# CS2830
## FINAL PROJECT CRITERIA

For the final project you are to build a web application using HTML5, CSS, JavaScript, and PHP that has the characteristics described in this document. Your final project will be hosted from an Amazon EC2 instance. **Your final project must be unique and will be worked on individually!!** I have all of the final projects from the last 8 years. I will validate your submission in my custom code comparison tool to determine whether you used someone else's project. Your code will also be checked online to see if students replicated anyone's work that is available on the web. **If there is any suspicion or evidence that you copied someone else, then you will receive a zero for the final project which is 20% of the grade for this course. (This will not be negotiable).**

The purpose, target audience, and capabilities of the web application are of your choosing. The characteristics described below are general technical requirements that any web application can incorporate and are chosen for you to demonstrate you have learned the material covered in this course. **You can build any web application you want as long as it meets the criteria set here.** You could build a web application for yourself or for someone else. In the past students have developed the following types of web applications. This is not a comprehensive list and does not limit the kind of application you create. Consider the following examples:

- o a web application for illustrating achievements and to display a portfolio of work to show employers (an interactive resume/portfolio)
- o a web application to support community interaction and information dissemination (e.g. for club, fraternity, sorority, church, family, etc.)
- o a game
- o a web application for a business
- o web-based tools to support work activities
- o a photo sharing web application
- o a web application to support bands and music listeners
- o a fan site web application for an actor, musician, game, movie, etc.
- o and many more

**Consider the following characteristics that must be met for your final project:**

1. The web application must use HTML5 and CSS3 for page content and layout. Pages must be properly formatted using HTML5 specifications. Tables are not to be used for general content layout. Tables can and should only be used for tabular information. CSS must be used for styling content and doing the visual layout. **An HTML5 DOCTYPE is required with the 5 required tags.**
2. The pages/sections that make up the web application must have a consistent design/interface. There should be elements of each page/section that they share in common such as a header, menu, footer, etc. You have flexibility in how you implement your design, but it should not just be a random set of page/section designs. The user should have a consistent and understandable experience when moving from page to page, section to section, or application function to application function.
3. The web application must be well-structured and logically organized. Changes to common elements in a page design must be easy to implement. A common element is an element that is repeated on multiple (or all) pages/sections such as a header, menu, and/or footer. **If a common element has to be changed by editing it in multiple places in the code, then your implementation is not correct.**
4. The web application must have content or functions that are publicly available and content or functions that can only be accessed if authenticated (logged-in), public and private content. When a user is logged-in they must have some visual cue that indicates they are logged-in. The ability to logout must be available. After the user logs out or if they never log in, they must not be able to access the protected pages or functions.
5. For the purpose of testing the login and accessing the protected content **the following user ID and password must work for general access to protected content**:
    o **User ID: test**
    o **Password: pass**
    o If you need to implement a separate login for administrative features or a different category of user, then supply the login credentials that are necessary to perform the login in the document.
6. The web application must utilize PHP and proper PHP techniques shown in class.
7. **You must properly use GET and POST**. Using GET for private information is not acceptable. GET should not be used to take an action such as deleting information or submitting a password. Remember that GET places the information in the URL and should be used for data retrieval!
8. The web application must use form elements beyond what is needed for a login form.
9. Any place where users can provide input you must supply appropriate and informative feedback if the information entered is not complete or correct. For example, if the user provides incorrect login information they should receive feedback that the login failed...not just be re-presented with an empty login form with no message.
10. The web application must contain a page where there are multiple photos presented on the page.
11. The web application must contain a page that contains a YouTube or another video embedded in the page.

12. The web application must utilize JavaScript and proper JavaScript techniques as shown in class.
13. The web application must utilize jQuery and proper jQuery techniques as shown in class.
14. The web application must utilize jQuery UI or Bootstrap interface elements. This means jQuery UI functions like draggable() or button(). **Not a jQuery template. If a template is used then you will receive a zero for your score.**
15. The web application must utilize AJAX. AJAX can be implemented using jQuery or the capabilities provided by JavaScript.
16. The web application you build is not to be trivial in simply meeting the technical requirements set forth in this document. Yes, you are to meet the requirements but you are also to build a web application that has a purpose and delivers functionalities and capabilities. The requirements are parameters to be used in design and implementation of the application; they are not intended to be the end product. You should build a web application that you would be happy to show a prospective employer or client. You should also make sure that you can complete the development by the due date.
17. **A document is to be written that a) provides the link to the web application and b) describes how you met the criteria provided in this document.** You should be able to point to instances in your web application where the criteria have been met. This document is for your protection!! If the grader/instructor has to search your application to find the places where you met the criteria, then they may miss where you met the criteria. This document should be like you looking over the shoulder of the grader and saying, "Yeah, right there is where I use jQuery." By explicitly identifying how you met the criteria, the grader/TAs can be sure they are not missing something. **Easy to find things = makes grader happy and ensures nothing is missed = good grade.**
18. You are to provide the document (see 17.) that contains the link to the web application and that describes how you met the criteria, along with copies of all of the files for your site in a zip file. **So, you will submit two things online,** one, a URL to your project. Two, you will click "resubmit" and submit a zip file containing the document, all of your code, and the screenshots of your webpages.
19. The submission of the final project is via Canvas, under Modules -> Final Project -> Final Project Submission. Attach the zip file to this assignment on the class web site as your submission. The URL that is in the document must point to an operational version of your web application on an Amazon EC2 instance. **Leave the instance running until you receive your grade. If your URL is not working or you have the wrong permissions, you will receive a zero for the final project.**

**Note:** You should not use a template that is already made for you. Simply using a template from bootstrap or any other framework, changing the content, and submitting it will result in a zero for your grade. The final project should be the product of your work and research, utilizing the information provided to you by this course.

**Things to turn in:**

1. Submit the URL or link to the first page of your website
    a. (Might be a login or a main page)
2. Submit a zip file containing:
    a. Your project document (20% of final project grade)
    b. All your code
        i. HTML, CSS, JavaScript, PHP, Etc.
        ii. The better organized your code is (MVC architecture, separating things into folders, etc.) the easier it will be to grade = ensures nothing is missed = better grade you will receive
    c. Screenshots of **EACH** and **ALL** of the pages working off your website on your instance with the system clock in each screenshot
        i. For example, a screenshot of your login page, homepage, etc.
        ii. This is for proof reasons. It is only used to help you.
        iii. Just take a screenshot of your entire screen, with the browser in it, showing your webpage and the URL, and show the system clock to help you

**Note:** The system clock is the clock on your screen with the full date/time in the picture

**Note:** You will want to make sure your documentation is good:

- Say what the requirement is
- **And** Where or which file you met the requirement in
- **And** which lines of code this implementation is on
- In addition, the document should be like a tutorial. The grader should be able to read your document, find the requirements you completed, **and** know how to use your site from the document.
    o If the document is not very clear, grades will be deducted. Or if the site cannot be operated based off what the document provides then points will be deducted.
- Since the document is 20% of the final grade for this project, spend extra time on the document and make things very clear on how to use your site and where the requirements were met.

If you have any questions about the criteria or wondering if your idea will work for the final project, then feel free to run it by the TAs to double check. It will be wise to check your project by the TAs to determine if you have met the requirements before submission. If you have any other questions, then ask the TAs or come by office hours.