WEB TECHNOLOGIES PROJECT

Real Estate Management System using JSP

Batch_ID - CEP-5-CSE-C-2024-012

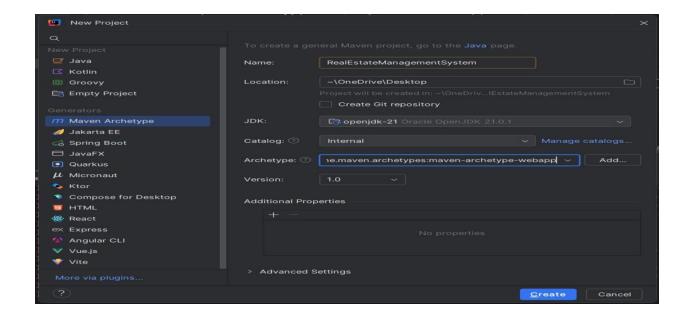
PAGILLA SAI SREEJA-22881A05H5

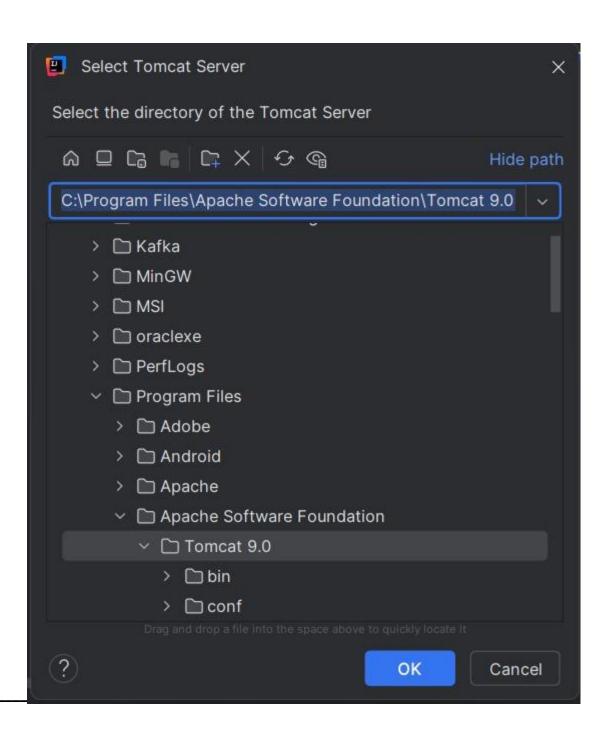
PARIPELLI JAYAKRISHNA-22881A05H6

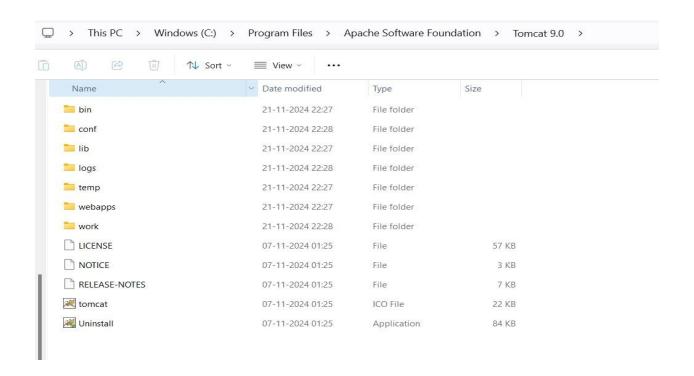
PASUPULETI HARI NADH-22881A05H7

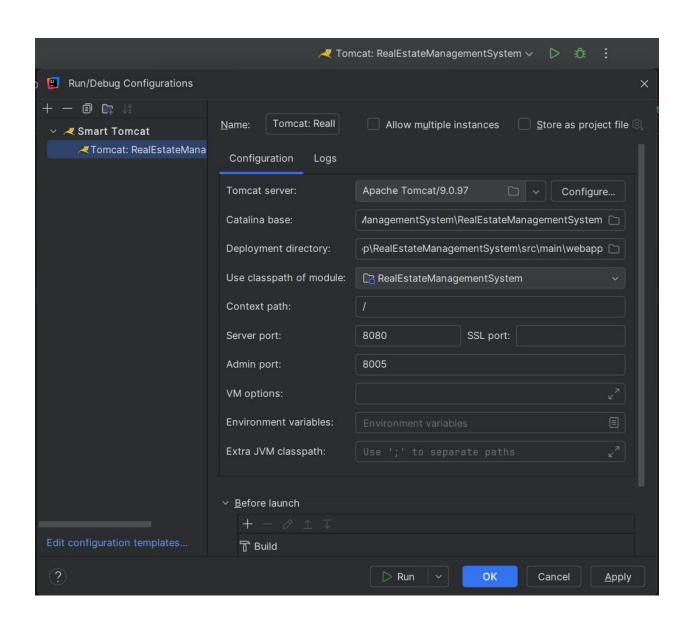
PEDDIREDDY RAGHU VARDHAN REDDY-22881A05H8

