

FULL STACK DEVELOPMENT CASE STUDY (3)

Name – Soumya Pranavi Palepu

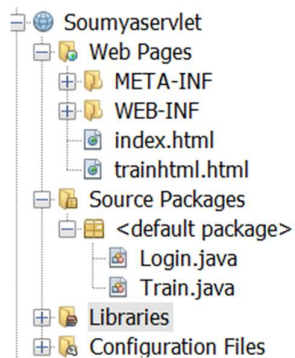
Hall Ticket No – 22251A05C4

Branch – CSE-B

AIM : (Case Study - 3)

Develop an application similar to irctc.com – show the login page and validate the login details (username, password) with the initialization parameters of the servlet and if the user is valid, then show the search page where user selects source station, destination station, date of journey and then show the list of trains retrieving from database using SERVLETS.

FILE NAME SCREENSHOT:



PROGRAM:

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Login</title>
  <style>
    body {
      margin: 0;
```

```
font-family: 'Roboto', sans-serif;
background-color: #f5f5dc; /* Beige background */
color: #333;
display: flex;
justify-content: center;
align-items: center;
height: 100vh;
flex-direction: column; /* Stack the content vertically */
}
```

```
h1 {
  font-size: 2.5rem;
  margin-top: 20px;
  color: #b22222; /* Red color for the heading */
}
```

```
.marquee {
  width: 100%;
  overflow: hidden;
  white-space: nowrap;
  background-color: #fff3cd;
  padding: 10px 0;
  color: #856404;
  font-size: 1.2rem;
}
```

```
.marquee p {
  display: inline-block;
  animation: scroll 15s linear infinite;
  margin: 0;
  padding: 0 20px;
}
```

```
@keyframes scroll {  
  0% {  
    transform: translateX(100%);  
  }  
  100% {  
    transform: translateX(-100%);  
  }  
}
```

```
.form-container {  
  position: relative;  
  width: 400px;  
  padding: 25px;  
  border-radius: 15px;  
  background-color: rgba(255, 255, 255, 0.9); /* Slight transparency */  
  box-shadow: 0 10px 25px rgba(0, 0, 0, 0.15); /* Softer shadow */  
  text-align: center;  
  margin-top: 40px; /* Space between header and form */  
  z-index: 1;  
}
```

```
form h2 {  
  font-size: 2rem;  
  margin-bottom: 20px;  
  color: #333;  
}
```

```
form input[type="text"],  
form input[type="password"],  
form input[type="submit"] {  
  width: 100%;
```

```
padding: 12px;
margin: 15px 0;
border-radius: 8px;
box-sizing: border-box;
font-size: 1rem;
transition: all 0.3s ease;
}
```

```
form input[type="text"],
form input[type="password"] {
  background-color: #f9f9f9;
  border: 1px solid #ddd;
  color: #333;
}
```

```
form input[type="submit"] {
  background-color: #dc3545; /* Red color for the button */
  color: #fff;
  font-weight: 600;
  cursor: pointer;
  border: none;
  transition: background-color 0.3s, transform 0.2s;
  padding: 15px;
}
```

```
form input[type="submit"]:hover {
  background-color: #c82333; /* Darker red on hover */
  transform: translateY(-3px);
}
```

```
.form-container img {
  position: absolute;
```

```
    top: 0;
    bottom: 0;
    left: 0;
    right: 0;
    z-index: -1;
    width: 100%;
    height: 100%;
    object-fit: cover;
    opacity: 0.4; /* Make the image background */
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<!-- Marquee Section -->
```

```
<div class="marquee">
```

```
    <p>Welcome to IRCTC! Book your train tickets easily and enjoy your journey with us!</p>
```

```
</div>
```

```
<!-- Heading -->
```

```
<h1>Welcome to IRCTC!</h1>
```

```
<!-- Login Form -->
```

```
<div class="form-container">
```

```
    
```

```
    <form action="Login" method="POST">
```

```
        <h2>Login</h2>
```

```
        <input type="text" name="username" placeholder="Enter Username" required>
```

```
        <input type="password" name="password" placeholder="Enter Password" required>
```

