.tender\_name " +

"FROM bids b " +

"JOIN tenders t ON b.tender\_id = t.tender\_id " +

"WHERE b.user\_id = ?";

PreparedStatement ps = conn.prepareStatement(sql);

ps.setInt(1, (int) session.getAttribute("user\_id")); // Assume user\_id is stored in the session

ResultSet rs = ps.executeQuery();

out.println("<h2>Your Bids</h2>");

out.println("<table>");

out.println("<tr><th>Bid ID</th><th>Tender Name</th><th>Amount</th><th>Bid Date</th></tr>");

// Loop through the results and display each bid

while (rs.next()) {

out.println("<tr>");

out.println("<td>" + rs.getInt("bid\_id") + "</td>");

out.println("<td>" + rs.getString("tender\_name") + "</td>");

out.println("<td>" + rs.getDouble("amount") + "</td>");

out.println("<td>" + rs.getDate("bid\_date") + "</td>");

out.println("</tr>");

}

out.println("</table>");

} catch (Exception e) {

e.printStackTrace();

response.sendRedirect("error.jsp");

}

} else {

// Admin section to view all bids

try (Connection conn = getConnection()) {

// Query to get all bids along with corresponding tender name and username

String sql = "SELECT b.bid\_id, b.amount, b.bid\_date, t.tender\_name, u.username " +

"FROM bids b " +

"JOIN tenders t ON b.tender\_id = t.tender\_id " +

"JOIN users u ON b.user\_id = u.user\_id";

PreparedStatement ps = conn.prepareStatement(sql);

ResultSet rs = ps.executeQuery();

out.println("<h2>Manage All Bids</h2>");

out.println("<table>");

out.println("<tr><th>Bid ID</th><th>Tender Name</th><th>Username</th><th>Amount</th><th>Bid Date</th></tr>");

// Loop through the results and display each bid

while (rs.next()) {

out.println("<tr>");

out.println("<td>" + rs.getInt("bid\_id") + "</td>");

out.println("<td>" + rs.getString("tender\_name") + "</td>");

out.println("<td>" + rs.getString("username") + "</td>");

out.println("<td>" + rs.getDouble("amount") + "</td>");

out.println("<td>" + rs.getDate("bid\_date") + "</td>");

out.println("</tr>");

}

out.println("</table>");

} catch (Exception e) {

e.printStackTrace();

response.sendRedirect("error.jsp");

}

}

%>

</div>

</body>

</html>

**10.LOGOUT.JSP**

<%@ page language="java" contentType="text/html; charset=UTF-8"

pageEncoding="UTF-8"%>

<%

// Invalidate the session to log out the user

session.invalidate();

// Redirect to the welcome page (index.jsp)

response.sendRedirect("index.jsp");

%>

**11. ERROR.JSP**

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<title>Error - Online Tender System</title>

<style>

body {

font-family: Arial, sans-serif;

background-color: #f8f8f8;

color: #333;

margin: 0;

padding: 20px;

}

.container {

max-width: 600px;

margin: auto;

padding: 20px;

background-color: white;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h1 {

color: #c0392b;

}

p {

font-size: 16px;

}

a {

color: #2980b9;

text-decoration: none;

}

a:hover {

text-decoration: underline;

}

.back-link {

margin-top: 20px;

display: inline-block;

padding: 10px 15px;

background-color: #2980b9;

color: white;

border-radius: 5px;

}

.back-link:hover {

background-color: #3498db;

