Introduction paragraph:

As a city planner, city official, or an architect, it is crucial that you understand how natural disasters such as earthquakes impact your environment. While spreadsheets and slide decks provide you with raw data, these tools often fail to give you the intuition you need to make the right decision when planning for an earthquake. In this project, I showcase how tools such as the Google Maps JavaScript API and CesiumJS can help you make sense of earthquake data from the United States Geological Survey.

30 Days of Earthquakes in the United States:

The following figure shows all of the earthquakes that occurred in the United States in the past 30 days. Many of these earthquakes are mild. In fact, the mean earthquake magnitude is 2.55 (quite low). The most severe earthquake that occurred in the past 30 days took place in Nevada. This earthquake had a magnitude of 2.7.

Paragraph about Recent Earthquakes in the United States:

Clearly, earthquakes are a common occurrence. During the past 30 days, the United States experienced over 100 earthquakes. While none of these earthquakes were large enough to significantly disrupt daily life, this figure reminds us that we should always be prepared for the next earthquake.

Faults and Earthquakes:

This figure shows the San Andreas Fault, a continental transform fault that extends roughly 750 miles through California. The San Andreas Fault forms the tectonic boundary between the Pacific Plate and the North American Plate. Given that earthquakes often occur near fault lines, cities such as San Francisco and Los Angeles particularly vulnerable to earthquakes.

Introduction to cesium demo: describe how the tool can be used, San Francisco, Los Angeles, New York City, Charleston

While the Google Maps JavaScript API can help us understand where recent earthquakes have occurred and the location of important natural occurrences such as fault lines, CesiumJS can be used to show us the impact of earthquakes on a more granular level. The following demo includes regional data for San Francisco, Los Angeles, and New York, among other cities. In addition, this demo illustrates how each city would be impacted by a variety of destructive earthquakes that occurred in the past 100 years.

Functionality:

-Select buildings to view information (height, location, etc.)

-Select neighborhoods to view name and location

-Select public parks to view name and location

-See toolbar for other details!

Conclusion:

Thank you for viewing my demo. Please let me know if you have any question or concerns. I really enjoyed working using CesiumJS to create this demo. There are a few more things that I would love to implement in the near future (see TODO in repository).

<h1>Thank you for viewing my demo! Please let me know if you have any question or concerns. I really enjoyed using CesiumJS to create this demo. The CesiumJS library has so much interesting functionality that I hope to keep exploring. There are a few more things that I would love to implement into this project in the near future (see TODO items in repository).</h1>