1. File structure and tomcat setup

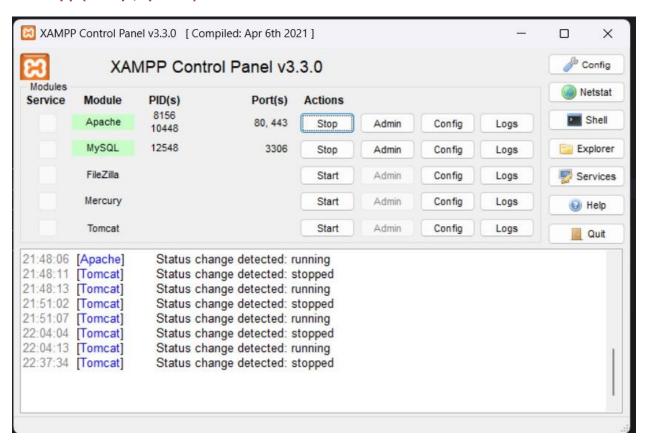




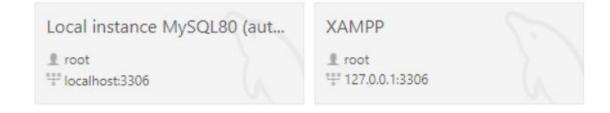


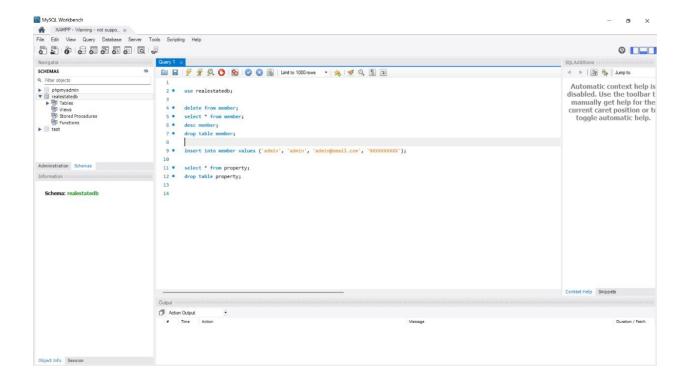


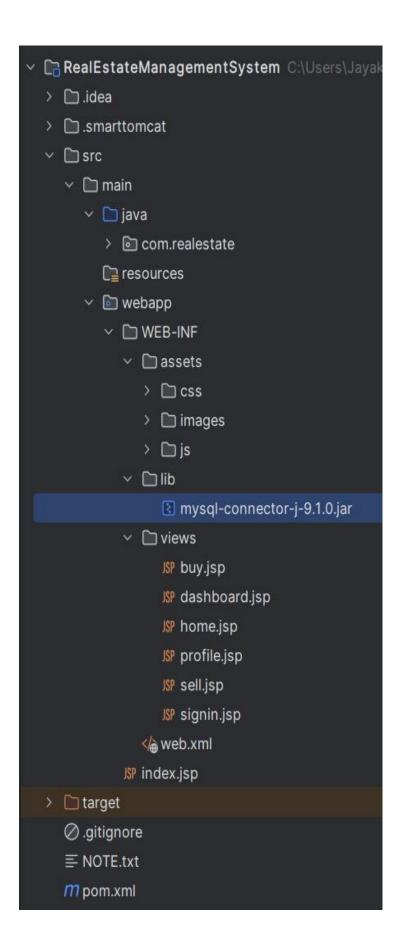
2.XAmpp (MYsql ,Apache)



