SOURCE CODES OF PHASE 2 END PROJECT RAILWAY CROSSING STATUS

**SQL QUERIES FOR THE BACKEND OF THE APPLICATION :**

* **show databases;**
* **create database railway\_crossing\_status;**
* **use railway\_crossing\_status;**
* **CREATE TABLE user\_signup (**

**id INT PRIMARY KEY AUTO\_INCREMENT, name VARCHAR(255) NOT NULL,**

**email VARCHAR(255) NOT NULL, password VARCHAR(255) NOT NULL**

**);**

* **CREATE TABLE railway\_crossing (**

**id INT PRIMARY KEY AUTO\_INCREMENT, name VARCHAR(255),**

**address VARCHAR(255), landmark VARCHAR(255),**

**train\_schedule VARCHAR(255), person\_in\_charge VARCHAR(255), status VARCHAR(50)**

**);**

* **CREATE TABLE favorite\_crossing (**

**id INT PRIMARY KEY AUTO\_INCREMENT,**

**railway\_crossing\_id INT,**

**FOREIGN KEY (railway\_crossing\_id) REFERENCES railway\_crossing(id)**

**);**

# web.xml (src/webapp/WEB-INF) :

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

<**web-app** xmlns:xsi=[*"http://www.w3.org/2001/XMLSchema*](http://www.w3.org/2001/XMLSchema-instance)*-*[*instance"*](http://www.w3.org/2001/XMLSchema-instance)xmlns=*"https://jakarta.ee/xml/ns/jakartaee"* xmlns:web=[*"http://xmlns.jcp.org/xml/ns/javaee"*](http://xmlns.jcp.org/xml/ns/javaee)xsi:schemaLocation=*"https://jakarta.ee/xml/ns/jakartaee*

*https://jakarta.ee/xml/ns/jakartaee/web-app\_5\_0.xsd"*

id=*"WebApp\_ID"* version=*"5.0"*>

<**display-name**>RailwayCrossingStatus</**display-name**>

<**welcome-file-list**>

<**welcome-file**>HomePage.jsp</**welcome-file**>

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

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

<**welcome-file**>default.html</**welcome-file**>

<**welcome-file**>default.jsp</**welcome-file**>

<**welcome-file**>default.htm</**welcome-file**>

</**welcome-file-list**>

<**servlet**>

<**description**></**description**>

<**display-name**>GovernmentServlet</**display-name**>

<**servlet-name**>GovernmentServlet</**servlet-name**>

<**servlet-class**>com.subham.GovernmentServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>GovernmentServlet</**servlet-name**>

<**url-pattern**>/GovernmentServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>LoginServlet</**display-name**>

<**servlet-name**>LoginServlet</**servlet-name**>

<**servlet-class**>com.subham.LoginServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>LoginServlet</**servlet-name**>

<**url-pattern**>/LoginServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>RegisterServlet</**display-name**>

<**servlet-name**>RegisterServlet</**servlet-name**>

<**servlet-class**>com.subham.RegisterServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>RegisterServlet</**servlet-name**>

<**url-pattern**>/RegisterServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>AdminRegisterServlet</**display-name**>

<**servlet-name**>AdminRegisterServlet</**servlet-name**>

<**servlet-class**>com.subham.AdminRegisterServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>AdminRegisterServlet</**servlet-name**>

<**url-pattern**>/AdminRegisterServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>AdminLoginServlet</**display-name**>

<**servlet-name**>AdminLoginServlet</**servlet-name**>

<**servlet-class**>com.subham.AdminLoginServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>AdminLoginServlet</**servlet-name**>

<**url-pattern**>/AdminLoginServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>AdminHomePageServlet</**display-name**>

<**servlet-name**>AdminHomePageServlet</**servlet-name**>

<**servlet-class**>com.subham.AdminHomePageServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>AdminHomePageServlet</**servlet-name**>

<**url-pattern**>/AdminHomePageServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>UpdateCrossingServlet</**display-name**>

<**servlet-name**>UpdateCrossingServlet</**servlet-name**>

**class**>

<**servlet-class**>com.subham.UpdateCrossingServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>UpdateCrossingServlet</**servlet-name**>

<**url-pattern**>/UpdateCrossingServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>DeleteCrossingServlet</**display-name**>

<**servlet-name**>DeleteCrossingServlet</**servlet-name**>

<**servlet-class**>com.subham.DeleteCrossingServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>DeleteCrossingServlet</**servlet-name**>

<**url-pattern**>/DeleteCrossingServlet</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>SearchCrossingServlet</**display-name**>

<**servlet-name**>SearchCrossingServlet</**servlet-name**>

<**servlet-class**>com.subham.SearchCrossingServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>SearchCrossingServlet</**servlet-name**>

<**url-pattern**>/searchCrossing</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>AddCrossingServlet</**display-name**>

<**servlet-name**>AddCrossingServlet</**servlet-name**>

<**servlet-class**>com.subham.AddCrossingServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>AddCrossingServlet</**servlet-name**>

<**url-pattern**>/addCrossing</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>AddToFavoritesServlet</**display-name**>

<**servlet-name**>AddToFavoritesServlet</**servlet-name**>

<**servlet-class**>com.subham.AddToFavoritesServlet</**servlet-class**>

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>AddToFavoritesServlet</**servlet-name**>

<**url-pattern**>/addToFavorites</**url-pattern**>

</**servlet-mapping**>

<**servlet**>

<**description**></**description**>

<**display-name**>RemoveFromFavoritesServlet</**display-name**>

<**servlet-name**>RemoveFromFavoritesServlet</**servlet-name**>

<**servlet-class**>com.subham.RemoveFromFavoritesServlet</**servlet-**

</**servlet**>

<**servlet-mapping**>

<**servlet-name**>RemoveFromFavoritesServlet</**servlet-name**>

<**url-pattern**>/removeFromFavorites</**url-pattern**>

</**servlet-mapping**>

</**web-app**>

# pom.xml (RailwayCrossingStatus/pom.xml) :

<project xmlns="<http://maven.apache.org/POM/4.0.0>" xmlns:xsi="<http://www.w3.org/2001/XMLSchema-instance>" xsi:schemaLocation="<http://maven.apache.org/POM/4.0.0>

https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.subham.railwaycrossing</groupId>

<artifactId>RailwayCrossingStatus</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>war</packaging>

<name>Building an application to communicate the status of railway crossings

in advance</name>

<properties>

<maven.compiler.source>1.8</maven.compiler.source>

<maven.compiler.target>1.8</maven.compiler.target>

</properties>

<dependencies>

<!-- https://mvnrepository.com/artifact/javax.servlet/jstl -->

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>jstl</artifactId>

<version>1.2</version>

</dependency>

<!-- MySQL Connector -->

<dependency>

<groupId>mysql</groupId>

<artifactId>mysql-connector-java</artifactId>

<version>8.0.33</version>

</dependency>

<!-- Jakarta Servlet API -->

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>javax.servlet-api</artifactId>

<version>4.0.0</version>

<scope>provided</scope>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.1</version>

