Phase-2 end project

Railway Crossing Status

Source code

dashboardServlet.java

```
package com.ecommerce;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.ArrayList;
import java.util.List;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet("/DashboardServlet")
public class dashboardServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
// JDBC driver and connection variables
private static final String JDBC_DRIVER = "com.mysql.jdbc.Driver";
private Connection conn;
@Override
public void init() throws ServletException {
super.init();
try {
// Register JDBC driver
Class.forName(JDBC_DRIVER);
// Open a connection to the database
conn = DriverManager.getConnection(DB_URL, DB_USERNAME,
DB_PASSWORD);
} catch (ClassNotFoundException | SQLException e) {
e.printStackTrace();
throw new ServletException("Database connection error: " +
e.getMessage());
}
}
@Override
public void destroy() {
```

```
super.destroy();
try {
// Close the database connection
if (conn != null && !conn.isClosed()) {
conn.close();
}
} catch (SQLException e) {
e.printStackTrace();
}
}
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
throws ServletException, IOException {
response.setContentType("text/html");
PrintWriter out = response.getWriter();
try {
// Prepare the SQL statement
String searchName = request.getParameter("searchName");
String sql = "SELECT * FROM railway_crossings";
if (searchName != null && !searchName.isEmpty()) {
sql += " WHERE name LIKE '%" + searchName + "%'";
}
PreparedStatement statement = conn.prepareStatement(sql);
// Execute the query
ResultSet resultSet = statement.executeQuery();
// Retrieve favorite crossings from session
List<Integer> favoriteCrossings = (List<Integer>)
request.getSession().getAttribute("favoriteCrossings");
if (favoriteCrossings == null) {
favoriteCrossings = new ArrayList<>();
request.getSession().setAttribute("favoriteCrossings",
favoriteCrossings);
}
// Generate HTML output
out.println("<!DOCTYPE html>");
out.println("<html>");
out.println("<head>");
out.println("<title>Railway Crossings</title>");
out.println("</head>");
out.println("<body>");
out.println("<h1>Railway Crossings</h1>");
// Search form
out.println("<h2>Search Railway Crossing</h2>");
out.println("<form method=\"GET\" action=\"DashboardServlet\">");
out.println("<input type=\"text\" name=\"searchName\"placeholder=\"Enter
name\">");
out.println("<input type=\"submit\" value=\"Search\">");
out.println("</form>");
out.println("<table>");
out.println("<tr><th>ID</th><th>Name</th><th>Address</th><th>Landmark</th><th
>Schedules</th><th>Person</th><th>Status</th><th>Action</th></tr>");
while (resultSet.next()) {
int id = resultSet.getInt("id");
String name = resultSet.getString("name");
String address = resultSet.getString("address");
String landmark = resultSet.getString("landmark");
String schedules = resultSet.getString("schedules");
```

```
String person = resultSet.getString("person");
String status = resultSet.getString("status");
out.println("<tr>");
out.println("<td>" + id + "</td>");
out.println("<td>" + name + "</td>");
out.println("<td>" + address + "</td>");
out.println("<td>" + landmark + "</td>");
out.println("<td>" + schedules + "</td>");
out.println("<td>" + person + "</td>");
out.println("<td>" + status + "</td>");
if (favoriteCrossings.contains(id)) {
out.println("<td><a href=\"DashboardServlet?removeFavorite=" + id +
"\">Remove Favorite</a></td>");
} else {
out.println("<td><a href=\"DashboardServlet?markFavorite=" +
id + "\">Mark Favorite</a></td>");
}
out.println("</tr>");
}
out.println("</table>");
// Option to see favorite crossings
out.println("<h2>Favorite Railway Crossings</h2>");
out.println("<form method=\"GET\" action=\"FavoriteCrossingsServlet\">");
out.println("<input type=\"submit\" value=\"See Favorite Crossings\">");
out.println("</form>");
out.println("</body>");
out.println("</html>");
statement.close();
} catch (SQLException e) {
e.printStackTrace();
out.println("Database error: " + e.getMessage());
}
}
}
```