```
        <input type="submit" value="Login">
```

```
    </form>
```

```
</div>
```

```
</body>
```

```
</html>
```

Trainhtml.html:

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

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

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<title>Train Search</title>
```

```
<style>
```

```
body {
```

```
margin: 0;
```

```
font-family: 'Roboto', sans-serif;
```

```
background-color: #f5f5dc; /* Plain beige background */
```

```
color: #333; /* Dark text for readability */
```

```
display: flex;
```

```
justify-content: center;
```

```
align-items: center;
```

```
height: 100vh;
```

```
flex-direction: column; /* Stack the content vertically */
```

```
}
```

```
h1 {
```

```
font-size: 2.5rem;
```

```
margin-top: 20px;
```

```
color: #b22222; /* Red color for the heading */
```

```
}
```

```
.marquee {
```

```
width: 100%;
```

```
overflow: hidden;
```

```
white-space: nowrap;
background-color: #fff3cd;
padding: 10px 0;
color: #856404;
font-size: 1.2rem;
}
```

```
.marquee p {
  display: inline-block;
  animation: scroll 15s linear infinite;
  margin: 0;
  padding: 0 20px;
}
```

```
@keyframes scroll {
  0% {
    transform: translateX(100%);
  }
  100% {
    transform: translateX(-100%);
  }
}
```

```
.form-container {
  position: relative;
  width: 400px;
  padding: 25px;
  border-radius: 15px;
  background-color: rgba(255, 255, 255, 0.9); /* Slight transparency */
  box-shadow: 0 10px 25px rgba(0, 0, 0, 0.15); /* Softer shadow for a modern feel */
  text-align: center;
  margin-top: 40px; /* Space between header and form */
}
```

```
    z-index: 1;
}
```

```
.form-container img {
    position: absolute;
    top: 0;
    bottom: 0;
    left: 0;
    right: 0;
    z-index: -1;
    width: 100%;
    height: 100%;
    object-fit: cover;
    opacity: 0.4; /* Make the images background */
}
```

```
form h2 {
    font-size: 2rem;
    margin-bottom: 20px;
    color: #333;
}
```

```
form label {
    display: block;
    font-size: 1rem;
    color: #555;
    margin-bottom: 8px;
}
```

```
form input[type="text"],
form input[type="password"],
form input[type="submit"] {
```



```
width: 100%;
padding: 12px;
margin: 15px 0;
border-radius: 8px;
box-sizing: border-box;
font-size: 1rem;
transition: all 0.3s ease;
}

form input[type="text"],
form input[type="password"] {
  background-color: #f9f9f9;
  border: 1px solid #ddd;
  color: #333;
}

form input[type="submit"] {
  background-color: #dc3545; /* Red color for the button */
  color: #fff;
  font-weight: 600;
  cursor: pointer;
  border: none;
  transition: background-color 0.3s, transform 0.2s;
  padding: 15px;
}

form input[type="submit"]:hover {
  background-color: #c82333; /* Darker red for hover effect */
  transform: translateY(-3px);
}

</style>
</head>
```

```

<body>

  <!-- Marquee Section -->

  <div class="marquee">

    <p>Welcome to IRCTC! Book your train tickets easily and enjoy your journey with us!</p>

  </div>


  <!-- Heading -->

  <h1>Welcome to IRCTC!</h1>


  <!-- Train Search Form -->

  <div class="form-container">

     <!-- Replace with your train image link -->

    <form method="get" action="Train">

      <h2>Train Search</h2>

      <input type="text" name="source" placeholder="Enter Source" required>

      <input type="text" name="destination" placeholder="Enter Destination" required>

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

    </form>

  </div>

</body>

</html>

```

Login.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 javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;

```

```

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

@WebServlet("/LoginServlet")
public class Login extends HttpServlet {

    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();

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

        try {
            // Connect to database
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/irctc", "root",
"hanahqureshi@9");

            // Query to verify user credentials
            String query = "SELECT * FROM userinfo WHERE username = ? AND password = ?";
            PreparedStatement pst = con.prepareStatement(query);
            pst.setString(1, username);
            pst.setString(2, password);

            ResultSet rs = pst.executeQuery();

            if (rs.next()) {
                // Login successful - create session
                HttpSession session = request.getSession();

```

```

        session.setAttribute("username", username);

        response.sendRedirect("trainhtml.html"); // Redirect to train search page
    } else {

        // Login failed

        out.println("<h3>Invalid username or password. Please try again.</h3>");
        out.println("<a href='login.html'>Back to Login</a>");
    }

    con.close();
} catch (Exception e) {
    out.println("<h3>Error: " + e.getMessage() + "</h3>");
}
}
}

```

Train.java:

```

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;

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

@WebServlet("/TrainSearchServlet")

public class Train extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        response.setContentType("text/html;charset=UTF-8");
    }
}

```

```

PrintWriter out = response.getWriter();

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

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

out.println("<html><head><title>Train Search Results</title>");

out.println("<style>body { margin: 0; font-family: 'Roboto', sans-serif; background-color: #f5f5dc; color: #333; display: flex; justify-content: center; align-items: center; height: 100vh; flex-direction: column; }"
    + "h1 { font-size: 2.5rem; margin-top: 20px; color: #b22222; }"
    + ".marquee { width: 100%; overflow: hidden; white-space: nowrap; background-color: #fff3cd; padding: 10px 0; color: #856404; font-size: 1.2rem; }"
    + ".marquee p { display: inline-block; animation: scroll 15s linear infinite; margin: 0; padding: 0 20px; }"
    + "@keyframes scroll { 0% { transform: translateX(100%); } 100% { transform: translateX(-100%); } }"
    + "table { width: 80%; margin-top: 40px; border-collapse: collapse; background-color: #fff; }"
    + "th, td { padding: 12px; text-align: center; border: 1px solid #ddd; font-size: 1.1rem; }"
    + "th { background-color: #dc3545; color: white; }"
    + "tr:nth-child(even) { background-color: #f2f2f2; }"
    + "h2 { font-size: 2rem; color: #333; margin-top: 20px; }"
    + "</style></head><body>");