<configuration>

<release>8</release>

</configuration>

</plugin>

<plugin>

<artifactId>maven-war-plugin</artifactId>

<version>3.2.3</version>

</plugin>

</plugins>

</build>

</project>

# AddCrossingServlet.java (src/main/java/com/subham) :

package com.subham;

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;

@WebServlet(name = "AddCrossingServlet", urlPatterns = { "/addCrossing" }) public class AddCrossingServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve the form data from the request String name = request.getParameter("name");

String address = request.getParameter("address"); String landmark = request.getParameter("landmark");

String trainSchedules = request.getParameter("trainSchedules"); String personInCharge = request.getParameter("personInCharge"); String status = request.getParameter("status");

// Create a new RailwayCrossing object with the form data RailwayCrossing crossing = new RailwayCrossing(); crossing.setName(name);

crossing.setAddress(address); crossing.setLandmark(landmark); crossing.setTrainSchedule(trainSchedules); crossing.setPersonInCharge(personInCharge); crossing.setStatus(status);

// Save the new crossing to the database RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); crossingDAO.addCrossing(crossing);

// Redirect to the admin homepage after adding the crossing response.sendRedirect("adminHome.jsp");

}

}

# AddToFavoritesServlet.java (src/main/java/com/subham) :

package com.subham;

import javax.servlet.ServletException; import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest; import javax.servlet.http.HttpServletResponse; import java.io.IOException;

public class AddToFavoritesServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

String crossingId = request.getParameter("crossingId"); if (crossingId != null && !crossingId.isEmpty()) {

int railwayCrossingId = Integer.parseInt(crossingId);

// Perform the database operation to add the crossing to favorites RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); crossingDAO.addToFavorites(railwayCrossingId); // Implement this

method in RailwayCrossingDAO

}

// Redirect back to the userHome.jsp page response.sendRedirect("userHome.jsp");

}

}

**AdminHomePageServlet.java (src/main/java/com/subham) :**

package com.subham;

import java.io.IOException; import java.util.List;

import javax.servlet.ServletException; import javax.servlet.annotation.WebServlet; import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest; import javax.servlet.http.HttpServletResponse;

@WebServlet("/adminHomePage")

public class AdminHomePageServlet extends HttpServlet { private RailwayCrossingDAO crossingDAO;

public void init() {

crossingDAO = new RailwayCrossingDAO();

}

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Fetch all railway crossing details from the database List<RailwayCrossing> crossings = crossingDAO.getAllCrossings();

// Pass the crossing details to the JSP page request.setAttribute("crossings", crossings); request.getRequestDispatcher("adminHome.jsp").forward(request,

response);

}

}

**AdminLoginServlet.java (src/main/java/com/subham) :**

package com.subham;

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;

@WebServlet("/adminLogin")

public class AdminLoginServlet extends HttpServlet { private static final long serialVersionUID = 1L;

private static final String ADMIN\_ID = ["Subham@roy"](mailto:soumya.rout@gmail.com);

private static final String ADMIN\_PASSWORD = "123";

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException { String email = request.getParameter("email");

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

if (email != null && email.equals(ADMIN\_ID) && password != null && password.equals(ADMIN\_PASSWORD)) {

response.sendRedirect("adminHome.jsp");

} else {

request.getRequestDispatcher("adminLogin.jsp").forward(request,

response);

}

}

}

**DatabaseConnection.java (src/main/java/com/subham) :**

package com.subham;

import java.sql.Connection; import java.sql.DriverManager; import java.sql.SQLException;

public class DatabaseConnection { private static final String URL =

"jdbc:mysql://localhost:3306/railway\_crossing\_status"; private static final String USERNAME = "root";

private static final String PASSWORD = "Subham@123";

public static Connection getConnection() { Connection connection = null;

try {

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

connection = DriverManager.getConnection(URL, USERNAME, PASSWORD);

} catch (ClassNotFoundException | SQLException e) { e.printStackTrace();

}

return connection;

}

}

**DeleteCrossingServlet.java (src/main/java/com/subham) :**

package com.subham;

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;

@WebServlet("/deleteCrossing")

public class DeleteCrossingServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve the crossing ID from the request

int crossingId = Integer.parseInt(request.getParameter("id"));

// Perform the delete operation (implement your logic) RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); crossingDAO.deleteCrossing(crossingId);

// Redirect to the admin homepage after the deletion response.sendRedirect("adminHome.jsp");

}

}

**LoginServlet.java (src/main/java/com/subham) :**

package com.subham;

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; import javax.servlet.http.HttpSession;

@WebServlet("/login")

public class LoginServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve the form data

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

// Check if the provided credentials are valid UserDAO userDAO = new UserDAO();

User user = userDAO.getUserByEmail(email);

if (user != null && user.getPassword().equals(password)) {

// Authentication successful

// You can store user details in session for further use HttpSession session = request.getSession(); session.setAttribute("user", user);

// Redirect to a success page or perform any other necessary

actions

response.sendRedirect("userHome.jsp");

} else {

// Authentication failed

// Redirect to an error page or display an error message response.sendRedirect("userRegister.jsp?error=1");

}

}

}

**RailwayCrossing.java (src/main/java/com/subham) :**

package com.subham;

public class RailwayCrossing { private int id;

private String name; private String address; private String landmark;

private String trainSchedule; private String personInCharge; private String status;

public RailwayCrossing() { super();

// TODO Auto-generated constructor stub

}

public RailwayCrossing(int id, String name, String address, String landmark, String trainSchedule,

String personInCharge, String status) { super();

this.id = id; this.name = name;

this.address = address; this.landmark = landmark; this.trainSchedule = trainSchedule;

this.personInCharge = personInCharge; this.status = status;

}

public int getId() { return id;

}

public void setId(int id) { this.id = id;

}

public String getName() { return name;

}

public void setName(String name) { this.name = name;

}

public String getAddress() { return address;

}

public void setAddress(String address) { this.address = address;

}

public String getLandmark() { return landmark;

}

public void setLandmark(String landmark) { this.landmark = landmark;

}

public String getTrainSchedule() { return trainSchedule;

}

public void setTrainSchedule(String trainSchedule) { this.trainSchedule = trainSchedule;

}

public String getPersonInCharge() { return personInCharge;

}

public void setPersonInCharge(String personInCharge) { this.personInCharge = personInCharge;

}

public String getStatus() { return status;

}

public void setStatus(String status) { this.status = status;

}

public void setId(String string) {

// TODO Auto-generated method stub

}

}

# RailwayCrossingDAO.java (src/main/java/com/subham) :

package com.subham;

import java.sql.Connection; import java.sql.PreparedStatement; import java.sql.ResultSet;

import java.sql.SQLException; import java.util.ArrayList; import java.util.List;

public class RailwayCrossingDAO { private Connection connection;

public RailwayCrossingDAO() {

// Initialize the database connection

connection = DatabaseConnection.getConnection();

}

));

// Fetch all values from the database

public List<RailwayCrossing> getAllCrossings() { List<RailwayCrossing> crossings = new ArrayList<>(); try {