RailwayCrossingServlet.java

```
package com.ecommerce;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet(value = "/RailwayCrossingServlet")
public class RailwayCrossingServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
```

```
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String name = request.getParameter("name");
String address = request.getParameter("address");
String landmark = request.getParameter("landmark");
String schedules = request.getParameter("schedules");
String person = request.getParameter("person");
String status = request.getParameter("status");
String favourite = request.getParameter("favourite");

System.out.println(favourite);
try {
// Register JDBC driver
Class.forName("com.mysql.jdbc.Driver");
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
// Prepare the SQL statement
String sql = "INSERT INTO railway_crossings (name, address,landmark,
schedules, person, status,favourite) " +
"VALUES (?, ?, ?, ?, ?, ?,?)";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, name);
statement.setString(2, address);
statement.setString(3, landmark);
statement.setString(4, schedules);
statement.setString(5, person);
statement.setString(6, status);
statement.setString(7, favourite);
// Execute the statement
int rowsInserted = statement.executeUpdate();
statement.close();
conn.close();
if (rowsInserted > 0) {
// Railway crossing added successfully
response.sendRedirect("GetRailwayDetailsServlet");
} else {
// Failed to add railway crossing
response.getWriter().println("Failed to add railway crossing.Please try
again.");
}
} catch (ClassNotFoundException | SQLException e) {
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

LoginServlet

```
package com.ecommerce;
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import javax.servlet.annotation.WebServlet;
@WebServlet(value = "/login")
public class LoginServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String email = request.getParameter("email");
String password = request.getParameter("password");
try {
// Load the MySQL JDBC driver
Class.forName("com.mysql.jdbc.Driver");
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
// Prepare the SQL statement
String sql = "SELECT * FROM users WHERE email = ? AND password = ?";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, email);
statement.setString(2, password);
// Execute the statement
ResultSet resultSet = statement.executeQuery();
if (resultSet.next()) {
// Login successful, create a session for the user
HttpSession session = request.getSession();
session.setAttribute("email", email);
response.sendRedirect("DashboardServlet");
} else {
// Login failed, display an error message
response.getWriter().println("Invalid email or password. Please try again.");
}
resultSet.close();
statement.close();
conn.close();
} catch (ClassNotFoundException e) {
e.printStackTrace();
response.getWriter().println("MySQL JDBC driver not found.");
} catch (SQLException e) {
e.printStackTrace();
```

```
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

DeleteRailwayCrossingServlet

```
package com.ecommerce;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet("/DeleteRailwayCrossingServlet")
public class DeleteRailwayCrossingServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
throws ServletException, IOException {
int id = Integer.parseInt(request.getParameter("id"));
try {
// Register the JDBC driver
Class.forName("com.mysql.jdbc.Driver");
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
// Prepare the SQL statement
String sql = "DELETE FROM railway_crossings WHERE id = ?";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setInt(1, id);
// Execute the statement
int rowsDeleted = statement.executeUpdate();
statement.close();
conn.close();
if (rowsDeleted > 0) {
// Railway crossing deleted successfully
response.sendRedirect("GetRailwayDetailsServlet");
} else {
// Failed to delete railway crossing
response.getWriter().println("Failed to delete railway crossing. Please try
again.");
}
} catch (ClassNotFoundException | SQLException e) {
```

```
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

FavoriteCrossingsServlet

```
package com.ecommerce;


import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.List;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.annotation.WebServlet;

@WebServlet("/FavoriteCrossingsServlet")

public class FavoriteCrossingsServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

