Software Design and Engineering

Lab Document

High Level Purpose Statement:	I am wanting to explore a web framework that was recommended to me, *FastAPI*.
Experimental Design:	This lab will be divided up into the following components: • Backend configuration (with FastAPI) • Frontend configuration (with HTML, CSS, JavaScript) • Containerization (with Docker)
Resources Available:	https://www.youtube.com/watch?v=iWS9ogMPOI0 https://fastapi.tiangolo.com/
Time Estimate:	I am estimating this project to take between 3-6 hours.
Experiment Notes:	**Backend Configuration** Wow, this was insanely easy! I think that this is easier to configure than Spring Boot, though using the individual modules was strange. **Frontend Configuration** This is nothing very new. Thankfully, setting up the backend to serve the frontend was very easy and required minimal code. **Docker** Containerizing the backend was so easy! I usually have some trouble with Docker, but this time, I didn't use it for containerizing a database, which is a bit more complicated.
Results:	The final product is a simple typing speed tester whose backend is managed by FastAPI, frontend by HTML, CSS, and JS, and containerized by Docker.
Consequences for the Future:	There are a lot of potential additions to make to this project, like adding a database to store high scores or calculate average scores. FastAPI is very easy to configure and I'm sure that adding components like a database would not be difficult. I could see myself using FastAPI again in the future, if I were to work with full-stack apps that utilize Python.