String query = "SELECT \* FROM railway\_crossing"; PreparedStatement statement = connection.prepareStatement(query); ResultSet resultSet = statement.executeQuery();

while (resultSet.next()) {

RailwayCrossing crossing = new RailwayCrossing(); crossing.setId(resultSet.getInt("id")); crossing.setName(resultSet.getString("name")); crossing.setAddress(resultSet.getString("address")); crossing.setLandmark(resultSet.getString("landmark")); crossing.setTrainSchedule(resultSet.getString("train\_schedule"

crossing.setPersonInCharge(resultSet.getString("person\_in\_char

ge"));

crossing.setStatus(resultSet.getString("status")); crossings.add(crossing);

}

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

}

return crossings;

}

// Search values by id and display it from the database public RailwayCrossing getCrossingById(int crossingId) {

RailwayCrossing crossing = null; try {

));

ge"));

String query = "SELECT \* FROM railway\_crossing WHERE id = ?"; PreparedStatement statement = connection.prepareStatement(query); statement.setInt(1, crossingId);

ResultSet resultSet = statement.executeQuery(); if (resultSet.next()) {

crossing = new RailwayCrossing(); crossing.setId(resultSet.getInt("id")); crossing.setName(resultSet.getString("name")); crossing.setAddress(resultSet.getString("address")); crossing.setLandmark(resultSet.getString("landmark")); crossing.setTrainSchedule(resultSet.getString("train\_schedule"

crossing.setPersonInCharge(resultSet.getString("person\_in\_char crossing.setStatus(resultSet.getString("status"));

}

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

}

return crossing;

}

// update the values in the database

public void updateCrossing(RailwayCrossing crossing) { try {

String query = "UPDATE railway\_crossing SET name=?, address=?, landmark=?, train\_schedule=?, person\_in\_charge=?, status=? WHERE id=?";

PreparedStatement statement = connection.prepareStatement(query); statement.setString(1, crossing.getName()); statement.setString(2, crossing.getAddress()); statement.setString(3, crossing.getLandmark()); statement.setString(4, crossing.getTrainSchedule()); statement.setString(5, crossing.getPersonInCharge()); statement.setString(6, crossing.getStatus()); statement.setInt(7, crossing.getId());

statement.executeUpdate();

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

}

}

// Delete Railway Crossing

public void deleteCrossing(int crossingId) { try {

connection.setAutoCommit(false); // Start transaction

// Delete associated favorite crossings

String deleteFavoriteCrossingsQuery = "DELETE FROM favorite\_crossing WHERE railway\_crossing\_id = ?";

try (PreparedStatement deleteFavoriteCrossingsStatement =

connection

}

.prepareStatement(deleteFavoriteCrossingsQuery)) { deleteFavoriteCrossingsStatement.setInt(1, crossingId); deleteFavoriteCrossingsStatement.executeUpdate();

// Delete the railway crossing

String deleteRailwayCrossingQuery = "DELETE FROM railway\_crossing WHERE id = ?";

try (PreparedStatement deleteRailwayCrossingStatement = connection

.prepareStatement(deleteRailwayCrossingQuery)) { deleteRailwayCrossingStatement.setInt(1, crossingId); deleteRailwayCrossingStatement.executeUpdate();

}

occurs

connection.commit(); // Commit the transaction connection.setAutoCommit(true); // Reset auto-commit to true

} catch (SQLException e) { try {

connection.rollback(); // Rollback the transaction if an error

} catch (SQLException rollbackException) { rollbackException.printStackTrace();

}

e.printStackTrace();

}

}

// Add values to the database

public void addCrossing(RailwayCrossing crossing) { try {

String query = "INSERT INTO railway\_crossing (name, address, landmark, train\_schedule, person\_in\_charge, status) VALUES (?, ?, ?, ?, ?,

?)";

PreparedStatement statement = connection.prepareStatement(query); statement.setString(1, crossing.getName()); statement.setString(2, crossing.getAddress()); statement.setString(3, crossing.getLandmark()); statement.setString(4, crossing.getTrainSchedule()); statement.setString(5, crossing.getPersonInCharge()); statement.setString(6, crossing.getStatus()); statement.executeUpdate();

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

}

}

public List<RailwayCrossing> getFavoriteCrossings() { List<RailwayCrossing> favoriteCrossings = new ArrayList<>();

try (Connection connection = DatabaseConnection.getConnection()) { String query = "SELECT rc.\* FROM railway\_crossing rc "

+ "JOIN favorite\_crossing fc ON rc.id = fc.railway\_crossing\_id";

PreparedStatement statement = connection.prepareStatement(query); ResultSet resultSet = statement.executeQuery();

));

ge"));

while (resultSet.next()) {

RailwayCrossing crossing = new RailwayCrossing(); crossing.setId(resultSet.getInt("id")); crossing.setName(resultSet.getString("name")); crossing.setAddress(resultSet.getString("address")); crossing.setLandmark(resultSet.getString("landmark")); crossing.setTrainSchedule(resultSet.getString("train\_schedule"

crossing.setPersonInCharge(resultSet.getString("person\_in\_char crossing.setStatus(resultSet.getString("status"));

favoriteCrossings.add(crossing);

}

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

}

return favoriteCrossings;

}

public void addToFavorites(int crossingId) {

try (Connection connection = DatabaseConnection.getConnection()) { String sql = "INSERT INTO favorite\_crossing (railway\_crossing\_id)

VALUES (?)";

PreparedStatement statement = connection.prepareStatement(sql); statement.setInt(1, crossingId);

statement.executeUpdate();

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

// Handle the exception as needed

}

}

public void removeFromFavorites(int crossingId) {

try (Connection connection = DatabaseConnection.getConnection()) {

String sql = "DELETE FROM favorite\_crossing WHERE railway\_crossing\_id = ?";

PreparedStatement statement = connection.prepareStatement(sql); statement.setInt(1, crossingId);

statement.executeUpdate();

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

// Handle the exception as needed

}

}

}

# RegisterServlet.java (src/main/java/com/subham) :

package com.subham;

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 RegisterServlet

\*/ @WebServlet("/register")

public class RegisterServlet extends HttpServlet { private static final long serialVersionUID = 1L;

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve the form data

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

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

// Create a new User object

User user = new User(name, email, password);

// Store the user in the database UserDAO userDAO = new UserDAO(); userDAO.registerUser(user);

// Redirect to a success page or perform any other necessary actions

response.sendRedirect("userLogin.jsp");

}

}

**RemoveFromFavoritesServlet.java (src/main/java/com/subham) :**

package com.subham;

import java.io.IOException;

import javax.servlet.ServletException; import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest; import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class RemoveFromFavoritesServlet

\*/

public class RemoveFromFavoritesServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// TODO Auto-generated method stub

String crossingId = request.getParameter("crossingId"); if (crossingId != null && !crossingId.isEmpty()) {

int railwayCrossingId = Integer.parseInt(crossingId);

// Perform the database operation to remove the crossing from

favorites

RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); crossingDAO.removeFromFavorites(railwayCrossingId); // Implement

this method in RailwayCrossingDAO

}

// Redirect back to the userHome.jsp page response.sendRedirect("userHome.jsp");

