ECE Senior Design Weekly Report

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Team Name: Globetrotters Lab Section: TH

Week’s Task: Continue with backend development with APIs and database and integrate software with GUI and voice control.

Results:

APIs

* Downloads up to 3 images of location
* Python functions to gather information from APIs are done
* Started writing queries in Python for database access
* Working on optimizing scripts for web requests (ex: 1 request for all information instead of 4)
* Currently have information of over 150,000 locations

Software Integration

* GUI now has access to values of location after a user request
* Python functions are called directly by voice control software
* Information is passed to GUI using JSON dump

Summary

This week I finished writing the basic API functions that will be used in order to retrieve the information we want. Currently we have information of over 150,000 locations. I’ve also used Google’s Places API to get several photos of locations. I’m still looking for other services to obtain pictures (such as Flickr) because Google seems to return images of random locations in their responses which is beyond my control. Now that the scripts for those APIs are done I’m going to work on fine-tuning them so we don’t need to make an excessive amount of web requests for a few fields of information. I’ve also started to make headway on our databases. The goal is for the voice control and GUI software to make queries to the database, not the APIs. The database currently has 1 table (States) but I’m going to add three more for Countries, Cities, and Details. The details table will have extra information about a cities climate, currency, and other interesting fields to display. Software integration is also going well. I’ve worked with Kevin and Leon to see what they need from the backend and have provided them with functions so that our separate applications can communicate.