// JDBC database URL, username, and password

private static final String DB_URL = "jdbc:mysql://localhost:3306/railway";

private static final String DB_USERNAME = "root";

private static final String DB_PASSWORD = "123456";
```

```
// JDBC driver and connection variables
private static final String JDBC_DRIVER = "com.mysql.jdbc.Driver";
private Connection conn;
@Override
public void init() throws ServletException {
super.init();
try {
// Register JDBC driver
Class.forName(JDBC_DRIVER);
// Open a connection to the database
conn = DriverManager.getConnection(DB_URL, DB_USERNAME,
DB_PASSWORD);
} catch (ClassNotFoundException | SQLException e) {
e.printStackTrace();
throw new ServletException("Database connection error: " +
e.getMessage());
}
}
@Override
public void destroy() {
super.destroy();
try {
// Close the database connection
if (conn != null && !conn.isClosed()) {
conn.close();
}
} catch (SQLException e) {
e.printStackTrace();
}
```

```
}
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
throws ServletException, IOException {
response.setContentType("text/html");
PrintWriter out = response.getWriter();
try {


// Retrieve favorite crossings from session
List<Integer> favoriteCrossings = (List<Integer>)
request.getSession().getAttribute("favoriteCrossings");
System.out.println(favoriteCrossings);
// Generate HTML output
out.println("<!DOCTYPE html>");
out.println("<html>");
out.println("<head>");
out.println("<title>Favorite Railway Crossings</title>");
out.println("</head>");
out.println("<body>");
out.println("<h1>Favorite Railway Crossings</h1>");
if (favoriteCrossings == null || favoriteCrossings.isEmpty()) {
out.println("<p>No favorite crossings found.</p>");
} else {
// Prepare the SQL statement
String sql = "SELECT * FROM railway_crossings WHERE id IN (";
for (int i = 0; i < favoriteCrossings.size(); i++) {
sql += favoriteCrossings.get(i);
if (i < favoriteCrossings.size() - 1) {
```

```
sql += ",";
}
}
sql += ")";
PreparedStatement statement = conn.prepareStatement(sql);
// Execute the query
ResultSet resultSet = statement.executeQuery();
out.println("<table>");
out.println("<tr><th>ID</th><th>Name</th><th>Address</th><th>Landmark</th><th>Schedules</th><
th>Person</th><th>Status</th></tr>");
while (resultSet.next()) {
int id = resultSet.getInt("id");
String name = resultSet.getString("name");
String address = resultSet.getString("address");
String landmark = resultSet.getString("landmark");
String schedules = resultSet.getString("schedules");
String person = resultSet.getString("person");
String status = resultSet.getString("status");
out.println("<tr>");
out.println("<td>" + id + "</td>");
out.println("<td>" + name + "</td>");
out.println("<td>" + address + "</td>");
out.println("<td>" + landmark + "</td>");
out.println("<td>" + schedules + "</td>");
out.println("<td>" + person + "</td>");
out.println("<td>" + status + "</td>");
out.println("</tr>");
}
out.println("</table>");
```

```
statement.close();

}

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

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

} catch (SQLException e) {

e.printStackTrace();

out.println("Database error: " + e.getMessage());

}

}

}
```

GetRailwayDetailsServlet

```
package com.ecommerce;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet("/GetRailwayDetailsServlet")
public class GetRailwayDetailsServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
throws ServletException, IOException {
response.setContentType("text/html");
```

```
PrintWriter out = response.getWriter();
try {
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
// Prepare the SQL statement
String sql = "SELECT * FROM railway_crossings";
PreparedStatement statement = conn.prepareStatement(sql);
// Execute the query
ResultSet resultSet = statement.executeQuery();
// Generate HTML output
out.println("<!DOCTYPE html>");
out.println("<html>");
out.println("<head>");
out.println("<title>Railway Crossings</title>");
out.println("</head>");
out.println("<body>");
out.println("<h1>Railway Crossings</h1>");
out.println("<table>");
out.println("<tr><th>ID</th><th>Name</th><th>Address</th><th>Landmar
k</th><th>Schedules</th><th>Person</th><th>Status</th></tr>");
while (resultSet.next()) {
int id = resultSet.getInt("id");
String name = resultSet.getString("name");
String address = resultSet.getString("address");
String landmark = resultSet.getString("landmark");
String schedules = resultSet.getString("schedules");
String person = resultSet.getString("person");
String status = resultSet.getString("status");
String favourite = resultSet.getString("favourite");
out.println("<tr>");
out.println("<td>" + id + "</td>");
out.println("<td>" + name + "</td>");
out.println("<td>" + address + "</td>");
out.println("<td>" + landmark + "</td>");
out.println("<td>" + schedules + "</td>");
out.println("<td>" + person + "</td>");
out.println("<td>" + status + "</td>");
out.println("<td>" + favourite + "</td>");

