**Modern Education Society’s**

**Wadia College of Engineering, Pune**

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| --- |
| **NAME OF STUDENT: CLASS:** |
| **SEMESTER/YEAR: ROLL NO:** |
| **DATE OF PERFORMANCE: DATE OF SUBMISSION:** |
| **EXAMINED BY: EXPERIMENT NO: 06** |

**TITLE:** Add dynamic web application essence using jsp

**PROBLEM STATEMENT:** Implement the program demonstrating the use of JSP.

### **OBJECTIVES:**

1. Understand basic concepts of Java Server Page (JSP).
2. Understand Different components of JSP

### **OUTCOMES:**

1. To design login form using JSP and HTML
2. To be able to write a Server-Side program

**PRE-REQUISITES:**

* 1. Knowledge of Editor like Eclipse, etc ,
  2. Knowledge of JSP
  3. Knowledge of Java

**APPARATUS:**

Computer, Windows/Ubuntu OS, Eclipse, Tomcat 10, MySQL, etc

**QUESTIONS:**

1. What is JSP? Explain Life Cycle of JSP

2. What are the various element of JSP page?

3. Discuss different JSP Action in Brief?

4. Discuss different Directives in JSP with Example?

5. Explain Implicit objects in JSP?

**CODE**

**INDEX.JSP**

<%@ page import="java.sql.\*" %>

<%@ page import="jakarta.servlet.http.\*" %>

<%! Connection connection = null; %>

<%

    try {

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

        connection = DriverManager.getConnection("jdbc:mysql://localhost:3306/student\_db", "", "");

        // Prepare and execute SELECT query

        Statement statement = connection.createStatement();

        ResultSet resultSet = statement.executeQuery("SELECT \* FROM students\_info");

%>

<!DOCTYPE html>

<html>

<head>

    <title>Student Information System</title>

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC" crossorigin="anonymous">

</head>

<body>

    <div class="container">

        <h1>Student Information</h1>

        <div class="m-5">

            <form action="insert\_student.jsp" method="post">

                <div class="">

                    <label for="name" class="form-label">Student Name:</label>

                    <input type="text" name="name" id="name" required class="form-control"><br><br>

                </div>

                <div class="">

                    <label for="class" class="form-label">Class:</label>

                    <input type="text" name="class" id="class" required class="form-control"><br><br>

                </div>

                <div class="">

                    <label for="division" class="form-label">Division:</label>

                    <input type="text" name="division" id="division" required class="form-control"><br><br>

                </div>

                <div class="">

                    <label for="city" class="form-label">City:</label>

                    <input type="text" name="city" id="city" required class="form-control"><br><br>

                </div>

                <button type="submit" class="btn btn-primary">Add Student</button>

            </form>

            <%

                if (resultSet != null) {

            %>

            <table class="table table-striped">

                <thead>

                    <tr>

                        <th scope="col">Student ID</th>

                        <th scope="col">Student Name</th>

                        <th scope="col">Class</th>

                        <th scope="col">Division</th>

                        <th scope="col">City</th>

                    </tr>

                </thead>

                <% while (resultSet.next()) { %>

                <tr>

                    <td><%= resultSet.getInt("roll\_no") %></td>

                    <td><%= resultSet.getString("name") %></td>

                    <td><%= resultSet.getString("class") %></td>

                    <td><%= resultSet.getString("division") %></td>

                    <td><%= resultSet.getString("city") %></td>

                </tr>

                <% } %>

            </table>

            <%

                }

            } catch (ClassNotFoundException e) {

                e.printStackTrace();

            } catch (SQLException e) {

                e.printStackTrace();

            } finally {

                if (connection != null) {

                    try {

                        connection.close();

                    } catch (SQLException e) {

                        e.printStackTrace();

                    }

                }

            }

            %>

        </div>

    </div>

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM" crossorigin="anonymous"></script>

</body>

</html>

**Insert\_student.jsp**

<%@ page import="java.sql.\*" %>

<%@ page import="jakarta.servlet.http.\*" %>

<%! Connection connection = null; %>

<%

try {

    // Get form data

    String stud\_name = request.getParameter("name");

    String class\_val = request.getParameter("class");

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

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

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

    connection = DriverManager.getConnection("jdbc:mysql://localhost:3306/student\_db", "", "");

    // Prepare and execute INSERT query

    PreparedStatement statement = connection.prepareStatement("INSERT INTO students\_info (name, class, division, city) VALUES (?, ?, ?, ?)");

    statement.setString(1, stud\_name);

    statement.setString(2, class\_val);

    statement.setString(3, division);

    statement.setString(4, city);

    statement.executeUpdate();

    // Redirect back to index.jsp to display updated data (optional)

    response.sendRedirect("/Assignment6/");

} catch (ClassNotFoundException e) {

    e.printStackTrace();

} catch (SQLException e) {

    e.printStackTrace();

