

Doomsday Dashboard



DATASCI W205 Final Presentation

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Mission statement:
Making the public
afraid. Making them
very afraid.

What is a Doomsday Dashboard?

Doomsday Clock - Minutes to midnight

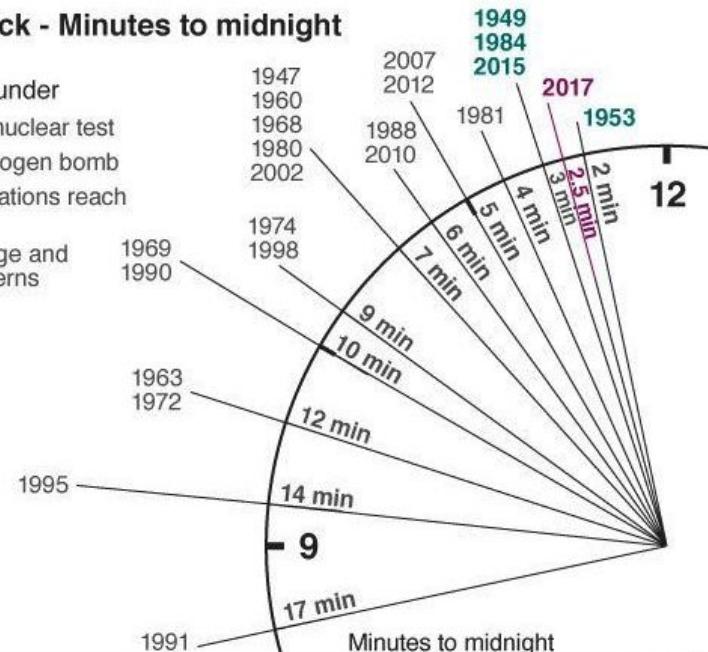
Three minutes or under

1949: Soviet's first nuclear test

1953: US tests hydrogen bomb

1984: US-Soviet relations reach lowest point

2015: Climate change and nuclear concerns



Source: Bulletin of the Atomic Scientists

BBC

- Created in 1947 by the Manhattan Project Scientists
- Started at 11:53pm
- Visual representation of a nuclear holocaust
- The Doomsday Clock now warns the public about how close we are to annihilation and world destruction due to human causes
- Currently set at 11:57.30 pm

Motivation for Personalized Doomsday Clock

ELECTION OUTCOME STRESS ACROSS GEOGRAPHICAL AREAS

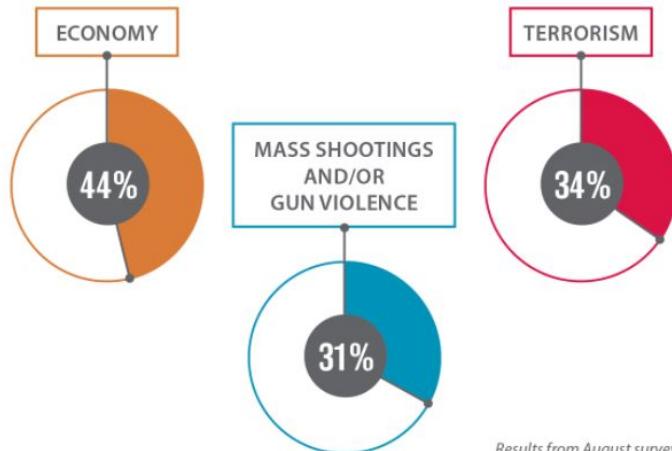
(% reporting very/somewhat significant source of stress)



Results from January survey

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MOST COMMONLY REPORTED FACTORS ADDING TO STRESS IN THE PAST 10 YEARS



Results from August survey

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Project Goals

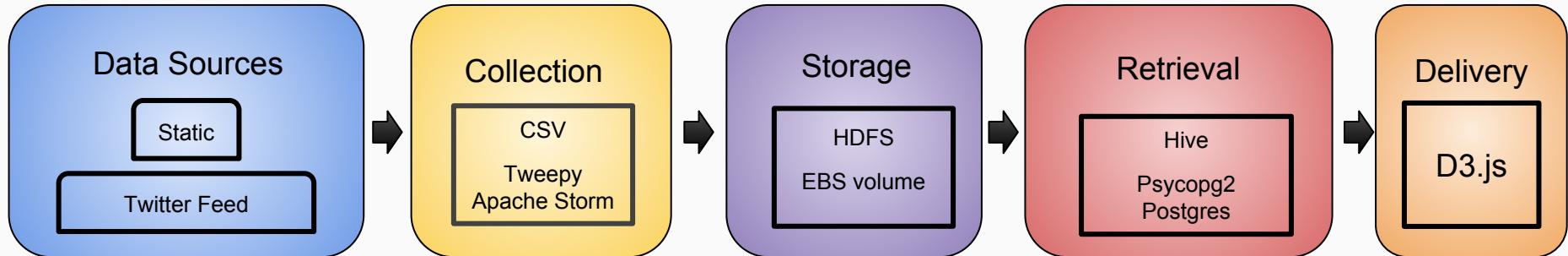
Create a personalized Doomsday Clock

- Assessment of user's "danger levels" based on time and geographic location
- Intuitive and easy to understand
- Involves
 - Historical trends data
 - Real-time social media data