MySQL Connections ⊕ ®







3. Dependencies

```
<dependencies>
 <dependency>
   <groupId>junit
   <artifactId>junit</artifactId>
   <version>3.8.1
   <scope>test</scope>
 </dependency>
 <!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
 <dependency>
   <groupId>javax.servlet
   <artifactId>javax.servlet-api</artifactId>
   <version>4.0.1
   <scope>provided</scope>
 </dependency>
 <dependency>
   <groupId>mysql</groupId>
   <artifactId>mysql-connector-java</artifactId>
   <version>8.0.33
 </dependency>
</dependencies>
```

4. DataBase connection. java

```
package com.realestate;
import java.sql.*;
public class DatabaseConnection {
 private static Connection connection = null;
 private DatabaseConnection() {}
 public static Connection getConnection() throws SQLException {
   if (connection == null || connection.isClosed()) {
     try {
       Class.forName("com.mysql.cj.jdbc.Driver");
       String url = "jdbc:mysql://localhost:3306/realestatedb";
       String user = "root";
       String password = "";
       connection = DriverManager.getConnection(url, user, password);
       initDB(connection);
     } catch (ClassNotFoundException e) {
       System.err.println("MySQL JDBC Driver not found.");
       e.printStackTrace();
```

```
}
 }
 return connection;
}
public static void initDB(Connection con) {
 try {
   Statement st = con.createStatement();
   // Enable foreign key checks (default in MySQL)
   st.execute("SET FOREIGN_KEY_CHECKS=1;");
   // Create user table
   String createMemberTable = "CREATE TABLE IF NOT EXISTS member ("
      + "uname VARCHAR(45) NOT NULL, "
      + "password VARCHAR(45) NOT NULL, "
      + "email VARCHAR(45) NOT NULL, "
      + "phone VARCHAR(45) NOT NULL, "
      + "PRIMARY KEY (uname)"
      +");";
   st.executeUpdate(createMemberTable);
   String createPropertyTable = "CREATE TABLE IF NOT EXISTS property ("
      + "uname VARCHAR(45) NOT NULL, "
      + "propertytype VARCHAR(45) NOT NULL, "
      + "location VARCHAR(45) NOT NULL, "
```

```
+ "budget VARCHAR(45) NOT NULL, "
       + "description VARCHAR(225) NOT NULL, "
       + "link VARCHAR(225) NOT NULL "
       +");";
   st.executeUpdate(createPropertyTable);
 } catch (Exception e) {
   e.printStackTrace();
 }
}
public static void closeConnection() {
 try {
   if (connection != null && !connection.isClosed()) {
     connection.close();
   }
 } catch (SQLException e) {
   e.printStackTrace();
 }
}
public static String insert(Member member) {
 Connection con = null;
 try {
   con = getConnection();
 } catch (SQLException e) {
```

```
e.printStackTrace();
 }
 String sql = "insert into member values(?,?,?,?)";
 String result="Success";
 try {
   PreparedStatement ps = con.prepareStatement(sql);
   ps.setString(1, member.getUname());
   ps.setString(2, member.getPassword());
   ps.setString(3, member.getEmail());
   ps.setNString(4, member.getPhone());
   ps.executeUpdate();
 } catch (SQLException e) {
   result="Failure";
   e.printStackTrace();
 }
 return result;
}
```

}

```
package com.realestate;
public class Member {
 private String uname, password, email, phone;
 public Member(){
   super();
 }
 public Member(String uname, String password, String email, String phone) {
   super();
   this.uname = uname;
   this.password = password;
   this.email = email;
   this.phone = phone;
 }
 public String getUname() {
   return uname;
 }
 public void setUname(String uname) {
   this.uname = uname;
 }
 public String getPassword() {
   return password;
```

```
}
 public void setPassword(String password) {
   this.password = password;
 }
 public String getEmail() {
   return email;
 }
 public void setEmail(String email) {
   this.email = email;
 }
 public String getPhone() {
   return phone;
 }
 public void setPhone(String phone) {
   this.phone = phone;
 }
}
```

```
5.Context Path=http://localhost:8080/
      web servelet="/" searches for index.jsp by default
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>REAL ESTATE</title>
 <style><%@include file="/WEB-INF/assets/css/common.css"%></style>
 <style><%@include file="/WEB-INF/assets/css/index.css"%></style>
</head>
<body>
<header class="navbar">
   <div class="logo">ESTATE<span>HUB</span></div>
   <div class="right-actions">
    <a href="/signin" class="signin">SIGN IN</a>
   </div>
</header>
<section class="hero">
```

```
<div class="j">
 <h3>Real estate management made easy with our custom software</h3>
```