}

</style>

</head>

<body>

<div class="container">

<h1>Error</h1>

<p>Oops! Something went wrong. Please try again later.</p>

<p>If you need assistance, feel free to contact support.</p>

<a class="back-link" href="index.jsp">Go Back to Home</a>

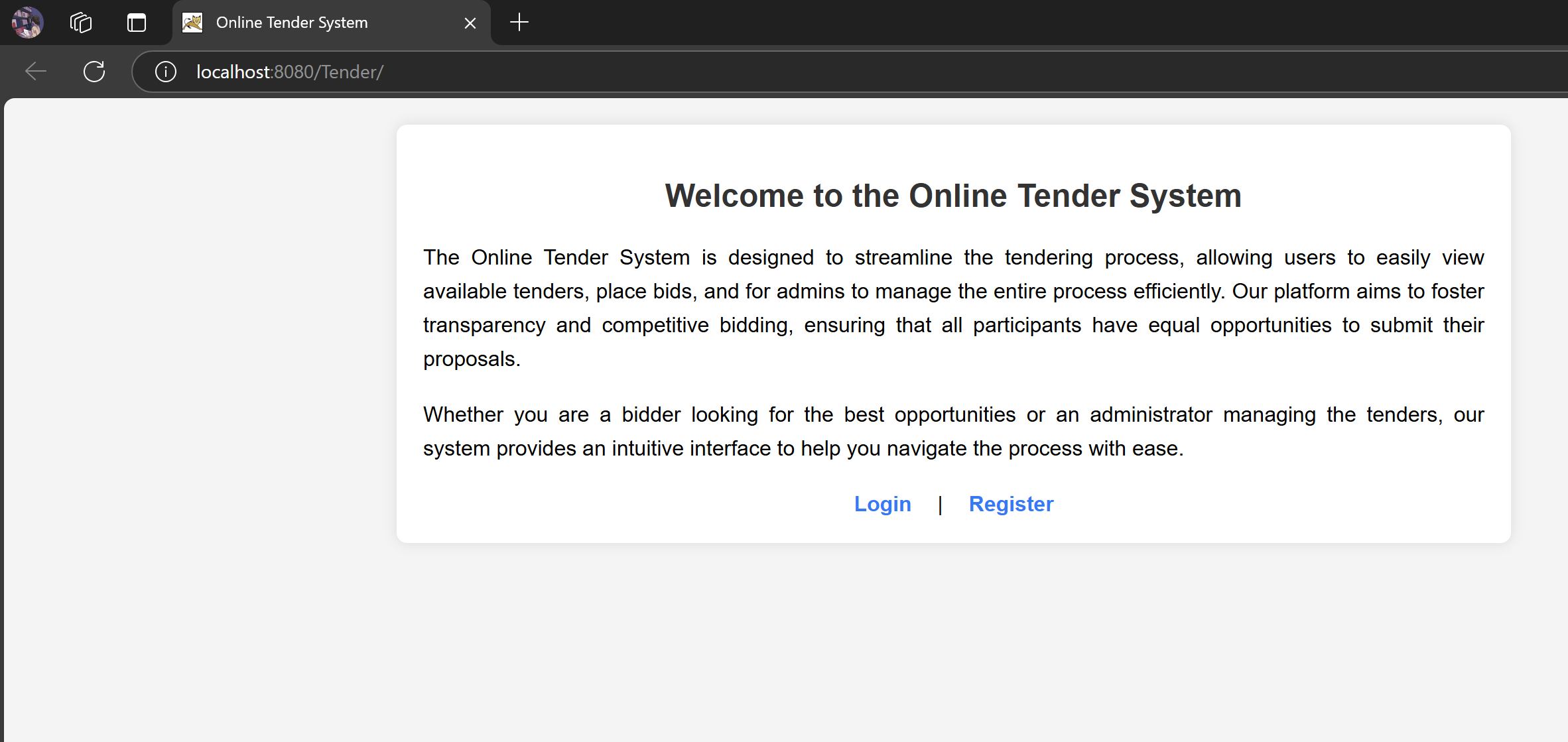
</div>

</body>

</html>

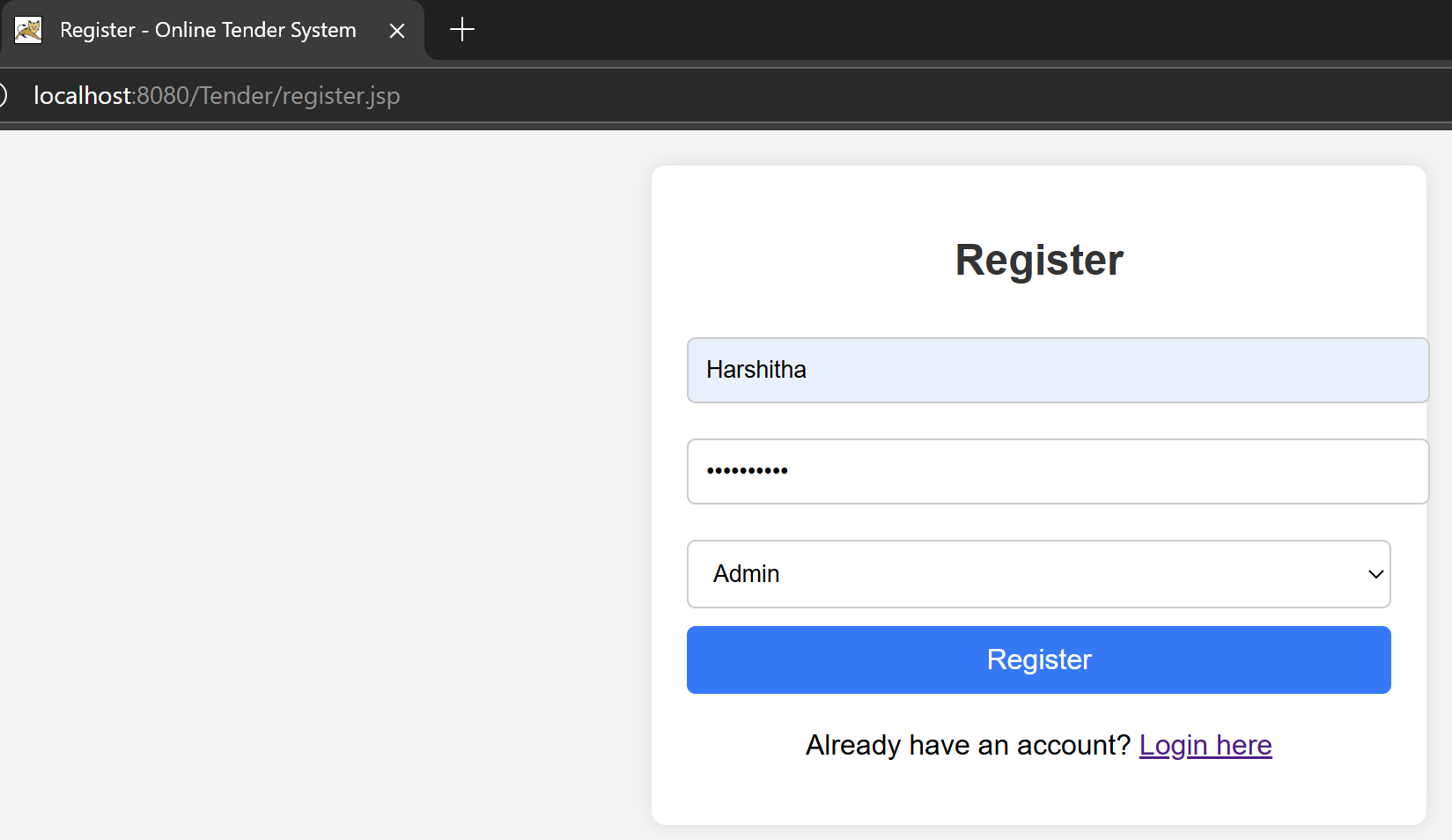
**OUTPUT**:

INDEX PAGE:

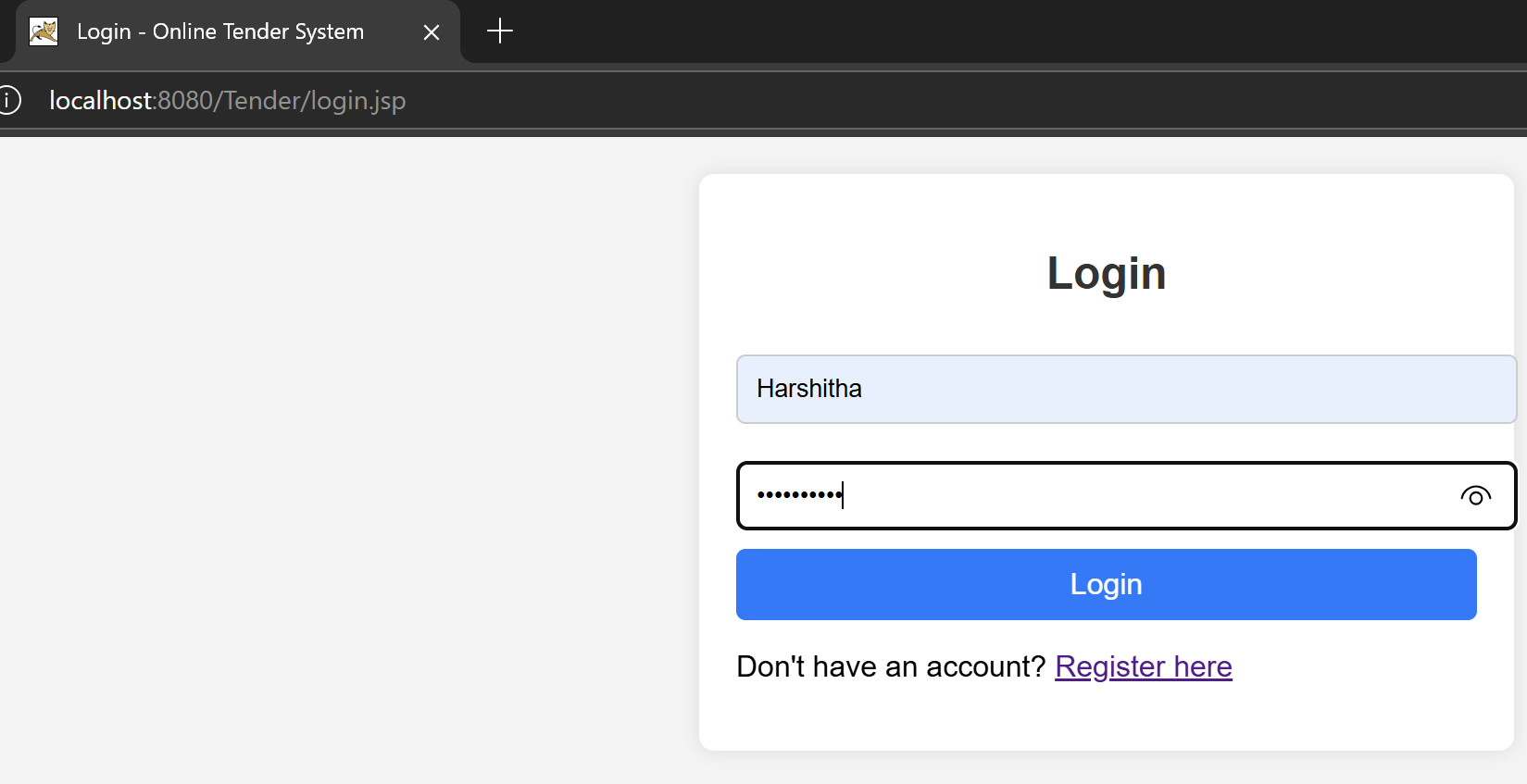


IF ROLE IS ADMIN:

REGISTER PAGE:

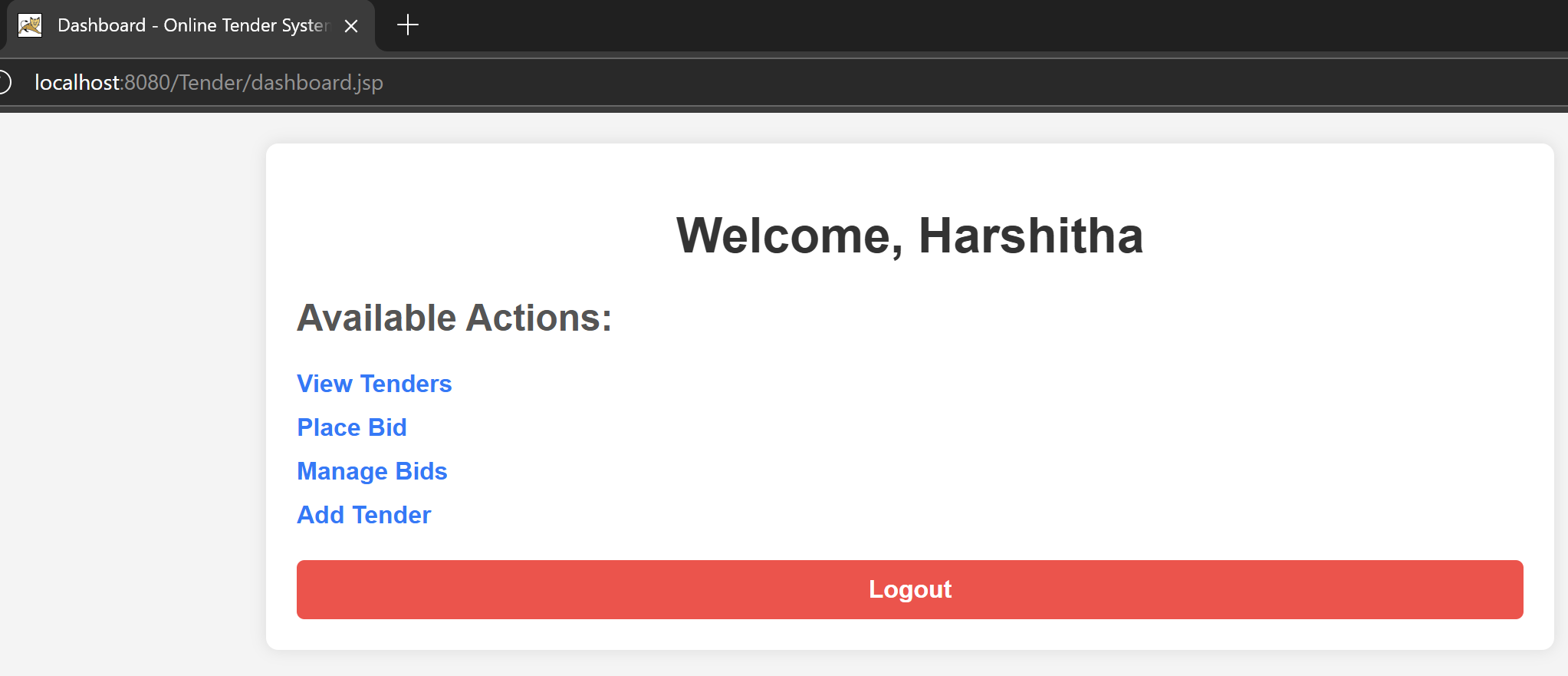


LOGIN PAGE:

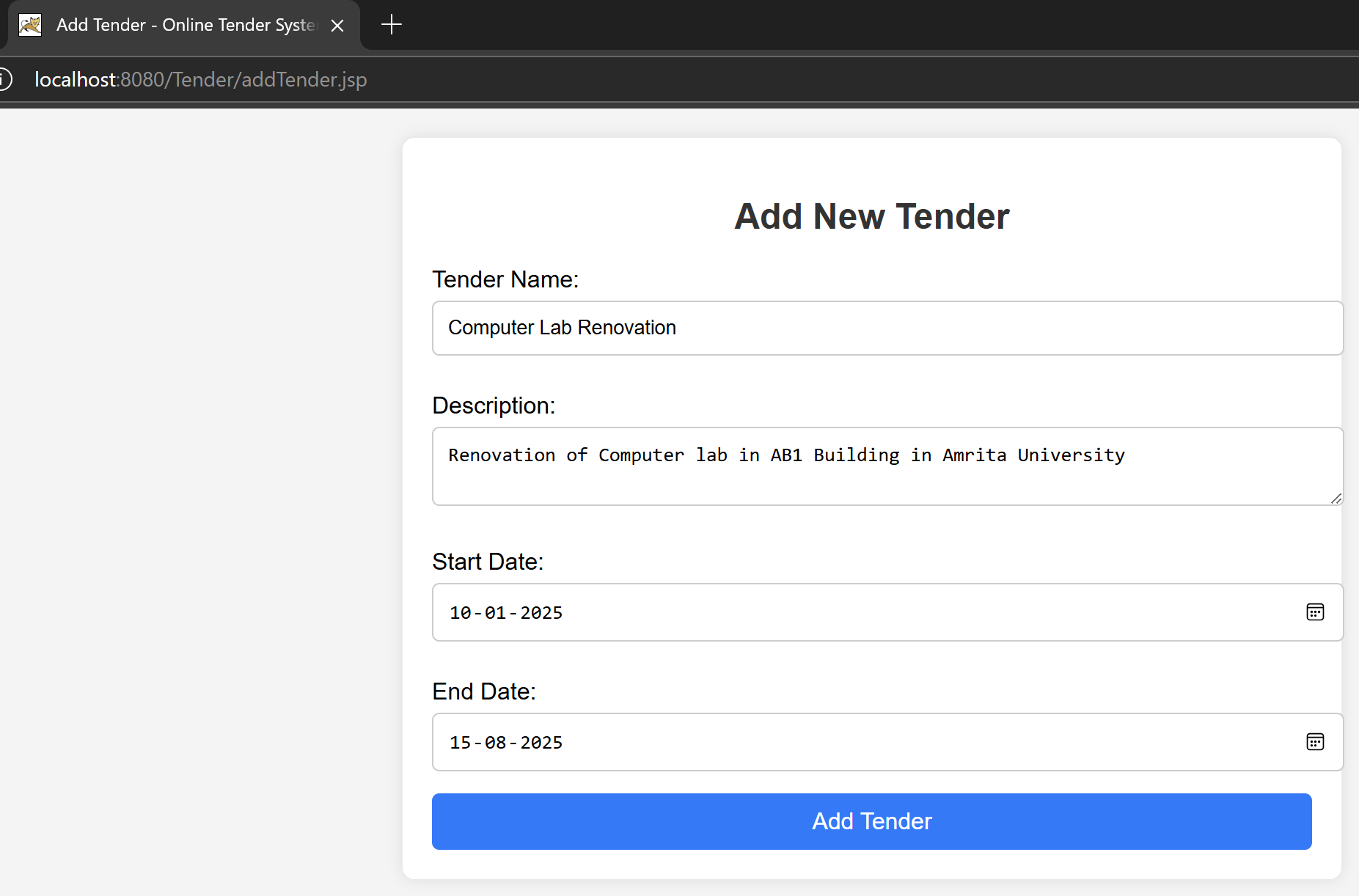


DASHBOARD PAGE:

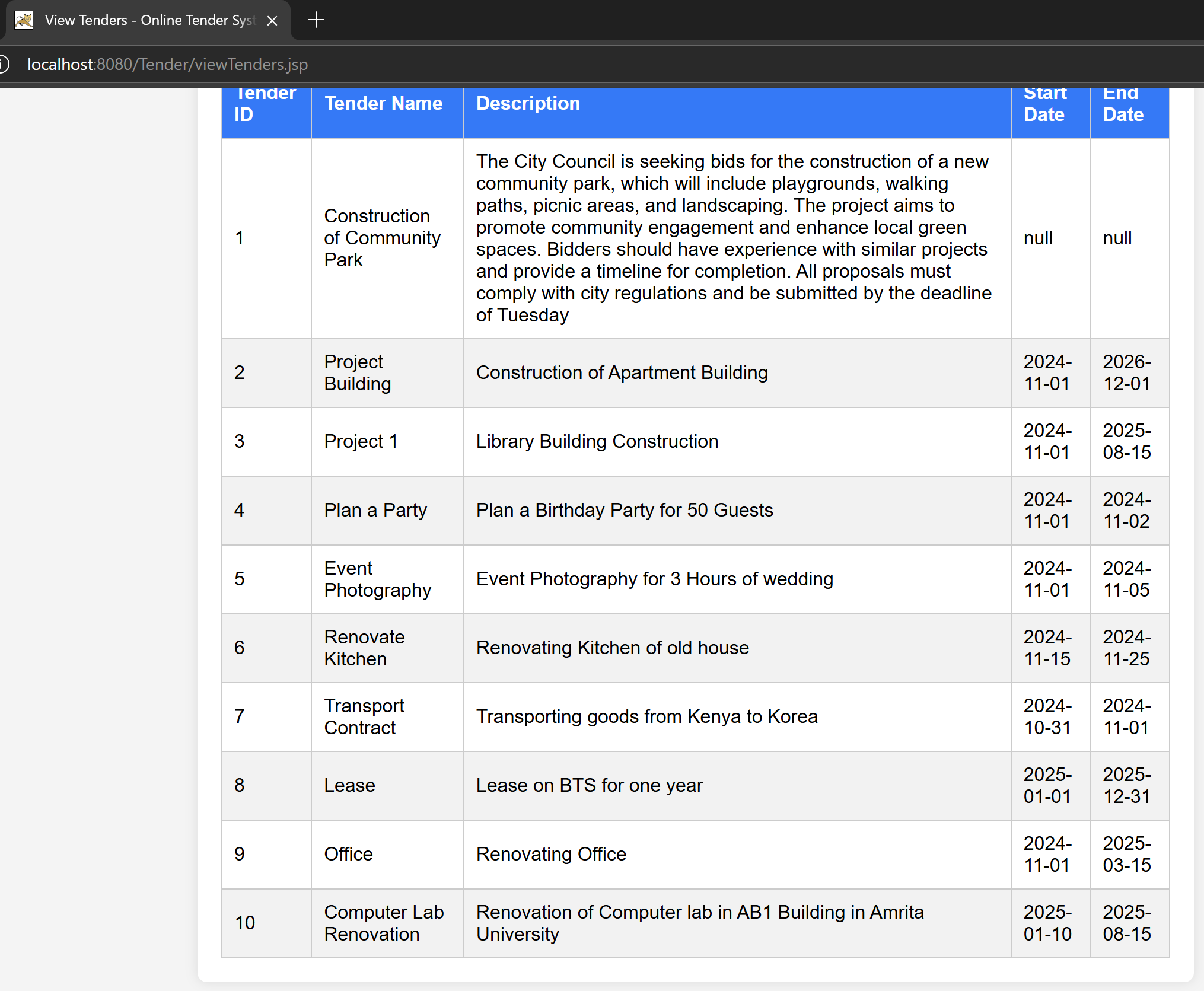
* Since it is admin, we will have add tender page



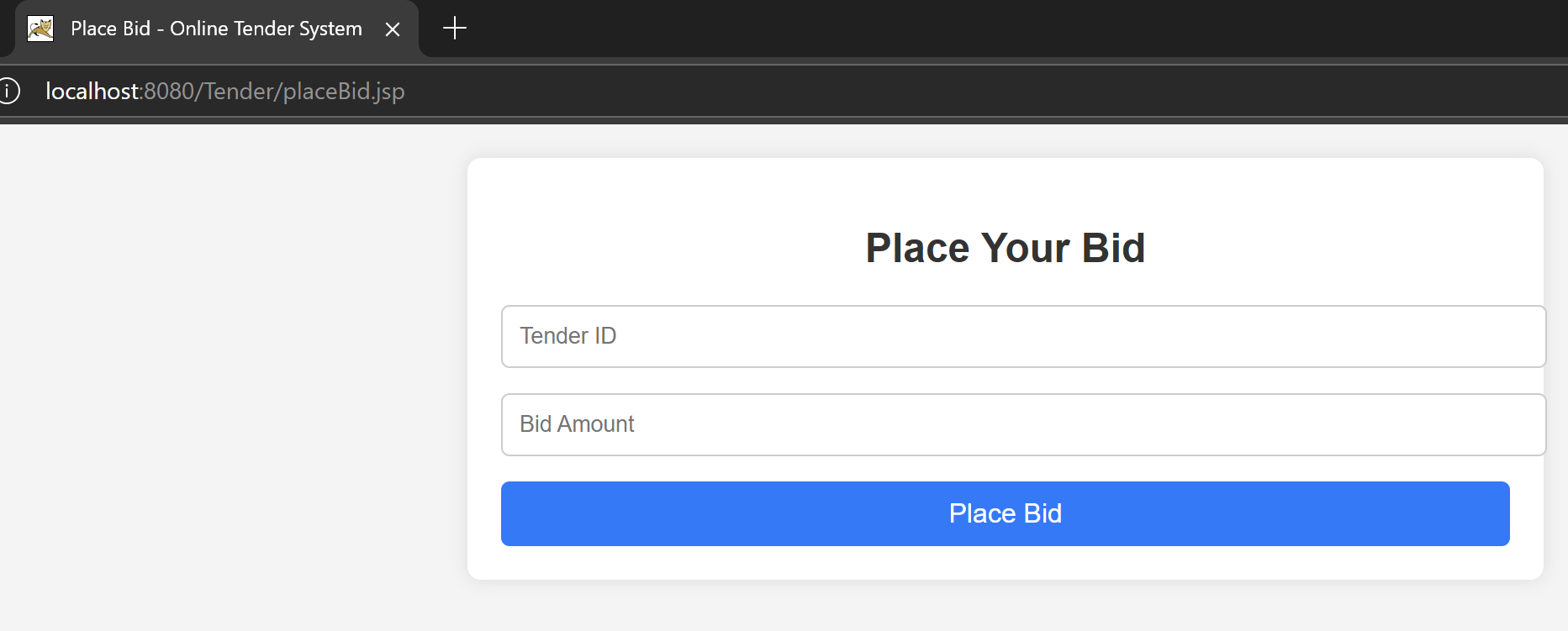
ADD TENDER PAGE:

VIEW

TENDERS PAGE:

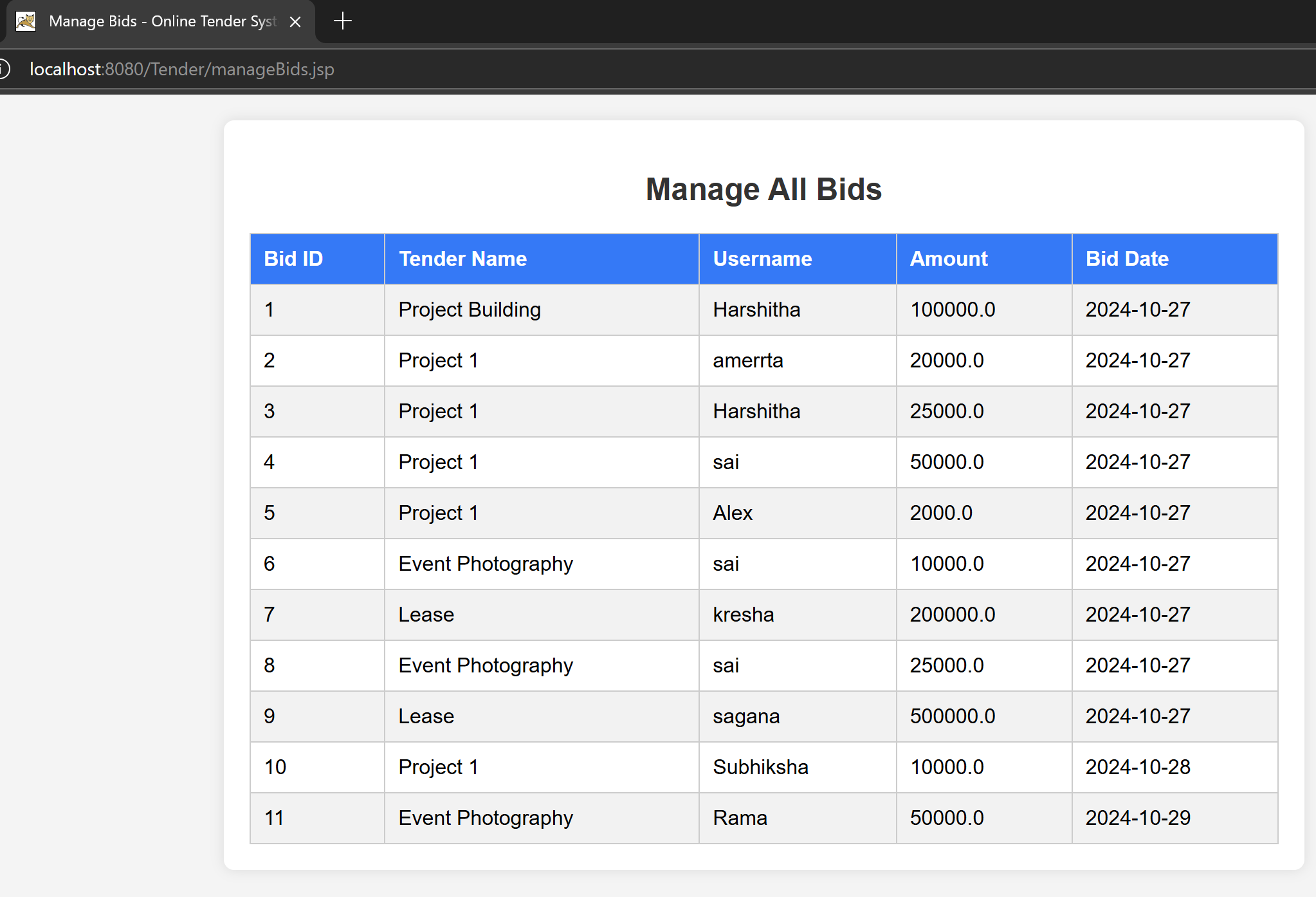


PLACE BID:



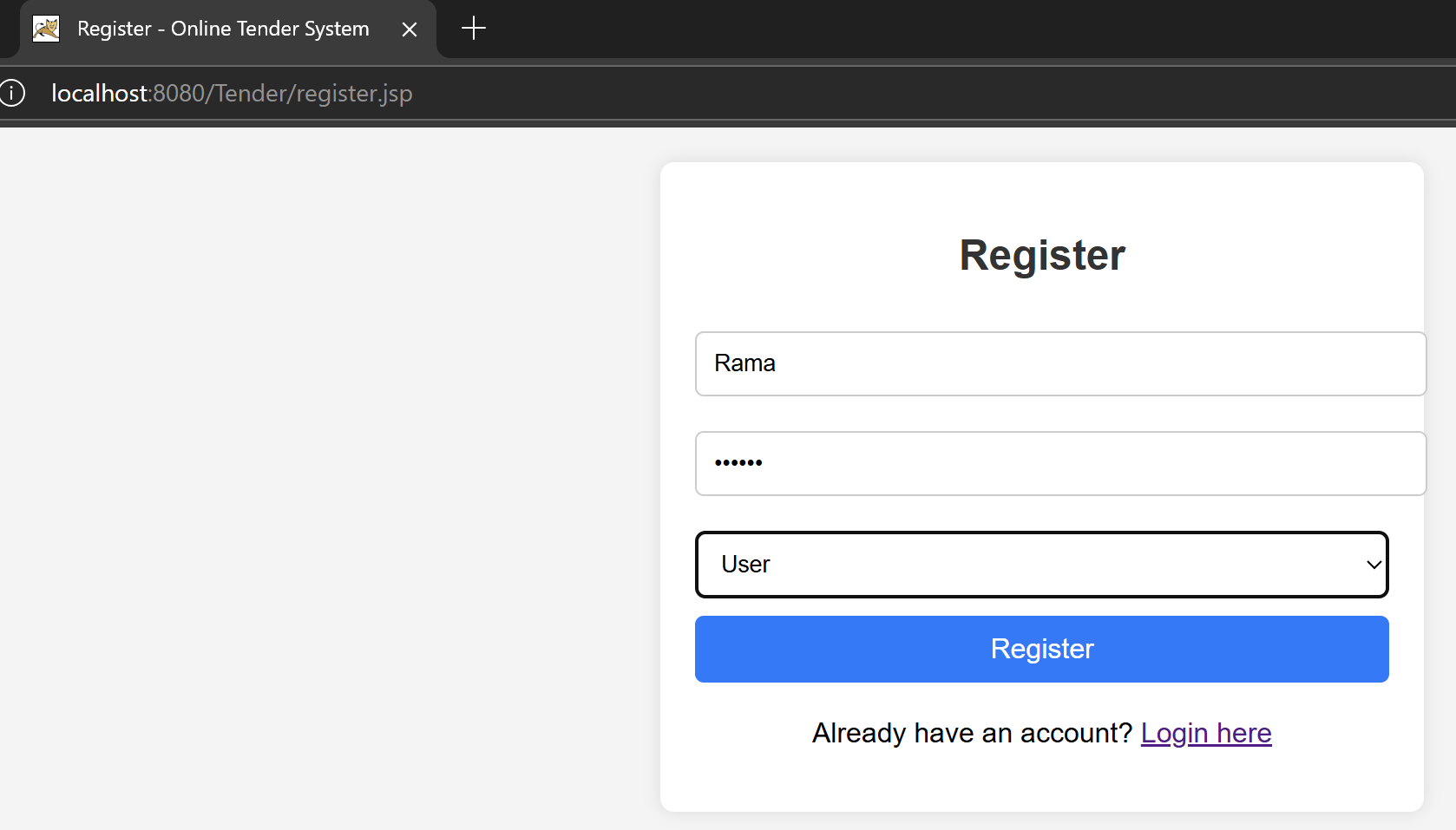
MANAGE BIDS PAGE:

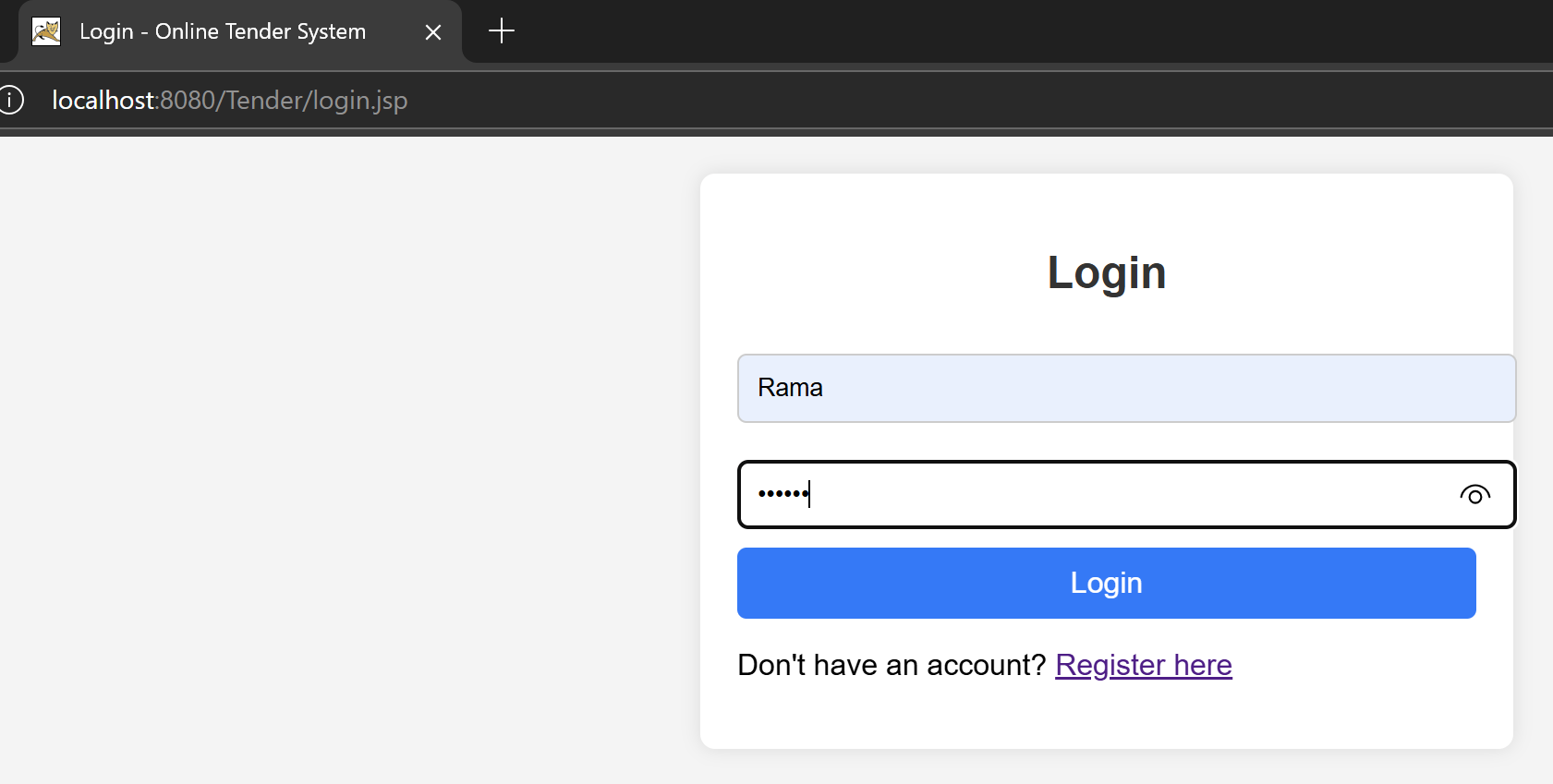
* Admins manage all the bids of every user