}

}

**SearchCrossingServlet.java (src/main/java/com/subham) :**

package com.subham;

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;

@WebServlet(name = "SearchCrossingServlet", urlPatterns = { "/searchCrossing"

})

public class SearchCrossingServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve the search ID from the request

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

// Implement your logic to search for the crossing by ID and retrieve

its

// details from the database

RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); RailwayCrossing crossing = crossingDAO.getCrossingById(searchId);

// Set the search result in the request attribute request.setAttribute("crossing", crossing);

// Redirect to the admin homepage with the search results request.getRequestDispatcher("adminHome.jsp").forward(request,

response);

}

}

**UpdateCrossingServlet.java (src/main/java/com/subham) :**

package com.subham;

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;

@WebServlet("/updateCrossing")

public class UpdateCrossingServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException { try {

// Retrieve the crossing ID from the hidden field String idParam = request.getParameter("crossingId");

if (idParam != null && !idParam.isEmpty()) {

int crossingId = Integer.parseInt(idParam);

// Retrieve the updated details for the crossing String name = request.getParameter("name"); String address = request.getParameter("address");

String landmark = request.getParameter("landmark"); String trainSchedules =

request.getParameter("trainSchedules");

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

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

details

// Create a new RailwayCrossing object with the updated

RailwayCrossing updatedCrossing = new RailwayCrossing(); updatedCrossing.setId(crossingId); updatedCrossing.setName(name); updatedCrossing.setAddress(address); updatedCrossing.setLandmark(landmark); updatedCrossing.setTrainSchedule(trainSchedules); updatedCrossing.setPersonInCharge(personInCharge); updatedCrossing.setStatus(status);

// Perform the update operation

RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); crossingDAO.updateCrossing(updatedCrossing);

// Redirect to the admin homepage after the update response.sendRedirect("adminHome.jsp");

} else {

// Handle case where idParam is empty or null

throw new ServletException("Crossing ID is missing.");

}

} catch (NumberFormatException e) {

// Handle case where idParam is not a valid integer

throw new ServletException("Invalid Crossing ID format.", e);

} catch (Exception e) {

// Handle other exceptions

throw new ServletException("An error occurred during the crossing update.", e);

}

}

}

# User.java (src/main/java/com/subham) :

package com.subham;

public class User { private String name; private String email;

private String password;

public User() { super();

}

public User(String name, String email, String password) { this.name = name;

this.email = email; this.password = password;

}

public String getName() { return name;

}

public void setName(String name) { this.name = name;

}

public String getEmail() { return email;

}

public void setEmail(String email) { this.email = email;

}

public String getPassword() { return password;

}

public void setPassword(String password) { this.password = password;

}

}

**UserDAO.java (src/main/java/com/subham) :**

package com.subham;

import java.sql.Connection; import java.sql.PreparedStatement; import java.sql.ResultSet;

import java.sql.SQLException;

public class UserDAO {

private Connection connection;

public UserDAO() {

// Initialize the database connection

connection = DatabaseConnection.getConnection();

}

public void registerUser(User user) { try {

String query = "INSERT INTO user\_signup (name, email, password) VALUES (?, ?, ?)";

PreparedStatement statement = connection.prepareStatement(query); statement.setString(1, user.getName());

statement.setString(2, user.getEmail()); statement.setString(3, user.getPassword()); statement.executeUpdate();

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

}

}

public boolean loginUser(String email, String password) { try {

String query = "SELECT \* FROM user\_signup WHERE email=? AND password=?";

PreparedStatement statement = connection.prepareStatement(query); statement.setString(1, email);

statement.setString(2, password);

ResultSet resultSet = statement.executeQuery(); return resultSet.next();

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

}

return false;

}

public User getUserByEmail(String email) { try {

String query = "SELECT \* FROM user\_signup WHERE email=?"; PreparedStatement statement = connection.prepareStatement(query); statement.setString(1, email);

ResultSet resultSet = statement.executeQuery();

if (resultSet.next()) { User user = new User();

user.setName(resultSet.getString("name")); user.setEmail(resultSet.getString("email"));

user.setPassword(resultSet.getString("password")); return user;

}

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

}

return null;

}

}

# addRailCrossingForm.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Add Railway Crossing</**title**>

<**style**> body {

display: *flex*;

justify-content: *center*; align-items: *center*; height: *100vh*;

text-align: *center*; background-color: *#f2f2f2*;

}

.panel {

width: *500px*; padding: *40px*;

background-color: *#ffffff*; border-radius: *5px*;

box-shadow: *0 2px 5px rgba(0, 0, 0, 0.1)*;

}

.panel label {

display: *block*; margin-bottom: *10px*; text-align: *left*;

}

.panel input[type="text"], .panel select { width: *100%*;

padding: *8px*;

border: *1px solid #ccc*; border-radius: *4px*;

}

.panel button[type="submit"] { width: *100%*;

padding: *10px*;

background-color: *#4CAF50*; color: *white*;

border: *none*; border-radius: *4px*;

cursor: *pointer*;

}

.panel button[type="submit"]:hover { background-color: *#45a049*;

}

</**style**>

</**head**>

<**body**>

<**div** class=*"panel"*>

<**h2**>Railway Crossings</**h2**>

<**h4**>Add Railway Crossing Information</**h4**>

<**form** action=*"addCrossing"* method=*"post"*>

<**label** for=*"name"*>Enter Name</**label**> <**input** type=*"text"*

id=*"name"*

name=*"name"* required><**br**> <**label**

for=*"address"*>Address</**label**>

<**input** type=*"text"* id=*"address"* name=*"address"*

required><**br**>

type=*"text"* required><**br**>

<**input**

<**label** for=*"landmark"*>Landmark</**label**> <**input** type=*"text"* id=*"landmark"* name=*"landmark"* required><**br**> <**label** for=*"trainSchedules"*>Train Schedules</**label**> <**input**

id=*"trainSchedules"* name=*"trainSchedules"*

<**label** for=*"personInCharge"*>Person in Charge</**label**> type=*"text"* id=*"personInCharge"*

name=*"personInCharge"* required><**br**>

<**label** for=*"status"*>Crossing Status</**label**> <**select**

id=*"status"*

</**div**>

</**body**>

</**html**>

name=*"status"*>

<**option** value=*"Open"*>Open</**option**>

<**option** value=*"Closed"*>Closed</**option**>

</**select**><**br**>

<**button** type=*"submit"*>Submit</**button**>

</**form**>

# adminHome.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<%@ **page** import=*"com.subham.RailwayCrossing"*%>

<%@ **page** import=*"com.subham.RailwayCrossingDAO"*%>

<%@ **page** import=*"java.util.List"*%>

<%

// Create an instance of RailwayCrossingDAO RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO();

// Retrieve all crossings from the DAO

List<RailwayCrossing> crossings = crossingDAO.getAllCrossings();

// Get the ID from the search request parameter String searchId = request.getParameter("searchId");

// Check if the searchId parameter is provided if (searchId != null && !searchId.isEmpty()) {

// Parse the searchId as an int

int crossingId = Integer.parseInt(searchId);

