CIS393 Final Name:

Spring 2021

(The final exam is an individual exam. Please work independently and submit your final exam in the drop box on the class Sakai web site before 12:00 noon on May 8, 2021, Saturday.)

**1. (20 pts) Basic HTTP/HTTPS concepts**

(1) HTTP is a request and response protocol.

What is the response status code returned if the requested is successfully processed?

What is the response status code returned if the requested is forbidden?

What is the response status code returned if the requested is not successfully processed because of the internal server error?

(2) HTTP is a stateless protocol. Cookie and session are the two techniques that can be used to maintain the State for web applications. Briefly describe the differences between them and advantages and disadvantages of using them.

(3) Create a cookie using PHP to store the name and phone provided by the user HTML form using the method GET for 7 days.

(4) Briefly describe how to prevent the Deny-of-Service attack and input Injection attack on the HTML form in the web pages.

**2. (15 pts) Basic JavaScript concepts**

(1) Name **five** JavaScript’s built-in objects.

(2) How the event-handling works in the JavaScript Event models and give examples of three events handing operations.

(3) What is the main advantage of using AJAX in Rich web applications as compare with the traditional web applications?

**3. (15 pts) Basic PHP/MySQL concepts**

(1) List the major steps of query data items from a MySQL table using PHP.

(2) What is the main advantage of dynamically generate the HTML5 Form using the data from the database in PHP?

(3) Write the PHP code to save the login info into a HTTP session if login is successful.

**4. (50 pts) Web programming using HTML/CSS/JavaScript and PHP/MySQL**

Create a store.html web page using Dream Weaver or other IDE software that calls the store.php to query wine from the MySQL database wine table in the playground.bradley.edu.

1. The store.html web page should consist of an image, a HTML5 summary elements to briefly describe the query operation, and a HTML5 form to submit the query.

The HTML5 form must have an email input type for the email, a set of check button input types for the wine types, and a text input type for the wine year with an error label.

2. Validate the email field using HTML5 validation, validate the wine type field using JavaScript Alert window to disallow the empty wine type, and validate the wine year using the error message label innerHTML property to disallow the year earlier than 1960 and later than 2010.

3. The store.php will do the following:

1) Save the email into a cookie.

2) Return the wines information with the type of the wine user checked and the year of the wine with the year later than the year specified (for example, if user enters year 1980, then display the wine with year between 1980 to 2010. The returned wine information should include the wine name, wine type name, and year from wine table, and must be displayed in a HTML5 table with a caption and field heads similar to the Lab10 Part II table.

**(Hit: The wine type name is from the wine\_type table.)**

3) Email back the query results to the user.

4. Upload/Test the html and php pages on playground.bradley.edu. Submit a MS report with the following:

1) Two screen shots of the GUI developing steps using the Dream Weaver or other IDE software:

- 1 screen shot for the project creation.

- 2 screen shots for the HTML page design and form design.

2) Seven screen shots of all the run results:

- 1 screen shot for the invalid user inputs with email validation, 1 screen shot for the alert window validation, and 1 screen shot for the .innerHtml error message validation.

- 1 screen shot to show the cookie written and 1 screen shot to show the saved cookie similar to the Fig 19.17 and fig 19.18 of the textbook/lecture notes

- 2 screen shots for the successful query results in the HTML5 table with 2 different sets of wine type and year

- 1 screen shot to show the email sent back to the user.

Submit your MS report and all the HTML/PHP/JS/CSS/IMG files in the drop box on the class Sakai web site by the due date.