SYSC 4806 – Lab 4: Simple Spring MVC AddressBook App

In this lab we are finally ready to build a simple Spring MVC AddressBook App, basing it on Part I of Lab 3.

First, provide controllers that allow a user to create an addressbook, and add/remove buddies. These controllers should be REST controllers consuming and producing JSON-formatted data. Remember that extending CrudRepository provides you precisely with such REST endpoints, so you might already have what you need! Alternatively, you can program your own @RestController class. You should be able to interact with your app using `curl` or some other command line tool, tools such as Postman or IntelliJ's own tool (go to tools->HTTP client). This tutorial shows you how you can compose your HTTP requests to interact with those REST endpoints. Here's another one that uses `curl`. For complex REST calls that involve has-a relationships (such as between AddressBook and BuddyInfo), check out this guide.

Then, provide controller(s) that return a rudimentary GUI view using Thymeleaf to list the buddies for a given addressbook. No need at this point for the view to be interactive and let the user submit a form or anything like that. This brief Spring tutorial will be helpful (pay attention to the dependencies you need to add in your pom.xml), and here's a more in-depth tutorial on Thymeleaf if need it.

Optional for this week: if you're all done, feel free to test your app now! This more comprehensive tutorial shows how to write simple unit tests and integration tests for your Spring MVC app. Note that @SpringBootTest assumes by default the use of JUnit 5 (and that is also the version JUnit that comes with the Spring Web dependency). If you want to use JUnit 4, you need to add a @RunWith(SpringRunner.class) annotation to your test class, otherwise Spring won't inject any dependency into your @Autowired variables.

When you’re done, show your work to the TA and upload your zip file. Demonstrate how you can compose HTTP requests to interact with your controllers using curl, Postman or IntelliJ’s http client tool. Show also the GUI that displays the content of your address book.