# Railway crossing status

1. home.jsp:

```
<@ page language="java" contentType="text/html; charset=UTF-8"
     pageEncoding="UTF-8"%>
  <!DOCTYPE html>
  <html>
  <head>
  <meta charset="UTF-8">
  <title>Insert title here</title>
  </head>
  <body>
  <h1>Welcome to the Railway Crossing Application</h1>
     <h3>Please select a section:</h3>
     <a href="government users.jsp">Government Section</a>
       <a href="register.jsp">User Section</a>
     </body>
  </html>
2. government users.jsp:
  <@ page language="java" contentType="text/html; charset=UTF-8"
  pageEncoding="UTF-8"%>
  <!DOCTYPE html>
  <html>
  <head>
  <meta charset="UTF-8">
  <title>Insert title here</title>
  <style>
  .container {
```

```
display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: center;
 height: 100vh;
}
form {
 display: flex;
 flex-direction: column;
 align-items: flex-start; /* Align items to the left */
}
.input-group {
 display: flex;
 flex-direction: column;
 margin-bottom: 10px; /* Added margin-bottom to create space between
input groups */
}
.label {
 margin-bottom: 5px; /* Added margin-bottom to create space between
labels and inputs */
}
.text-input {
 padding: 5px;
}
input[type="submit"] {
 background-color: green;
 color: white;
 border-radius: 10px;
 padding: 10px 20px;
 border: none;
 cursor: pointer;
 margin-top: 10px;
```

```
}
p {
 margin-top: 10px;
</style>
</head>
<body>
<div class="container">
 <h1>Railway Crossing</h1>
 <h2>Admin Register</h2>
 <form action="GovernmentRegisterServlet" method="post">
  <div class="input-group">
    <label for="name" class="label">Name:</label>
   <input type="text" id="name" name="name" class="text-input"</pre>
required>
  </div>
  <div class="input-group">
   <label for="email" class="label">Email:</label>
   <input type="email" id="email" name="email" class="text-input"</pre>
required>
  </div>
  <div class="input-group">
    <label for="password" class="label">Password:</label>
   <input type="password" id="password" name="password"
class="text-input" required>
  </div>
  <input type="submit" value="Register">
 </form>
 Already have an account? <a href="government_login.jsp">Sign</a>
in</a>
</div>
```

```
</body>
```

3. government login.jsp:

```
<@ page language="java" contentType="text/html; charset=UTF-8"
  pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
<style>
.container {
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: center;
 height: 100vh;
}
form {
 display: flex;
 flex-direction: column;
 align-items: flex-start; /* Align items to the left */
}
.input-group {
 display: flex;
 flex-direction: column;
 margin-bottom: 10px; /* Added margin-bottom to create space between
input groups */
}
.label {
```

```
margin-bottom: 5px; /* Added margin-bottom to create space between
labels and inputs */
}
.text-input {
 padding: 5px;
input[type="submit"] {
 background-color: green;
 color: white;
 border-radius: 10px;
 padding: 10px 20px;
 border: none;
 cursor: pointer;
 margin-top: 10px;
}
p {
 margin-top: 10px;
</style>
</head>
<body>
<div class="container">
<h1>Railway Crossing</h1>
<h2>Admin Login</h2>
  <form action="GovernmentLoginServlet" method="post">
  <div class="input-group">
     <label for="email">Email:</label>
    <input type="email" id="email" name="email" required><br><br>
     </div>
     <div class="input-group">
     <label for="password">Password:</label>
```

```
<input type="password" id="password" name="password"
   required><br><br>
       </div>
       <input type="submit" value="Login">
     </form>
     Don't have Account?<a href="government_users.jsp">Create New
  Account</a>
     </div>
   </body>
   </html>
4. add railway.html:
   <!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:
       <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><
                             <a href="red"><a href="label"><a href="red"><a href="red">
                             <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>
                             <br><br><
                             <input type="submit" value="Add Railway Crossing">
                    </form>
           </body>
           </html>
5. update_railway.jsp:
           <@ page language="java" contentType="text/html; charset=UTF-8"
                    pageEncoding="UTF-8"%>
           <!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</pre>
%>">
    <br>
    <label for="landmark">Landmark:</label>
    <input type="text" name="landmark" id="landmark" value="<%=</pre>
landmark %>">
    <br>
    <label for="schedules">Schedules:</label>
    <input type="text" name="schedules" id="schedules" value="<%=
schedules %>">
    <hr>
    <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>
```

