4-2 Milestone Three: Enhancement Two Narrative

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The artifact I chose to work on was the final project I submitted for CS-350: Emerging Systems Architectures and Technologies in October 2020. The objective of this project, titled ‘Weather,’ was to use RaspberryPi and GrovePi to create a device that would record light levels, temperature, and humidity levels. Using those inputs, you were then expected to send all applicable data to a JSON file using specific conditions. In the case of this project, one condition was to only record temperature data if it were during the day.

I chose to focus on this project for the Algorithms and Data Structure enhancement because such a vital component of it is the inclusion of JSON files. Before CS-350 I had no formal experience with JSON files and I wanted to challenge myself to become more familiar with them. To improve upon the original, I wanted to first eliminate the criteria that data would only be stored during set hours. Next I wanted to increase the amount of data that would be added to the file. I was already collecting the temperature and humidity levels, but I also wanted to ensure the time of day and some kind of indication of it being light or dark out were added. Though a simple start, it’s enough to at least tell the person looking at the data if it’s overcast out.

I was able to accomplish everything I set out to in Module One. At this time, I have no plans for future updates for this enhancement. I learned a lot about JSON files with this project. Specifically, I learned how to include the current time in the JSON file and how to send a conditional text statement to a JSON file. Admittedly, I was hung up on how to include the light/dark indication in the JSON file. I spent a lot of time trying to add it as a condition in the if/else statement. Then I realized I was overthinking the situation and just created a variable.