// Marquee and Heading
out.println("<div class='marquee'><p>Welcome to IRCTC! Book your train tickets easily and enjoy your journey with us!</p></div>");

out.println("<h1>Train Search Results</h1>");

Connection con = null;

Statement stmt = null;

ResultSet rs = null;

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

```

```

        con = DriverManager.getConnection("jdbc:mysql://localhost:3306/irctc", "root",
"hanahqureshi@9");

        stmt = con.createStatement();

        String query = "SELECT trainId, source, destination, time FROM traininfo WHERE source =
" + source

        + " AND destination = " + destination + """;

        rs = stmt.executeQuery(query);

        if (rs.next()) {

            out.println("<table><tr><th>Train
Name</th><th>Source</th><th>Destination</th><th>Departure Time</th></tr>");

            do {

                out.println("<tr><td>" + rs.getString("trainId") + "</td>"

                    + "<td>" + rs.getString("source") + "</td>"

                    + "<td>" + rs.getString("destination") + "</td>"

                    + "<td>" + rs.getString("time") + "</td></tr>");

            } while (rs.next());

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

        } else {

            out.println("<h3>No trains found for the given source and destination.</h3>");

        }

    } catch (Exception e) {

        out.println("<h3>Error: " + e.getMessage() + "</h3>");

    } finally {

        try {

            if (rs != null) rs.close();

            if (stmt != null) stmt.close();

            if (con != null) con.close();

        } catch (Exception e) {

            e.printStackTrace();

        }

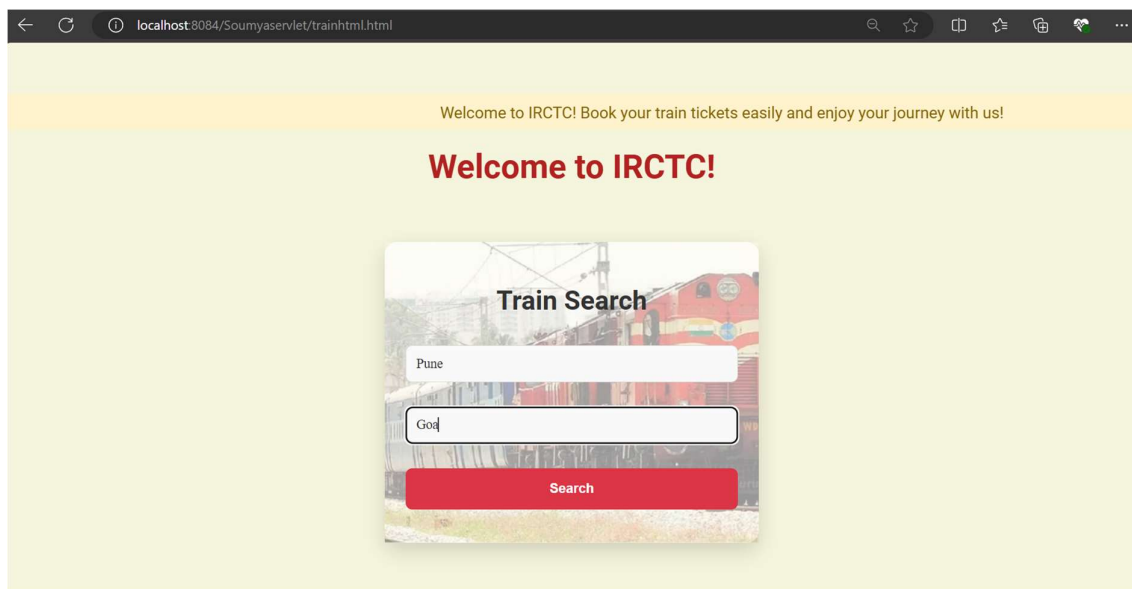
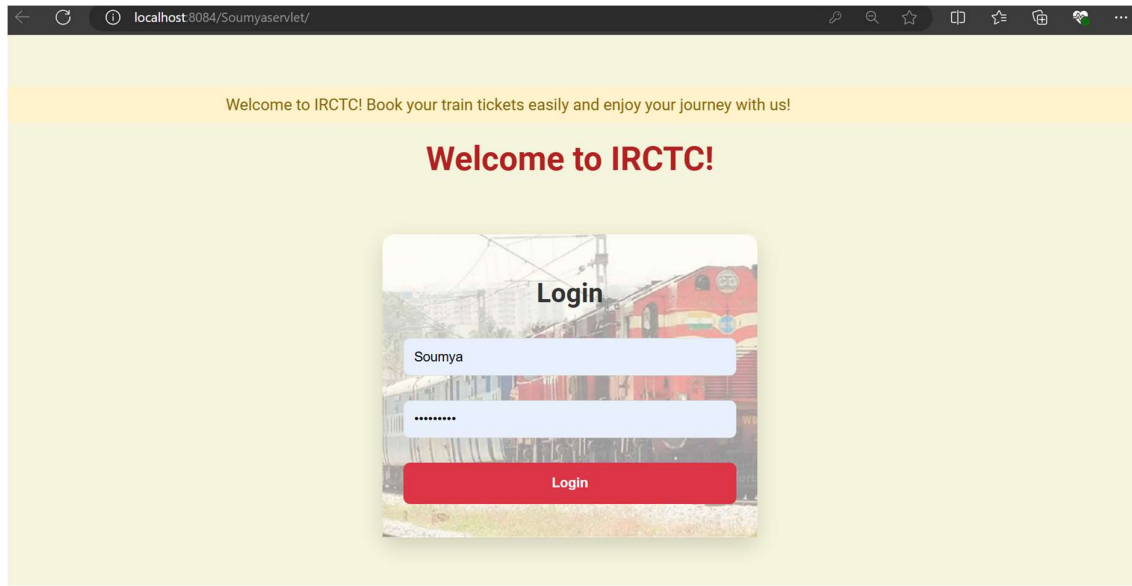
    }