#### 6. login.jsp:

```
<@ page language="java" contentType="text/html; charset=UTF-8"
  pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
<style>
.container {
 display: flex;
 flex-direction: column;
 align-items: center;
 justify-content: center;
 height: 100vh;
}
form {
 display: flex;
 flex-direction: column;
 align-items: flex-start; /* Align items to the left */
}
.input-group {
 display: flex;
 flex-direction: column;
 margin-bottom: 10px; /* Added margin-bottom to create space between
input groups */
}
.label {
 margin-bottom: 5px; /* Added margin-bottom to create space between
labels and inputs */
}
```

```
.text-input {
 padding: 5px;
input[type="submit"] {
 background-color: green;
 color: white;
 border-radius: 10px;
 padding: 10px 20px;
 border: none;
 cursor: pointer;
 margin-top: 10px;
}
p {
 margin-top: 10px;
</style>
</head>
<body>
<div class="container">
<h1>Railway Crossing</h1>
<h2>User Login</h2>
  <form method="post" action="login">
  <div class="input-group">
     <label for="email">Enter Email:</label>
     <input type="email" id="email" name="email" required><br><br>
     </div>
     <div class="input-group">
     <a href="massword">Enter Password:</a><a href="label">Iabel</a>
     <input type="password" id="password" name="password"</pre>
required><br><br>
     </div>
     <input type="submit" value="Login">
```

```
</form>
     <br>
     >Don't have an account? <a href="register.jsp">Create New</a>
   Account</a>
     </div>
   </body>
   </html>
7. register.jsp:
   <@ page language="java" contentType="text/html; charset=UTF-8"
     pageEncoding="UTF-8"%>
   <!DOCTYPE html>
   <html>
   <head>
   <meta charset="UTF-8">
   <title>Insert title here</title>
   <style>
   .container {
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
    height: 100vh;
   form {
    display: flex;
    flex-direction: column;
    align-items: flex-start; /* Align items to the left */
   }
   .input-group {
    display: flex;
    flex-direction: column;
```

```
margin-bottom: 10px; /* Added margin-bottom to create space between
input groups */
}
.label {
 margin-bottom: 5px; /* Added margin-bottom to create space between
labels and inputs */
}
.text-input {
 padding: 5px;
}
input[type="submit"] {
 background-color: green;
 color: white;
 border-radius: 10px;
 padding: 10px 20px;
 border: none;
 cursor: pointer;
 margin-top: 10px;
}
p {
 margin-top: 10px;
</style>
</head>
<body>
<div class="container">
<h1>Railway Crossing</h1>
<h2>User Register</h2>
  <form method="post" action="register">
  <div class="input-group">
     <label for="name">Enter Name:</label>
     <input type="text" id="name" name="name" required><br><br>
     </div>
```

```
<div class="input-group">
        <label for="email">Enter Email:</label>
        <input type="email" id="email" name="email" required><br><br>
        </div>
        <div class="input-group">
        <a href="label"><label</a> <a href="red">Enter Password:</a></a>/label>
        <input type="password" id="password" name="password"
   required><br><br>
        </div>
        <input type="submit" value="Register">
     </form>
     <br>
     Already have an account? <a href="login.jsp">Login</a>
     </div>
   </body>
   </html>
8. search crossing.jsp:
   <%@ page language="java" contentType="text/html; charset=UTF-8"</pre>
   pageEncoding="UTF-8"%>
   <@@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
   <!DOCTYPE html>
   <html>
   <head>
     <meta charset="UTF-8">
     <title>Search Crossing</title>
     <style>
        form {
          margin-bottom: 20px;
        }
        table {
          border-collapse: collapse;
          width: 100%;
        }
```

```
th, td {
     padding: 8px;
     text-align: left;
   }
   th {
     background-color: #f2f2f2;
   td:not(:last-child) {
      padding-right: 10px;
  </style>
  <script>
   function searchCrossing() {
     var keyword = document.getElementById("keyword").value;
     window.location.href = "SearchRailwayCrossingServlet?keyword="
+ encodeURIComponent(keyword);
  </script>
</head>
<body>
  <h1>Search Crossing</h1>
  <form>
   <input type="text" id="keyword" placeholder="Enter a keyword">
   <button type="button" onclick="searchCrossing()">Search/button>
  </form>
 ID
      Name
      Address
      Landmark
      Schedules
      Person
      Status
      Action
```

```
<script>
  function showTable(results) {
     var table = document.getElementById("resultTable");
    table.style.display = "table";
    // Clear existing rows
    while (table.rows.length > 1) {
       table.deleteRow(table.rows.length - 1);
    }
    // Add search results to the table
    for (var i = 0; i < results.length; i++) {
       var crossing = results[i];
       var row = table.insertRow();
       var idCell = row.insertCell();
       idCell.textContent = crossing.id;
       var nameCell = row.insertCell();
       nameCell.textContent = crossing.name;
       var addressCell = row.insertCell();
       addressCell.textContent = crossing.address;
       var landmarkCell = row.insertCell();
       landmarkCell.textContent = crossing.landmark;
       var schedulesCell = row.insertCell();
       schedulesCell.textContent = crossing.schedules;
       var personCell = row.insertCell();
       personCell.textContent = crossing.person;
       var statusCell = row.insertCell();
```

```
statusCell.textContent = crossing.status;
             var actionCell = row.insertCell();
            actionCell.innerHTML = "<a href='update railway.isp?id=" +
   crossing.id + "'>Update</a> | <a href='DeleteRailwayCrossingServlet?id="
   + crossing.id + "'>Delete</a>";
       }
     </script>
   </body>
   </html>
GovernmentRegisterServlet.java:
   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 = "Simplilearn";
```

```
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());
    }
  }
}
```