// Retrieve the crossing by ID from the DAO RailwayCrossing searchedCrossing =

crossingDAO.getCrossingById(crossingId);

// Set the crossing as an attribute to be displayed in the table request.setAttribute("crossing", searchedCrossing);

}

%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Admin Home Page</**title**>

<**style**>

/\* Button Styles \*/

.button-container {

display: *flex*;

justify-content: *flex-start*; margin-bottom: *10px*;

margin-left: *5px*;

}

.button-container form { margin-right: *100px*;

}

.button-container input[type="text"] { margin-right: *5px*;

padding: *5px*; border-radius: *4px*;

border: *1px solid #ccc*;

}

.button-container button[type="submit"] { padding: *10px 20px*;

border-radius: *4px*; border: *none*;

background-color: *#B6B6B6*; font-weight: *bold*;

color: *black*; cursor: *pointer*;

}

.button-container button[type="submit"]:hover { background-color: *#45a049*;

}

.update-button, .delete-button { display: *inline-block*; vertical-align: *middle*; margin-right: *10px*; padding: *7px*;

width: *80px*; height: *30px*;

}

/\* Table Styles \*/ table {

border-collapse: *collapse*; width: *100%*;

}

th, td {

text-align: *left*; padding: *8px*;

border-bottom: *1px solid #ddd*;

}

th {

}

background-color: *#f2f2f2*;

/\* Responsive Styles \*/

@media only screen and (max-width: 768px) {

.button-container form { margin-right: *5px*;

}

.update-button, .delete-button { float: *none*;

margin-right: *5px*; margin-bottom: *5px*;

}

}

</**style**>

</**head**>

<**body**>

<**h1**>Admin Home Page</**h1**>

<**h3**>

Railway Crossing[<%=crossings.size()%>]

</**h3**>

*ID"*>

<!-- Buttons -->

<**div** class=*"button-container"*>

<**form** action=*"HomePage.jsp"* method=*"post"*>

<**button** type=*"submit"*>Home</**button**>

</**form**>

<**form** action=*"addRailCrossingForm.jsp"* method=*"post"*>

<**button** type=*"submit"*>Add Railway Crossing</**button**>

</**form**>

<**form** action=*"searchCrossing"* method=*"post"*>

<**input** type=*"text"* name=*"searchId"* placeholder=*"Enter*

<**button** type=*"submit"*>Search Crossing</**button**>

</**form**>

<**form** action=*"adminHome.jsp"* method=*"post"*>

<**button** type=*"submit"*>Display All Railway

Crossings</**button**>

</**form**>

<!-- Logout Button -->

<**form** action=*"adminRegister.jsp"* method=*"post"*>

<**button** type=*"submit"*>Logout</**button**>

</**form**>

</**div**>

<!-- Table -->

<**table**>

<**thead**>

<**tr**>

<**th**>Sr.No</**th**>

<**th**>Name</**th**>

<**th**>Address</**th**>

<**th**>Landmark</**th**>

<**th**>Train Schedule</**th**>

<**th**>Person In-Charge</**th**>

<**th**>Status</**th**>

<**th**>Action</**th**>

</**tr**>

</**thead**>

<**tbody**>

<%

if (request.getAttribute("crossing") != null) { // Check if a specific crossing is found

RailwayCrossing crossing = (RailwayCrossing) request.getAttribute("crossing");

%>

<**tr**>

</**tr**>

<%

<**td**><%=crossing.getId()%></**td**>

<**td**><%=crossing.getName()%></**td**>

<**td**><%=crossing.getAddress()%></**td**>

<**td**><%=crossing.getLandmark()%></**td**>

<**td**><%=crossing.getTrainSchedule()%></**td**>

<**td**><%=crossing.getPersonInCharge()%></**td**>

<**td**><%=crossing.getStatus()%></**td**>

<**td**></**td**>

} else { // Display all crossings

for (RailwayCrossing anotherCrossing : crossings) {

%>

<**tr**>

<**td**><%=anotherCrossing.getId()%></**td**>

<**td**><%=anotherCrossing.getName()%></**td**>

<**td**><%=anotherCrossing.getAddress()%></**td**>

<**td**><%=anotherCrossing.getLandmark()%></**td**>

<**td**><%=anotherCrossing.getTrainSchedule()%></**td**>

<**td**><%=anotherCrossing.getPersonInCharge()%></**td**>

<**td**><%=anotherCrossing.getStatus()%></**td**>

<**td**>

method=*"post"*>

<**form** action=*"updateRailCrossingForm.jsp"*

<**input** type=*"hidden"* name=*"id"*

value=*"*<%=anotherCrossing.getId()%>*"*>

<**button** type=*"submit"* class=*"update-*

*button"*>Update</**button**>

</**form**>

<**form** action=*"deleteCrossing"* method=*"post"*>

<**input** type=*"hidden"* name=*"id"*

value=*"*<%=anotherCrossing.getId()%>*"*>

<**button** type=*"submit"* class=*"delete-*

*button"*>Delete</**button**>

</**tr**>

<%

}

}

%>

</**tbody**>

</**td**>

</**form**>

</**table**>

</**body**>

</**html**>

# adminLogin.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Admin Login</**title**>

<**style**> body {

display: *flex*;

justify-content: *center*; align-items: *center*; height: *100vh*;

text-align: *center*; background-color: *#f2f2f2*;

}

.panel {

width: *400px*; padding: *40px*;

background-color: *#ffffff*; border-radius: *5px*;

box-shadow: *0 2px 5px rgba(0, 0, 0, 0.1)*;

}

.panel label {

display: *block*; margin-bottom: *10px*; text-align: *left*;

}

.panel input[type="text"], .panel input[type="password"] { width: *100%*;

padding: *10px*;

border: *1px solid #ccc*; border-radius: *4px*;

}

.panel button[type="submit"] { width: *100%*;

padding: *10px*;

background-color: *#4CAF50*; color: *white*;

border: *none*; border-radius: *4px*; cursor: *pointer*;

}

.panel button[type="submit"]:hover { background-color: *#45a049*;

}

.panel .signup-link { display: *block*; margin-top: *20px*;

}

</**style**>

</**head**>

<**body**>

<**div** class=*"panel"*>

<**h2**>Railway Crossing</**h2**>

<**h4**>Admin Login</**h4**>

<**form** action=*"adminLogin"* method=*"post"*>

<**label** for=*"email"*>Email:</**label**> <**input** type=*"text"*

id=*"email"*

name=*"email"* required><**br**> <**label** for=*"password"*>Password:</**label**>

<**input** type=*"password"* id=*"password"* name=*"password"*

required><**br**>

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

</**form**>

</**div**>

</**body**>

</**html**>

# HomePage.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<!**doctype** html>

<**html** lang=*"en"*>

<**head**>

<**meta** charset=*"utf-8"*>

<**meta** name=*"viewport"* content=*"width=device-width, initial-scale=1"*>

<**title**>Railway Crossing Status</**title**>

<**link**

href=[*"https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap*](https://cdn.jsdelivr.net/npm/bootstrap%405.3.0/dist/css/bootstrap)

