Take Home Coding Test - Geocoding Proxy Service

This document outlines the requirements and expectations for developing a geocoding service.

The goal of this test is for software engineering candidates to provide us with an example of product level software developed by you. The utility provided by the software is simple on purpose so that you can **focus on software design, code quality, and life cycle.**

Overview

Please develop a simple network service that can resolve the lat, lng coordinates for that address by using third party geocoding services. The service should provide a RESTful HTTP interface and use JSON for data serialization.

The service must implement at least two different third party geocoding services. It should be able to have a primary service and additional backup services used for each request. For example if the primary geocoding service does not return a result or there is a network error when accessing the service your code should fall back to using a secondary service to complete the geocoding resolution.

The service must implement it's own HTTP request code and should not use third party libraries to access the geocoding services. Use of Python Standard Libraries is acceptible.

The service should be written to be production level of quality.

Requirements

- Implemented in Python
- Support Multiple Geocoding Services
- Implements Fallback To Backup Geocoding Services
- RESTful HTTP Interface
- JSON for Data Serialization
- Provides Documentation - How To Run The Service
- Provides Documentation - How To Use The Services API
- Uses git and github for for revision control

Non-Requirements

- Does Not Have To Be Performant or Scalable

Evaluation Criteria

Your service will be judged on the design of the API and interface it provides. This extends from the RESTful HTTP interface to the command line interface for running the service.

Your code will be judged on the general quality of it such as readability, architecture and reliability.

We will be running your service and likely developing our own client library to use your services API.

Submitting Your Code

Please develop your service using git on github as a public repo (they are free!). Once you have completed your service please send us a link to your repository for us to review.

Resources

- Geocoding Service by HERE - https://developer.here.com/documentation/geocoder/topics/quick-start.html
- Geocoding Service by Google - https://developers.google.com/maps/documentation/geocoding/start
- RESTful - https://en.wikipedia.org/wiki/Representational_state_transfer
- JSON - https://en.wikipedia.org/wiki/JSON
- Python - https://www.python.org/
- git - https://git-scm.com/
- github - https://github.com