

Project 2 Proposal

Natural DisaSTARS: Jacquelyn, Megan, Nick, Terril, Tosha

April 15th, 2021

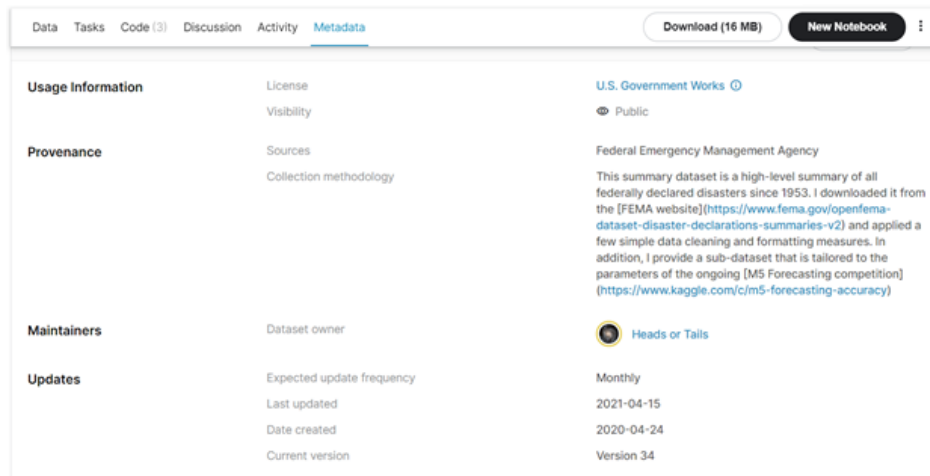
Topic and rationale:

- Understand weather trends from the last 50 years (1953-2015) and compare with natural disaster frequency in the US
- API - Tornado GeoJSON; potentially OWM
- Plan to use SQL as database to merge datasets

Datasets and Metadata (screenshots):

US Natural Disaster Declarations:

https://www.kaggle.com/headsortails/us-natural-disaster-declarations?select=us_disaster_declarations.csv



The screenshot shows the Kaggle dataset page for 'us-natural-disaster-declarations' by headsortails. The 'Metadata' tab is selected, displaying the following information:

Section	Field	Value
Usage Information	License	U.S. Government Works
	Visibility	Public
Provenance	Sources	Federal Emergency Management Agency
	Collection methodology	This summary dataset is a high-level summary of all federally declared disasters since 1953. I downloaded it from the [FEMA website](https://www.fema.gov/openfema-dataset-disaster-declarations-summaries-v2) and applied a few simple data cleaning and formatting measures. In addition, I provide a sub-dataset that is tailored to the parameters of the ongoing [M5 Forecasting competition](https://www.kaggle.com/c/m5-forecasting-accuracy)
Maintainers	Dataset owner	headsortails
Updates	Expected update frequency	Monthly
	Last updated	2021-04-15
	Date created	2020-04-24
	Current version	Version 34

EPA High/Low Temperatures:

https://www.epa.gov/sites/production/files/2016-08/high-low-temps_fig-5.csv,

https://www.epa.gov/sites/production/files/2016-08/high-low-temps_fig-4.csv

```
"Figure 5. Change in Unusually Cold Temperatures in the Contiguous 48 States, 1948-2015",,,
Source: EPA's Climate Change Indicators in the United States: www.epa.gov/climate-indicators,,
"Data source: NOAA, 2016",,,
Web update: August 2016,,
Units: Change in number of days colder than 5th percentile,,
,,,
State,Lat,Long,Change in 5 percent Days
AL,31.0583,-87.055,0
AL,30.5467,-87.8808,9.308184143
AL,32.8347,-88.1342,-14.42265219
AL,32.7019,-87.5814,0
AL,31.8814,-86.2503,18.19031593
```

Tornado Tracks 1950-2015:

https://opendata.arcgis.com/datasets/fbc68200d74942b6805ca914b86ae5f3_0.geojson

Historical Tornado Tracks

ISO-19139 Metadata

Metadata Information:

Metadata language:
Metadata character set: utf8

Last update: 2017-12-14

Metadata contact - pointOfContact:

Scope of the data described by the metadata: dataset

Name of the metadata standard used: NAP - Metadata
Version of the metadata standard: 1.2

Metadata identifier: 1516285843115r23687675692601506

Resource Identification Information:

Citation:

Title: Historical Tornado Tracks

Presentation format: mapDigital

Themes or categories of the resource: location

Place keywords:

Keywords: United States, Continental United States, CONUS, Puerto Rico, Alaska, Hawaii

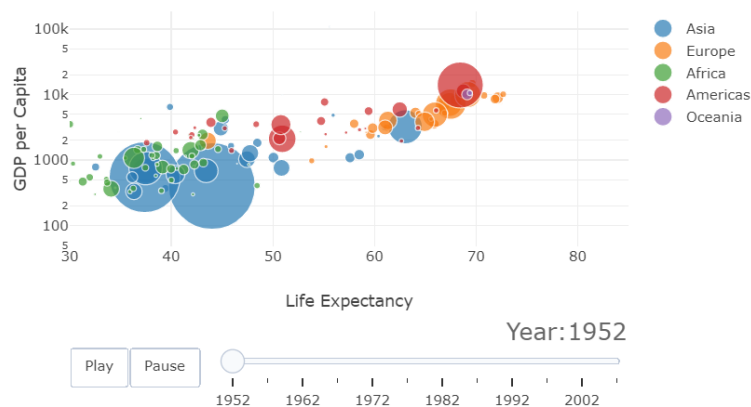
Place keywords:

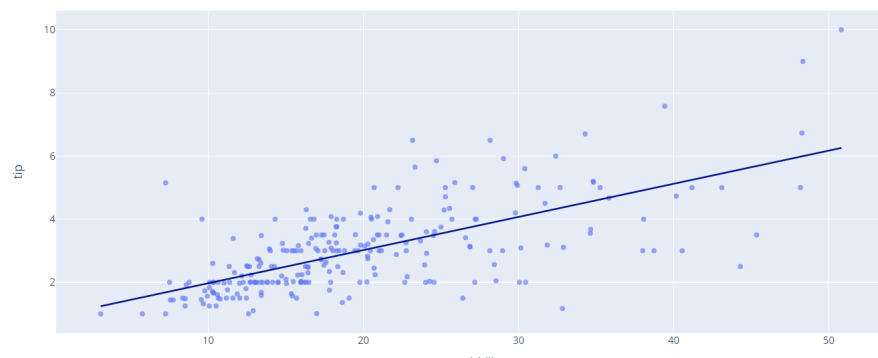
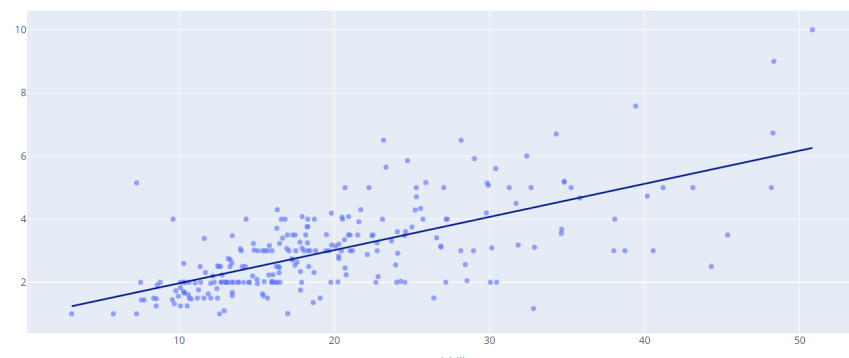
Keywords: United States, Continental United States, CONUS, Puerto Rico, Alaska, Hawaii

METADATA Tornado, Wind, Hail Dataset:

https://www.spc.noaa.gov/wcm/data/SPC_severe_database_description.pdf

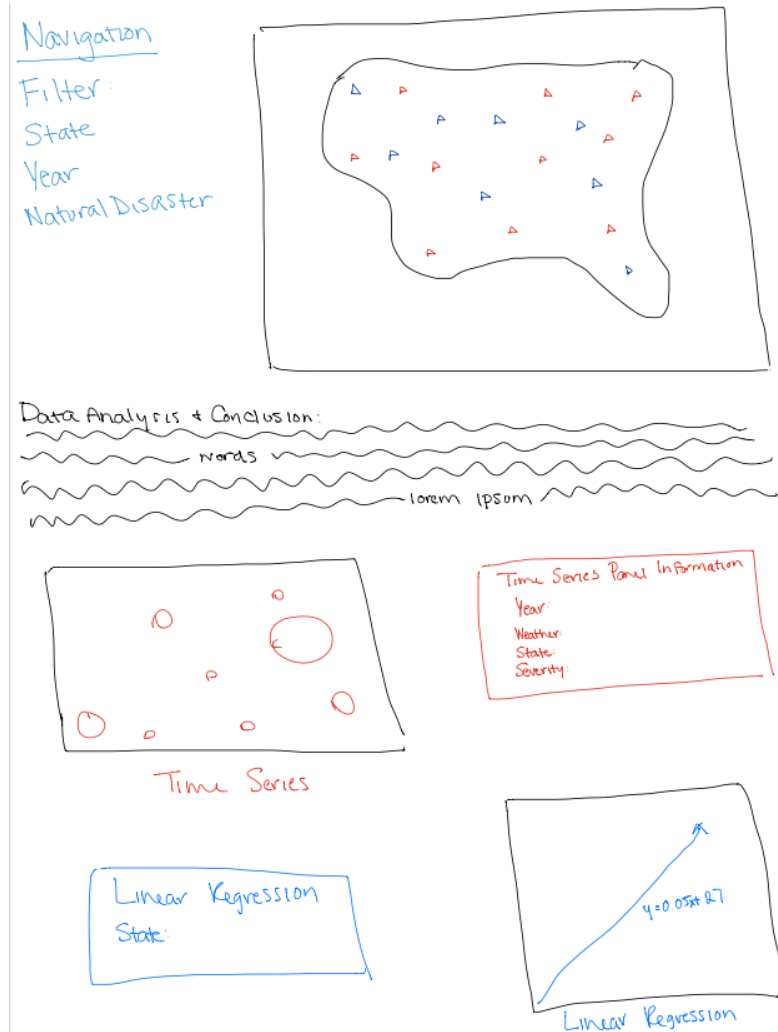
Inspiration Board:





Final Design Sketch:

- Filters for state, year, and natural disaster type
- GeoJSON map showing changes in extreme temperatures
- Time series chart showing natural disasters over the past 50 years: filterable by disaster type (just for this chart)
- Time series panel information table
- Select 2: another JS library



Link to primary Github repository:

<https://github.com/terrilvallikalam/Project2-NaturalDisaSTARS>