#### 10. GovernmentLoginServlet.java:

```
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 = "Simplifearn";
  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 sgl = "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("GetRailwayDetailsServlet");
          } 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());
       }
     }
  }
11. UpdateRailwayCrossingServlet.java:
    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 = "Simplifearn";
  // 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();
        }
     }
  }
}
```

## 12. GetRailwayDetailsServlet.java:

```
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 = "Simplifearn";
  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
       Class.forName("com.mysgl.jdbc.Driver");
       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>Admin Home Page</title>");
```

```
out.println("<style>");
       out.println(".button-container {");
       out.println(" display: flex;");
       out.println(" gap: 10px;");
       out.println("}");
       out.println(".logout-button {");
       out.println(" margin-left: auto;");
       out.println("}");
       out.println("table {");
       out.println(" border-collapse: collapse;");
       out.println(" width: 100%;");
       out.println("}");
       out.println("th, td {");
       out.println(" padding: 8px;");
       out.println(" text-align: left;");
       out.println("}");
       out.println("th {");
       out.println(" background-color: #f2f2f2;");
       out.println("}");
       out.println("td:not(:last-child) {");
       out.println(" padding-right: 20px;");
       out.println("}");
       out.println("</style>");
       out.println("</head>");
       out.println("<body>");
       out.println("<h1>Admin Home Page</h1>");
       // Get the total number of railway crossings
       int totalRailwayCrossings = 0;
       PreparedStatement countStatement =
conn.prepareStatement("SELECT COUNT(*) FROM railway crossings");
       ResultSet countResultSet = countStatement.executeQuery();
       if (countResultSet.next()) {
          totalRailwayCrossings = countResultSet.getInt(1);
       }
       out.println("Railway Crossings: [" + totalRailwayCrossings +
"]");
```

```
out.println("<div class=\"button-container\">");
                    <form action=\"home.jsp\" method=\"get\">");
       out.println("
                      <button type=\"submit\">Home</button>");
       out.println("
                    </form>");
      out.println("
                    <form action=\"add railway.html\" method=\"get\">");
      out.println("
                      <button type=\"submit\">Add Railway
      out.println("
Crossing</button>");
      out.println("
                    </form>");
                    <form action=\"search crossing.jsp\"</pre>
      out.println("
method=\"get\">");
      out.println("
                      <button type=\"submit\">Search
Crossing</button>");
      out.println("
                   </form>");
                   <form action=\"government_login.jsp\"</pre>
      out.println("
method=\"get\" class=\"logout-button\">");
                      <button type=\"submit\">Logout</button>");
      out.println("
       out.println(" </form>");
      out.println("</div>");
       out.println("");
out.println("IDNameAddressLandmar
kSchedulesPersonStatusAction
");
      // Check if there are any railway crossings
       if (!resultSet.next()) {
         out.println("No railway crossings
found");
      } else {
         do {
           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("");
           out.println("" + id + "");
           out.println("" + name + "");
           out.println("" + address + "");
           out.println("" + landmark + "");
           out.println("" + schedules + "");
           out.println("" + person + "");
           out.println("" + status + "");
           out.println("<a href='update railway.jsp?id=" + id +
">Update</a> | <a href='DeleteRailwayCrossingServlet?id=" + id +
"">Delete</a>");
           out.println("");
         } while (resultSet.next());
       }
       out.println("");
       out.println("</body>");
       out.println("</html>");
       // Close the database connections
       countStatement.close();
       statement.close();
       conn.close();
    } catch (ClassNotFoundException | SQLException e) {
       e.printStackTrace();
       out.println("Database error: " + e.getMessage());
    }
  }
}
```

```
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 = "Simplifearn";
  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());
       }
     }
  }
14.
     LoginServlet.java:
   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 = "Simplilearn";
  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 sgl = "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());
       }
     }
  }
15.
      RegisterServlet.java:
   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 = "Simplifearn";
  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 sgl = "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());
     }
  }
}
```

## 16. RailwayCrossingServlet.java:

```
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 = "Simplilearn";
  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");
    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) " +

statement.setString(1, name); statement.setString(2, address);

"VALUES (?, ?, ?, ?, ?, ?)";

PreparedStatement statement = conn.prepareStatement(sql);

```
statement.setString(3, landmark);
       statement.setString(4, schedules);
       statement.setString(5, person);
       statement.setString(6, status);
       // 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());
    }
  }
}
```

## 17. DashboardServlet.java:

```
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("/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 = "Simplilearn";
  // 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");
       // Prepare the SQL statement
       String searchName = request.getParameter("searchName");
       String sql = "SELECT * FROM railway crossings";
       if (searchName != null && !searchName.isEmpty()) {
         sgl += " WHERE name LIKE '%" + searchName + "%";
       }
       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>");
       // 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("<h2>Added Railway Crossings</h2>");
       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("<h3>Railway Crossing ID: " + id + "</h3>");
         out.println("<strong>Name:</strong> " + name + "");
         out.println("<strong>Address:</strong> " + address + "");
         out.println("<strong>Landmark:</strong> " + landmark +
"");
         out.println("<strong>Schedules:</strong> " + schedules +
"");
         out.println("<strong>Person:</strong> " + person + "");
```