Engage owners, buyers, and prospective tenants from a single location using our real estate management

software.

tenants, and make profitable

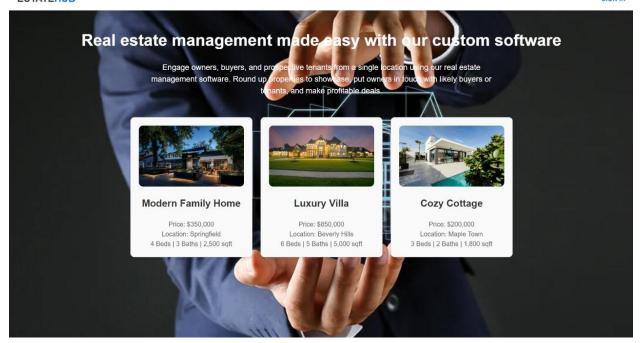
```
Round up properties to showcase, put owners in touch with likely buyers or
    deals.
   </div>
 <section class="properties">
   <div class="property-grid">
    <!-- Property 1 -->
    <div class="property">
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/refs/heads/mail
n/jk/image1.jpg" alt="House 1">
      <h3>Modern Family Home</h3>
      Price: $350,000
      Location: Springfield
      4 Beds | 3 Baths | 2,500 sqft
    </div>
    <!-- Property 2 -->
    <div class="property">
```

```
<img
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/refs/heads/mail
n/jk/image2.jpg" alt="House 2">
      <h3>Luxury Villa</h3>
      Price: $850,000
      Location: Beverly Hills
      6 Beds | 5 Baths | 5,000 sqft
    </div>
    <!-- Property 3 -->
    <div class="property">
      <img
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/refs/heads/mail
n/jk/image3.jpg" alt="House 3">
      <h3>Cozy Cottage</h3>
      Price: $200,000
      Location: Maple Town
      3 Beds | 2 Baths | 1,800 sqft
    </div>
   </div>
 </section>
</section>
<%
 String message = request.getParameter("message");
 if (message != null && !message.isEmpty()) {
   %>
```

```
<script>
    window.onload = function() {
        setTimeout(function() {
            alert("<%= message %>");
            }, 100);
        };
        </script>
        <%
    }
%>
</body>
```

</html>

ESTATEHUB SIGN IN



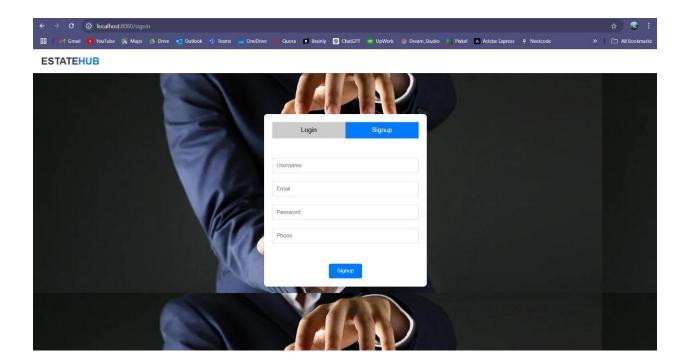
```
Webservelet ="/signin"
Signin.java
package com.realestate;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import java.io.IOException;
@WebServlet("/signin")
public class Signin extends HttpServlet {
 public Signin() {}
 protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
   HttpSession session = request.getSession(false);
   if (session != null && session.getAttribute("username") != null) {
     response.sendRedirect("/home");
   } else {
     request.getRequestDispatcher("/WEB-INF/views/signin.jsp").forward(request,
response);
```

```
}
 }
}
Signin.jsp
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<html>
<head>
 <title>REAL ESTATE</title>
 <style><%@include file="/WEB-INF/assets/css/common.css"%></style>
 <style><%@include file="/WEB-INF/assets/css/signin.css"%></style>
</head>
<body>
<header class="navbar">
 <div class="logo">ESTATE<span>HUB</span></div>
</header>
<section class="hero">
 <div class="form-container">
   <div class="form-toggle">
     <button id="login-btn" onclick="showLogin()">Login/button>
     <button id="signup-btn" onclick="showSignup()">Signup</button>
   </div>
```

```
<div class="form-content">
     <!-- Login Form -->
     <form id="login-form" class="form active" action="/login" method="POST">
      <h2>Login</h2>
      <input type="text" name="username" placeholder="Username" required />
      <input type="password" name="password" placeholder="Password" required
/>
      <button type="submit">Login</button>
     </form>
     <!-- Signup Form -->
     <form id="signup-form" class="form" action="/signup" method="POST">
      <h2>Signup</h2>
      <input type="text" name="uname" placeholder="Username" required />
      <input type="email" name="email" placeholder="Email" required />
      <input type="password" name="password" placeholder="Password" required</pre>
/>
      <input type="text" name="phone" placeholder="Phone" required />
      <button type="submit">Signup</button>
     </form>
   </div>
 </div>
</section>
<script type="text/javascript"><%@include file="/WEB-INF/assets/js/signin.js"%>
</script>
```

```
</body>
</html>
<%
 String message = request.getParameter("message");
 if (message != null && !message.isEmpty()) {
%>
<script>
 window.onload = function() {
   setTimeout(function() {
     alert("<%= message %>");
   }, 100);
 };
</script>
<%
 }
```

