Worksheet 1

Student Name: Harsh   **UID:** 24MCA20045

Branch: MCA   **Section/Group:** 1-A

Semester: 2nd   **Date of Performance:** 18-01-2025

Subject Name: Advanced internet programming **Subject Code:** 24CAP-652

1. Aim/Overview of the practical:

Create a simple client server communication application while creating a HTML with form and two input fields like First Name and Last Name. Submit the data to a servlet where the form data is retrieved and displayed. Create form with GET method and another with POST method.

2. Apparatus:

- **Software requirements(Apache NetBeans IDE)**

3. Coding:

HTML code:

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Styled Client-Server Communication</title>

</head>
```

```html
<body>

  <div class="container">

    <h2>Client-Server Communication</h2>

    <form action="FormServlet" method="GET">

      <label for="firstName">First Name:</label>

      <input type="text" id="firstName" name="firstName" placeholder="Enter your first name" required>


      <label for="lastName">Last Name:</label>

      <input type="text" id="lastName" name="lastName" placeholder="Enter your last name" required>


      <button type="submit">Submit with GET</button>

    </form>

    <form action="FormServlet" method="POST">

      <label for="firstNamePost">First Name:</label>

      <input type="text" id="firstNamePost" name="firstName" placeholder="Enter your first name" required>


      <label for="lastNamePost">Last Name:</label>

      <input type="text" id="lastNamePost" name="lastName" placeholder="Enter your last name" required>

      <button type="submit">Submit with POST</button>

    </form>

    <footer>

      &copy; 2025 Client-Server Application. All Rights Reserved.
```

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```
        </footer>

    </div>

</body>

</html>
```

Servlet Code:

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Servlet.java to edit this template
 */
import java.io.IOException;

import java.io.PrintWriter;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;
/**
 *
 * @author harsh
 */
@WebServlet(urlPatterns = {"/NewServlet"})

public class NewServlet extends HttpServlet {
```

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```java
    /**
     * Processes requests for both HTTP <code>GET</code> and <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     *
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        String firstName = request.getParameter("firstName");
        String lastName = request.getParameter("lastName");
        {
        response.getWriter().println("<h1>Thank you for contacting us!</h1>");
        response.getWriter().println("firstName: " + firstName + "<br>" );
        response.getWriter().println("lastName: " + lastName + "<br>" );
}

        }
    // <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">

    /**
```

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```
 * Handles the HTTP <code>GET</code> method.

 *

 * @param request servlet request

 * @param response servlet response

 * @throws ServletException if a servlet-specific error occurs

 * @throws IOException if an I/O error occurs

 */

@Override

protected void doGet(HttpServletRequest request, HttpServletResponse response)

        throws ServletException, IOException {

    processRequest(request, response);

}
/**

 * Handles the HTTP <code>POST</code> method.

 *

 * @param request servlet request

 * @param response servlet response


 * @throws ServletException if a servlet-specific error occurs

 * @throws IOException if an I/O error occurs

 */

@Override

protected void doPost(HttpServletRequest request, HttpServletResponse response)
```

```
    throws ServletException, IOException {

    processRequest(request, response);

}
/**

 * Returns a short description of the servlet.

 *

 * @return a String containing servlet description

 */

@Override

public String getServletInfo() {

    return "Short description";

}// </editor-fold>

}
```

Screenshot and Output:

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Thank you for contacting us!

firstName: HARSH
lastName: Jangid

4. Learning outcomes (What I have learnt):

- Differentiating between GET and POST methods and their practical applications.
- Writing Java servlets to handle HTTP requests and responses.
- Dynamically generating HTML content on the server side using servlets.
- Organizing web application files (HTML, servlet, and configuration) in a structured manner.
- Deploying the application on a servlet container like Apache Tomcat.

5. Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet Completion		08 marks
2.	Conduct		12 marks
3.	Viva Voice		10 marks
	Total		30 marks