Architecture





Fetch static data from websites or from github repository

Collect tweets with key terms in real-time

Standardize datasets with zipcode and county/city references

Create basic tables from CSV files

Create zipcode indexing

Transform basic tables indexed by zip code and with appropriate values

Retrieve collected tweets and word counts

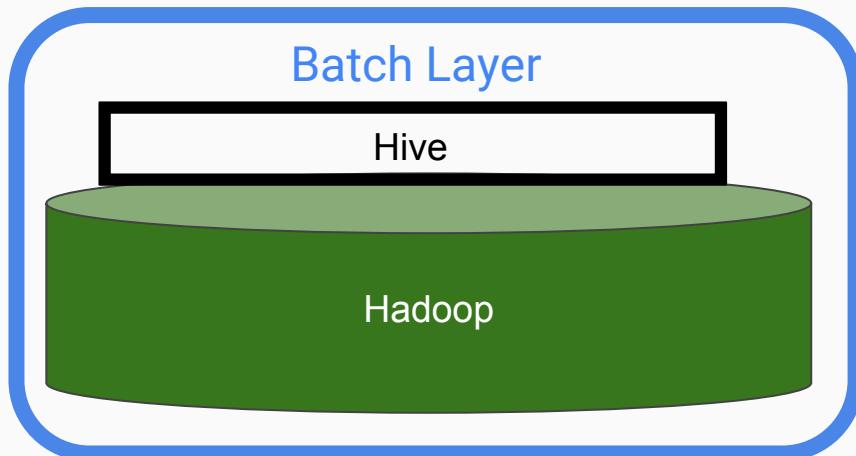
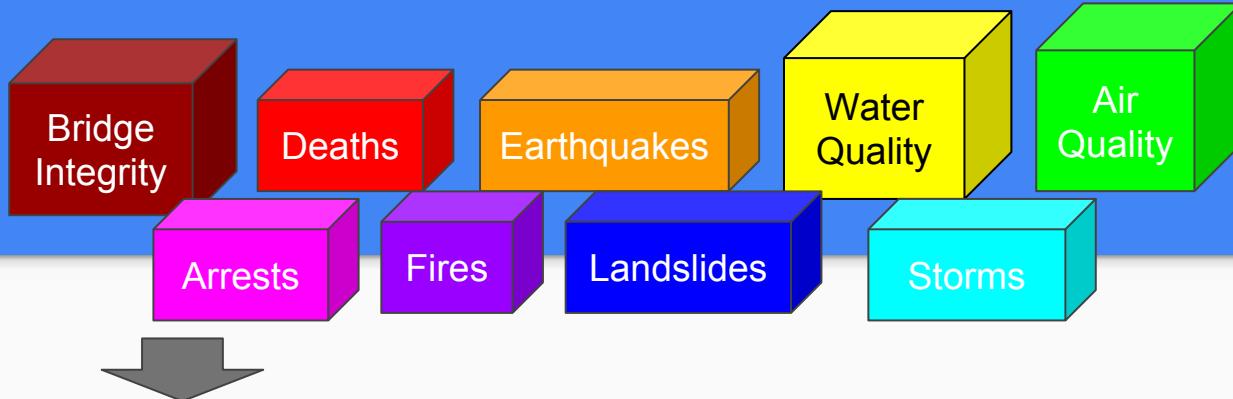
Update master table

Export csv files

Start http server

D3.js for final presentation in HTML

Historical Datasets



Show me the data



Bridges

- National Bridge Inventory Database
 - Compilation of bridge data supplied by the states to the Federal Highway Administration for bridges on public roads
- Updated thru 2016
- Functionally Obsolete
 - Bridge that is no longer functionally adequate for its task (ex: not enough lanes, no space for emergency vehicles)
- Structurally Deficient
 - Bridge that has one or more structural defects that require attention

National Bridge Inventory Database Search - 2016

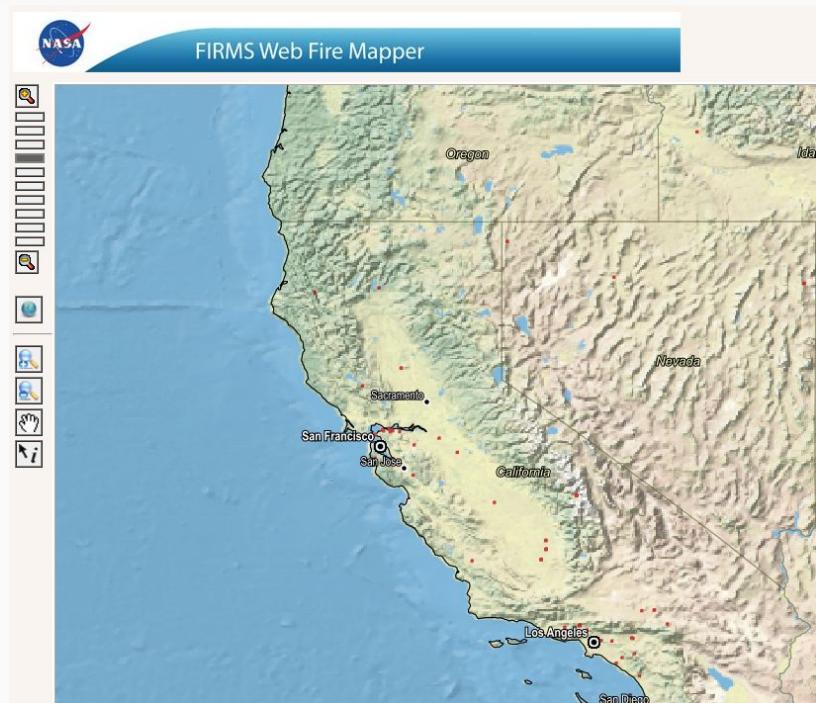
State	<input checked="" type="text"/> CA - California
County FIPS Code	101
Structure Number	
Route Number	
Feature Intersected by Bridge (River or Street Name)	
Facility Carried by Bridge (Street Name)	
Design Construction	- Select -
Material	- Select -
Service On Bridge	- Select -
Service Under Bridge	- Select -
Bridge Status	<input checked="" type="radio"/> All Bridges <input type="radio"/> Structurally Deficient <input type="radio"/> Functionally Obsolete
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

National Bridge Inventory Database Search - 2016

N...	R...	Place	Co...	FeatureIntersect...	FacilityCarried	Location	Built	Re...	Leng...	Su...	Material...	DesignConstru...	Status	F...	View
1...	20	Yuba City	Sut...	'ABANDONED U...	'STATE ROUTE ...	'03-SUT-020-1...	1946	7.0	72.0	Concrete	Slab	P...	View		
1...	20	Yuba City	Sut...	'FEATHER RIVE...	'SR 20	'03-SUT-020-1...	1947	815.0	63.6	Steel co...	Stringer/Multi-b...	Funcatio...	P...	View	
1...	20	Yuba City	Sut...	'SUTTER STRE...	'STATE ROUTE ...	'03-SUT-020-1...	1946	2003	26.0	78.0	Concret...	Slab	Funcatio...	P...	View
1...	99	Yuba City	Sut...	'BUTTE HOUSE...	'SR 99 SB	'03-SUT-099-R...	1970	36.0	97.9	Prestres...	Box Beam or G...	P...	View		
1...	99	Yuba City	Sut...	'BUTTE HOUSE...	'SR 99 NB	'03-SUT-099-R...	1970	36.0	97.9	Prestres...	Box Beam or G...	P...	View		
1...	Yuba City	Sut...	'STATE ROUTE ...	'QUEENS AVE	'03-SUT-099-R...	1970	56.0	89.7	Concret...	Box Beam or G...	M...	View			
1...	Yuba City	Sut...	'FEATHER RIVER	'BRIDGE ST - 5...	'BTWN MRYSV...	'1958	1993	632.0	64.4	Prestres...	Stringer/Multi-b...	Funcatio...	M...	View	
1...	Yuba City	Sut...	'2ND STREET ...	'BRIDGE ST (5... AT 2ND ST JW...	'1958	1958	49.0	62.6	Prestres...	Stringer/Multi-b...	Funcatio...	M...	View		
1...	Yuba City	Sut...	'FEATHER RIVE...	'SR 20	'03-SUT-020-1...	1947	815.0	0.0	Steel co...	Stringer/Multi-b...	P...	View			
1...	Yuba City	Sut...	'SUTTER STRE...	'STATE ROUTE ...	'03-SUT-020-1...	1946	26.0	0.0	Concret...	Slab	M...	View			
1...	Yuba City	Sut...	'BUTTE HOUSE...	'SR 99 SB	'03-SUT-099-R...	1970	36.0	0.0	Prestres...	Box Beam or G...	C...	View			
1...	Yuba City	Sut...	'BUTTE HOUSE...	'SR 99 NB	'03-SUT-099-R...	1970	36.0	0.0	Prestres...	Box Beam or G...	C...	View			
1...	99	Yuba City	Sut...	'STATE ROUTE ...	'QUEENS AVE	'03-SUT-099-R...	1970	56.0	0.0	Concret...	Box Beam or G...	P...	View		
1...	Yuba City	Sut...	'2ND STREET ...	'ABANDONED R...	'JUST N/O BRI...	'1935	24.0	0.0	Concrete	Box Beam or G...	M...	View			
1...	Yuba City	Sut...	'BRIDGE ST-5T...	'ABANDONED R...	'BRIDGE ST A...	'1958	14.0	0.0	Steel	Girder and Floo...	M...	View			

