1   Project Proposal

Similar to CS 401 Intro to Web Development, you have a personal semester-long web application project divided into several checkpoints. The scope is larger, more advanced, with the added benefit of being more flexible. High-quality work is expected. You'll be able to add this project to your résumé or portfolio. The main requirements are that it uses web technologies, managed on GitHub, and is sufficient in scope. Additional requirements depend on the type of project you choose. For this homework, answer the following questions and check in a digital copy to your github repository (see part 4 of this assignment):

(a) **Project title?** For example: "Search Engine using Apache Lucene", or "High-Performance Web Framework using Dart".

(b) **What is it going to do?** For example: "Trans-compile a style sheet into mobile-friendly equivalent", "a chat client that uses Node.js to facilitate communication between several instant message protocols", "an HTTP proxy designed to make web browsing more anonymous", etc. Be detailed and specific.

(c) **Who is the target audience?** For example: The general public, developers, co-workers, research scientists, students, etc.

(d) **What sort of data will it manage?** Think of any data that will be dynamically generated. For example: user comments, uploaded images, credit cards, API responses, sensor data, etc.

(e) **What web technologies will it use?** List all technologies you plan to use. This list can grow or shrink over the course of the semester, and be based on your needs. But the main technologies shouldn't change. This is a good opportunity to branch out from something familiar and try using a new language or framework. For example: "My project will use Go, PostgreSQL, Ext JS, and Concise" or "Facebook's React framework with MySQL." This may take a bit of research to figure out what will be a good fit for your application.

(f) **Stretch Goals?** Once your project is fully functional and demonstrates adequate scope, what extra features do you want to implement? What additional gold plating would make your application utterly awesome? Stretch goals aren't part of your grade, but your own satisfaction.

2   Category Requirements

Your project may fall under one more of the following categories, and is required to fulfill corresponding additional requirements. Please contact me if you believe your proposal doesn't fall under one of these categories.

(a) **Is it a website?** If your project is a website, it's required to be hosted on a publicly available domain at your expense. Think of this as the cost of your textbook. Use a service like oneandone.com, heroku, or even host it yourself. Projects like e-commerce sites fall under this category.

(b) **Is it a developer tool, library, or framework?** If your project falls under this category, it's required to be open source and publicly available for download/forking on GitHub. Additionally, you're required to provide good documentation, otherwise nobody will use it! This sort of project impresses potential employers, especially senior developers in a technical interview. Projects like jQuery plugins or web frameworks fall under this category.

(c) **Will it be proprietary to your current employer?** I discourage this type of project, because it's difficult to present and grade. However, in some cases, it's a good opportunity to learn a new technology. It's required to be of long-term use to your employer, a technology you are currently unfamiliar with, and demonstrable in class.

(d) **Is it a browser plugin?** If it's a browser plugin/extension, it's required to be available for at least two browsers, and submitted to the appropriate browser extension repositories with documentation.

(e) **Is it a game?** If it's a Facebook game, Chrome application, etc, it's required to be published and available to the public. HTML5 is required; Flash games are insufficient for scope.

(f) **Is it an API?** If it's an API, it's required to be available to the target audience, all endpoints, inputs, and outputs must be thoroughly documented, and have authentication.

3 Graduate Credit

Completing your stretch goals are required for graduate credit. This amounts to larger scope and a more professional and polished product.

4 Github Repository

I expect most of the class already has experience with source control. Otherwise, it's a skill you will have to pick up outside of class along the way. Using source control is expected by every reputable software company.

(a) **Set up a github repo** You are required to set up a new github repository for this project. If you already have a github account, you may use it; otherwise create a new one. Private generally costs $7.00 per month, but they give student discounts. Github is a valuable addition to your career portfolio.

(b) **Give me access** You must give me read access to this repository if it's private. My username is **ckennington**. This is how I will grade this assignment, track your progress, and grade your code. I must have access to your repository by the due date for credit. **Push your answers to parts 1 and 2 of this assignment to your repo in digital form. Then email me github your user or give me an invite from github to your repo.**

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