**Project Proposal**

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Tools: HTML, JS, Leaflet, Plotly, Leaflet time data plugins ([LeafletPlayback](https://github.com/hallahan/LeafletPlayback),

[Leaflet.timeline](https://github.com/skeate/Leaflet.timeline))

Datasets: <https://data.sandiego.gov/datasets/gid-illegal-dumping/>

<https://data.sandiego.gov/datasets/get-it-done-311/>

Illegal Dumping and Get It Done CSVs: Available Data

* Service Name (Illegal Dumping)
* Case Record Type (ESD Complaint/Report)
* Date Requested
* Case Age in Days
* Date Closed
* Status (Referred, Closed, In Process, etc.)
* Latitude
* Longitude
* Council District
* Community Plan Name (neighborhood)
* Case Origin (Mobile (app), Phone,Web)

Other Resources: <https://www.sandiego.gov/get-it-done>

Questions:

* Who is our audience?
  + City of San Diego
  + Participants in the Get It Done collective.
  + People looking to help out and volunteer based on respective areas in San Diego
* The need behind this project
  + Providing more interactivity and cleanliness of the data, and spreading awareness of certain areas where there are more complaints &/or more open cases as opposed to areas which are mostly unscathed.
* Do most complaints originate in certain areas?
* Which are the most frequent complaint/service request types?
* How long do different types of complaint/service requests remain open?
* Are there any patterns as to when complaint/service requests are made?
* Which platform do most cases originate from?

Considerations:

* How do we want to clean the data?
  + Possibly referencing necessary columns for each visualization and creating different sub-dataframes from the main frame.
  + Or, creating different iterations/functions for each visualization where we simply grab the necessary columns and build our functions that route.
* How many and which complaint types do we want to include?
* What is the timeframe we want to explore?
* What interactivity do we want to implement?

Design Plan:

Create a dashboard to hold a map and a few graphs, where we can filter the data by complaint type. Initial ideas are:

Plotting all complaints from the dataset into Leaflet map, adding a legend which allows for selection of certain complaint types (i.e graffiti, illegal dumping, etc.).

Adding plotly visualizations onto the dashboard to further analyze the data, i.e:

* Neighborhood counts of complaints (bar plot, or bubble chart where size represents the number of complaints)