CS602 – Spring 2022

Homework 3

Due date: Sunday, March 6, 2022, 11:59pm

Instructions:

- For each day of late submission, 10 points will be deducted.
- After two days, no more submission is allowed.
- You must submit through Canvas.
- Keep this file intact, copy your solution codes from your IDE and paste at the bottom of the file under 'Answer'. Submit this word document with your codes. Do not change the format of the file to pdf or .rar or anything else.

Reminder: **Academic Integrity** policy is strictly implemented on all your submissions.

Learning Objectives:

- Interpret request parameters from client and relate those to response by Servlet
- Illustrate data collection on web pages through forms
- Observe collaboration of JSP/Servlet/Tomcat in creation of dynamic and responsive web application

Design a HTML document that will display the following:

1. A header that reads "Please enter your name" (5 points).
2. Two text boxes with labels 'First Name' and 'Last Name' (10 points).
3. Three radio buttons and a label "Gender" all in a single row. The labels for the radio buttons will be: "Male", "Female" and "Other" (15 points).
4. A button with text "Submit" (5 points).

Write a servlet program that will:

1. When you enter a first name "John", a last name "Doe", click on the radio button "Male" and click on the button "Submit", display a response on the webpage "Welcome to my shop" as a header and a message "Thank you Mr. John Doe." (15 points)
2. When you enter a first name "Jane", a last name "Doe", click on the radio button "Female" and click on the button "Submit", a response on the webpage will display "Welcome to my shop" as a header and a message "Thank you Ms. Jane Doe." (10 points)
3. When you enter a first name "John", a last name "Doe", click on the radio button "Other" and click on the button "Submit", a response on the webpage will display "Welcome to my shop" as a header and a message "Thank you John Doe." (10 points)

You should consider the following error cases where an appropriate error message should be displayed on the webpage:

1) User doesn't enter text for first name and last name (10 points).

2) When either a first name or a last name is not entered and the user clicks on the "Submit" button. (5 points)
3) When no radio button is checked and the user clicks on the "Submit" button. (5 points)

There are 10 points for aesthetics and creativity. Usually this includes user friendly webpage. The look and feel of it. Placing of the components in an appropriate flow. Use of colors and fonts to beautify the presentation. Be creative!!

Note:
Name your html document: Main.html.
Name your servlet class: Main.java

Answer: Main.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Homework_3 of CS602</title>
</head>

<body  bgcolor="#FDF5E6">
<div align="center">
<h2>Please enter your name</h2>
    <form action="http://localhost:8080/Homework3/Main" method = "get">
      First name    :
        <input type="text" name="name"><br>
      Last name    :
       <input type="text" name="lastname"><br>
       <h3>Gender
       <input type="radio" name="rd" value = "0">Male
       <input type="radio" name="rd" value = "1">Female
       <input type="radio" name="rd" value = "2">other<br>
       </h3>
       <br>
       <input type="submit" value="Submit">
    </form>
</div>
   </body>
</html>
```

Answer: Main.java

```
import jakarta.servlet.ServletException;
import jakarta.servlet.annotation.WebServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
```

```
import java.io.IOException;
import java.io.PrintWriter;



@WebServlet ("/Main")
public class Main extends jakarta.servlet.http.HttpServlet implements
jakarta.servlet.Servlet  {
       private static final long serialVersionUID = 1L;


    public Main() {
        super();

    }
    private void printError(String error, PrintWriter out){
       out.println("<html>\n"+
       ""
       +"</body></html>");
       }

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

             response.setContentType("text/html");
          PrintWriter out = response.getWriter();
          String title = "Welcome to my shop";
          int radio= -1;

          String name =request.getParameter("name");
          String lastname = request.getParameter("lastname");
          if(name.equals(null)||lastname.equals(null))
                    {
                   printError("Please,enter your name",out);
                   }

             String gender="";
          try {
             radio = Integer.parseInt(request.getParameter("rd"));
                         } catch (Exception e) {
                         gender = "Please choose a gender. ";
                         }
                         Switch(radio){
                         case 0: gender  = "Thank you Mr. " ; break;
                         case 1: gender = "Thank you Ms. "   ; break;
                         case 2: gender = "Thank you "  ; break;
                         default: gender = "Please choose a gender or enter
your fullname. ";