%>



Signup.java

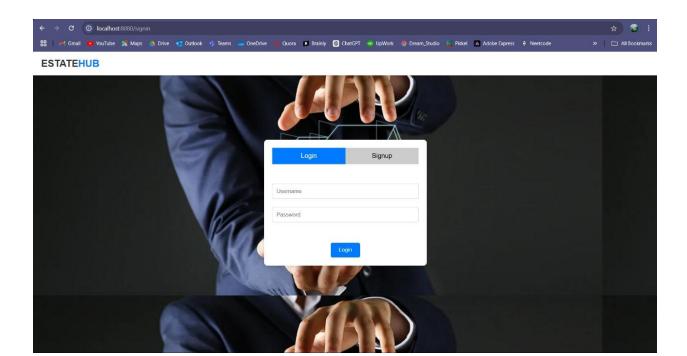
package com.realestate;

```
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import java.io.IOException;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
@WebServlet("/signup")
public class Signup extends HttpServlet {
 private static final long serialVersionUID = 1L;
 public Signup() {
   super();
 }
 protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
```

```
HttpSession session = request.getSession(false);
   if (session != null && session.getAttribute("username") != null) {
     response.sendRedirect("/home");
   } else {
     response.sendRedirect("/signin");
   }
 }
 protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
   String uname = request.getParameter("uname");
   String password = request.getParameter("password");
   String email = request.getParameter("email");
   String phone = request.getParameter("phone");
   try {
     Connection con = DatabaseConnection.getConnection();
     String query = "select * from member where uname = ?;";
     PreparedStatement ps = con.prepareStatement(query);
     ps.setString(1, uname);
     ResultSet rs = ps.executeQuery();
     if(rs.next()) {
      response.sendRedirect("/signin?message=Username%20already%20exists");
     } else {
      Member member = new Member(uname, password, email, phone);
```

```
String result = DatabaseConnection.insert(member);
response.getWriter().println(result);

if("Success".equals(result)){
    response.sendRedirect("/?message=Account%20created%20successfully");
    }
}
catch(SQLException e){
    e.printStackTrace();
}
}
```



