

Monitoring Social Media for Disaster Alert and Management

Team name: Save-Earth

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<https://github.com/adnan-azmat/Save-Earth>

Real-time
Tweets

Tweepy Python library is
used for monitoring
real-time tweets



Twitter API

Tweets are filtered by
disasters related
keywords and tags

(Runs on Azure VM)



Tweets Database
(Disaster, Location, Time,
Severeness)

Severeness of a tweet
is calculated by
sentiment analysis

Website

Users can subscribe to our website to **get notified by email and SMS** if disaster alert is detected in that location. SMS service will help even when internet connectivity is absent

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Save Earth

Monitoring Social Media

Increasing use of social media is proving handy to detect and analyse weather changes, disasters and calamities. Natural disasters that have occurred in the past, have shown that social media is helpful in relief work and in some cases even prediction of disaster. The idea is to efficiently monitor social media and detect, notify and spread information during disasters.

How Does it Work

Social media websites provide APIs which provide valuable data to monitor, detect and manage disasters. APIs will be used to monitor real-time tweets or posts, their geographic location and timestamp, filtered by relevant tags or keywords. We will be using Sentiment Analysis for weight. Alert notification will be sent to users, for immediate action. People can also report a disaster. Details of the NGOs present in the affected location will be highlighted to facilitate donation.

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Registration Form

App



Node.js Web App on Azure
queries the database for
disaster alert

On disaster alert,
location is sent



Notification is sent to users in
affected area

- Our app sends instant notification to people in disaster areas.
- Users can report a calamity in their area from the app.

Flow & Structure

Users Database
(Mobile, Email, Location)



SMS and email is sent to
users in affected areas

We use Twilio and SMTP Python
libraries for sending SMS and email
respectively

Tweets Database
(Disaster, Location, Time,
Severeness)



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