

**CS-321-1: Server-Side Web Development**  
**Spring 2021**  
**Northeastern Illinois University**  
**Final Project: Due Tuesday, 05/04/21 at 9:00 p.m.**

## Overview

Your goal is to create a Spring Boot web application with the following constraints:

1. Your project must be a web application that has a front end (HTML/CSS/Bootstrap), a Java back end (Spring Boot), and a relational database using Spring Data JPA.
2. Your web application needs to have user authentication.
3. Your web application must be mobile-responsive, as well as desktop-responsive.
4. Your web application must have a strong focus on design.
5. Your web application must be deployed to Heroku.
6. All code must be pushed to GitHub.

## Final Project Deliverables:

1. Source code for the project submitted to D2L and to your GitHub repository.
2. URL to your hosted project on Heroku.
3. A 3-5 minute video detailing your web application's purpose, design, and functionality (i.e. a quick showcase). These will be posted on the D2L discussion forum for your classmates to admire.
4. Written project description (with minimum one visit to the Learning Success Center to have the project description reviewed).

## Coding/Functional Requirements:

- README.md file - updated to reflect your project description.
- Proper naming conventions for all file types.
- Clean code: Indentation, project structure, no comments littered throughout the code, etc.
- Code runs, no console errors, functions correctly, saves to the DB, etc.
- Handles multiple users.
- Your project should have at least one page with functionality for users that was not part of one of the homework assignments. This could be something like displaying information in a graphical format, providing search functionality, using an API, etc.
- Duplicate code should be organized using page fragments.

## **User Interaction Requirements:**

- Users should be able to do the following:
  - Register for the application
  - Login
  - Modify their specific information (such as password, name, image, etc)...we haven't done this for homework, but you know how to do it for your other domain object. You'll need another controller!
  - Retrieve, view, store, edit, and delete items related to the application.
  - Logout
- Being able to interact with items related to the application should be restricted to being logged in to the application.

## **Web Application Design Requirements:**

- The web application should be mobile-desktop responsive.
- The web application should have a consistent theme/color palette - i.e. your pages should look "pretty".
- Users should be able to easily navigate all aspects of the website (i.e. you have to have a navigation structure).
- Appropriate error messages should be displayed for all pages.
- Appropriate error messages for invalid pages and requests.
- No broken links or missing images.
- Original text: All text/content must be your own.
- No copyright violations: Images and media must come from the public domain, be Creative Commons, or otherwise licensed for reuse and sharing, or you must give credit to the original author of the media item.
- There should be a footer with your name and a copyright of 2020.

## **Video Requirements:**

- No longer than 3-5 minutes.
- Should focus on design and functionality, not your code.
- Use screen capture software (SnagIt/ScreenFlow (Mac)/Camstasia/Quicktime). Save as a .mp4 file.
- Demo the important user flows (what can someone do with your site).

- Narration: You should describe the type of individuals that would use the site, what can they do, why would they want to use the site and how they would use the site.
- Communicate the motivation behind design decisions (ex: Why a certain color scheme, why can someone edit one field and not another, etc.).
- Upload the video to the Final Project Video Discussion Forum under the Final Project Videos topic. Start a thread with your web application name as the title.

### **Project Description Requirements:**

- Title (What is the name of your app?!)
  - Summary: The summary provides a general overview of the project. What you created (and the tech stack), the intended purpose of the site, background information on the targeted user population.
  - Design Specifications: Discuss your choices for the look and feel of your site. What kind of tone does your site convey? Friendly? Modern? Professional? Classic? Upscale? Cutting-edge? High-tech? Elite? Powerful? Artistic? Eclectic? Edgy? Youthful (though not childish)? How did you accomplish this design aesthetic?
  - Future Work: This is a Minimum Viable Product (MVP), meaning that it is a product with enough features to attract early-adopter customers and validate a product idea, but still needs work. What things need to be added to your site to make it more complete? What development tools could be used to do this?
  - Database Credentials: I need this to run your application!!
  - Convert your project description to a pdf and submit to D2L.
  - Note: Spelling and proper grammar will be considered as part of the grade for this component.

### **Project Grading Breakdown:**

- Video (15%)
- Design (Responsiveness, Usability, Consistency) (35%)
- Coding (35%)
- Project Description (15%)

Note: A detailed rubric is available on D2L - it is associated with the Final Project Grading Item.