```
out.println("<strong>Status:</strong> " + status + "");
          if (favoriteCrossings != null && favoriteCrossings.contains(id)) {
            out.println("<a
href=\"FavoriteCrossingsServlet?removeFavorite=" + id + "\">Remove
Favorite</a>");
          } else {
            out.println("<a
href=\"FavoriteCrossingsServlet?markFavorite=" + id + "\">Mark
Favorite</a>");
          }
          out.println("<hr>"); // Add a horizontal line between each railway
crossing
       // Option to see favorite crossings
       out.println("<h2>Favorite Railway Crossings</h2>");
       out.println("<form method=\"GET\" action=\"FavoriteListServlet\">");
       out.println("<input type=\"submit\" value=\"View Favorite
Crossings\">");
       out.println("</form>");
       out.println("</body>");
       out.println("</html>");
       statement.close();
     } catch (SQLException e) {
       e.printStackTrace();
       out.println("Database error: " + e.getMessage());
    }
  }
}
```

18. FavoriteCrossingsServlet.java:

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 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("/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 = "Simplifearn";
  // 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 {
     String markFavoriteParam = request.getParameter("markFavorite");
     String removeFavoriteParam = request.getParameter("removeFavorite");
     if (markFavoriteParam != null && !markFavoriteParam.isEmpty()) {
       int crossingId = Integer.parseInt(markFavoriteParam);
       markFavorite(crossingId, request);
     } else if (removeFavoriteParam != null && !removeFavoriteParam.isEmpty())
{
       int crossingId = Integer.parseInt(removeFavoriteParam);
       removeFavorite(crossingId, request);
     }
     response.sendRedirect(request.getContextPath() + "/DashboardServlet");
```

```
}
  private void markFavorite(int crossingId, HttpServletRequest request) {
     List<Integer> favoriteCrossings = (List<Integer>)
request.getSession().getAttribute("favoriteCrossings");
     if (favoriteCrossings == null) {
       favoriteCrossings = new ArrayList<>();
     }
     favoriteCrossings.add(crossingId);
     request.getSession().setAttribute("favoriteCrossings", favoriteCrossings);
  }
  private void removeFavorite(int crossingId, HttpServletRequest request) {
     List<Integer> favoriteCrossings = (List<Integer>)
request.getSession().getAttribute("favoriteCrossings");
     if (favoriteCrossings != null) {
       favoriteCrossings.remove(Integer.valueOf(crossingId));
       request.getSession().setAttribute("favoriteCrossings", favoriteCrossings);
     }
  }
}
   19.
         FavoriteListServlet.java:
      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("/FavoriteListServlet")
public class FavoriteListServlet 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 = "Simplifearn";
  // 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();
     List<Integer> favoriteCrossings = (List<Integer>)
request.getSession().getAttribute("favoriteCrossings");
    try {
       // Generate HTML output
       out.println("<!DOCTYPE html>");
       out.println("<html>");
       out.println("<head>");
       out.println("<title>Favorite Crossings</title>");
       out.println("</head>");
       out.println("<body>");
       out.println("<h1>Favorite Crossings</h1>");