out.println("<td><a href='update_railway.jsp?id=" + id +
"'>Update</a> | <a href='DeleteRailwayCrossingServlet?id=" + id +
"'>Delete</a></td>");
out.println("</tr>");
}
out.println("</table>");
out.println("</body>");
out.println("</html>");
statement.close();
conn.close();
} catch (SQLException e) {
e.printStackTrace();
out.println("Database error: " + e.getMessage());
}
}
}
```

GovernmentLoginServlet.java

```
package com.ecommerce;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import javax.servlet.annotation.WebServlet;

@WebServlet(value = "/GovernmentLoginServlet")
public class GovernmentLoginServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String email = request.getParameter("email");
String password = request.getParameter("password");
try {
Class.forName("com.mysql.jdbc.Driver");
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
String sql = "SELECT * FROM admin WHERE email = ? AND password = ?";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, email);
statement.setString(2, password);
ResultSet resultSet = statement.executeQuery();
if (resultSet.next()) {
HttpSession session = request.getSession();
session.setAttribute("email", email);
response.sendRedirect("add_railway.html");
} else {
response.getWriter().println("Invalid email or password. Please try again.");
}
resultSet.close();
statement.close();
conn.close();
} catch (ClassNotFoundException | SQLException e) {
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
```

```
}
}
}
```

GovernmentRegisterServlet.java

```
package com.ecommerce;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet(value = "/GovernmentRegisterServlet")
public class GovernmentRegisterServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String name = request.getParameter("name");
String email = request.getParameter("email");
String password = request.getParameter("password");
try {
Class.forName("com.mysql.jdbc.Driver");
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
String sql = "INSERT INTO admin (name, email, password) VALUES (?, ?, ?)";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, name);
statement.setString(2, email);
statement.setString(3, password);
int rowsInserted = statement.executeUpdate();
statement.close();
conn.close();
if (rowsInserted > 0) {
response.sendRedirect("government_login.jsp");
} else {
response.getWriter().println("Registration failed. Please try again.");
}
} catch (ClassNotFoundException | SQLException e) {
e.printStackTrace();
```

```
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

LoginServlet.java

```
package com.ecommerce;
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import javax.servlet.annotation.WebServlet;
@WebServlet(value = "/login")
public class LoginServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String email = request.getParameter("email");
String password = request.getParameter("password");
try {
// Load the MySQL JDBC driver
Class.forName("com.mysql.jdbc.Driver");
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
```

```
// Prepare the SQL statement
String sql = "SELECT * FROM users WHERE email = ? AND password = ?";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, email);
statement.setString(2, password);
// Execute the statement
ResultSet resultSet = statement.executeQuery();
if (resultSet.next()) {
// Login successful, create a session for the user
HttpSession session = request.getSession();
session.setAttribute("email", email);
response.sendRedirect("DashboardServlet");
} else {
// Login failed, display an error message
response.getWriter().println("Invalid email or password. Please try again.");
}
resultSet.close();
statement.close();
conn.close();
} catch (ClassNotFoundException e) {
e.printStackTrace();
response.getWriter().println("MySQL JDBC driver not found.");
} catch (SQLException e) {
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

RailwayServlet.java

```
package com.ecommerce;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
```