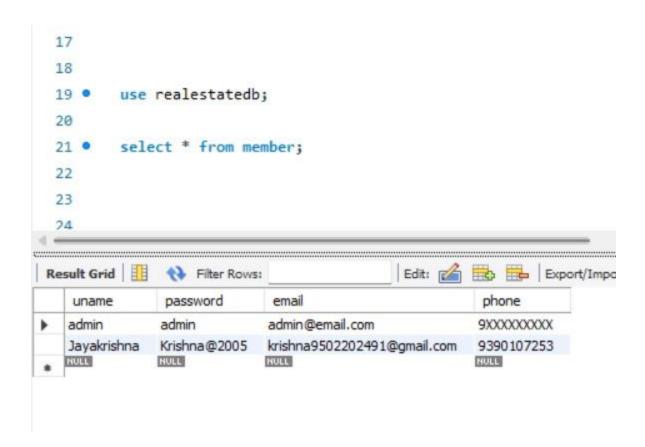
Login.java

package com.realestate;

```
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import java.io.IOException;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
@WebServlet("/login")
public class Login extends HttpServlet {
 public Login() {
   super();
 }
 protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws IOException, ServletException {
   HttpSession session = request.getSession(false);
```

```
if (session != null && session.getAttribute("username") != null) {
     response.sendRedirect("/home");
   }
 }
 protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws IOException, ServletException {
   String username = request.getParameter("username");
   String password = request.getParameter("password");
   if("admin".equals(username) && "admin".equals(password)){
     HttpSession session = request.getSession();
     session.setAttribute("username", "admin");
     response.sendRedirect("/home");
   } else {
     try {
      Connection connection = DatabaseConnection.getConnection();
      String query = "select * from member where uname=? and password=?";
      PreparedStatement preparedStatement =
connection.prepareStatement(query);
      preparedStatement.setString(1, username);
      preparedStatement.setString(2, password);
      ResultSet resultSet = preparedStatement.executeQuery();
      if(resultSet.next()){
```

```
HttpSession session1 = request.getSession();
    session1.setAttribute("username", username);
    response.sendRedirect("/home");
} else {
    response.sendRedirect("/signin?message=Invalid%20Credentials");
}
} catch (SQLException e) {
    e.printStackTrace();
}
}
```



Web servlet ="/home"

Home.java

package com.realestate;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

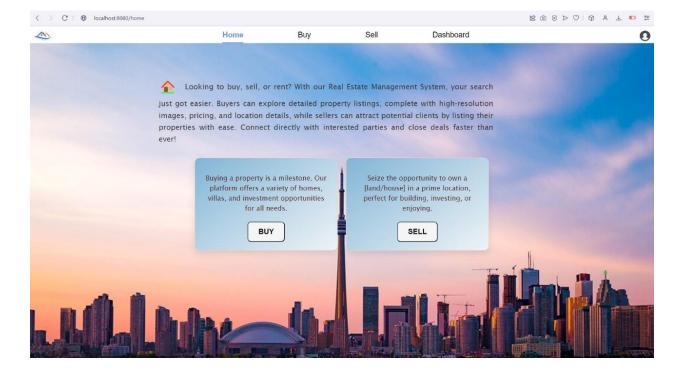
import javax.servlet.http.HttpServletResponse;

```
import javax.servlet.http.HttpSession;
import java.io.IOException;
@WebServlet("/home")
public class Home extends HttpServlet {
 public Home() {}
 protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
   HttpSession session = request.getSession(false);
   if(session.getAttribute("username") == null) {
     response.sendRedirect("/signin");
   } else {
     request.getRequestDispatcher("/WEB-INF/views/home.jsp").forward(request,
response);
   }
 }
}
Home.jsp
<%@ page contentType="text/html; charset=UTF-8" language="java" %>
<html>
<head>
 <meta charset="UTF-8">
 <title>ESTATE HUB</title>
 <style><\@include file="/WEB-INF/assets/css/commonX.css"\%></style>
```

```
<style><%@include file="/WEB-INF/assets/css/home.css"%></style>
</head>
<body>
 <nav class="navbar">
   <img id="logo"
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/8e0b98a7cc33"
d0435cd494acc02506e41a6e9034/jk/image_2024-11-23_194730766.svg" />
   ul>
    <a href="/home">Home</a>
    <a href="/buy">Buy</a>
    <a href="/sell">Sell</a>
    <a href="/dashboard">Dashboard</a>
   <img id="profile"
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/2c62d924a3402
62fef32afe93dfecdfc050839f2/jk/profile.svg"/>
 </nav>
 <main class="content-container">
   <div class="info-text">
    >
      Looking to buy, sell, or rent? With our Real Estate Management System, your
search just got easier. Buyers can explore detailed property listings, complete with
high-resolution images, pricing, and location details, while sellers can attract
potential clients by listing their properties with ease. Connect directly with interested
parties and close deals faster than ever!
```

