CIS 3344 – Group Tutorial Project

The goal of this assignment is to give you some experience doing some research, learn about new emerging technologies in the field of client-side Web application development, and teach others about what you learned. You will build a Web application that demonstrates technology topic and a step-by-step tutorial to teach others aspects of the new technology. The tutorial should include code samples and explanations of terms and concepts.

You must complete this project in teams of 2, and I must approve your team and topic before you can begin work on this project.

Requirements:

1. Get your team and topic approved before working on the project.
   a. Review the list of topics provided at the end of this document, or find your own topics of interest.
   b. Send me an email (cpascucci@temple.edu) containing your name and a list of at least 3 topics in order of preference, and a project proposal for each topic. The project proposal must contain a description for each topic in your list with the following information: a short description of the topic, and detailed description of the Web application you plan to build with the topic.
   c. Make sure your topic and planned Web application are not too simple. This means the Web application should contain a good amount of code to implement the topic technology and not simply contain a few lines of code. Also, make sure your Web application is different than the Web site demonstrations you may read about when doing research on the topic. Otherwise, it will have an impact on the grade for the project.
   d. Wait for my response.

2. Research your topic and create a Web application that demonstrates the technology topic.
   a. The main aspect of this project is to learn about a newly emerging technology related to the class.
   b. Once you become familiar with the topic, you need to create a working Web application and teach others about the topic.
   c. The Web application must contain a reasonable amount of work and it cannot be a tutorial or example copied from another source. Most applications will require utilizing a database and/or Web API. For example, creating a simple calculator with a few lines of code would not show enough thought and effort put into creating the application. If you are unsure about the amount of work put into your demonstration, you can come see me and show me the work before completing the project.
      i. You should keep notes on everything you do, so you can backtrack and build your tutorial.

3. Create a Web page with your step-by-step tutorial.
    a. Create an introduction section that will discuss the topic, history, its importance and relevance to the class, theory, and any other important elements regarding the tutorial's topic.
    b. Create a setup section that describes the required software installation and/or setup needed to complete the demonstration discussed in the tutorial.
        i. List the software needed and include links to the required software.
        ii. Describe any setup needed before beginning to write the code. For example, you may need to illustrate how to start Visual Studio and create a project before the person can begin to write code for your tutorial.
    c. Create several sections of content that describe the steps needed to complete the demonstration.
        i. In these sections, you need to include code snippets and links to intermediate stages of the demonstration. The intermediate stages are used as checkpoints to allow the user to see what the page demonstration should look like and how it should work at that point. These checkpoints give the viewer the chance to try out what they did to that point instead of waiting until the entire demonstration program is finished.
        ii. Here is a good sample of a tutorial done on JavaScript Modal Windows.
        iii. See W3 school's "Try It Yourself" pages.
    d. Create a final section summarizing the topic and tutorial.
    e. Include a references section that lists your sources of information and some other resources that can be used to learn more about the topic.
    f. Use CSS to make the page/site look attractive and professional.

4. Create a link to the tutorial on your site's home page. Also, remember to add a section to the labs.html page created in Lab 1 for this project.
    a. Include a description of what you learned, what elements you liked/disliked, and a link to the page you created for the tutorial.

5. Present the topic in class. Your class presentation is part of the grade for this project. You will be given a short period of time to present your topic, so you will need to streamline your presentation to fit the allotted time.
    a. Discuss the topic.
    b. Present your demonstration or a shortened version of it and explain some of the aspects.
    c. Answer questions regarding the topic.

6. Each team member must contribute an equal amount of work regarding all aspects of the project. One person should not write all the code; I expect each person to contribute to half of the work.

Possible Topic Ideas:

- JavaScript Frameworks: ReactJS, Backbone, Ember, Vue, Meteor, Node.js, Blazor, Dojo, Bulma, Polymer, Aurelia, Mithril, Angular 2.0/3.0, Ruby on Rails, Bridge.NET.
- Security in client-side Web applications

Submission:

You need to publish your Web site to the cis-iis2 Web server, upload your code as a zip file containing your entire Web site to Blackboard, and provide the URL to your home page. Make sure a current version of your Web site along with a backup copy is located in your G:\cis3344 folder. Assignments that are not submitted properly will not be graded.

The grade for the required elements is based on the published version of your Web site. This means the elements must work from the published Web site, not just the files submitted through Blackboard. It's important to make sure your published Web site is the current version and that everything works. You should not publish to the Web server after the assignment has been submitted. Otherwise, it will be considered late or may not be accepted when it has passed the deadline. If you make changes to your Web site, you will need to republish and resubmit the project. Generally, you should not publish or make changes until after you receive a grade.

You need to zip the entire Web site folder into a single zip file and submit the assignment in Blackboard. To submit the assignment, you need to click the Assignment's Title "Tutorial Project" to view the submission form and upload the file.

Make sure you properly submit your assignment and that it works. Programs that do not run or do not contain all the necessary files will not be graded and marked late.