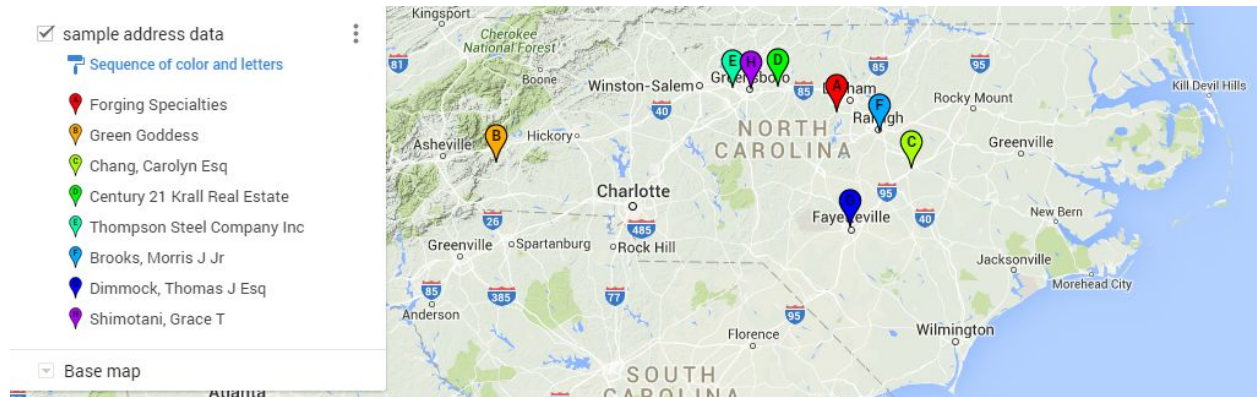


## Demonstrate JSON Parsing

1. in OpenRefine, **Create Project** from file "[sample-us-address-data.csv](#)"
2. Construct a full address
  - a. **address** > **Edit column** > **Add column based on this column...**
  - b. `value + " " + cells["city"].value + " " + cells["state"].value + " " + cells["zip"].value`
  - c. Column name = **full address**
3. Fetch latitude and longitude from google maps
  - a. **full address** > **Edit column** > **Add column by fetching URLs...**
    - i. column name = **JSON data**
    - ii. Expression =  
`'https://maps.googleapis.com/maps/api/geocode/json?' + 'sensor=false&key=<<INSERT YOUR Google Console Key>>' + '&address=' + escape(value, 'url')'`  
(See Slide Notes: [https://DSVIL2018/slides/api\\_50.html#p15](https://DSVIL2018/slides/api_50.html#p15))
    - iii. Throttle delay = **2000**
    - iv. View the JSON data in a JSON data viewer
      1. <http://jsonviewer.stack.hu/>
4. Parse JSON
  - a. **JSON data** > **Edit column** > **Add column based on this column...**
  - b. New column name = **longitude**
  - c. Expression = `value.parseJson().results[0].geometry.location.lng`
  - d. **JSON data** > **Edit column** > **Add column based on this column...**
  - e. New column name = **latitude**
  - f. Expression = `value.parseJson().results[0].geometry.location.lat`
5. Show the new coordinates on a map
  - a. Export the Parsed File as CSV
  - b. Open Google Drive > New Map
  - c. Import the CSV file

Show [latitude & longitude geolocated on a Map](#)



The [presentation](#) contains links to directions and sample data . Each section of the workshop can be completed at your own pace.

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