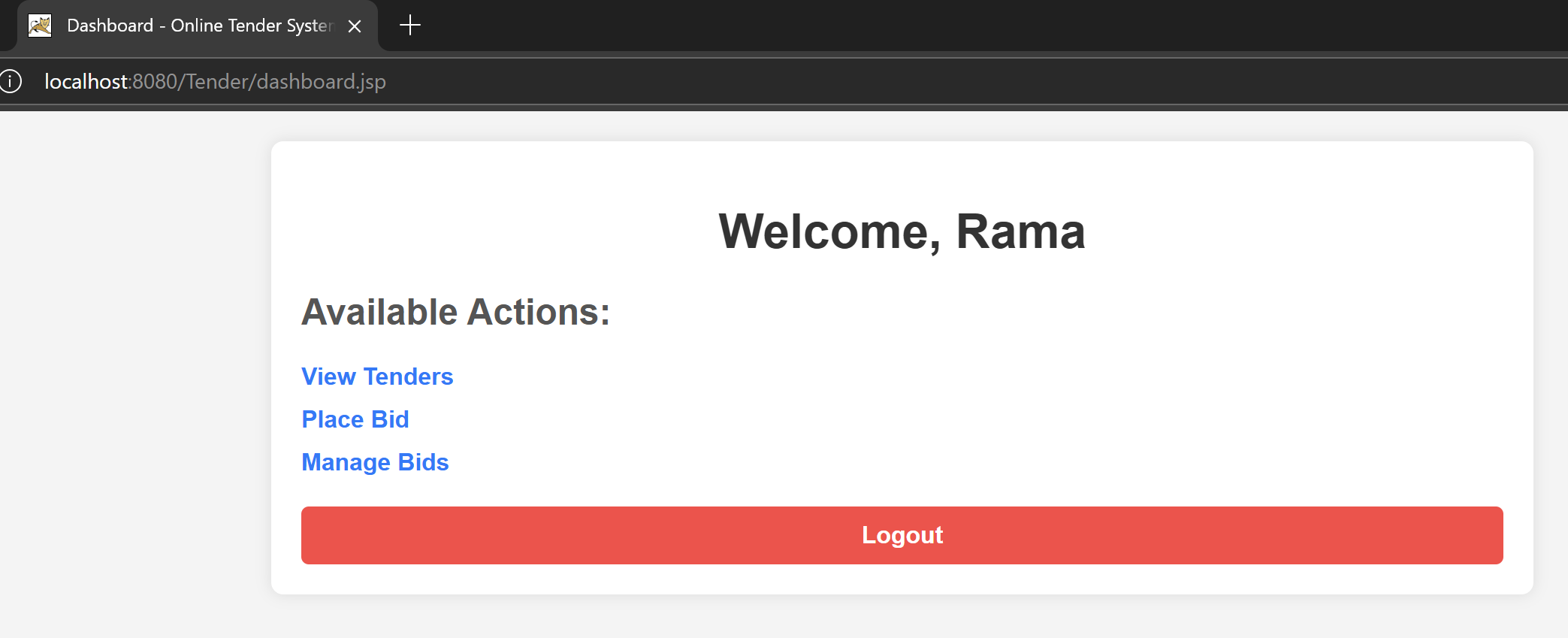
IF ROLE IS USER:

REGISTER PAGE:

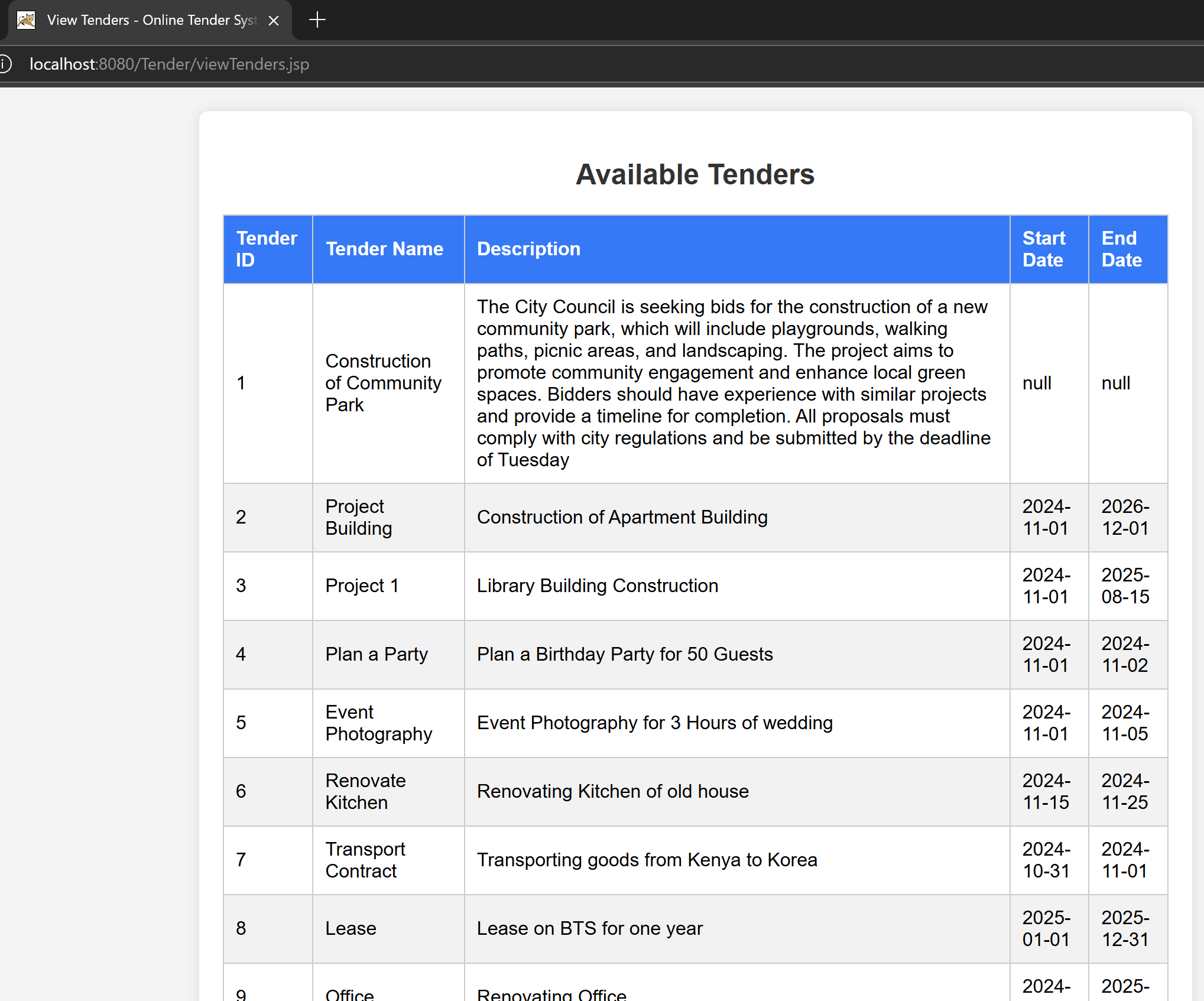
* We can select the role whether its user or admin

