Software Design – Lab 2

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GitHub: [ClayCarp/SoftwareDesign-Lab2](https://github.com/ClayCarp/SoftwareDesign-Lab2)

Purpose Statement:

This lab aimed to explore and integrate various dependencies using Gradle within a simple web application. The primary objective was to gain practical experience with Gradle and its role in managing project dependencies. To achieve this, a basic web application was created utilitilizing spring boot initializer. The lab focused on integrating dependencies for development, health monitoring (Spring boot actuator) and testing.

Experiment Design:

To accomplish this, the spring boot initializer was employed to generate the project structure and manage Gradle dependencies. Key dependencies, including spring boot starter web and spring boot starter actuator, were automatically included. The application was designed with a basic web interface featuring buttons to interact with just like I had designed in lab 1. My overall purpose was to use lab one where we used maven and transfer it all over and use the same dependencies in Gradle.

Resources Utilized:

* Spring Initializer
* Gradle Documentation
* YouTube Tutorials

Time Estimate:

2 Hours

Experiment:

A simple web app that was previously used in lab one but use the dependencies in Gradle that I used in Maven and track average times it took for the project to boot up. The app incorporated a user interface with five buttons:

1. Web Health
2. Fetch Data
3. YouTube
4. Google
5. MyUCA

The backend was pretty much the same as the backend that I used in lab one with minor changes. Not enough changes were made for me to really hit on them.

Results:

This experiment provided simple understanding of transferring dependencies from Maven over to Gradle. Ultimately demonstrating the same simple concepts that I used in lab one. However, I had some major faults. These faults including the build of gradle and ultimately trying to get the web app to run. After multiple errors I was able to get the app to run on the web in no time. I could still implement a better user interface and more dependencies, I just wanted to transfer over everything I did in lab one to lab two.

Future Considerations:

1. Better user interface
2. Create more time to work on the project
3. Create more dependencies that would benefit the client.

Instructions for setup:

1. Build the project
2. Open terminal
   1. Run the command “./gradlew bootRun”