**Project 2 Proposal**

OVERVIEW

Members: Amol Bhatia, Jennifer Mattingly, Brianna Papparotto

Github Repo: <https://github.com/AIndian/earthquakeMLS>

Topic: Housing market values on west coast (Southern CA, Arizona, New Mexico) as compared to earthquakes with magnitude greater than 4 (mid-range and up).

Purpose: For those looking to move to the west coast, type in your city, state, or zip code of your desired location to see information regarding earthquake activity, housing value, and value-change over last year. A list of for-sale houses in the area will allow the user to filter for desired house specifications.

SPECIFICATONS

Datasets:

Earthquake Data - earthquate.usgs.gov

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Real Estate Data - <https://www.homejunction.com/real-estate-data-api/>

Zip Code and Latitude/Longitude Data - <https://public.opendatasoft.com/explore/embed/dataset/us-zip-code-latitude-and-longitude/table/>

GeoJson California cities - https://public.opendatasoft.com/api/records/1.0/search/?dataset=us-zip-code-latitude-and-longitude&q=&facet=state&facet=city&facet=zip&geofilter.polygon=(37.81%2C+-124.49)%2C+(37.81%2C+-105.61)%2C+(32.06%2C+-105.61)%2C+(32.06%2C-124.49)

Zillow Housing Details - https://www.zillow.com/howto/api/GetSearchResults.htm

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Map view options:

Light map

Earthquake activity (heatmap)

Housing values (heatmap)

Available housing (marker)

User interactions:

Filter base maps by earthquake activity and/or housing prices

List available housing

Allow user to filter and sort based on price, etc.

Tools:

* + Leaflet
  + React
  + SQL (to link zipcodes together)
  + D3

Tasks:

Data Cleaning: Pull in all necessary data and import to SQL server

* Earthquake (Jen)
* Real Estate (Brianna)
* Zip Code/Longitude/Latitude (Brianna)
* Zillow (Amol)

Web Development:

* Housing map (markers with brief housing info)
* Heatmap (earthquakes)
* Table visualization
* Python/flask app

INSPIRATION

Map

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A map of the world

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IDEAL SKETCH

Diagram

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