Fire

- Fire Information for Resource Management Systems (FIRMS) - Funded by NASA and the UN
- Provides near real-time active fire locations by using satellites to detect infrared radiations from fires
- Records the fires in the past 7 days
- Challenges of Detecting Fires:
 - Satellite did not pass over fire
 - Clouds, trees, & other obstructions
 - Fire was too small or too cold to be detected



Arrests

- State of California Department of Justice arrest dataset
- 2005 - 2014
- An arrest is considered to be a person taken into custody, not necessarily a conviction
- Focusing on felonies per 1000 people by county

Export data to [CSV](#)

	Arrests									
	All Counties Years: 2005 - 2014									
	All Genders Race: All Ages: All All Types of Offenses									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
FELONY	538,166	534,460	523,276	499,628	466,441	448,552	419,914	429,807	442,741	439,958
Violent Offenses	125,725	126,342	129,433	127,978	123,762	116,137	109,818	107,169	103,123	107,791
Homicide	1,956	1,967	2,017	1,850	1,804	1,638	1,572	1,637	1,423	1,427
Rape (Forcible Rape prior to 2014)	2,098	2,122	2,164	2,103	2,050	1,957	1,758	1,682	1,601	2,444
Robbery	18,218	20,376	21,614	22,488	21,610	19,021	17,464	16,867	15,934	14,799
Assault	101,695	100,159	101,838	99,811	96,614	92,030	87,474	85,471	82,700	87,735
Kidnapping	1,758	1,718	1,800	1,726	1,684	1,491	1,550	1,512	1,465	1,386
Property Offenses	147,692	144,781	142,006	137,187	126,891	119,942	106,815	110,244	106,995	97,806
Burglary	50,618	51,610	54,316	56,045	54,714	52,716	51,720	52,233	49,694	45,112
Theft	52,511	52,377	52,325	52,739	47,971	45,459	39,908	37,105	36,339	32,308
Motor Vehicle Theft	30,717	27,927	22,582	17,010	14,245	13,091	11,502	13,366	13,750	13,629
Forgery / Checks / Access Cards	12,379	11,470	11,405	10,112	8,863	7,685	6,769	6,600	6,261	5,860
Arson	1,467	1,397	1,378	1,281	1,098	991	916	940	951	897
Drug Offenses	159,944	154,468	143,692	129,080	118,684	121,286	115,332	120,995	137,125	137,054
Narcotics	52,274	56,094	55,070	53,135	43,956	39,562	37,070	36,574	37,133	36,476
Marijuana	13,075	13,548	16,124	17,126	17,008	16,585	14,092	13,434	13,779	13,300
Dangerous Drugs	92,972	83,365	71,143	57,233	56,384	63,983	63,023	69,735	85,035	85,931
Other Drugs	1,623	1,461	1,355	1,586	1,336	1,156	1,147	1,252	1,178	1,347
Sex Offenses	8,809	9,107	8,745	8,644	8,289	7,862	7,454	7,201	6,706	5,982

Leading Causes of Death

- California Department of Public Health
- 1999 - 2013 updated Feb 21, 2017
- Dataset for deaths of California residents
- Death counts represented by zip code of residence, regardless of place of death occurrence
- Does not include non-California residents
- We are reporting the leading causes of death in each zip code

Table Preview

Explore Data ➔

Year	ZIP Code	Causes of Death	Count	Location
1999	90002	SUI	1	(33.94969°, -118.246213°)
1999	90005	HOM	1	(34.058508°, -118.301197°)
1999	90006	ALZ	1	(34.049323°, -118.291687°)
1999	90007	ALZ	1	(34.029442°, -118.287095°)
1999	90009	DIA	1	(33.9452°, -118.3832°)
1999	90009	LIV	1	(33.9452°, -118.3832°)
1999	90009	OTH	1	(33.9452°, -118.3832°)
1999	90010	STK	1	(34.060633°, -118.302664°)
1999	90010	CLD	1	(34.060633°, -118.302664°)

< Previous Next >

Showing Rows 1-9 out of 320,152

Landslide

- Global Landslide Catalog by NASA
- Mass movements triggered by rainfall reported by media, disaster databases, scientific reports, and/or other sources
- From 2008 thru 2014

Table Preview

Explore Data →

location_accuracy	landslide_size	photos_link	cat_src	cat_id	countryname	near	distance	adminname1
Known_within_5_km	Medium		glc	1	United Kingdom	Whitehaven	0.22405	England
Unknown	Medium		glc	2	Peru	Huancabamba	12.26171	Pasco
Known_within_25_km	Large		glc	3	Brazil	Nova Friburgo	0.63016	Rio de Janeiro
Known_within_10_km	Medium		glc	4	Brazil	Carmo	14.05144	Rio de Janeiro
Known_within_50_km	Medium		glc	5	Brazil	Mairiporã	10.07582	São Paulo
Known_within_50_km	Medium		glc	6	Pakistan	Palandri	19.21263	Azad Kashmir
Known_within_10_km	Medium		glc	7	Brunei	Bandar Seri Begawan	5.87279	Brunei and Muara
Known_within_25_km	Medium		glc	8	Indonesia	Tanjungpati	42.08436	West Sumatra
Known_within_25_km	Medium		glc	9	Philippines	Manat	0.49587	Davao

Earthquake

- United States Geological Survey Earthquake Hazards Program
- Dataset contains all earthquakes above a 1.0 in the past 30 days

