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CS-499-T4218

3-2 Milestone Two: Enhancement One: Software Design and Engineering

**Narrative**

The first artifact that I have decided to examine is a restfull API written in Python that I developed for a stock ticker application that I was assigned to produce for CS-340 a few terms back, so late 2020. It functioned as an intermediary between the front-end stock ticker application and the back-end MongoDB database that stored the stock information as JSON data.

I chose this artifact because it encompasses several facets of software design in my mind. It is a Python-based API that was written for a web-based application with a MongoDB database on the backend that stores data in JSON format and whose native query language was JavaScript. This API effectively represents the centerpiece of a collection of other files, functions, applications, and more that served as the various, unrelated portions of this stock ticker app. All held together solely by the glue of the API that connected them.

Moving on from poetic waxing, a lot of testing went into the design of this API at the time that I was designing the project, but in all honesty so much time has past that I’m afraid any serious “enhancements” I would make to the code would only result in less-than-desirable outcomes. As such, I have opted to improve the artifact by improving readability. While the code is (debatably) about as cleanly formatted and readable as it could be, I felt the comments could use some cleaning up and clarifying. I have unified the formatting of existing comments by enforcing grammatical standards throughout. I have also clarified the language of existing comments as well as added new comments to hopefully help fill in some potential lapses in clarity in the code that was not already explained by other comments.

I feel that I have sufficiently met the course requirements with this enhancement. Yes, there is the strong potential that I could have made a more impactful enhancement to the artifact. Perhaps improved its efficiency or further modularized the code. However, I again felt that it was in the best interest of the code as a cohesive, and functional, artifact that I limited my rusted expertise to more minor improvements. With all of that said, I do feel that readability is extremely important in software design in every instance except job security when you are the one person that currently has the job. Even in that instance, future you will be thankful for the time taken to make their life easier.

While enhancing this artifact I learned the importance of time management. Several assignments that I have submitted thus far in the course have been far later than I typically would allow for myself. I have also less learned than reinforced my stance on readability of code. Looking over my comments from the pre-enhanced artifact where its mix of punctuation standards as well as grammatical spacing and capitalization made it difficult to differentiate code from comment in some instances. I hope that my added enhancements has remedied this issue and made future me, as well as anyone else reading this code, a bit more at ease.