LOGIN PAGE:

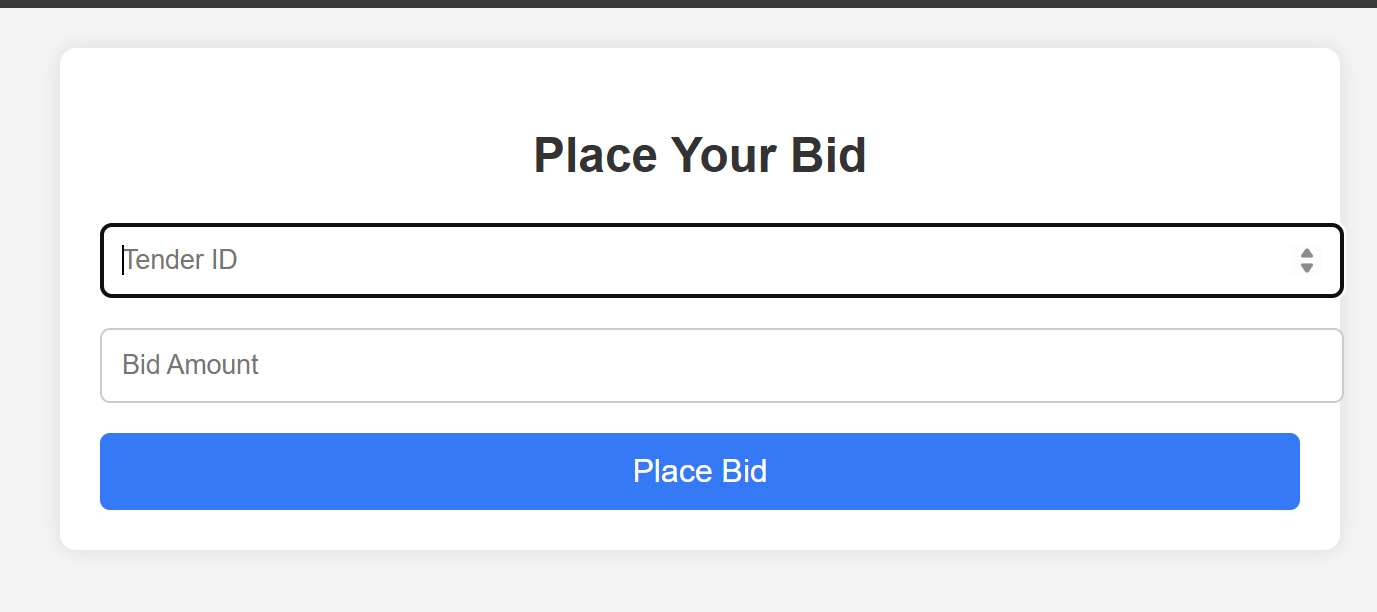
DASHBOARD PAGE FOR USERS:

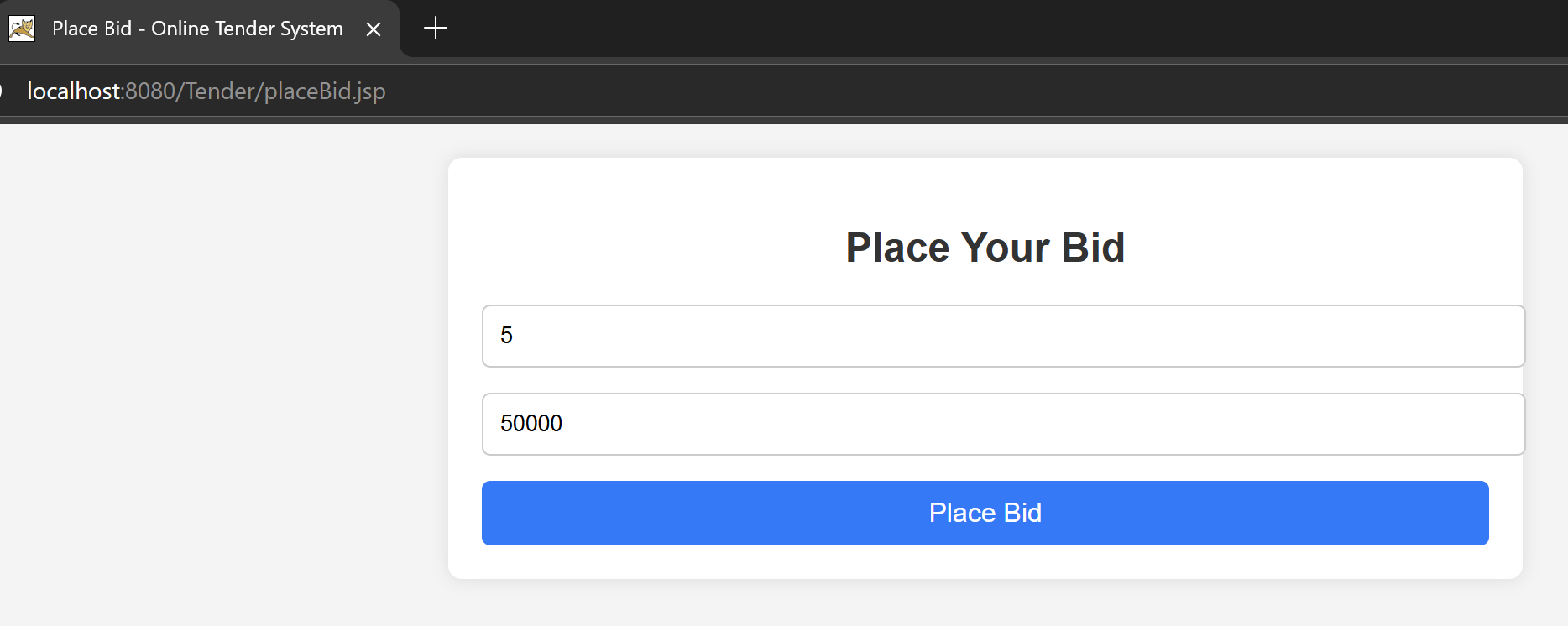


VIEW TENDERS PAGE:



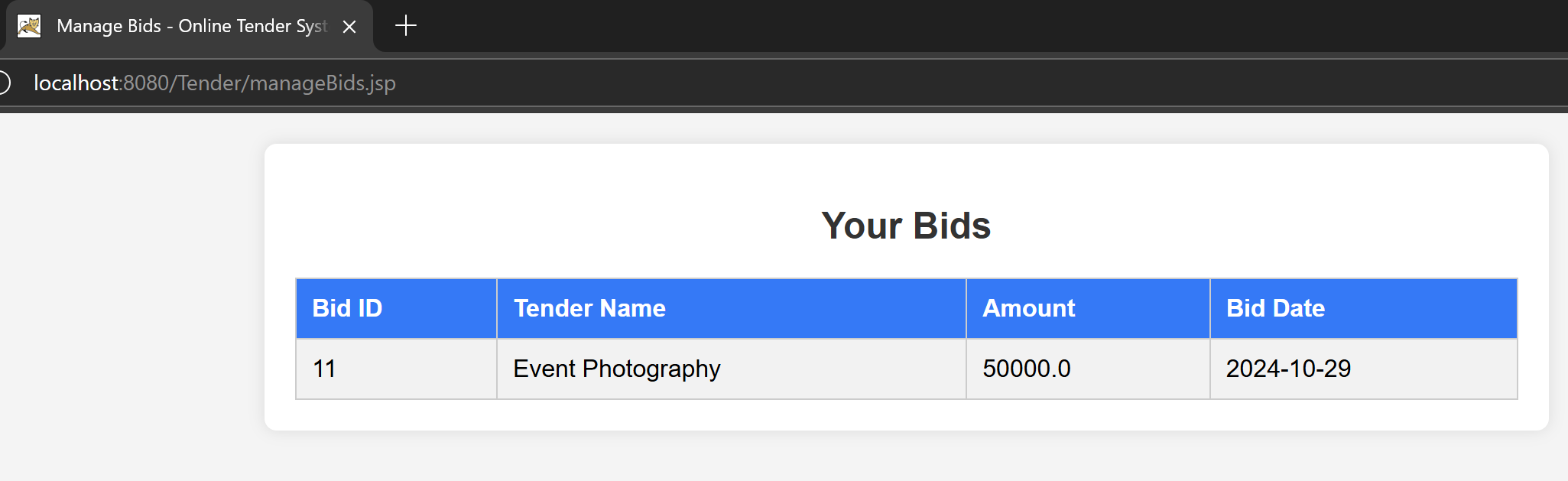
PLACE BID PAGE:



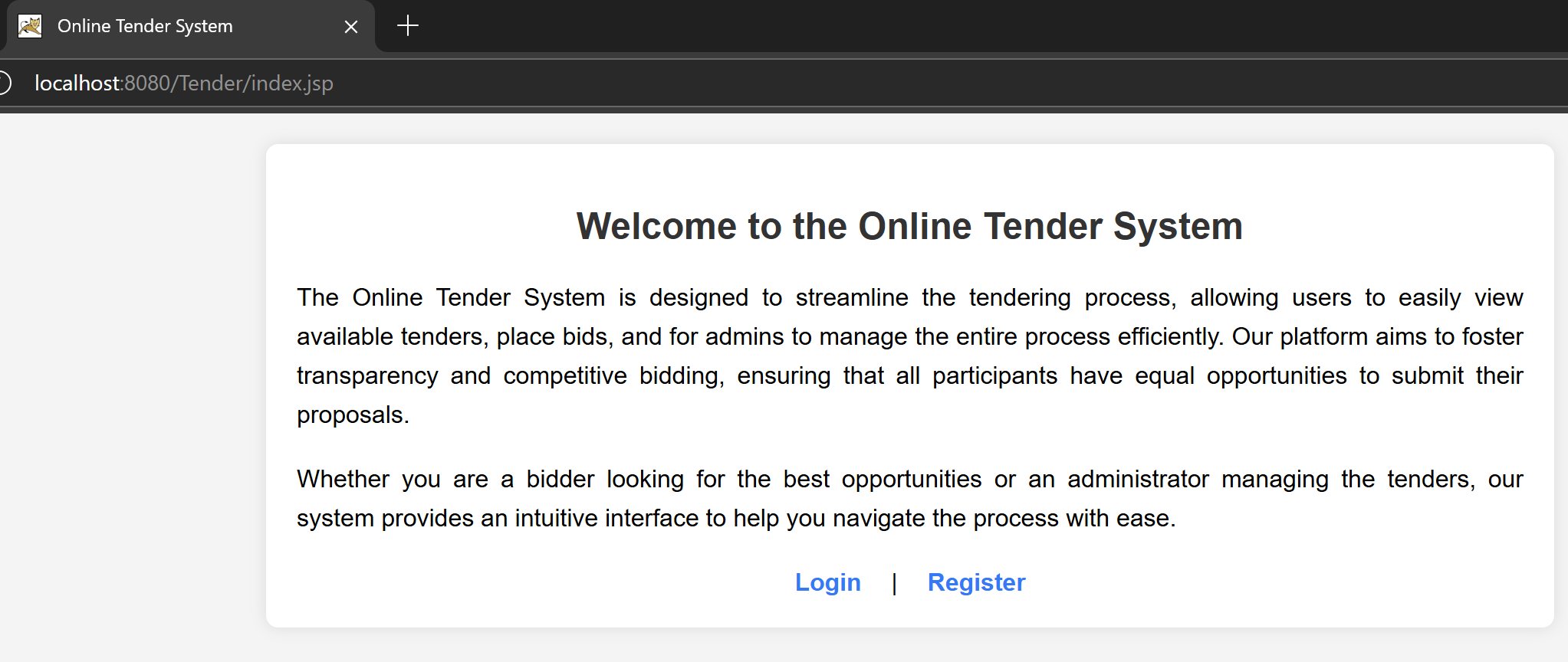
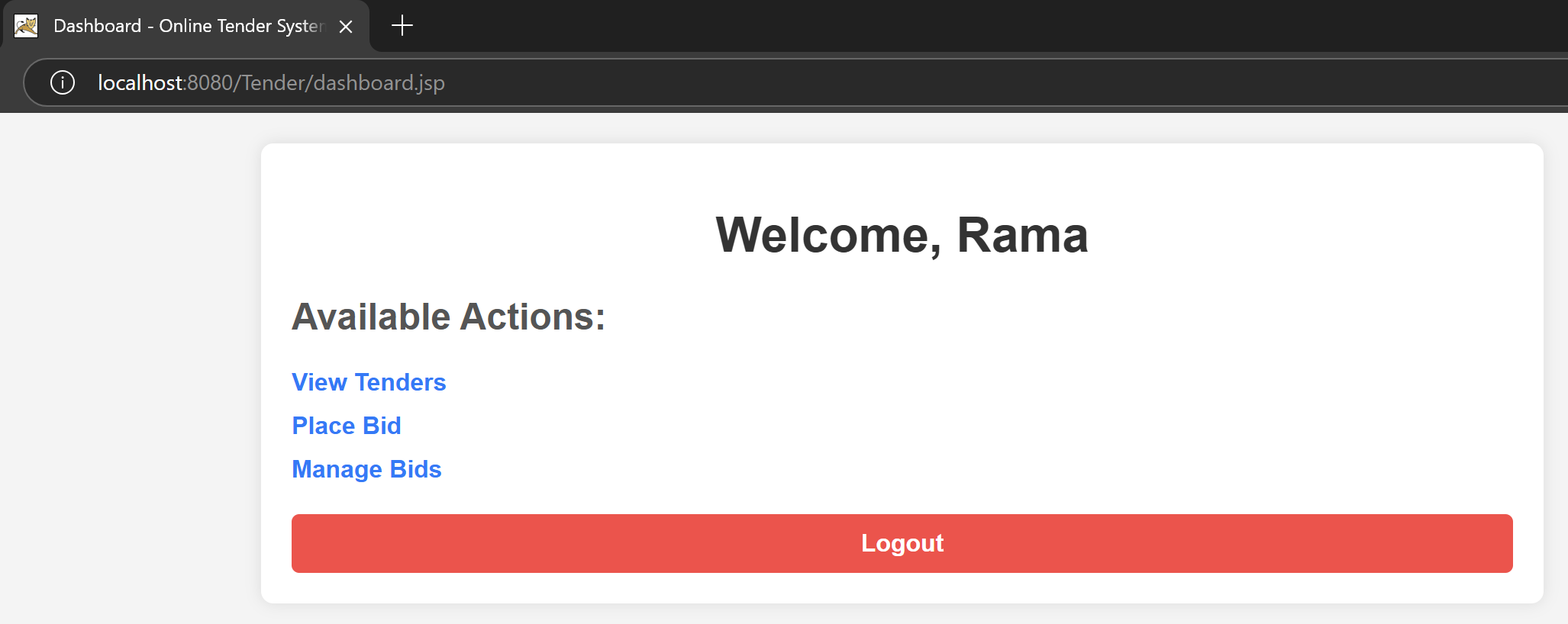


MANAGE BIDS PAGE:

* Users can see their own bids



LOGOUT PAGE:

* Once we press the logout Button, it will take you to the Index page.

**Conclusion**

The Online Tender System effectively simplifies tender management, providing users and admins with essential tools to access, bid on, and manage tenders in one accessible platform. By using JSP for core functionalities and PostgreSQL for secure data handling, the system offers a reliable, user-friendly experience that supports transparency and engagement in the tendering process.