                         }
             String concatenation = gender +  name + " " + lastname + ".";


out.println(
```

```
"<html>\n" +
      "<head><title>" + title + "</title></head>\n" +
      "<body bgcolor=\"#ff5e6\">\n" +
      "<h1 align=\"center\">" + title + "</h1>\n" +
      "<ul>\n" +
      concatenation+
      "</ul>\n" +
      "</body></html>");
  }
  }
```

Output results via images (optional):

Image 1:

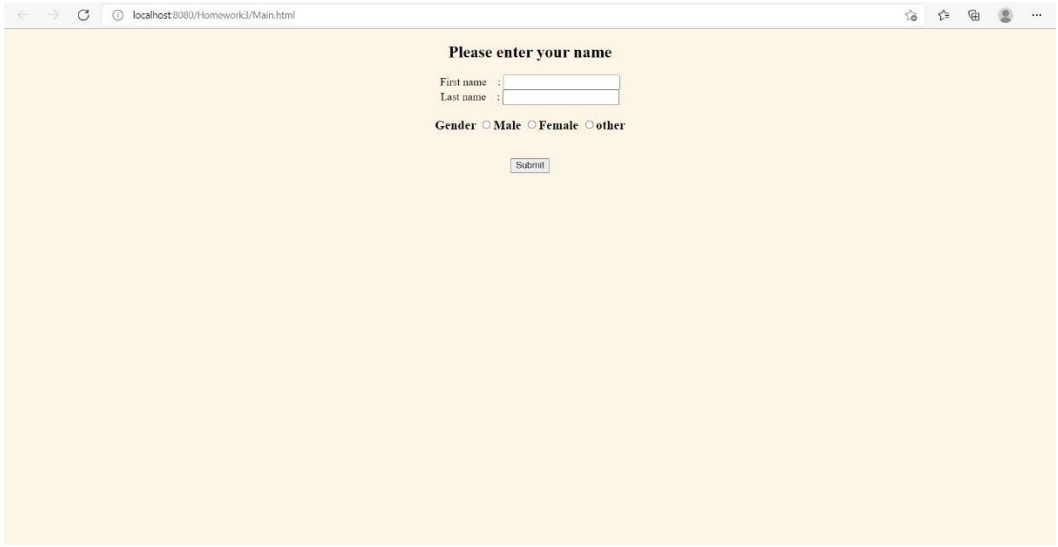


Image 2:

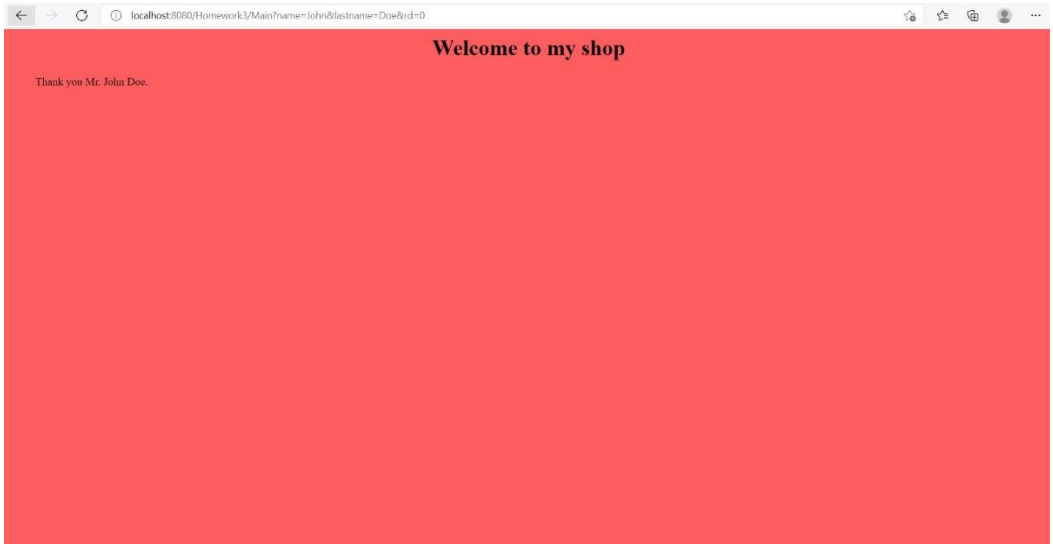


Image 3 (Error handled and output):

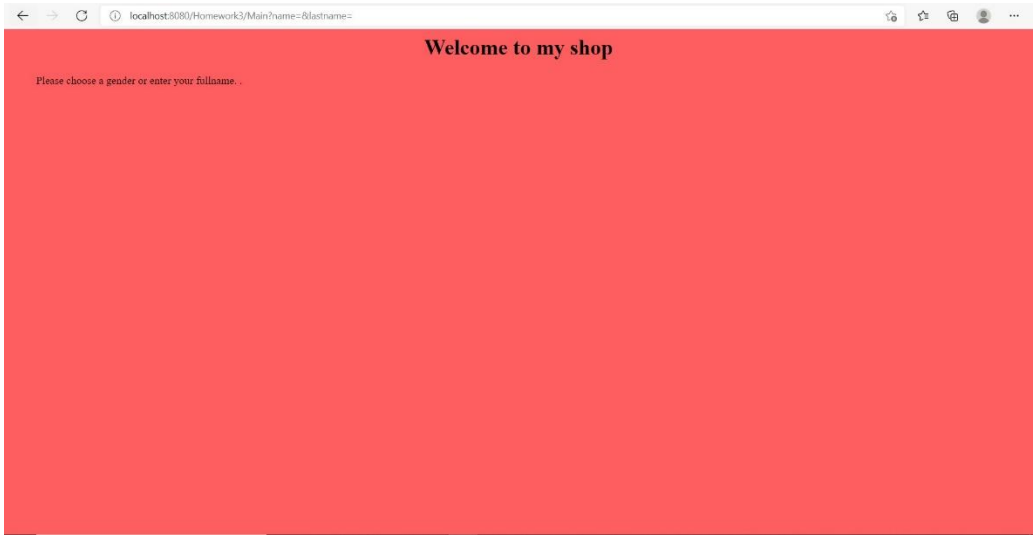
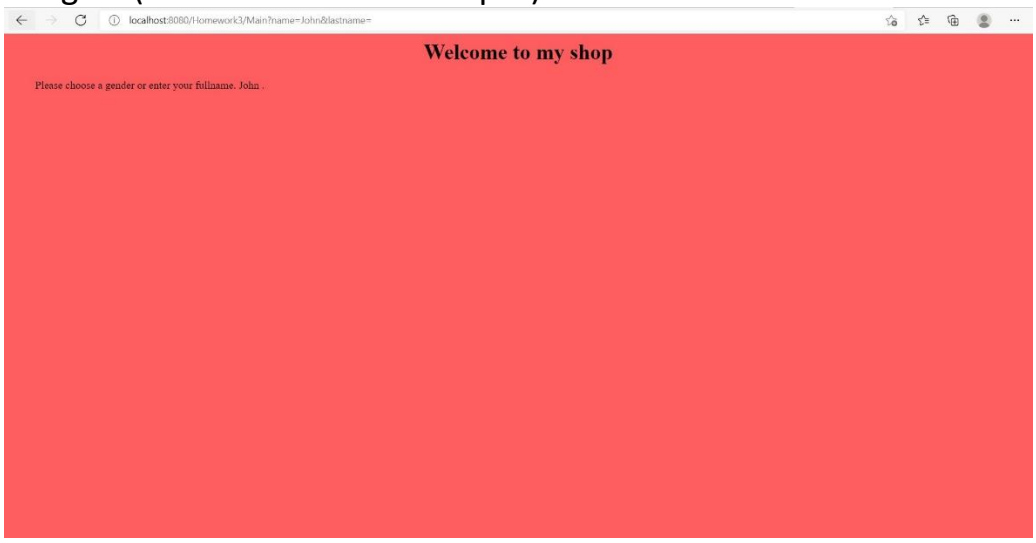


Image 3 (Error handled and output):



Submitted By: Parth Panara
Guided By: Pro. Raihan Siddique
Reference: CS602 Class notes of JSP and Servlet by Pro. Raihan Siddique