*.min.css"*

rel=*"stylesheet"* integrity=*"sha384-*

*9ndCyUaIbzAi2FUVXJi0CjmCapSmO7SnpJef0486qhLnuZ2cdeRhO02iuK6FUUVM"*

crossorigin=*"anonymous"*>

<**style**> body {

background-image:

*url("https://source.unsplash.com/1000x1000/?nature,mountain")*; background-repeat: *no-repeat*;

background-size: *cover*;

}

.navbar-brand span.quiz-text { color: *red*;

}

.navbar-nav.custom-ml-auto { margin-left: *auto*;

}

.navbar-nav.custom-ml-auto .nav-item { margin-left: *10px*;

}

</**style**>

</**head**>

<**body**>

<**nav**

class=*"navbar navbar-expand-lg bg-body-tertiary navbar-dark border-bottom border-bottom-dark"*

data-bs-theme=*"dark"*>

<**div** class=*"container-fluid"*>

<**a** class=*"navbar-brand"* href=*"#"*>Railway Crossing

Status</**a**>

<**button** class=*"navbar-toggler"* type=*"button"* data-bs-toggle=*"collapse"* data-bs-

target=*"#navbarSupportedContent"*

aria-controls=*"navbarSupportedContent"* aria-

expanded=*"false"*

aria-label=*"Toggle navigation"*>

<**span** class=*"navbar-toggler-icon"*></**span**>

</**button**>

<**div** class=*"collapse navbar-collapse"*

id=*"navbarSupportedContent"*>

<**ul** class=*"navbar-nav custom-ml-auto"*>

<!-- Move the "Home", "Quiz", "Login/Signup" links to the right using custom CSS -->

<**li** class=*"nav-item"*><**a** class=*"nav-link*

*active"*

href=*"#"*>Home</**a**></**li**>

aria-current=*"page"*

<**li** class=*"nav-item"*><**a** class=*"nav-link"*

href=*"adminLogin.jsp"*>Admin-Login/Signup</**a**></**li**>

<**li** class=*"nav-item"*><**a** class=*"nav-link"* href=*"userLogin.jsp"*>User-Login/Signup</**a**>

</**li**>

</**nav**>

</**div**>

</**div**>

</**ul**>

<**script**

src=[*"https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.b*](https://cdn.jsdelivr.net/npm/bootstrap%405.3.0/dist/js/bootstrap.b) *undle.min.js"*

integrity=*"sha384- geWF76RCwLtnZ8qwWowPQNguL3RmwHVBC9FhGdlKrxdiJJigb/j/68SIy3Te4Bkz"*

crossorigin=*"anonymous"*></**script**>

</**body**>

</**html**>

# searchCrossing.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<%@ **taglib** prefix=*"c"* uri=[*"http://java.sun.com/jsp/jstl/core"*](http://java.sun.com/jsp/jstl/core)%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Search Crossing</**title**>

</**head**>

<**body**>

<**h1**>Search Crossing</**h1**>

<**form** action=*"searchCrossing"* method=*"post"*>

<**label** for=*"searchId"*>Search ID:</**label**> <**input** type=*"number"* id=*"searchId"* name=*"searchId"* required> <**input**

type=*"submit"*

value=*"Search"*>

</**form**>

<**c:if** test=*"*${not empty crossing}*"*>

<**h2**>Search Result</**h2**>

<**table**>

<**tr**>

<**th**>ID</**th**>

<**th**>Name</**th**>

<**th**>Address</**th**>

<**th**>Landmark</**th**>

<**th**>Train Schedule</**th**>

<**th**>Person in Charge</**th**>

<**th**>Status</**th**>

</**tr**>

<**tr**>

<**td**>${crossing.id}</**td**>

<**td**>${crossing.name}</**td**>

<**td**>${crossing.address}</**td**>

<**td**>${crossing.landmark}</**td**>

<**td**>${crossing.trainSchedule}</**td**>

<**td**>${crossing.personInCharge}</**td**>

<**td**>${crossing.status}</**td**>

</**tr**>

</**table**>

</**c:if**>

<**a** href=*"adminHome.jsp"*>Back to Admin Homepage</**a**>

</**body**>

</**html**>

**updateRailCrossingForm.jsp (src/webapp) :**

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Update Railway Crossing</**title**>

<**style**> body {

display: *flex*;

justify-content: *center*; align-items: *center*; height: *100vh*;

text-align: *center*; background-color: *#f2f2f2*;

}

.panel {

width: *500px*; padding: *40px*;

background-color: *#ffffff*; border-radius: *5px*;

box-shadow: *0 2px 5px rgba(0, 0, 0, 0.1)*;

}

.panel label {

display: *block*; margin-bottom: *10px*; text-align: *left*;

}

.panel input[type="text"], .panel select { width: *100%*;

padding: *8px*;

border: *1px solid #ccc*; border-radius: *4px*;

}

.panel button[type="submit"] { width: *100%*;

padding: *10px*;

background-color: *#4CAF50*; color: *white*;

border: *none*; border-radius: *4px*; cursor: *pointer*;

}

.panel button[type="submit"]:hover { background-color: *#45a049*;

}

</**style**>

</**head**>

<**body**>

<**div** class=*"panel"*>

<**h2**>Railway Crossings</**h2**>

<**h4**>Update Railway Crossing Information</**h4**>

<**form** action=*"updateCrossing"* method=*"post"*>

<**label** for=*"crossingId"*>Crossing ID</**label**> <**input**

type=*"text"*

id=*"crossingId"* name=*"crossingId"*

value=*"*${crossing.crossingId}*"*

required><**br**> <**label** for=*"name"*>Enter Name</**label**>

<**input**

type=*"text"* id=*"name"* name=*"name"*

value=*"*${crossing.name}*"* required><**br**>

<**label** for=*"address"*>Address</**label**> <**input** type=*"text"*

id=*"address"* required><**br**>

name=*"address"* value=*"*${crossing.address}*"*

<**label** for=*"landmark"*>Landmark</**label**> <**input** type=*"text"* id=*"landmark"* name=*"landmark"*

value=*"*${crossing.landmark}*"* required><**br**>

<**label** for=*"trainSchedules"*>Train Schedules</**label**>

<**input** name=*"trainSchedules"*

<**label**

<**input** type=*"text"*

<**label**

type=*"text"* id=*"trainSchedules"* value=*"*${crossing.trainSchedule}*"* required><**br**> for=*"personInCharge"*>Person in Charge</**label**>

id=*"personInCharge"* name=*"personInCharge"* value=*"*${crossing.personInCharge}*"* required><**br**>

for=*"status"*>Crossing Status</**label**> <**select**

id=*"status"*

name=*"status"*>

<**option** value=*"Open"* ${crossing.status == 'Open' ? 'selected' : ''}>Open</**option**>

<**option** value=*"Closed"*

${crossing.status == 'Closed' ? 'selected' :

''}>Closed</**option**>

</**select**><**br**>

<**button** type=*"submit"*>Submit</**button**>

</**form**>

</**div**>

</**body**>

</**html**>

# userHome.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<%@ **page** import=*"com.subham.RailwayCrossing"*%>

<%@ **page** import=*"com.subham.RailwayCrossingDAO"*%>

<%@ **page** import=*"java.util.List"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Railway Crossings - User Home Page</**title**>

