

## Build an application to communicate the status of railway crossings in advance

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 = "Mounika@1297";
    // 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 = "Mounika@1297";
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 = "Mounika@1297";
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 = "Mounika@1297";
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 = "Mounika@1297";

    // 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 = "Mounika@1297";
    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 = "Mounika@1297";
    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 = "Mounika@1297";
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 = "Mounika@1297";

    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 = "Mounika@1297";
    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 = "Mounika@1297";
    // 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 = "Mounika@1297";
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>

```

#### SQL COMMAND:

```
CREATE DATABASE railway;
```

```
use railway;
```

```
Create Table railwaycrossings(Id INT,name varchar(100),address
varchar(100),landmark varchar(100),
```

```
trainschedule varchar(100),person varchar(100),status varchar(200));
```

```
insert into
railwaycrossings (Id,name,address,landmark,trainschedule,person,status)
```

```
values('isheet chowk crossing', 'isheet singh near party people', '
isheet singh near party people', ' 10:33 AM', 'David', 'Open');
```

```
insert into
railwaycrossings (name,address,landmark,trainschedule,detailsperson,status)
```

```
values('Midha Chowk crossing', 'midhacrossing', 'midhacrossing', '10:40
AM', 'Robin', 'Open');
```

```
insert into
railwaycrossings (name,address,landmark,trainschedule,detailsperson,status)
```

```
values('ABC Crossing', 'citypark', 'citypark', '11.40 AM', 'Robin',
'Open');
```

```
SELECT* FROM railway;
```

```
Create Table USER(email varchar(100),password varchar(100));
```

```
Insert into USER(email,password)
```

```
Values("ABC@example.com","Abc123@978");
```

```
Values("CDE@example.com","cde123@123");
```

```
Values("FGH@example.com","fgh123@456");
```

Select \*From USER;