44-563 Web Services Technology Spring 2012

Exam 2

Part 1 JavaScript

Questions 1-9 refer to the web page shown below.

**<body id="exam2Page">**

**Model: <input type="text" id="model" />**

**<br />**

**Discount: <input type="text" id="discount" disabled="disabled" />**

**<br />**

**<img id="computer" src="dell.jpg" alt="Computer Picture" />**

**<br />**

**<select name="disk" id="disk">**

**<option value="300GB">300 GB</option>**

**<option value="500GB">500 GB</option>**

**</select>**

**<br />**

**<input type="radio" name="monitor" id="small" value="small"/>**

**20 inches**

**<br />**

**<input type="radio" name="monitor" id="large" value="large"/>**

**27 inches**

**<br />**

**<input type="checkbox" name="keyboard" id="keyboard" value="yes" />**

**Keyboard**

**<br />**

**<input type="checkbox" name="mouse" id="mouse" value="yes" />**

**Mouse**

**<br />**

**<ol id="os">**

**<li>Linux</li>**

**<li>Windows</li>**

**</ol>**

**<input type="button" id="buy" value="Buy" />**

**<p id="confirmation"></p>**

**</body>**

1. (5 pts) Write JavaScript code to change the image to hp.jpg.

2. (5 pts) Write JavaScript code to assign the value selected by the user in the dropdown list to the variable diskSize.

3. (10 pts) Write JavaScript code to add 30.00 to the variable totalPrice if the keyboard checkbox is checked and add 15.00 to the variable totalPrice if the mouse checkbox is checked. If neither checkbox is checked, do not add anything. If both checkboxes are checked, a total of 45.00 must be added to totalPrice.

4. (10 pts) Write JavaScript code to assign the variable monitorSize the value 20 or 27, depending upon whether the user clicked on the small or large radio button.

5. (10 pts) Write JavaScript code to add the operating system Magic to end of the ordered list.

6. (5 pts) Write JavaScript code to change the background color of the web page to red.

7. (5 pts) Write JavaScript code to assign the function processOrder as the event handler for clicking the button.

8. (a) (5 pts) Write JavaScript code to assign the value the user entered in the model input box to the variable desiredModel.

(b) (10 pts) Write JavaScript code to set the text in the discount input box to "20 percent" if the value in desiredModel is "XTN1000", and to "10 percent" otherwise.

9. (5 pts) Write JavaScript code to insert the text "Your order has been processed." in the paragraph element at the end of the web page.

Part 2 Servlets

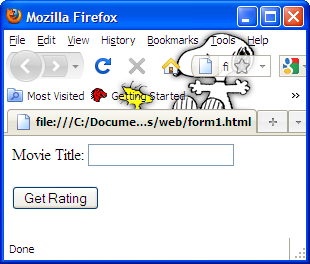
10. (4 pts) Assume a client invokes servlet S1 that sets up a session attribute as follows:

**HttpSession session = request.getSession();**

**session.setAttribute("city", "New York");**

Later the same client invokes another servlet S2. Write the code that must be included in servlet S2 to retrieve the value of the session attribute and assign it to the variable **cityName**.

11. (10 pts) Write html code (**only what goes between <body> and </body>**) for the web page shown below. The web page contains a form. When the button is clicked, the servlet movieRatingServlet handles the request.



12. (5 pts) Write servlet code that would assign the value of the request parameter named **movieTitle** to the String variable **title**.

Part 3 AJAX

The code in the questions is from a web application similar to the CourseList AJAX example covered in class. The user selects a department, a list of courses in that department is obtained from a servlet, and the list is displayed in an unordered list on the web page.

13. (2 pts) Here is part of the code for the web page:

**<p>**

**Select Department:<br />**

**<select id="dept">**

**<option value="eng">English</option>**

**<option value="hist">History</option>**

**<option value="psych">Psychology</option>**

**</select>**

**</p>**

**<p>**

**<input type="button" id="getCourseList"**

**value="Find Available Courses" />**

**</p>**

**<ul id="courseList"></ul>**

This code must be inside a <form> tag.

TRUE FALSE

14. Here is the header for the servlet:

**@WebServlet(name="DepartmentServlet",**

**urlPatterns={"/offeredCourses"})**

**public class DepartmentServlet extends HttpServlet {**

and here is the code for the action handler for the button:

**function getCourses() {**

**clearCourses();**

**request = createRequest();**

**if (request == null) {**

**alert("Unable to create request");**

**return;**

**}**

**var url = // See part (a)**

**request.open("GET", url, true);**

**request.onreadystatechange = insertCourseList;**

**request.send(null);**

**}**

(a) (5 pts) Complete the code that assigns a value to the variable url. Be sure to include the request parameter.

url =

(b) (2 pts) What is the name of the callback function?

15. (2 pts) Here is part of the code for the callback function:

**if (request.readyState == 4) {**

**if (request.status == 200) {**

**var courses = // See question below**

**var courseList = courses.split("\n");**

**for(var i = 0; i < courseList.length - 1; ++i) {**

**}**

Complete the statement above that assigns the information returned from the server to the variable courses.

var courses =

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