1. Consider the following web form

html>

<head>

<title>A Web form servlet</title>

</head>

<body>

<H1>Opinion poll</H1>

<form method="post" action="http://localhost:8080/examples/servlet/PollServlet">

<H2> Please select your response:</H2>

Do you agree that there should be a student fee increase to support

The Computer Science Department?

<p>

 <select name="response">

 <option>yes

 <option>no

 </select>

<P>

Press <input type="submit" value="here"> to submit your response.

</form>

</body>

</html>

**Write a servlet** which processes the form input, and generates output as follows:

The poll result so far:

* + - * 1. yes

9 No

**Submit the source files as well as screenshots of the final output.** (10 points)

1. (50 points) Suppose web **form 1**, web **form 2, Servlet1** (show below)**, Servlet2** and **Servlet3** (not shown) are all filed on a web server in the same directory. Note that **form 1** invokes **Servlet1** and form 2 invokes **Servlet2**

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.io.\*;

import java.util.\*;

**public class Servlet1 extends HttpServlet**

{

 public void doPost(HttpServletRequest req,

 HttpServletResponse res)

 throws ServletException, IOException

 {

 res.setContentType("text/html");

 PrintWriter out = res.getWriter();

 out.println("<html>");

 out.println("<head><title>Servlet Response" +

 "</title></head>");

 out.println("<body>");

 Cookie c;

 String name, value;

 name = “name”;

 value = req.getParameter(name);

 c = new Cookie(name, value);

 res.addCookie(c);

 name = “quest”;

 value = req.getParameter(name);

 c = new Cookie(name, value);

 c.setMaxAge(24\*60\*60);

 res.addCookie(c);

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

 } //end doPost

} //end class

<HTML>

<BODY>

<H1>This is **form1**</H1>

<FORM MTHOD="post" ACTION="servlet/**Servlet1**>

What is thy NAME: <INPUT NAME="name"><P>

What is thy quest: <INPUT NAME="quest"><P>

Press <INPUT TYPE="submit" VALUE="here">

to submit your query.

</FORM>

<HR>

</BODY>

</HTML>

\

<HTML>

<BODY>

<H1>This is **form 2**</H1>

<FORM METHOD="get" ACTION="servlet/**Servlet2**">

What is thy favorite color:

 <SELECT NAME="color">

 <OPTION SELECTED>red

 <OPTION>white

 <OPTION>blue

 </SELECT>

<INPUT TYPE = “HIDDEN” NAME = ‘id” VALUE=”2”>

<P>

Press <INPUT TYPE="submit" VALUE="here">

to submit your query.

</FORM>

<HR>

</BODY>

</HTML>

During one browser session, a user browses **form 1**, then **form 2**. On **form 1**, the user enters “Mary” to the first question, and “happiness” to the second question. On **form 2**, the user chooses “red”.

Assume that there are no existing cookies on the user’s system.

1. During this session, how are the data entered in **form 1** forwarded to **Servlet1**? Describe the data transferred among the browser, the HTTP server, and **Servlet1** in terms of HTTP request, HTTP response, environment variables, and/or cookies.
2. During this session: When **Servlet2** is initiated, what session state data items (name-value pairs) does it receive? Complete the following table to answer the question (you may not need to use all the rows):

|  |  |
| --- | --- |
| **name** | **value** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. During this session: For each session data item (name-value pair) that **Servlet2** receives, explain how the data originated and how it was transmitted to **Servlet2**. Describe the data transferred among the browser, the HTTP server, **Servlet1**, and **Servlet2** in terms of HTTP request, HTTP response, environment variables, and/or cookies.
2. Complete the code (including the method header) for Servlet2 so that it creates a session object to contain the state data (the name-value pairs from part 3) that it has received. Your code should work for any value associated with each state data item.

// import statements omitted

public class Servlet2 extends HttpServlet

{

 public void (HttpServletRequest req,

 HttpServletResponse res) throws ServletException, IOException

 {

 res.setContentType("text/html");

 PrintWriter out = res.getWriter();

 out.println("<html>"); out.println("<body>");

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

 } //end doPost

} //end class

1. Suppose the browser windows that ran form1 and **form2** have been closed. One hour later, another browser session is started by a user on the same computer, and a third servlet, **Servlet3**, filed in the same directory as **Servlet1** and **Servlet2**, is invoked directly through the browser. Which, if any, name-value pair(s) from the first session will be available to **Servlet3**? **Explain your answer.**

Finally, add the screenshots of the running application.