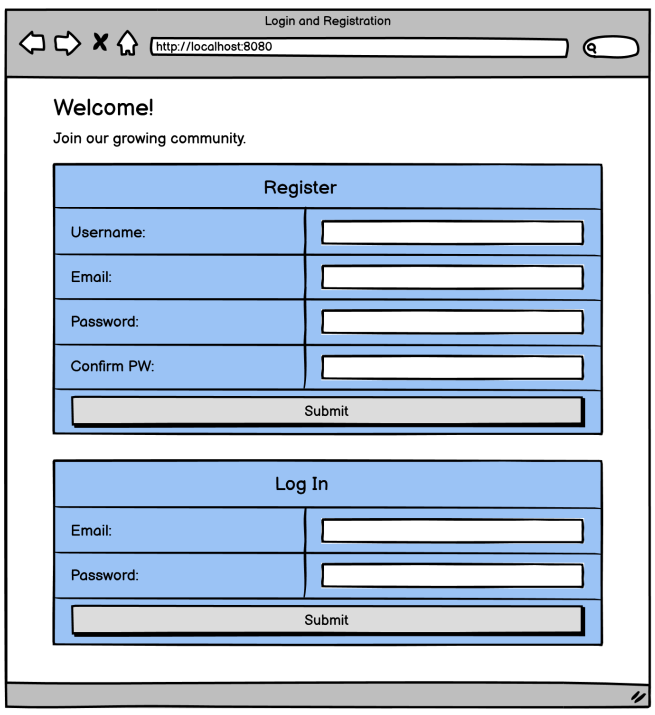
Core | Deadline: Sunday of Week 5 | Difficulty Level: Intermediate | Est. Time: 1 - 2 hrs

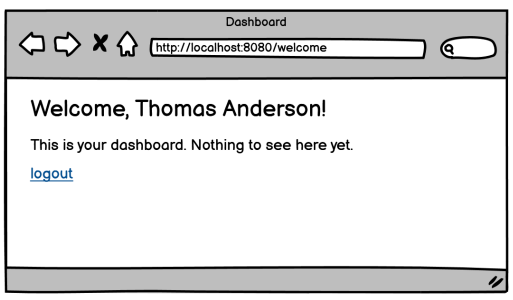
Assignment: Login and Registration

Learning Objectives:

- Build an application that requires both user authentication and validations
- Add server-side validations in addition to model-level validations
- Implement authentication logic
- Use 'Optionals' to check if a user exists
- Import and use 'BCrypt' to create hashes and compare hashed strings against the database
- Use and manipulate transient member variables and non-entity classes
- Handle user logout and active session status
- Use session data to pull the current user's information

In this assignment, you're going to build a Spring application that focuses on login and registration.





Registration

The user inputs their information, we verify that the information is correct, insert it into the database and return back with a success message. If the information is not valid, redirect to the registration page and show the following requirements:

Validations and Fields to Include

1. Username - letters only, at least 3 characters, not blank
2. Email - valid Email format, does not already exist in the database, not blank
3. Password - at least 8 characters, not blank
4. Password Confirmation - matches password

Login

When the user initially registers, we should log them in automatically, but for logging in, we need to validate in a different way:

1. Check whether the email provided is associated with a user in the database
2. If it is, check whether the password matches what's saved in the database

But how do we keep track of them once they've logged in? I think you might already know...session! We can create a session variable that holds the user's id. From our study in database design, we know that if we have the id of any table, we can gather the rest of the information that is associated with that id. Storing a single session variable with the user's id is all we need to access all the information associated with that user.

Logout

On the success page, have a logout button or link. When a user logs out, their session should be cleared. If the user attempts to access the success page (i.e., making a GET request by typing in the URL), redirect them back to the login and registration page.

Video: Thinking through using session in this assignment

Java

Java Spring

Spring Intro

Spring MVC

Adding One-to-Many

Full Spring

Overview

Project Setup

User and LoginUser

Login Page: Controller and View

Password Security

Repository and Service

Authentication & Validation Logic

Auth Quiz

Login & Registration

05:29

NINJA BONUSES:

Add more fields to your registration form with different form elements. For example, include a drop-down menu, radio buttons, checkboxes, and a datepicker. Include validations for each field. Have users provide their birthday and require that they must be at least ten years old in order to register. Level up your password validations by requiring at least one capital letter and one number. Provide the user with several programming languages and require that they check at least one as an interest of theirs. Customize this assignment and get creative!

- [ ] Create User and LoginUser models including all model-level validation annotations.
- [ ] Add server-level authentication.
- [ ] Thoroughly test validations. Make sure that validation messages are displayed, even on second or third submissions.
- [ ] Add a logout route to the controller and make sure a user cannot access the success page after having logged out.

Submit

1708306394095-loginreg.zip
Successfully submitted on February 18, 2024

Check Solutions

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