       if (favoriteCrossings != null && !favoriteCrossings.isEmpty()) {
          // 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();
         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("<h2>Railway Crossing ID: " + id + "</h2>");
            out.println("<strong>Name:</strong> " + name + "");
            out.println("<strong>Address:</strong> " + address +
"");
            out.println("<strong>Landmark:</strong> " + landmark +
"");
            out.println("<strong>Schedules:</strong> " + schedules +
            out.println("<strong>Person:</strong> " + person +
"");
            out.println("<strong>Status:</strong> " + status + "");
            out.println("<hr>");
         }
         statement.close();
       } else {
         out.println("No favorite crossings found.");
       }
```

```
out.println("</body>");
          out.println("</html>");
        } catch (SQLException e) {
          e.printStackTrace();
          out.println("Database error: " + e.getMessage());
       }
     }
  }
20.
      SearchRailwayCrossingServlet.java:
   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("/SearchRailwayCrossingServlet")
   public class SearchRailwayCrossingServlet 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 = "Simplilearn";
```

```
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
       throws ServletException, IOException {
     response.setContentType("text/html");
     PrintWriter out = response.getWriter();
     String keyword = request.getParameter("keyword");
    try {
       // Create a connection to the database
       Class.forName("com.mysql.jdbc.Driver");
       Connection conn = DriverManager.getConnection(DB_URL,
DB USERNAME, DB PASSWORD);
       // Prepare the SQL statement
       String sql = "SELECT * FROM railway crossings WHERE name
LIKE ?":
       PreparedStatement statement = conn.prepareStatement(sql);
       statement.setString(1, "%" + keyword + "%");
       // Execute the query
       ResultSet resultSet = statement.executeQuery();
       // Create a list to hold the search results
       List<RailwayCrossing> crossings = new ArrayList<>();
       // Iterate over the result set and add each crossing to the list
       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");
```

```
RailwayCrossing crossing = new RailwayCrossing(id, name,
address, landmark, schedules, person, status);
          crossings.add(crossing);
       }
       // Close the database connections
       statement.close();
       conn.close();
       // Display the search results
       out.println("<html>");
       out.println("<head><title>Search Results</title>");
       out.println("<style>");
       out.println("table {");
       out.println(" border-collapse: collapse;");
       out.println(" width: 100%;");
       out.println("}");
       out.println("th, td {");
       out.println(" padding: 8px;");
       out.println(" text-align: left;");
       out.println("}");
       out.println("th {");
       out.println(" background-color: #f2f2f2;");
       out.println("}");
       out.println("td:not(:last-child) {");
       out.println(" padding-right: 20px;");
       out.println("}");
       out.println("</style>");
       out.println("</style>");
       out.println("</head>");
       out.println("<body>");
       out.println("<h1>Search Results</h1>");
       out.println("");
```