Screenshot of the spreadsheet format, loaded into Microsoft Excel™.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	time	latitude	longitude	depth	mag	magType	nst	gap	dmin	rms	net	id	updated
2	2013-04-11T 20.7915	20.7915	122.226	8.29	4.6	mb	46	115	2.28	1.21	us	usb000g50m	2013-04-11T
3	2013-04-11T -17.3579	175.0663	9.88	5.3	mb			50	7.802	1.44	us	usb000g4z6	2013-04-11T
4	2013-04-11T -17.4508	-178.7735	535.92	4.9	mb		21	128	8.56	0.71	us	usb000g4xf	2013-04-11T
5	2013-04-11T -16.9546	-179.1921	528.46	4.5	mb		45	75	9.06	0.84	us	usb000g4ug	2013-04-11T
6	2013-04-11T -10.6708	166.0755	167.21	4.7	mb		42	102	6.16	0.8	us	usb000g4su	2013-04-11T
7	2013-04-11T 2.8643	125.4971	64.96	4.6	mb			72	2.794	0.78	us	usb000g4rg	2013-04-11T
8	2013-04-11T 20.9199	122.1061	12.94	4.5	mb		32	130	2.12	0.69	us	usb000g4qu	2013-04-11T
9	2013-04-11T -2.7939	148.1628	9.39	4.6	mb		23	147	1.09	1.12	us	usb000g4q9	2013-04-11T
10	2013-04-11T 19.2629	95.6948	10.07	5.2	Mwp		75	43	2.14	0.98	us	usb000g4nw	2013-04-11T
11	2013-04-11T 41.6165	141.9924	55.27	4.6	mb		43	123	0.96	1.09	us	usb000g4ni	2013-04-11T
12	2013-04-11T 28.5074	51.6758	10.07	4.8	mb			64	10.83	1.19	us	usb000g4mt	2013-04-11T
13	2013-04-10T 18.854	97.5096	8.27	4.7	mb		29	75	0.63	0.6	us	usb000g45	2013-04-11T
14	2013-04-10T 20.8187	122.1203	4.2	5.8	Mww		115	31	2.21	1.28	us	usb000g4ca	2013-04-10T
15	2013-04-10T 2.6017	127.2174	66.02	5	mb		60	105	1.82	1.03	us	usb000g4br	2013-04-10T
16	2013-04-10T 15.5366	-87.2228	10	5.5	mb			37	1.471	0.85	us	usb000g4a2	2013-04-11T
17	2013-04-10T -10.7302	-75.2622	99.62	5.2	mb			72	1.99	0.77	us	usb000g43v	2013-04-10T
18	2013-04-10T -17.7569	167.7868	10	4.6	mb		20	160	3.71171	0.87	us	us2013nvap	2013-04-10T
19	2013-04-10T 28.5135	51.5523	9.93	4.6				94	10.877	0.97	us	usb000g3y3	2013-04-10T
20	2013-04-10T 28.438	51.7338	9.87	5.2	mb		76	58	10.87	1.03	us	usb000g3ts	2013-04-10T
21	2013-04-10T 28.309	51.7514	10.06	4.8	mb			75	10.974	0.95	us	usb000g3t2	2013-04-10T
22	2013-04-10T 37.4728	142.0723	27.79	4.6	mb		40	132	3.23	1.17	us	usb000g3qq	2013-04-10T
23	2013-04-10T 28.45	51.6075	10.02	5.6	mb		76	25	10.91	1.14	us	usb000g3p7	2013-04-10T
24	2013-04-10T -2.9729	139.0662	55.19	4.8	mb		33	61	6.81	1.6	us	usb000g3ns	2013-04-10T
25	2013-04-10T 28.4814	51.604	10	4.9	mb			139	10.883	0.83	us	usb000g3nn	2013-04-10T
26	2013-04-10T -2.0824	-79.5666	103.34	4.5	mb		35	113	2.56	0.5	us	usb000g3ng	2013-04-11T
27	2013-04-09T -22.7541	69.1376	10.2	4.6	mb		17	110	11.11	0.55	us	usb000g3ls	2013-04-09T
28	2013-04-09T 28.2759	51.6754	9.88	4.8	mb			86	11.034	0.68	us	usb000g3ft	2013-04-09T
29	2013-04-09T 5.6129	93.3101	31.21	4.7	mb			139	3.641	0.61	us	usb000g3fe	2013-04-09T
30	2013-04-09T 28.4201	51.6408	19.93	4.6	mb		94	94	10.92	0.72	us	usb000g3dn	2013-04-09T

Air Quality

- 12/2015 - 2/2017
- 4000 AQS monitoring stations
- Values
 - # of days with maximum ozone concentration exceeded
 - Average concentration of PM2.5
 - % of days exceeding NAAQS PM2.5 levels standards

218635 rows

Show as: **rows** records Show: 5 10 25 50 rows

Extensions

DATA.GOV

DATA TOPICS - IMPACT APPLICATIONS DEVELOPERS CONTACT

DATA CATALOG

/ / U.S. Department of Health & ... / Centers for Disease Control ... [Submit Data Story](#) [Report Data Issue](#)

 Federal
CENTERS FOR DISEASE CONTROL AND PREVENTION

Centers for Disease Control and Prevention

Publisher
Centers for Disease Control and Prevention

Contact
Craig Kassinger

Share on Social Sites

Air Quality Measures on the National Environmental Health Tracking Network

Metadata Updated: February 18, 2017

The Environmental Protection Agency (EPA) provides air pollution data about ozone and particulate matter (PM2.5) to CDC for the Tracking Network. The EPA maintains a database called the Air Quality System (AQS) which contains data from approximately 4,000 monitoring stations around the country, mainly in urban areas. Data from the AQS is considered the "gold standard" for determining outdoor air pollution. However, AQS data are limited because the monitoring stations are usually in urban areas or cities and because they only take air samples for some air pollutants every three days or during times of the year when air pollution is very high. CDC and EPA have worked together to develop a statistical model (Downscaler) to make modeled predictions available for environmental public health tracking purposes in areas of the country that do not have monitors and to fill in the time gaps when monitors may not be recording data. This data does not include "Percent of population in counties exceeding NAAQS (vs. population in counties that either meet the standard or do not monitor PM2.5)". Please visit the Tracking homepage for this information. View additional information for indicator definitions and documentation by selecting Content Area "Air Quality" and the respective indicator at the following website: <http://ephtracking.cdc.gov/showIndicatorsData.action>

All	Measured	MeasureName	MeasureType	StratificationLevel	StateFips	StateName	CountyFips	CountyName	ReportYear	Value	Unit	UnitName	DataOrigin	MonitorOnly
1.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1051	Elmore	1999	5	No Units	No Units	Monitor Only	1
2.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1073	Jefferson	1999	39	No Units	No Units	Monitor Only	1
3.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1079	Lawrence	1999	28	No Units	No Units	Monitor Only	1
4.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1089	Madison	1999	31	No Units	No Units	Monitor Only	1
5.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1097	Mobile	1999	32	No Units	No Units	Monitor Only	1
6.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1101	Montgomery	1999	15	No Units	No Units	Monitor Only	1
7.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1117	Shelby	1999	45	No Units	No Units	Monitor Only	1
8.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	1	Alabama	1119	Sumter	1999	3	No Units	No Units	Monitor Only	1
9.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	2	Alaska	2068	Denali	1999	0	No Units	No Units	Monitor Only	1
10.	83	Number of days with maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard	Counts	State x County	4	Arizona	4003	Cochise	1999	1	No Units	No Units	Monitor Only	1