<**style**> body {

font-family: *Arial, sans-serif*; margin: *0*;

padding: *20px*;

}

.container {

border: *1px solid #ccc*; border-radius: *10px*; padding: *20px*;

margin-bottom: *20px*; margin-top: *20px*;

}

.container h3 {

margin-top: *0*;

}

.container p {

margin: *0*;

}

.crossing {

margin-bottom: *10px*;

}

.crossing button {

margin-left: *10px*;

}

.status {

display: *inline-block*; padding: *5px*;

font-weight: *bold*;

}

.status-open {

color: *white*; border-radius: *30%*;

background-color: *green*;

}

.status-closed {

color: *white*; background-color: *red*;

}

</**style**>

</**head**>

<**body**>

<**h1** style="font-weight: *bold*;">User Home Page</**h1**>

<!-- Display Search Crossings button -->

<**button** onclick="location.href='HomePage.jsp'"

style="border-radius: *10px*; font-weight: *bold*;">Home</**button**>

<!-- Display All button -->

<**button** onclick="location.href='userHome.jsp'"

style="border-radius: *10px*; margin-left: *50px*; font-weight:

*bold*;">All

Crossings</**button**>

<!-- Display Favorite Crossings button -->

<**button** onclick="location.href='userHomeFavoriteCrossing.jsp'" style="border-radius: *10px*; margin-left: *50px*; font-weight:

*bold*;">Favorite

Crossings</**button**>

<!-- Display Search Crossings button -->

<**button** onclick="location.href='userSearchCrossing.jsp'" style="border-radius: *10px*; margin-left: *50px*; font-weight:

*bold*;">Search

Crossings</**button**>

<!-- Logout button -->

<**button** onclick="location.href='userLogin.jsp'"

style="border-radius: *10px*; margin-left: *800px*; font-weight:

*bold*;">Logout</**button**>

<%-- Create an instance of RailwayCrossingDAO --%>

<%

RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); List<RailwayCrossing> allCrossings = crossingDAO.getAllCrossings(); for (RailwayCrossing crossing : allCrossings) {

String status = crossing.getStatus();

String statusClass = status.equalsIgnoreCase("Open") ? "status- open" : "status-closed";

%>

<**div** class=*"container"*>

<**h3**><%=crossing.getName()%></**h3**>

<**p**>

Status: <**strong**><**span** class=*"status*

<%=statusClass%>*"*><%=crossing.getStatus()%></**span**></**strong**>

</**p**>

<**p**>

Person in Charge:

<**strong**><%=crossing.getPersonInCharge()%></**strong**>

</**p**>

<**p**>

Train Schedules:

<**strong**><%=crossing.getTrainSchedule()%></**strong**>

</**p**>

<**p**>

Landmark: <**strong**><%=crossing.getLandmark()%></**strong**>

</**p**>

<**p**>

Address: <**strong**><%=crossing.getAddress()%></**strong**>

</**p**>

<**form** action=*"addToFavorites"* method=*"post"* style="display:

*inline*;">

<**input** type=*"hidden"* name=*"crossingId"* value=*"*<%=crossing.getId()%>*"*>

<**button** type=*"submit"*

style="border-radius: *10px*; font-weight: *bold*; margin-top: *10px*; margin-left: *0px*;">ADD

TO FAVORITES</**button**>

</**form**>

</**div**>

<%

}

%>

</**body**>

</**html**>

# userHomeFavoriteCrossing.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<%@ **page** import=*"com.subham.RailwayCrossing"*%>

<%@ **page** import=*"com.subham.RailwayCrossingDAO"*%>

<%@ **page** import=*"java.util.List"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Railway Crossings - Favorite Crossings</**title**>

<**style**> body {

font-family: *Arial, sans-serif*; margin: *0*;

padding: *20px*;

}

.container {

border: *1px solid #ccc*; border-radius: *10px*; padding: *20px*;

margin-bottom: *20px*; margin-top: *20px*;

}

.container h3 {

margin-top: *0*;

}

.container p {

margin: *0*;

}

.status {

display: *inline-block*; padding: *5px*;

color: *white*;

font-weight: *bold*;

}

.status-open {

background-color: *green*;

}

.status-closed {

background-color: *red*;

}

</**style**>

</**head**>

<**body**>

<**h2**>User Home Page</**h2**>

<!-- Display All button -->

<**button** onclick="location.href='userHome.jsp'">All Crossings</**button**>

<!-- Favorite Crossings Container -->

<**div** class=*"favorites"*>

<%

RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); List<RailwayCrossing> favoriteCrossings =

crossingDAO.getFavoriteCrossings();

for (RailwayCrossing crossing : favoriteCrossings) { String status = crossing.getStatus();

String statusClass = status.equalsIgnoreCase("Open") ? "status-open" : "status-closed";

%>

<**div** class=*"container"*>

<**h3**><%=crossing.getName()%></**h3**>

<**p**>

Status: <**strong**><**span** class=*"status*

<%=statusClass%>*"*><%=status%></**span**></**strong**>

</**p**>

<**p**>

Person in Charge:

<**strong**><%=crossing.getPersonInCharge()%></**strong**>

</**p**>

<**p**>

Train Schedules:

<**strong**><%=crossing.getTrainSchedule()%></**strong**>

</**p**>

<**p**>

Landmark:

<**strong**><%=crossing.getLandmark()%></**strong**>

</**p**>

<**p**>

Address:

<**strong**><%=crossing.getAddress()%></**strong**>

</**p**>

<**form** action=*"removeFromFavorites"* method=*"post"* style="display: *inline*;">

<**input** type=*"hidden"* name=*"crossingId"* value=*"*<%=crossing.getId()%>*"*>

<**button** type=*"submit"*

style="border-radius: *10px*; font-weight:

*bold*; margin-top: *10px*;">REMOVE

FROM FAVORITES</**button**>

</**form**>

</**div**>

<%

}

%>

</**div**>

</**body**>

</**html**>

# userLogin.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>User Login</**title**>

<**style**> body {

display: *flex*;

justify-content: *center*; align-items: *center*; height: *100vh*;

text-align: *center*; background-color: *#f2f2f2*;

}

.panel {

width: *400px*; padding: *40px*;

background-color: *#ffffff*; border-radius: *5px*;

box-shadow: *0 2px 5px rgba(0, 0, 0, 0.1)*;

}

.panel label {

display: *block*; margin-bottom: *10px*; text-align: *left*;

}

.panel input[type="text"], .panel input[type="password"] { width: *100%*;

padding: *10px*;

border: *1px solid #ccc*; border-radius: *4px*;

}

.panel button[type="submit"] { width: *100%*;

padding: *10px*;

background-color: *#4CAF50*; color: *white*;

border: *none*; border-radius: *4px*;

cursor: *pointer*;

}

.panel button[type="submit"]:hover { background-color: *#45a049*;

}

.panel .signup-link { display: *block*; margin-top: *20px*;

