

CSI3140 (Spring-Summer 2021)
ASSIGNMENT 1

Due Date: Upload your completed assignment file (in .zip format) to this course website (on Virtual Campus – Brightspace) by 01:00 PM on Monday, May 17, 2021.

Instructions:

- This assignment has 3 pages and **must be done individually**. It consists of 7 questions with the mark for each question indicated below, resulting in 75 marks in total.
 - Late assignment submissions will **NOT** be accepted: They will receive a grade of zero.
 - Save your answer to each question in a separate file and name it using the following format: **AssignmentNo_QuestionNo_YourLastName_YourStudentID**
For example, John Smith, whose student ID is 1234567, should save his answer to Question 1 in a Word (or PDF) file named: **A1_Q1_Smith_1234567.docx** (or **.pdf**), and save his answer to Question 2 in an HTML file named: **A1_Q2_Smith_1234567.html**, etc.
 - Create a cover page in Word (or PDF) format containing your full name, student ID, course number, and assignment number. Name your cover page as **A1_CoverPage_YourLastName_YourStudentID.docx** (or **.pdf**).
 - Zip all your answer files together with your cover page into a single .zip file and name it **A1_YourLastName_YourStudentID.zip**, and upload that .zip file to this course website by the due time and date above.
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1. [10 marks]

- (i) State whether each of the following statements is *true* or *false*. If the statement is *false*, explain why. [2 marks]
 - a) Cascading Style Sheets 3 (CSS3) is used to specify the presentation, or styling, of elements on a web page (e.g., fonts, spacing, sizes, colors, positioning).
 - b) Ensuring a consistent look and feel on client-side browsers is one of the great challenges of developing web-based applications.
 - c) An HTTP request typically posts (or sends) data to a server for updating stored data on the server.
 - d) Client-side scripts often can access the server's file-directory structure.
- (ii) Fill in the blanks in each of the following statements: [3 marks]
 - a) _____ is the next-generation Internet Protocol that features built-in security and a new addressing scheme, significantly expanding the number of addresses available.
 - b) HTML documents normally contain_____, which, when clicked, load a specified web document.
 - c) A _____ contains information that directs a browser to the resource that the user wishes to access; _____ make such resources available to web clients.

- d) The two most common HTTP request types are _____ and _____.
- e) Web-based applications are multitier applications. The _____ (also called the data tier or the information tier) maintains the application's data and typically stores data in a relational database management system. The _____ implements business logic, controller logic and presentation logic to control interactions between the application's clients and its data. The _____, or client tier, is the application's user interface, which gathers input and displays output.
- f) _____, the fastest growing mobile and smartphone operating system, is based on the Linux kernel and Java.

(iii) Describe the difference between *client-side programming* and *server-side programming*. [5 marks]

2. Create an HTML5 document containing an ordered list of three items: ice cream, soft serve and frozen yogurt. Each ordered item should contain a nested, unordered list of your favorite flavors. Provide three flavors in each unordered list. [10 marks]
3. Create an HTML5 document that contains links to your five favorite daily deals websites (possibly Groupon, Living Social, etc.). Your page should contain the heading "My Favorite Daily Deals Websites." Click on each of these links to test your page before submitting it. [10 marks]
4. A local university has asked you to create an HTML5 document that allows prospective students to provide feedback about their campus visit. Your HTML5 document should contain a form with text fields for name and e-mail address. Provide checkboxes that allow prospective students to indicate what they liked most about the campus. The checkboxes should include: campus, students, location, atmosphere, dorm rooms and sports. Also, provide radio buttons that ask the prospective students how they became interested in the university. Options should include: friends, television, Internet and other. In addition, provide a text area for additional comments, a *submit* button and a *reset* button. Use *post* to send the information in the form to <http://www.deitel.com>. [15 marks]
5. Create an HTML5 document that contains an *autocomplete* search form using a *search* input element in which the user can enter a search query. Add a *submit* button and a *reset* button. Using Google Chrome, test the form by entering January and submitting the form. Then enter J in the input element to see previous entries that started with J – January should be displayed below the input element. Enter June and submit the form again. Now enter J in the input element to see previous entries that started with J – January and June should be displayed below the input element. Try this with your own search queries as well. [10 marks]

6. Create an HTML5 document that contains an *autocomplete* form with a *text* input element and an associated *datalist* element containing the days of the week. Provide a *submit* button and a *reset* button. [10 marks]
7. Create a website registration form to obtain a user's first name, last name and e-mail address. In addition, include an optional survey question that asks the user's year in university (e.g., Not yet in university, Freshman, Sophomore, Junior, Senior, and Graduate). Place the survey question in a *details* element that the user can expand to see the question. Add a *submit* button and a *reset* button. [10 marks]