Water Quality

- United States Geological Survey
- National Water Quality Assessment Project
 - Characterizes the status and trends of water quality for large rivers and streams
- Dataset contains surveys conducted from 10/1/1992-9/30/2014
- Includes 6 survey sites in California:
 - Santa Ana River
 - Kaweah, CA
 - Yosemite
 - Orestimba Creek
 - San Joaquin River
 - Sacramento River
- We are reporting the most recent water quality survey conducted

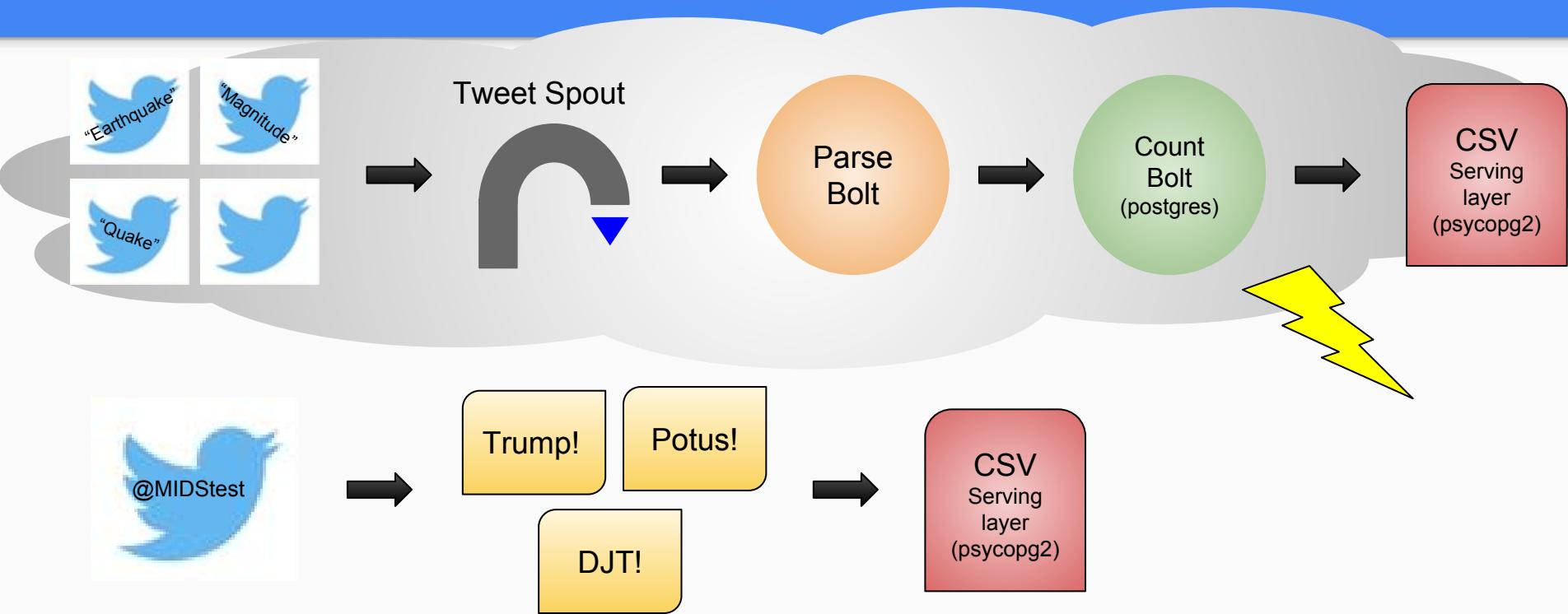
```
# This automated data download from the USGS Tracking Water Q
conditions that neither the USGS nor the United States Govern
#
#SITE_QW_ID USGS station identifier for water-quality samplin
#SITE_FLOW_ID USGS or other agency station identifier for str
to text)
#CONSTIT Abbreviation indicating constituent type. Values in
#DATE Date of sample
#WY Water year; the 12-month period beginning on October 1 fo
#CONCENTRATION Concentration in milligrams per liter
#REMARK Water-quality remark. This field is < if data are le
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11074000,11074000,NO3_NO2,1996-12-16,1997,3.61,
11074000,11074000,NO3_NO2,1996-12-17,1997,3.1,
11074000,11074000,NO3_NO2,1997-01-20,1997,3.7,
11074000,11074000,NO3_NO2,1997-01-21,1997,3.15,
11074000,11074000,NO3_NO2,1997-01-25,1997,4.5,
11074000,11074000,NO3_NO2,1997-01-26,1997,4.5,
11074000,11074000,NO3_NO2,1997-01-27,1997,0.89,
```

Storms and Other Natural Disasters

- Dataset beginning in 12/1/2015
- Shows the damage, injuries, and deaths due to the storm and other natural disasters
- Only returning events that caused property damages
- Events include: Thunderstorms, drought, flash floods, wildfires, excessive heat, hail, flood, heavy rain, tornados, etc

87	608010	north bay		01/06/2016	800	Coastal Flood		0	0
88	608014	alameda	ALBANY	01/06/2016	800	Flood		0	0
89	608302	san benito	DUNNEVILLE CORNERS	01/06/2016	850	Tornado	EFO	0	0
90	614764	san benito	DUNNEVILLE CORNERS	01/06/2016	850	Tornado	EFO	0	0
91	608303	santa cruz	ELICOTT	01/06/2016	1030	Flood		0	0
92	615557	ventura co.	DULAH	01/06/2016	1045	Flash Flood		0	0
93	615561	ventura co.	SUSANA KNOLLS	01/06/2016	1056	Thunderstorm Wind	52.00	0	0
94	615559	los angeles	NEWHALL	01/06/2016	1130	Flash Flood		0	0
95	616275	orange	SILVERADO	01/06/2016	1245	Thunderstorm Wind	52.00	0	0
96	616948	san bernardino	BRYN MAWR	01/06/2016	1300	Flood		0	0
97	617064	orange	ROCHE	01/06/2016	1300	Flash Flood		0	0
98	617063	orange	VILLA PARK	01/06/2016	1300	Flash Flood		0	0
99	617026	orange	SAN CLEMENTE	01/06/2016	1300	Thunderstorm Wind	48.00	0	0
100	615558	ventura co.	PIRU	01/06/2016	1312	Flash Flood		0	0
101	616278	san diego	BONSALL	01/06/2016	1315	Thunderstorm Wind	56.00	0	0
102	616277	san diego	BUENA	01/06/2016	1445	Thunderstorm Wind	43.00	0	0
103	616276	san diego	PONTO	01/06/2016	1450	Thunderstorm Wind	54.00	0	0
104	616280	san diego	POWAY	01/06/2016	1500	Thunderstorm Wind	48.00	0	0
105	617076	san diego	SORRENTO	01/06/2016	1500	Flash Flood		0	0
106	616279	san diego	VISTA	01/06/2016	1500	Thunderstorm Wind	52.00	0	0
107	617077	san diego	CALAVO GARDENS	01/06/2016	1500	Flash Flood		0	0
108	616978	riverside	RIVERSIDE JCT	01/06/2016	1500	Flood		0	0
109	616281	san diego	SORRENTO	01/06/2016	1500	Thunderstorm Wind	50.00	0	0

