Implementing a Python Backend

Specifications
In this assignment, you will implement the backend for a web app of your design. You must code up all 3 of the following endpoints in your web server, and your app concept must utilize at least 2 out of the 3 endpoints. We encourage you to get creative and have fun with the assignment (e.g. build web UI, write code for additional google API endpoints in support of the app, etc). We also ask that you make the server code as robust to exceptions as possible.

Please include a README briefly explaining the app, why you think it's interesting, and any technical challenges you foresee. You DO NOT need to code anything on the client, but please explain in your write-up how you envision the client interacting with the backend server. Also include a requirements.txt file detailing the dependencies. Bundle the code/README/dependencies as a zip file.

Please treat this assignment as though you were writing an app for professional use. Automated tests for your endpoints are a big PLUS.

Instructions:
You will need a Google account to complete the assignment. First, set up an API key for the Google Maps Geocoding API:

https://developers.google.com/maps/documentation/geocoding/intro

Refer to the following for instructions on how to do so:

https://support.google.com/googleapi/answer/6158862?hl=en

You will use this key to access data from the Google Maps Geocoding API. You should remove the API key from your code before submission. We will plug in our own key for evaluation. Please make it as convenient as possible for us to replace your API Key. Take any liberties with the assignment you'd like (e.g. the format of the http request/responses), as long as the specifications are met.

Endpoints
1. Geocode

```
https://maps.googleapis.com/maps/api/geocode/json?address=1600+Amphitheatre+Parkway,+Mountain+View,+CA&key=YOUR_API_KEY
```

2. Reverse geocode

`https://maps.googleapis.com/maps/api/geocode/json?latlng=40.714224,-73.961452&key=YOUR_API_KEY`

3. Geometric distance (not a google api endpoint)

Calculates the geometric distance in units of your choice between two lat/long coordinates, and return the distance. You will need to do this calculation yourself.