</div>

```
<div class="property-options">
     <div class="card">
       >Buying a property is a milestone. Our platform offers a variety of homes,
villas, and investment opportunities for all needs.
       <button onclick="location.href='/buy'">BUY</button>
     </div>
     <div class="card">
       Seize the opportunity to own a [land/house] in a prime location, perfect for
building, investing, or enjoying.
       <button onclick="location.href='/sell'">SELL</button>
     </div>
   </div>
 </main>
<script type="text/javascript"><%@include file="/WEB-</pre>
INF/assets/js/commonX.js"%></script>
<script type="text/javascript"><%@include file="/WEB-</pre>
INF/assets/js/home.js"%></script>
</body>
</html>
```



```
Web servelet="/sell"
Sell.java
package com.realestate;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import java.io.IOException;
@WebServlet("/sell")
public class Sell extends HttpServlet {
 public Sell() {}
 protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
   HttpSession session = request.getSession(false);
   if(session.getAttribute("username") == null) {
     response.sendRedirect("/signin");
   } else {
     request.getRequestDispatcher("/WEB-INF/views/sell.jsp").forward(request,
response);
   }
 }
}
```

```
Sell.jsp
```

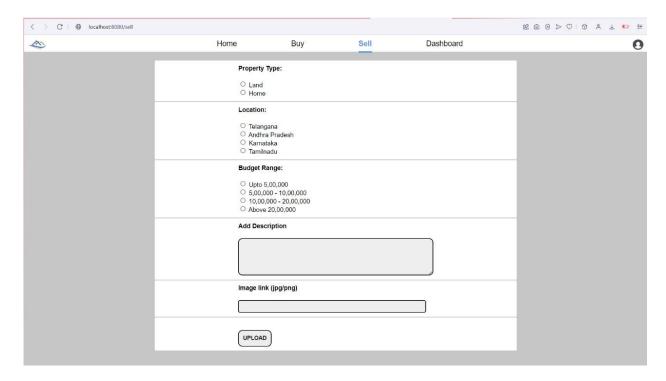
```
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<html>
<head>
 <title>ESTATE HUB</title>
 <style><%@include file="/WEB-INF/assets/css/commonX.css"%></style>
 <style><%@include file="/WEB-INF/assets/css/sell.css"%></style>
</head>
<body>
<nav class="navbar">
 <img id="logo"
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/8e0b98a7cc33"
d0435cd494acc02506e41a6e9034/jk/image_2024-11-23_194730766.svg" />
 ul>
   <a href="/home">Home</a>
   <a href="/buy">Buy</a>
   <a href="/sell">Sell</a>
   <a href="/dashboard">Dashboard</a>
 <img id="profile"
src="https://raw.githubusercontent.com/Jayakrishna14s/WT_IMAGES/2c62d924a3402
62fef32afe93dfecdfc050839f2/jk/profile.svg"/>
</nav>
<main>
 <form action="/uploadProperty" method="POST">
```

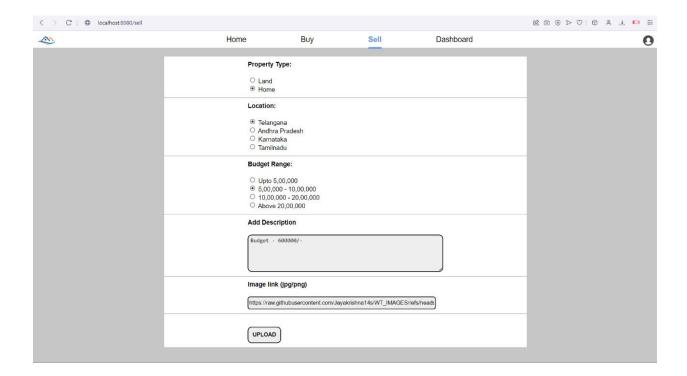
```
Property Type: 
    ul>
       <label><input type="radio" name="propertytype" value="Land"</li>
required/> Land</label>
       <label><input type="radio" name="propertytype" value="Home"</li>
required/> Home</label>
     Location: 
    ul>
       <label><input type="radio" name="location" value="Telangana"</li>
required/> Telangana</label>
       <label><input type="radio" name="location" value="Andhra Pradesh"</li>
required/> Andhra Pradesh</label>
       <label><input type="radio" name="location" value="Karnataka"</li>
required/> Karnataka</label>
       <label><input type="radio" name="location" value="Tamilnadu"</li>
required/> Tamilnadu</label>
```

```
Budget Range: 
    ul>
       <label><input type="radio" name="budgetRange" value="0-500000"</li>
required> Upto 5,00,000</label>
       <label><input type="radio" name="budgetRange" value="500000-</li>
1000000" required> 5,00,000 - 10,00,000</label>
       <label><input type="radio" name="budgetRange" value="1000000-
2000000" required> 10,00,000 - 20,00,000</label>
       <label><input type="radio" name="budgetRange" value="2000000+"</li>
required> Above 20,00,000</label>
     Add Description
    <textarea name="description" rows="5" cols="60" required></textarea>
    Image link (jpg/png)
```

```
<input type="text" name="link" required />
    <input type="submit" value="UPLOAD"/>
    </form>
</main>
<script type="text/javascript"><%@include file="/WEB-</pre>
INF/assets/js/commonX.js"%></script>
<script type="text/javascript"><%@include file="/WEB-</pre>
INF/assets/js/sell.js"%></script>
</body>
</html>
<%
 String message = request.getParameter("message");
```

```
if (message != null && !message.isEmpty()) {
    %>
    <script>
    window.onload = function() {
        setTimeout(function() {
            alert("<%= message %>");
        }, 100);
    };
    </script>
<%
    }
    %>
```