Twitter Stream



Tweet collection

The screenshot shows the Twitter profile of the account @QuakesInCA. The header features a地震波形图 (seismogram) with red vertical markers. Below the header, the bio reads: "California earthquake alerts based on USGS data. 2.5 magnitude and higher in California." The account has 30.4K tweets, 5 following, and 26.1K followers. A blue "Following" button is visible. The timeline displays five recent tweets from the account:

- RT QuakesInCA "1.8 magnitude #earthquake. 5 mi from #Napa, CA, ##UnitedStates earthquaketrack.com/quakes/2017-04..." (38m ago)
- RT QuakesInCA "1.6 magnitude #earthquake. 5 mi from #Chino, CA, #UnitedStates earthquaketrack.com/quakes/2017-04..." (58m ago)
- RT QuakesInCA "2.3 magnitude #earthquake. 5 mi from #Aguanga, CA, United States earthquaketrack.com/quakes/2017-04..." (2h ago)
- RT QuakesInCA "2.2 magnitude #earthquake. 8 mi from Huntington Beach, CA, ##UnitedStates earthquaketrack.com/quakes/2017-04..." (3h ago)
- RT QuakesInCA "1.9 magnitude #earthquake. 6 mi from ##BigBearCity, CA, United States earthquaketrack.com/quakes/2017-04..." (4h ago)

At the bottom, there are sections for "Who to follow" (O.C. Register, OC Events), "Find friends", and a "Tweet to CA Earthquakes" button.

This screenshot shows a search results page for the term "#earthquake". The top navigation bar indicates 70 tweets, 1 following, and 0 moments. The results list several tweets from the account @MIDStest, all reporting earthquakes in California:

- Jen @MIDStest · 38m RT QuakesInCA "1.8 magnitude #earthquake. 5 mi from #Napa, CA, ##UnitedStates earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)
- Jen @MIDStest · 58m RT QuakesInCA "1.6 magnitude #earthquake. 5 mi from #Chino, CA, #UnitedStates earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)
- Jen @MIDStest · 2h RT QuakesInCA "2.3 magnitude #earthquake. 5 mi from #Aguanga, CA, United States earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)
- Jen @MIDStest · 3h RT QuakesInCA "2.2 magnitude #earthquake. 8 mi from Huntington Beach, CA, ##UnitedStates earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)
- Jen @MIDStest · 4h RT QuakesInCA "1.9 magnitude #earthquake. 6 mi from ##BigBearCity, CA, United States earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)
- Jen @MIDStest · 5h RT QuakesInCA "2.0 magnitude #earthquake. 5 mi from ##Aguanga, CA, #UnitedStates earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)
- Jen @MIDStest · 5h RT QuakesInCA "1.9 magnitude #earthquake. 4 mi from ##LakeElsinore, CA, United States earthquaketrack.com/quakes/2017-04..." (with a "Translate from Italian" link)

Collecting Trump tweets

```
480877 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt massive: 33
480884 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt corporate: 74
480894 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt tax: 155
480902 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt rate: 76
480909 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt cut: 93
480922 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt budget: 83
480938 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt neutrality: 28
480937 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt less: 45
480944 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt important: 71
480952 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt share: 39
480967 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt you're: 58
480969 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt resist: 75
480974 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt theresistance: 75
480981 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt indivisible: 33
480992 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt scruton: 32
481008 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt peedotus: 33
481007 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt maga: 90
481015 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt (by: 32
481028 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt jailing: 32
481034 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt trump: 3251
481042 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt u.s.: 77
481049 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt government: 134
481057 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt website: 15
481065 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt run: 34
481072 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt state: 59
481080 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt dept: 21
481087 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt essentially: 34
481094 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt advertising: 18
481106 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt trump's: 574
481112 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt property: 18
481123 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt don't: 133
481133 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt see: 69
481141 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt dj: 19
481149 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt president: 410
481157 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt much: 66
481166 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt longer: 27
481173 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt menace: 1
481180 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt peace: 5
481188 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt prosperity: 1
481196 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt -. 397
481203 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt human: 8
481208 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt interactions, and: 1
481217 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt snowden: 17
481225 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt wikileaks: 42
481237 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt &: 471
481244 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt trump: 3252
481252 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt make: 88
481260 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt one: 179
481269 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt interlinked: 17
481277 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt Kremlin: 17
481284 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt spy: 17
481292 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt operation: 17
481300 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt designed: 22
481308 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt undermine: 20
481317 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt american: 109
481324 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt democracy: 21
481333 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt devastating: 14
481342 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt &: 472
481349 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt utterly: 14
481357 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt reckless: 14
481365 [Thread-27] INFO backtype.storm.task.ShellBolt - ShellLog pid:11109, name:count-bolt people: 195
```

