

# SE 4200: Web Application Development II

## Assignment: Midterm Project

### Requirements

Create a web application that is of your own creative design. Your application should fulfill the following:

- At least one well-defined resource to be supported throughout your application.
- Documents resulting from the creative and visual design process. At a minimum, this should include:
  - A complete set of low-fidelity wireframes.
  - A complete storyboard representation of your wireframes.
  - A complete set of high-fidelity mock-ups.
- An interactive, single-page client interface, implemented using Vue.js.
- A RESTful web service, implemented using Node.js and Express.
- Data persistence, implemented using MongoDB and the Mongoose ODM.
- At least 4 of the 5 primary RESTful actions fully implemented by your web service and client.
- Basic client-side *and* server-side data validation, implemented using Vue.js and Mongoose.
- The complete application deployed to the cloud using an approved platform.
- Documentation detailing your resource and its attributes, data model/schema, and all REST endpoints.
  - Include the URL(s) to your deployed application, including both client and server (if deployed separately).
  - Use Markdown and save as README.md at the base of your Git repository.

Keep the following suggestions and requirements in mind:

- Before you start writing the code for your application, first generate an idea for the application you want to create. Your idea should establish purpose and usefulness, and should be marketable (either for profit or not for profit).
- Translate your idea into a visual representation of the application by creating wireframes, storyboards, and mockups, either on paper or using software.
- Your application should be styled (using appropriate color, imagery, layout, typography, etc.) to look professional. You will be graded based on the effort you apply to create an application that is presentable to a client or customer.
- Your web service and client applications should conform to appropriate protocols, standards, and design patterns, including HTTP, REST, CORS, and MVC. This requires the separation of controller, model, and view logic within both your web service and client applications.
- All data communicated between the client application and the web service should be implemented using Ajax requests.
- While working on your project, you may leverage concepts and techniques from online tutorials and other resources, but the idea that you implement should originate from your own creative process. Your idea should differ significantly from any class or online example.
- You may submit an out-of-class project for this assignment, provided that: 1) the project is developed independently by you, within the timeframe of this current semester, and 2) the project is not submitted for credit for any other assignment, in any other course, in any past, present, or future semester. Violating one or more of these conditions constitutes cheating.

### Resources

- [Express Documentation](#)

- [Vue.js Guide](#)
- [Vue.js API](#)
- [MongoDB Shell Documentation](#)
- [Mongoose Documentation](#)

## **Submission**

1. Submit your project using Git and GitHub. Start by creating a repo for this assignment [here](#).
2. Show your completed assignment to the instructor during class or office hours to receive credit.