# Project 1 - Team Pterodactyl

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### Project Description

* Analyze historical earthquake data to determine any trends in location, frequency, and magnitude
* Determine if seismic activity has increased in frequency and/or magnitude over time (~30 years)

### Questions to answer

* Where are earthquakes most common in North and South America?
* Where are earthquakes most impactful in North and South America?
* Is seismic activity increasing over time? (magnitude/frequency)

### Datasets to be used

* <https://earthquake.usgs.gov/fdsnws/event/1/?ref=springboard>

### Timeline

1. Set Parameters
   1. Search Ranges (lng, lat)
   2. Minimum Magnitude
   3. Time Frames (most likely by year)
2. API Calls - Information
   1. Alert Level (green, yellow, red, orange?)
   2. Date and Time (unix)
   3. Magnitude
   4. Magnitude Type
   5. Location
   6. Tsunami (ocean region)\*
   7. Coordinates (lng, lat)
3. Data Frame(s)
   1. Created North America, South America, Pacific Ocean (South) dataframes
   2. Converted UNIX Timestamp to Date
   3. Bin by severity
      1. <https://en.wikipedia.org/wiki/Richter_magnitude_scale#Richter_magnitudes>
   4. Bin by year
4. Plotting
   1. Google Heat Maps
   2. Correlations
   3. Regressions
   4. Time Series (Magnitudes)
   5. Coordinates vs Magnitude
5. Slide Deck