Implementation



Initial Load

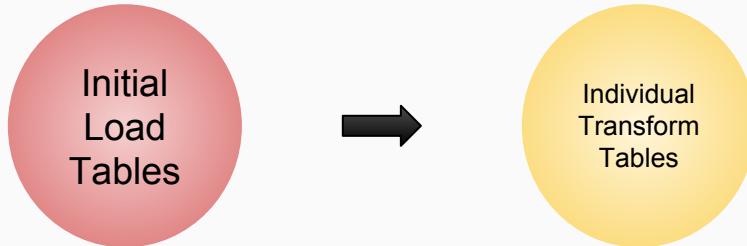
```
CREATE EXTERNAL TABLE Storm
(
    EVENT_ID int,
    CZ_NAME_STR string,
    BEGIN_LOCATION string,
    BEGIN_DATE date,
    BEGIN_TIME int,
    EVENT_TYPE string,
    MAGNITUDE int,
    TOR_F_SCALE int,
    DEATHS_DIRECT int,
    INJURIES_DIRECT int,
    DAMAGE_PROPERTY_NUM int,
    DAMAGE_CROPS_NUM int,
    CZ_TIMEZONE string,
    MAGNITUDE_TYPE string,
    EPISODE_ID int,
    CZ_TYPE string,
    CZ_FIPS int,
    INJURIES_INDIRECT int,
    DEATHS_INDIRECT int,
    FLOOD_CAUSE string,
    TOR_LENGTH int,
    TOR_WIDTH int,
    BEGIN_LAT int,
    BEGIN_LONG int,
    END_LAT int,
    END_LONG int
)
```

```
DROP TABLE Arrest_Data;
```

```
CREATE EXTERNAL TABLE Arrest_Data
(
    Year date,
    Agency string,
    Gender string,
    Race string,
    Age_Group string,
    County string,
    Homicide string,
    Manslaughter_Non_Vehicular string,
    Manslaughter_Vehicular string,
    Rape string,
    Robbery string,
    Assault string,
    Kidnapping string,
    Burglary string,
    Theft string,
    Motor_Vehicle_Theft string,
    Forgery_Money string,
    Narcotics string,
    Marijuana string,
    Dangerous_Drugs string,
    Other_Drugs string,
    Lewd string,
    Unlawful_Sex string,
    Other_Sex_Violations string,
    Weapons string,
    DUI string,
    Hit_and_Run string,
    Escape_Felony string,
    Bookmaking string,
    Arson string,
    Other_Felonies string,
    Vehicle_Manslaughter string,
    Assault_and_Battery string,
    Petty_Theft string,
    Other_Theft string,
    Checks_and_Credit_Cards string,
    Marijuana2 string,
    Dangerous_Drug2 string,
    Other_Drug2 string,
    Indecent_Exposure string,
    Annoying_Children string,
    Obscene string,
    Lewd2 string,
    Prostitution string,
    Delinquency_Minor string,
    Drunk string,
    Liquor string,
    Disorderly_Conduct string,
    Disturbing_the_Peace string,
    Vandalism string,
    Malicious_Mischief string,
    Trespassing string,
    Weapons2 string,
    DUI2 string,
    Hit_and_Run2 string,
    Traffic_Violations string,
    Joyriding string,
    Gambling string,
    Nonsupport string,
)
```

```
CREATE EXTERNAL TABLE Landslide_Data
(
    the_geom string,
    objectid string,
    id string,
    date_ date,
    time_ string,
    country_ignore string,
    nearest_pl string,
    hazard_typ string,
    landslide_ string,
    trigger string,
    strom_name string,
    fatalities int,
    injuries int,
    source_nam string,
    source_lin string,
    location_a string,
    landslide1 string,
    photos_lin string,
    cat_src string,
    cat_id int,
    country string,
    near string,
    distance decimal,
    state string,
    county string,
    population int,
    countrycod string,
    continentc string,
    key_ string,
    version int,
    user_id int,
    tstamp string,
    changeset_ string,
    latitude decimal,
    longitude decimal
)
```

Transform Tables



- Individual Transform Tables
 - Cleaning up of datasets
 - Filtering out unnecessary records
 - Perform necessary calculations

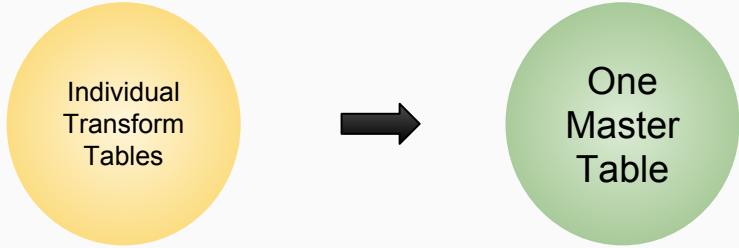
```
DROP TABLE t_landslide;
CREATE TABLE t_landslide AS SELECT
    county,
    count(id) as landslide_count,
    rank() OVER (
        ORDER BY count(id) DESC) as county_rank,
    max(cast (concat
        (substr(date_, 7, 4),
        '-',
        substr(date_, 1, 2),
        '-',
        substr(date_, 4, 2)
        )
        as date)) AS latest_date

FROM landslide_data
WHERE state = "California" AND county <> "obe"
GROUP BY county
SORT BY landslide_count DESC;

DROP TABLE T_Arrest;
CREATE TABLE T_Arrest as

SELECT arrest_data.county,
    sum(arrest_data.homicide_and_manslaughter_total) as homicide_and_manslaughter_count,
    sum(arrest_data.felony_violent_total) as felony_violent_count,
    sum(arrest_data.felony_property_total) as felony_property_count,
    sum(arrest_data.felony_drug_total) as felony_drug_count,
    sum(arrest_data.felony_sex_total) as felony_sex_count,
    sum(arrest_data.felony_other_total) as felony_other_count,
    sum(arrest_data.total_felonies) as total_felony_count,
    sum(arrest_data.total_misdemeanor) as total_misdemeanor_count,
    sum(arrest_data.total_status_offenses) as total_status_offense_count,
    sum(zip_code_reference_ca.irspopulation2014) as county_population
FROM arrest_data
LEFT JOIN zip_code_reference_ca
    ON arrest_data.county = zip_code_reference_ca.county
GROUP BY arrest_data.county
;
```

Master Table



● Master Table

- Combines all tables into one master table
- Uses Zip Code as primary key
- Easy and fast for serving layer

```
hive> select * from t_master limit 30;
OK
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| STK | CNTY | PNF | LBL | COU | ZIP | LAT | LNG | ELEV | DEPT |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 90001 | Los Angeles | 186.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD | |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90002 | Los Angeles | 175.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 280.0 | DIA | 384.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90003 | Los Angeles | 235.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 305.0 | HOU | 250.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90004 | Los Angeles | 268.0 | PNF | 147.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90005 | Los Angeles | 170.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 154.0 | PNF | 120.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90006 | Los Angeles | 180.0 | INJ | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 250.0 | INJ | 180.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90007 | Los Angeles | 141.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 141.0 | PNF | 95.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90008 | Los Angeles | 197.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 321.0 | PNF | 197.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90009 | Los Angeles | 195.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 200.0 | SUI | 195.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| L | NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90010 | Los Angeles | 11.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 23.0 | PNF | 11.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| L | NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
| 90011 | Los Angeles | 384.0 | NULL | 412 | 35 | 1 | NULL | NULL | 1 | HTD |
| STK | 345.0 | DIA | 384.0 | NULL | 2013 | 12.148642106071801 | 2013 | 1 | 36986301369 |
| NULL | NULL | 0.01 | 0.5 | 0.5 | 0.59 | 0.03 | 0.34 | 49 | 1 | 2014-03-14 |
```

```
DROP TABLE T_Master;

CREATE TABLE T_Master AS
SELECT zip_code_reference_ca.zipcode,
       zip_code_reference_ca.primarycity,
       zip_code_reference_ca.county,
       obsolete_bridge.obsolete_bridge_count,
       deficient_bridge.deficient_bridge_count,
       earthquake.num_of_earthquakes_last_7_days,
       earthquake.most_recent_earthquake,
       earthquake.max_magnitude_last_7_days,
       fire.fire_last_7_days,
       death1.cause_of_death1,
       death1.num_of_deaths_of_cause1,
       death2.cause_of_death2,
       death2.num_of_deaths_of_cause2,
       death3.cause_of_death3,
       death3.num_of_deaths_of_cause3,
       death4.cause_of_death4,
       death4.num_of_deaths_of_cause4,
       death5.cause_of_death5,
       death5.num_of_deaths_of_cause5,
       water_quality.most_recent_water_quality,
       water_quality.avg_water_quality_concentration,
       aq_annual.aq_annual_year,
       aq_annual.aq_annual_value,
       aq_percent.aq_percent_year,
       aq_percent.aq_percent_value,
       aq_days.aq_days_year,
       aq_days.aq_days,
       storm.storm_deaths,
       storm.storm_injuries,
       storm.storm_damages,
       storm.storm_type,
       master_by_county.homicide_per_1000,
       master_by_county.violent_per_1000,
       master_by_county.property_per_1000,
       master_by_county.drug_per_1000,
       master_by_county.sex_per_1000,
       master_by_county.other_per_1000,
       master_by_county.landslide_count,
       master_by_county.landslide_rank,
       master_by_county.latest_landslide
```