}

</**style**>

</**head**>

<**body**>

<**div** class=*"panel"*>

<**h2**>Railway Crossing</**h2**>

<**h4**>User Login</**h4**>

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

<**label** for=*"email"*>Email:</**label**> <**input** type=*"text"*

id=*"email"*

name=*"email"* required><**br**> <**label** for=*"password"*>Password:</**label**>

<**input** type=*"password"* id=*"password"* name=*"password"*

required><**br**>

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

</**form**>

<**div** class=*"signup-link"*>

<**p**>

Don't have an account? <**a** href=*"userRegister.jsp"*>Create New

Account</**a**>

</**p**>

</**div**>

</**div**>

</**body**>

</**html**>

**userRegister.jsp (src/webapp) :**

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>User Registration</**title**>

<**style**> body {

display: *flex*;

justify-content: *center*; align-items: *center*; height: *100vh*;

text-align: *center*; background-color: *#f2f2f2*;

}

.panel {

width: *500px*; padding: *40px*;

background-color: *#ffffff*; border-radius: *5px*;

box-shadow: *0 2px 5px rgba(0, 0, 0, 0.1)*;

}

.panel label {

display: *block*; margin-bottom: *10px*; text-align: *left*;

}

.panel input[type="text"], .panel input[type="password"] { width: *100%*;

padding: *10px*;

border: *1px solid #ccc*; border-radius: *4px*;

}

.panel button[type="submit"] { width: *100%*;

padding: *10px*;

background-color: *#4CAF50*; color: *white*;

border: *none*; border-radius: *4px*; cursor: *pointer*;

}

.panel button[type="submit"]:hover { background-color: *#45a049*;

}

.panel .signup-link { display: *block*; margin-top: *20px*;

}

</**style**>

</**head**>

<**body**>

<**div** class=*"panel"*>

<**h2**>Railway Crossing</**h2**>

<**h4**>User Register</**h4**>

<**form** action=*"register"* method=*"post"*>

<**label** for=*"name"*>Name:</**label**> <**input** type=*"text"*

id=*"name"*

name=*"name"* required><**br**> <**label**

for=*"email"*>Email:</**label**>

<**input** type=*"text"* id=*"email"* name=*"email"* required><**br**>

<**label** for=*"password"*>Password:</**label**> <**input**

type=*"password"*

id=*"password"* name=*"password"* required><**br**>

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

</**form**>

<**div** class=*"signup-link"*>

<**p**>

Already have an account? <**a** href=*"userLogin.jsp"*>Sign in</**a**>

</**p**>

</**div**>

</**div**>

</**body**>

</**html**>

# userSearchCrossing.jsp (src/webapp) :

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

pageEncoding=*"UTF-8"*%>

<%@ **page** import=*"com.subham.RailwayCrossing"*%>

<%@ **page** import=*"com.subham.RailwayCrossingDAO"*%>

<%@ **page** import=*"java.util.List"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Railway Crossings - Search Crossings</**title**>

<**style**> body {

font-family: *Arial, sans-serif*; margin: *0*;

padding: *20px*;

}

.container {

border: *1px solid #ccc*; border-radius: *10px*; padding: *20px*;

margin-bottom: *20px*; margin-top: *20px*;

}

.container h3 {

margin-top: *0*;

}

.container p {

margin: *0*;

}

.search-container {

margin-top: *60px*; margin-bottom: *20px*;

}

.search-container input[type="text"] { padding: *10px*;

width: *200px*;

}

.logout-button {

position: *absolute*; padding: *10px*;

top: *50px*; right: *30px*;

border-radius: *10px*; font-weight: *bold*; top: *50px*;

}

.allCrossing-button { position: *absolute*; padding: *5px*;

top: *75px*; left: *10px*;

}

.favouriteCrossing-button {

position: *absolute*; padding: *5px*;

top: *75px*; left: *130px*;

}

.status {

display: *inline-block*; padding: *5px*;

font-weight: *bold*;

}

.status-open {

color: *white*; border-radius: *30%*;

background-color: *green*;

}

.status-closed {

color: *white*; background-color: *red*;

}

.crossing {

margin-bottom: *10px*;

}

.crossing button {

margin-left: *10px*;

}

</**style**>

<**script**>

**function** searchCrossings() {

**var** input = document.getElementById("searchInput");

**var** filter = input.value.toUpperCase();

**var** crossings = document.getElementsByClassName("crossing");

**for** (**var** i = 0; i < crossings.length; i++) {

**var** crossing = crossings[i];

**var** name = crossing.getElementsByTagName("h3")[0].innerText;

**if** (name.toUpperCase().indexOf(filter) > -1) { crossing.style.display = "";

} **else** {

crossing.style.display = "none";

}

}

}

</**script**>

</**head**>

<**body**>

<**h2**>Search Crossings</**h2**>

<!-- Display All button -->

<**button** onclick="location.href='userHome.jsp'" class=*"allCrossing-button"*

style="border-radius: *10px*; font-weight: *bold*;">All Crossings</**button**>

<!-- Display Favorite Crossings button -->

<**button** onclick="location.href='userHomeFavoriteCrossing.jsp'" class=*"favouriteCrossing-button"*

style="border-radius: *10px*; font-weight: *bold*;">Favorite Crossings</**button**>

<!-- Search input -->

*name"*

<**div** class=*"search-container"*>

<**input** type=*"text"* id=*"searchInput"* placeholder=*"Search by*

onkeyup="searchCrossings()">

<!-- Logout button -->

<**button** onclick="location.href='userLogin.jsp'" class=*"logout-*

*button"*

style="border-radius: *10px*; font-weight:

*bold*;">Logout</**button**>

</**div**>

<!-- Search Results Container -->

<**div** class=*"search-results"*>

<%

RailwayCrossingDAO crossingDAO = new RailwayCrossingDAO(); List<RailwayCrossing> allCrossings =

crossingDAO.getAllCrossings();

for (RailwayCrossing crossing : allCrossings) { String status = crossing.getStatus();

String statusClass = status.equalsIgnoreCase("Open") ? "status-open" : "status-closed";

%>

<**div** class=*"container crossing"*>

<**h3**><%=crossing.getName()%></**h3**>

<**p**>

Status: <**strong**><**span** class=*"status*

<%=statusClass%>*"*><%=crossing.getStatus()%></**span**></**strong**>

</**p**>

<**p**>

Person in Charge:

<**strong**><%=crossing.getPersonInCharge()%></**strong**>

</**p**>

<**p**>

Train Schedules:

<**strong**><%=crossing.getTrainSchedule()%></**strong**>

</**p**>

<**p**>

Landmark:

<**strong**><%=crossing.getLandmark()%></**strong**>

</**p**>

<**p**>

Address:

<**strong**><%=crossing.getAddress()%></**strong**>

</**p**>

<**form** action=*"addToFavorites"* method=*"post"* style="display: *inline*;">

<**input** type=*"hidden"* name=*"crossingId"* value=*"*<%=crossing.getId()%>*"*>

<**button** type=*"submit"*

style="border-radius: *10px*; font-weight:

*bold*; margin-top: *10px*; margin-left: *0px*;">ADD

TO FAVORITES</**button**>

</**div**>

</**body**>

</**html**>

</**div**>

<%

}

%>

</**form**>