Team 17

Northrop Grumman Xetron Seismic Activity Map

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Problem Statement

Currently, seismic data is limited to specific organizations, government agencies, and people. There is no system in place that integrates all of this data to give real-time tracking of any seismic activity, specifically in the United States. Each party who utilizes seismic sensors has its own system to analyze that data to achieve their goals. However, our system would go further by integrating all of these individual systems into an open sourced visualization of the data.

Project Objectives

1. Grab seismic information from different web media including Twitter and some news medias.
2. Project will use research data and calculate an epicenter of seismic activity and visualize it on the Google Map.
3. Even though the radius of an event is unknown, the system will be able to predict its radius from the information from media and research data.
4. Develop a database and a frontend system to store and visualize all the seismic data in terms of seismic intensity, age and all other basic information.
6. Develop an API, which allows to add new seismic events and their detailed information.

Stakeholders

Users: US government such as USGS, and National weather service which gives out the warnings for the national tragic events. Also, government that detects weapon testing events.

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Project manager: Aaron Peters

Project owner: Jeremy Williams, Senior Software Engineer at Northrop Grumman Xetron

Deliverables

- Backend Java system which monitors web media and seismic activities and calculates an epicenter of seismic activity.
- Frontend system which displays seismic events both graphically and numerically on the Google map.
- Database to store seismic information efficiently.
- API to enable further development and extensions.