```
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet(value = "/register")
public class RegisterServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL =
"jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String name = request.getParameter("name");
String email = request.getParameter("email");
String password = request.getParameter("password");
try {
// Load the MySQL JDBC driver
Class.forName("com.mysql.jdbc.Driver");
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
// Prepare the SQL statement
String sql = "INSERT INTO users (name, email, password) VALUES (?, ?, ?)";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, name);
statement.setString(2, email);
statement.setString(3, password);
// Execute the statement
int rowsInserted = statement.executeUpdate();
statement.close();
conn.close();
if (rowsInserted > 0) {
// Registration successful, redirect to login page
response.sendRedirect("login.jsp");
} else {
// Registration failed, display an error message
response.getWriter().println("Registration failed. Please try again.");
}
} catch (ClassNotFoundException e) {
e.printStackTrace();
response.getWriter().println("MySQL JDBC driver not found.");
} catch (SQLException e) {
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

UpdateRailwayCrossingServlet

```
package com.ecommerce;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.annotation.WebServlet;
@WebServlet("/UpdateRailwayCrossingServlet")
public class UpdateRailwayCrossingServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
// JDBC database URL, username, and password
private static final String DB_URL = "jdbc:mysql://localhost:3306/railway";
private static final String DB_USERNAME = "root";
private static final String DB_PASSWORD = "123456";
// JDBC driver class name
private static final String JDBC_DRIVER = "com.mysql.jdbc.Driver";
protected void doPost(HttpServletRequest request, HttpServletResponse
response)
throws ServletException, IOException {
int id = Integer.parseInt(request.getParameter("id"));
String name = request.getParameter("name");
String address = request.getParameter("address");
String landmark = request.getParameter("landmark");
String schedules = request.getParameter("schedules");
String person = request.getParameter("person");
String status = request.getParameter("status");
Connection conn = null;
PreparedStatement statement = null;
try {
// Register the JDBC driver
Class.forName(JDBC_DRIVER);
// Create a connection to the database
conn = DriverManager.getConnection(DB_URL, DB_USERNAME,
DB_PASSWORD);
// Prepare the SQL statement
String sql = "UPDATE railway_crossings SET name=?, address=?, landmark=?,
schedules=?, person=?, status=? WHERE id=?";
statement = conn.prepareStatement(sql);
statement.setString(1, name);
statement.setString(2, address);
statement.setString(3, landmark);
statement.setString(4, schedules);
statement.setString(5, person);
statement.setString(6, status);
statement.setInt(7, id);
// Execute the statement
int rowsUpdated = statement.executeUpdate();
if (rowsUpdated > 0) {
// Railway crossing updated successfully
response.sendRedirect("GetRailwayDetailsServlet");
```

```
} else {
// Failed to update railway crossing
response.getWriter().println("Failed to update railway crossing. Please try
again.");
}
} catch (ClassNotFoundException e) {
e.printStackTrace();
response.getWriter().println("JDBC driver not found.");
} catch (SQLException e) {
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
} finally {
// Close the resources
if (statement != null) {
try {
statement.close();
} catch (SQLException e) {
e.printStackTrace();
}
}
if (conn != null) {
try {
conn.close();
} catch (SQLException e) {
e.printStackTrace();
}
}
}
}
}
```

Add_railwaycrossing.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html><head>
<title>Add Railway Crossing</title>
</head>
<body>
<h1>Add Railway Crossing</h1>
<form action="RailwayCrossingServlet" method="POST">
<label for="name">Name:</label>
<input type="text" id="name" name="name" required="">
<br><br>
<label for="address">Address:</label>
<input type="text" id="address" name="address" required="">
<br><br>
<label for="landmark">Landmark:</label>
<input type="text" id="landmark" name="landmark" required="">
<br><br>
<label for="schedules">Train Schedules:</label>
```

```
<textarea id="schedules" name="schedules" required=""></textarea>
<br><br>
<label for="person">Person in Charge:</label>
<input type="text" id="person" name="person" required="">
<br><br>
<label for="status">Status:</label>
<select id="status" name="status" required="">
<option value="Open">Open</option>
<option value="Closed">Closed</option></select>
```

Government_login.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h2>Government User Login</h2>
    <form action="GovernmentLoginServlet" method="post">
        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required><br><br>

        <label for="password">Password:</label>
        <input type="password" id="password" name="password" required><br><br>

        <input type="submit" value="Login">
    </form>
</body>
</html>
```

Government_user.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Govt. User Registration</h1>

