Daily Log

Monday November 18

Learned about how to accept command line arguments in a Python file - felt I would need to use this in linking barcode detection with barcode lookup (ended up not using this technique - see end of Tuesday)

Set up barcode lookup file to be able to take command line arguments

Tuesday November 19

Looked into finding how to call a command line command through a Python file. Decided to use the module subprocess's method 'call' for this process.

Implemented subprocess module into barcode detection file, and modified file to successfully take the result of what is obtained from barcode detection and call the barcode detection file using a command line argument.

Tested this new system, but after some thought, decided that a command line argument probably isn't the best way to go, since you can't really store the value of what came out of running the command line argument in a variable. Decided on using an import statement in the barcode lookup file and making a method in the barcode detection file (which is actually best practice).

Thursday November 21

Moved barcode lookup code into a method that returns the title of the object whose barcode ID is passed in (did some basic JSON processing of result returned from API call).

Used import statements and modified barcode detection file to call barcode lookup method in the barcode detection file. Resolved some errors and got working successfully :)

Tested barcode lookup code with different barcodes. Came to some conclusions: new total barcode system is limited by 2 factors - the items in the database (it can't identify obscure barcodes not in the database) and the shape of the barcode (it can't identify weird, non-rectangular shaped barcodes).

Timeline

Date	Goal	Met
11/7/19	Link barcode lookup API with the rest of the system and begin looking into a lookup API for products found through logo recognition	No; Finished barcode lookup API, but didn't link it with rest of system
11/14/19	Finish implementation of barcode lookup API (FIRST priority)	Yes; Barcode API implementation successful!
11/21/19	First link barcode detection API to barcode lookup API and then maybe link it to the sequential 3 system program	Yes; Barcode detection and barcode lookup systems successfully linked; linking to sequential 3 system program not attempted
11/28/19	Begin setting up sequential system to be 100% working (resolve current errors) & begin turning it into a simultaneous system.	
12/5/19	Continue developing sequential system and resolving errors and hopefully have some semblance of a simultaneous system	
Winter Goal	Finish implementation of simultaneous processing system (barcode+logo), link to a barcode lookup library, and <u>find</u> a database for lookups based on logo detection	

Reflection

This week was successful in the sense that I was able to link the barcode lookup and the barcode detection programs. Although I knew that this task would be less error-prone than other tasks I've worked on, I did anticipate errors and compatibility issues, which I fortunately avoided. At first, I used a strategy (using subprocess to call command line arguments) that I deemed to be insufficient for my needs, but I do think I made the right decision in switching to creating a method and using import statements, as this will likely be advantageous and useful to me when creating combined systems. Since the last time I worked on it, the sequential system has some errors, and to be fair, the combined sequential program is quite crude right now, but I hope in the next two weeks I can completely finalize this system and make significant headway on a simultaneous system - my winter goal.