Results



Serving Layer



Hazard Analysis

ZIP Code Level Data for 90034

Leading Causes of Death (1999-2013):

- 1) HTD, with 1199 deaths
- 2) CAN, with 861 deaths
- 3) OTH, with 586 deaths

(HTD = Heart Disease, CAN = Cancer, STK = Stroke,
CLD = Chronic Respiratory Disease, INJ = Injury, PNF = Pneumonia/Flu,
DIA = Diabetes, ALZ = Alzheimer's, LIV = Chronic Liver Disease,
SUI = Suicide, HYP = Hypertensive Renal Disease, OTH = other)

Fires in the past 7 days: 1

City Level Data for Los Angeles

Number of Obsolete Bridges: 412

Number of Deficient Bridges: 35

Earthquakes in the past 7 days: 1

Most recent earthquake: NULL

Magnitude of biggest earthquake in the past 7 days: NULL

Most Recent Water Quality: NULL

Average Water Quality Concentration: NULL

Storm Deaths: NULL

Storm Injuries: NULL

Storm Damages: NULL

Storm Type: NULL

County Level Data for Los Angeles County

In 2013, the average particulate matter (<2.5 um) was: 12.15 ug/m^3

In 2013, the % of days particulates exceeded National Ambient Air Quality Standard was: 1.4%

In 2013, the number of days ozone concentration exceeded National Ambient Air Quality Standard: 59 days

Homicides per 1,000 people 0.01

Violent Crimes per 1,000 people 0.5

Property Crimes per 1,000 people 0.5

Coming Soon: Trump-O-Meter

Earthquake Tweets

2017-04-22 23:09:04

RT QuakesInCA "1.9 magnitude #earthquake. 14 mi from #Soledad, CA, #UnitedStates https://t.co/2lvXTchPzL"

2017-04-22 22:39:17

RT QuakesInCA "2.0 magnitude #earthquake. 1 mi from Shasta Lake, #CA, #UnitedStates https://t.co/4SFENh0Dh8"

2017-04-22 20:04:03

RT QuakesInCA "2.6 magnitude #earthquake. 6 mi from Huron, CA, #UnitedStates https://t.co/HfO0wR90i4"

2017-04-22 19:51:02

RT QuakesInCA "3.4 magnitude #earthquake. 6 mi from #Huron, CA, #UnitedStates https://t.co/qhxwxVwLqG"

2017-04-22 19:34:41

RT QuakesInCA "1.9 magnitude #earthquake. 7 mi from ###Tehachapi, CA, United States https://t.co/aKnZc0FASC"

2017-04-22 18:14:30

RT QuakesInCA "1.6 magnitude #earthquake. 27 mi from Inyokern, CA, #UnitedStates https://t.co/aqWrc1U3IA"

2017-04-22 17:14:11

RT QuakesInCA "2.1 magnitude #earthquake. 3 mi from #LosAngeles, CA, #UnitedStates https://t.co/ay0VjzCWQJ"

2017-04-22 16:39:09

RT QuakesInCA "2.0 magnitude #earthquake. 2 mi from #CherryValley, CA, #UnitedStates https://t.co/5wUENoYZJD"

2017-04-22 15:39:16

RT QuakesInCA "2.0 magnitude #earthquake. 2 mi from ##CherryValley, CA, #UnitedStates https://t.co/5wUENoYZJD"

2017-04-22 13:57:05

RT QuakesInCA "1.6 magnitude #earthquake. 3 mi from #Lebec, #CA, United States https://t.co/ETNPf4sfU"

Obstacles

High processing time (Aggregation, Join)

Availability and reliability of data sources (DUI rates, Ozone, Civil Unrest)

Having twitter collection batch periodically

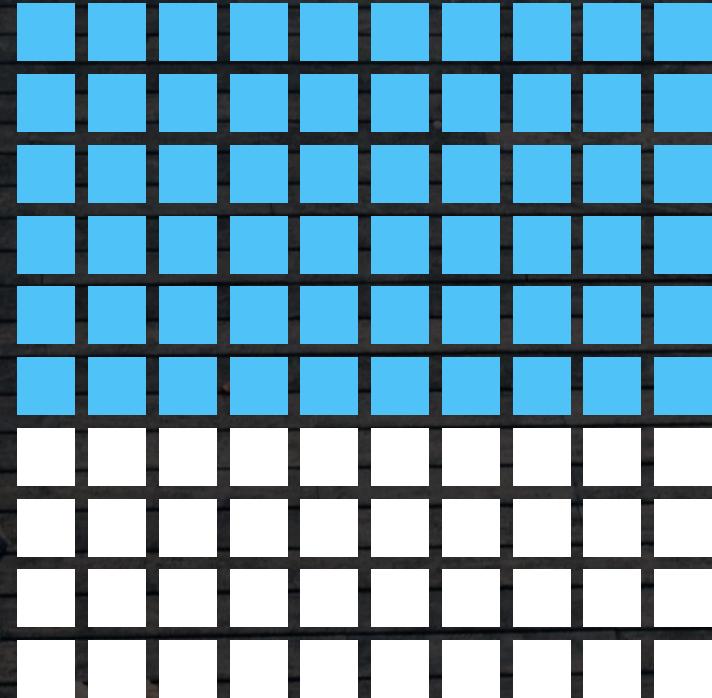
Spark was preferred for data processing, but we were not able to get it to work

The background image shows a panoramic view of a city skyline at dusk or night. The Empire State Building is prominent in the center-left, its Art Deco spire reaching towards a sky filled with scattered clouds. To the right, the One World Trade Center is visible, its distinctive spire reaching upwards. The city is densely packed with numerous skyscrapers, their windows glowing with warm light. In the foreground, the dark silhouettes of buildings create a sense of depth. The overall atmosphere is moody and dramatic.

Should've
Could've
Would've

Future Directions

- Twitter stream
 - Timed weekly collection
 - Increase Earthquake handles
- Hazard Analysis
- Data Visualization
- Actually have a clock
- Production grade http server - Apache Web Server



The Team



Jen Jen Chen

"My name triple rhymes"

"Storm Superuser"



Omar Al Taher

"Bon Jovi"

"Visualization Specialist"



Peter Zhou

"I have 3 mics and none work"

"Hive DAG Extraordinaire"