    <h2>Government User Registration</h2>
    <form action="GovernmentRegisterServlet" method="post">
```

```
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required><br><br>

        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required><br><br>

        <label for="password">Password:</label>
        <input type="password" id="password" name="password" required><br><br>

        <input type="submit" value="Register">

    </form>
    <p>  <a href="government_login.jsp">sign in</a></p>

</body>
</html>
```

Home.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Welcome to the Railway Crossing Application</h1>
    <h3>Select from below option:</h3>

    <ul>
        <li><a href="government_users.jsp">Government Section</a></li>
        <li><a href="register.jsp">User Section</a></li>
    </ul>
</body>
</html>
```

Login.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Railway Crossing</h1>
```

```
<h2>User Login</h2>
<form method="post" action="login">
<label for="email">Enter Email:</label>
<input type="email" id="email" name="email" required><br><br>
<label for="password">Enter Password:</label>
<input type="password" id="password" name="password"
required><br><br>
<input type="submit" value="Login">
</form>
<br>
<p>Don't have an account? <a href="register.jsp">Create New
Account</a></p>
</body>
</html>
```

Register.jsp

```
package com.ecommerce;


import java.io.IOException;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.annotation.WebServlet;

@WebServlet(value = "/register")

public class RegisterServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

// JDBC database URL, username, and password

private static final String DB_URL =

"jdbc:mysql://localhost:3306/railway";

private static final String DB_USERNAME = "root";
```

```
private static final String DB_PASSWORD = "123456";
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
throws ServletException, IOException {
String name = request.getParameter("name");
String email = request.getParameter("email");
String password = request.getParameter("password");
try {
// Load the MySQL JDBC driver
Class.forName("com.mysql.jdbc.Driver");
// Create a connection to the database
Connection conn = DriverManager.getConnection(DB_URL,
DB_USERNAME, DB_PASSWORD);
// Prepare the SQL statement
String sql = "INSERT INTO users (name, email, password) VALUES (?, ?, ?)";
PreparedStatement statement = conn.prepareStatement(sql);
statement.setString(1, name);
statement.setString(2, email);
statement.setString(3, password);
// Execute the statement
int rowsInserted = statement.executeUpdate();
statement.close();
conn.close();
if (rowsInserted > 0) {
// Registration successful, redirect to login page
response.sendRedirect("login.jsp");
} else {
// Registration failed, display an error message
response.getWriter().println("Registration failed. Please try again.");
```

```
}
} catch (ClassNotFoundException e) {
e.printStackTrace();
response.getWriter().println("MySQL JDBC driver not found.");
} catch (SQLException e) {
e.printStackTrace();
response.getWriter().println("Database error: " + e.getMessage());
}
}
}
```

Update_railway.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Update Railway Crossing</h1>
<h1>Update Railway Crossing</h1>
<%
// Retrieve the railway crossing details from the request parameters
int id = Integer.parseInt(request.getParameter("id"));
String name = request.getParameter("name");
String address = request.getParameter("address");
String landmark = request.getParameter("landmark");
String schedules = request.getParameter("schedules");
String person = request.getParameter("person");
String status = request.getParameter("status");
%>
<form action="UpdateRailwayCrossingServlet" method="post">
<input type="hidden" name="id" value="<%= id %>">
<label for="name">Name:</label>
<input type="text" name="name" id="name" value="<%= name %>">
<br>
<label for="address">Address:</label>
<input type="text" name="address" id="address" value="<%= address
%>">
<br>
<label for="landmark">Landmark:</label>
```

```
<input type="text" name="landmark" id="landmark" value="<%=
landmark %>">
<br>
<label for="schedules">Schedules:</label>
<input type="text" name="schedules" id="schedules" value="<%=
schedules %>">
<br>
<label for="person">Person:</label>
<input type="text" name="person" id="person" value="<%= person
%>">
<br>
<label for="status">Status:</label>
<input type="text" name="status" id="status" value="<%= status %>">
<br>
<input type="submit" value="Update">
</form>
</body>
</html>
```