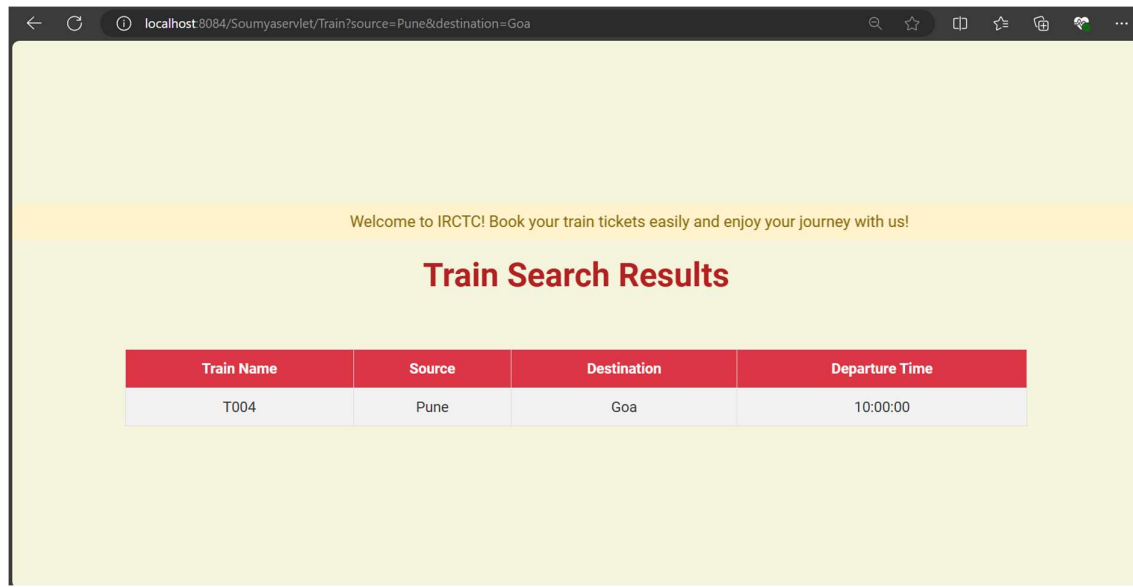
```

```
}

    out.println("</body></html>");
}
}
```

OUTPUTS:





```
mysql> SELECT * FROM traininfo;
```

trainId	source	destination	time
T001	New Delhi	Mumbai	05:30:00
T002	Bangalore	Hyderabad	07:15:00
T003	Chennai	Kolkata	08:45:00
T004	Pune	Goa	10:00:00
T005	Kochi	Bengaluru	12:30:00
T006	Hyderabad	Chennai	14:00:00
T007	Jaipur	Lucknow	15:45:00
T008	Patna	Kolkata	18:00:00
T009	Mumbai	Ahmedabad	20:30:00
T010	Varanasi	Agra	22:00:00

```
10 rows in set (0.00 sec)
```

```
mysql> select*from userinfo;
```

username	password
Soumya	soumya123
Lakshmi	lakshmi123
Sampath	sampath123

```
3 rows in set (0.00 sec)
```