IFT3 LAB

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April 28, 2022

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**INTRODUCTION**

In the world of Internet of Things (IoT) there is a logic that if you do something, then something will happen in turn. These cause and effects are known as If This Then That (IFT3). This lab le students dive into applets and have a function call out to a web server causing a trigger to happen. This trigger then causes an action… in this case send an email, making a Google sheet, and sending a text.

**IMPLEMENTATION**

WHAT DID I USE?

I had the Base Setup of $2224. A Firebase account, which was free and the Wifi Library from Arduino, also free. The libraries are free, and I used one made by myself again, NetworkConnection. I also printed more case holders to use with a strap to fasten to my arm or hand this was 56 cents. I then also bought the strap for $7. Finishing this cost analysis, I signed up for IFTTT and this is the applet site and choose the free option.

WHAT DID I DO?

Initially had to program the WIFI again and took the class from my las project that was design solely to connect to the WIFI and expanded it to include the serv calls. Instead of making 3 files, one for each function ad call I decided to make them all in one and had the button you select the designator on what serv function was called. B button was to call a fire the email and google sheet and A button would text my wife “I Love You”.

This is simple, make one functioning class function and copy it and change the key values for the rest. I made the Email one by adding an email value in the secrets header and made the available for the class. I di this for the other two functions after. Then make the call serv function with the email trigger and the server site and have it check internet connection.

If the connection is good, then call to server. Each trigger for the Google sheet, the email, and the Android are identical but for the trigger name.

Once the function worked I simple had them assigned to a button for which was call and then looped it. There was also some function for formatting, but this isn’t new stuff in the class.

**VIDEO LINK**

LINK - <https://youtu.be/DfPtNrOeFig>

**PROGRAM BREAKDOWN**

**!!! PROGRAM IS TOO COMPLEX TO DISPLAY IN DOCUMENT !!!**

**Files are added to lab submission.**

**CALCULATIONS**

1. LEARNING API and syntax for IFTTT (EMAIL, WEBHOOKS, ANDROID SMS, GOOGLE SHEETS)

References

CODE: Modified from Arduino IDE examples (WifiClient), My Code (NetworkConnection).

M5Stack. (n.d.). Arduino Ide Development. m5. Retrieved April 10, 2022, from https://docs.m5stack.com/en/arduino/arduino\_development