} finally {

    if (connection != null) {

        try {

            connection.close();

        } catch (SQLException e) {

            e.printStackTrace();

        }

    }

}

%>

**WEB.XML**

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

<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="https://jakarta.ee/xml/ns/jakartaee" xsi:schemaLocation="https://jakarta.ee/xml/ns/jakartaee https://jakarta.ee/xml/ns/jakartaee/web-app\_6\_0.xsd" id="WebApp\_ID" version="6.0">

  <display-name>Assignment6</display-name>

  <welcome-file-list>

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

  </welcome-file-list>

  <servlet>

    <description></description>

    <display-name>MyServlet</display-name>

    <servlet-name>MyServlet</servlet-name>

    <servlet-class>MyPackage.MyServlet</servlet-class>

  </servlet>

  <servlet-mapping>

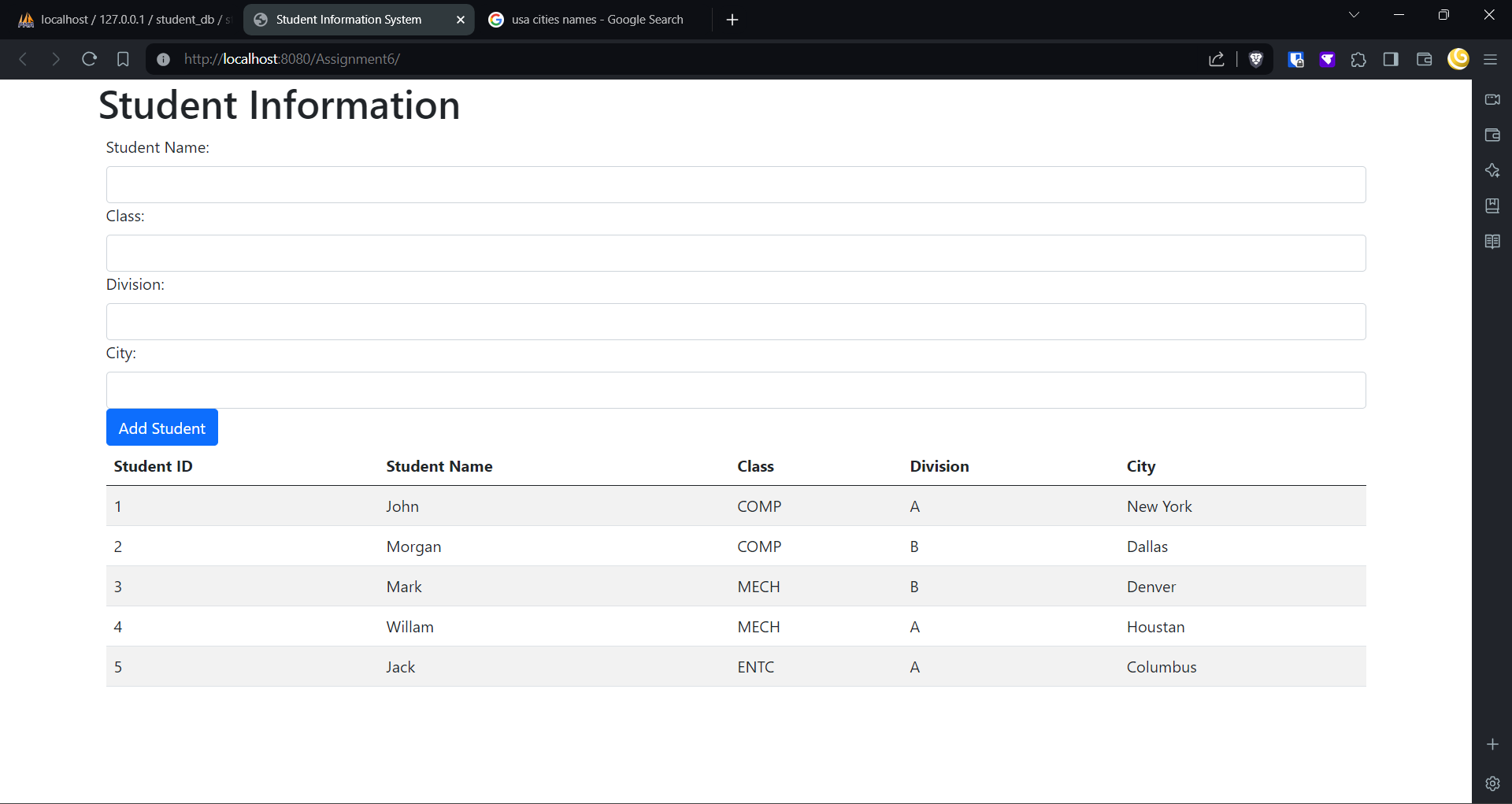
    <servlet-name>MyServlet</servlet-name>

    <url-pattern>/</url-pattern>

  </servlet-mapping>

</web-app>

**OUTPUT**

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