Upload property.java

package com.realestate;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import java.io.IOException;

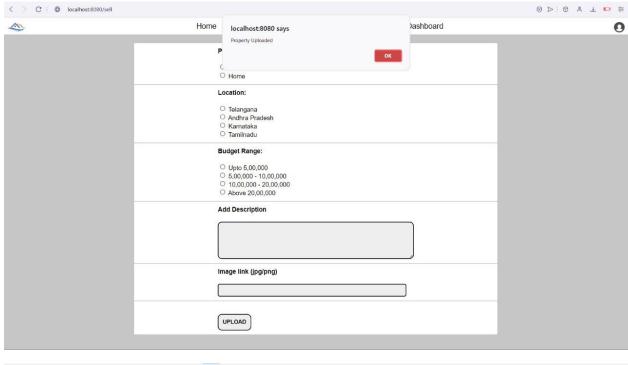
import java.sql.Connection;

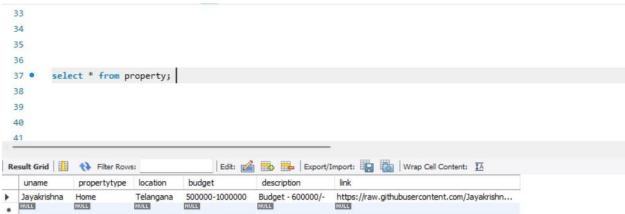
import java.sql.PreparedStatement;

import java.sql.SQLException;

```
@WebServlet("/uploadProperty")
public class UploadProperty extends HttpServlet {
 private static final long serialVersionUID = 1L;
 public UploadProperty() {
   super();
 }
 protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
   HttpSession session = request.getSession(false);
   String username = session.getAttribute("username").toString();
   String propertytype = request.getParameter("propertytype");
   String location = request.getParameter("location");
   String budgetRange = request.getParameter("budgetRange");
   String description = request.getParameter("description");
   String link = request.getParameter("link");
   System.out.println("Username: " + username);
   System.out.println("propertytype: " + propertytype);
   System.out.println("location: " + location);
   System.out.println("budgetRange: " + budgetRange);
   System.out.println("description: " + description);
   System.out.println("link: " + link);
   try{
```

```
Connection con = DatabaseConnection.getConnection();
     PreparedStatement ps = con.prepareStatement("insert into property
values(?,?,?,?,?,?)");
     ps.setString(1, username);
     ps.setString(2, propertytype);
     ps.setString(3, location);
     ps.setString(4, budgetRange);
     ps.setString(5, description);
     ps.setString(6, link);
     ps.executeUpdate();
     System.out.println("inserted into property values");
     response.sendRedirect("/sell?message=Property%20Uploaded");
   } catch (SQLException e){
     e.printStackTrace();
   }
 }
}
```





Pending

Web servlet="/buy"

Web servlet="/dashboard"(for admin)

Web servlet="/profile"

Progress=75%

Tomcat server runs jsp+servlets it is not accessing local media

We used Github as cloud for images

