1. Leverage AFDC to download NC’s EVSE locations:
   1. Select public L2/DCFC EVSEs only in the RDU-Chapel Hill area zip codes
   2. Only select Name, Address, Charging Level and Coordinates (Lat, Long)
2. Use foursquare API to download places of interest within RDU-Chapel Hill Area
   1. Identify trending venues and ratings
   2. How many of these are restaurants
3. Use Python’s geocoding package: <https://pypi.org/project/geocoder/> to track down lat/long of all restaurants/trending restaurants
4. Generate a data frame that looks like this:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Name of Restaurant | Address | Number of L2 chargers within a 5-mile radius | Distance from nearest L2 charger | Number of DCFC Chargers within a  5-mile radius | Distance from nearest DCFC charger | Rating of restaurant | How many restaurants are closeby? |

1. Filter out restaurants within 5 miles of either an L2 or DCFC + think of other criteria for filtering
2. Map this using Folium – think of heat maps/other ways to visualize the data
3. **Use k-means clustering to cluster those locations to create centers of zones containing good locations. Those zones, their centers and addresses will be the final result of our analysis.**

**Refer to this code:**

‘Capstone\_The-Battle-of-the-Neighborhoods.ipynb’ saved here: C:\Users\Rubenka\Documents\Coursera\Projects\_Capstone

Also, this one: DP0701EN-2-2-1-Foursquare-API-py-v1.0, saved here:

C:\Users\Rubenka\Documents\Coursera\IBM Data Science Professional Certificate\Capstone Project