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CS-499 Computer Science Capstone

4-2 Milestone Three: Enhancement Two

July 25, 2021

This artifact involved a program that collected data involving temperature and humidity. The program consisted of python code with multiple sensors connected to a Raspberry Pi with Grove sensors. It was originally created as a final project during February of 2021. This project was designed to introduce students like myself to the Internet of Things with embedded devices in what they are, how they work, and how it its all brought together. I ended up organizing my code and eliminated any unnecessary structures within the program. I added in proper file extensions and sound sensor capabilities along with the other edits I made to the code.

I Included this artifact because I really enjoyed building something that was part of a bigger picture. It meant different components coming together to perform a greater purpose. Even though there is example code that comes with some of these devices, it was a starting point that allowed you to expand upon and customize it. I also included this because I felt as though it displayed some of the data structures and algorithms rather clearly. First, we have all the libraries and components listed before the main function really begins. This sets up the algorithms in the code used to collect the data necessary for the device. The biggest challenge was having proper working code that collected the data and ran with no errors. It needed the proper structure and algorithms to achieve its intentions. I personally feel as though I may be able to add something different, but I am not positive as I know I want to showcase what I have done.