out.println("IDNameAddressLandmar kSchedulesStatusAction"):

```
// Iterate over the search results and display them in the table
       for (RailwayCrossing crossing : crossings) {
            out.println("");
         out.println("" + crossing.getId() + "");
         out.println("" + crossing.getName() + "");
         out.println("" + crossing.getAddress() + "");
         out.println("" + crossing.getLandmark() + "");
         out.println("" + crossing.getSchedules() + "");
         out.println("" + crossing.getPerson() + "");
         out.println("" + crossing.getStatus() + "");
         out.println("");
         out.println("<a href='update railway.jsp?id=" + crossing.getId() +
"">Update</a> | ");
         out.println("<a href='DeleteRailwayCrossingServlet?id=" +
crossing.getId() + "'>Delete</a>");
         out.println("");
         out.println("");
       }
       out.println("");
       out.println("</body>");
       out.println("</html>");
    } catch (ClassNotFoundException | SQLException e) {
       e.printStackTrace();
       out.println("Database error: " + e.getMessage());
    }
  }
}
```

## 21. RailwayCrossing.java:

```
public class RailwayCrossing {
```

```
private int id;
  private String name;
  private String address;
  private String landmark;
  private String schedules;
  private String person;
  private String status;
  public RailwayCrossing(int id, String name, String address, String
landmark, String schedules, String person, String status) {
     this.id = id;
     this.name = name;
     this.address = address:
     this.landmark = landmark;
     this.schedules = schedules;
     this.person = person;
     this.status = status;
  }
  public int getId() {
     return id;
  }
  public String getName() {
     return name;
  }
  public String getAddress() {
     return address;
  }
  public String getLandmark() {
     return landmark;
  }
  public String getSchedules() {
     return schedules:
```

```
public String getPerson() {
    return person;
}

public String getStatus() {
    return status;
}
```

## **MYSQL COMMANDS**

```
create database railway;
use railway;
CREATE TABLE users (
  id INT AUTO INCREMENT PRIMARY KEY,
  name VARCHAR(50) NOT NULL,
  email VARCHAR(50) NOT NULL UNIQUE,
  password VARCHAR(50) NOT NULL
);
select * from users;
use railway;
CREATE TABLE admin (
 id INT AUTO INCREMENT PRIMARY KEY,
name VARCHAR(50) NOT NULL,
email VARCHAR(50) NOT NULL,
 password VARCHAR(50) NOT NULL
);
select * from admin;
use railway;
CREATE TABLE railway_crossings (
  id INT AUTO INCREMENT PRIMARY KEY,
  name VARCHAR(255) NOT NULL,
```

```
address VARCHAR(255) NOT NULL,
landmark VARCHAR(255),
schedules VARCHAR(255),
person VARCHAR(255),
status ENUM('open', 'closed') DEFAULT 'open'
);
select * from railway_crossings;
```