

# CouchDB

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# Goals

- Measure speedup of a distributed web application using Amazon Web Services



# CouchDB Model

RDBMS

Customers Table:

Name	Id
Candidate Y	1
Small Biz Z	2

Orders Table:

ID	Customer Id	Product
1	2	Content Management System
2	2	Search Engine Optimization
3	1	Donation System

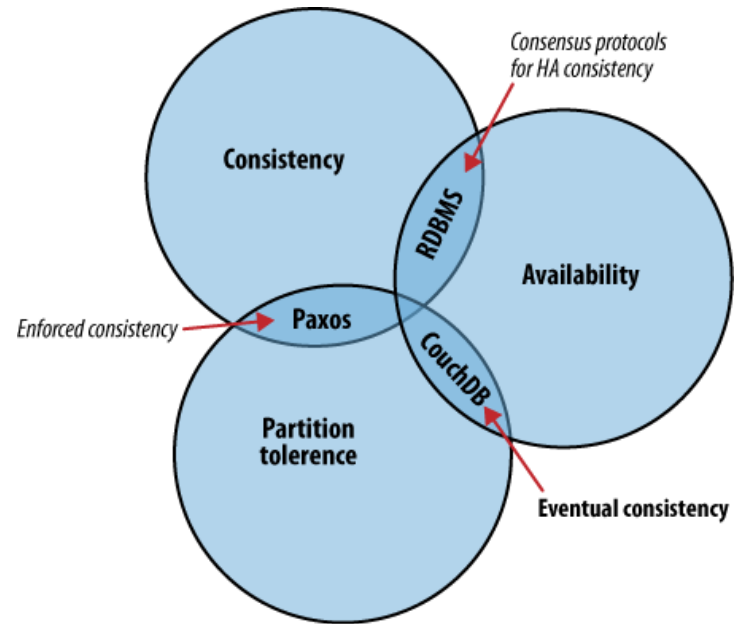
CouchDB

```
Type: Customer
Name: Candidate Y
Orders:
[ Donation System ]
```

Document: VS902jfdsa0

```
Type: Customer
Name: Small Business Z
Orders:
[ S.E.O, C.M.S. ]
```

Document: BLSdvcv0923s



# Dataset

## Apollo

Toward Fact-finding for human centric sensing

- Overview
- People
- Publications
- Demos
- Datasets**

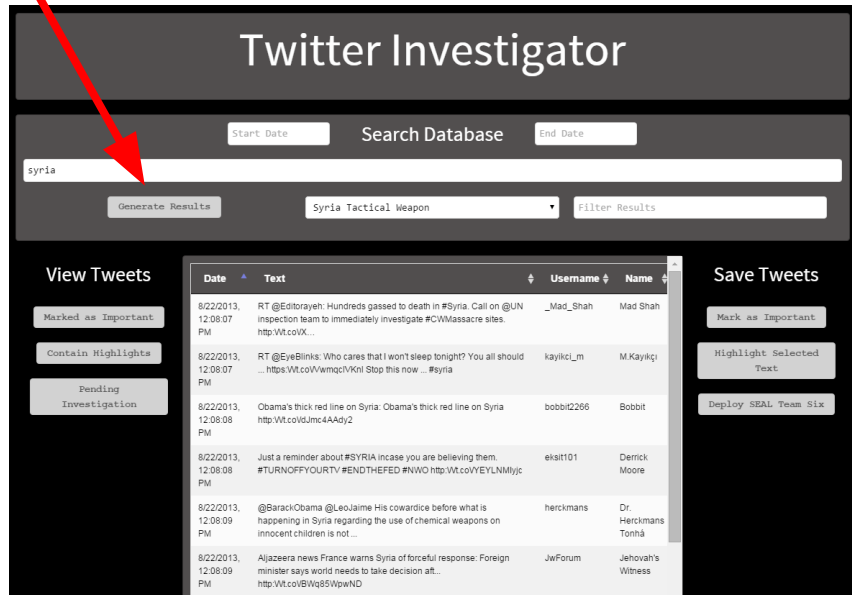
We put here several datasets being used in some of our demos. Please cite the source of these datasets as the 'Apollo Project, Department of Computer Science and Engineering, University of Notre Dame' when using these datasets in your publications, demos, or presentations

Please email [dwangs@nd.edu](mailto:dwangs@nd.edu) to contact for collaborations or request username/password to download these datasets. Also, if you have a request for data about an on-going event, please suggest via email as well.

<b>Crimea Unrest</b> Around 1.9 million tweets were collected from February 19, 2014 to April 9, 2014. <a href="#">Download</a>	<b>Syria Tactical Weapon</b> Around 205,000 tweets were collected from August 22, 2013 to August 31, 2013. <a href="#">Download</a>
 <b>Boston Marathon Bombings</b> Around 549,000 tweets were collected from April 15, 2013 to April 22, 2013. <a href="#">Download</a>	 <b>Hurricane Sandy</b> Around 904,000 tweets were collected from October 27, 2012 to November 18, 2012. <a href="#">Download</a>
	

```
JSON
{
  "_id": "6",
  "_rev": "1-a419e237f6a409abd6bc62db28f6517e",
  "contributors": null,
  "truncated": false,
  "text": "Aljazeera news France warns Syria of forceful response: Foreign minister says world needs to take decision aft... http://wt.c.o/vLB142jOz3a",
  "in_reply_to_status_id": null,
  "id": 370578143666380800,
  "favorite_count": 0,
  "retweeted": false,
  "coordinates": null,
  "source": "twitterfeed</va>",
  "in_reply_to_screen_name": null,
  "in_reply_to_user_id": null,
  "retweet_count": 0,
  "id_str": "370578143666380800",
  "favorited": false,
  "user": {
    "geo": null,
    "in_reply_to_user_id_str": null,
    "possibly_sensitive": false,
    "lang": "en",
    "created_at": "Thu Aug 22 16:08:09 +0000 2013",
    "in_reply_to_status_id_str": null,
    "place": null
  },
  "metadata": {}
}
```

# Current Configuration



Twitter Investigator

Start Date Search Database End Date

syria

Generate Results Syria Tactical Weapon Filter Results

View Tweets

Marked as Important

Contain Highlights

Pending Investigation

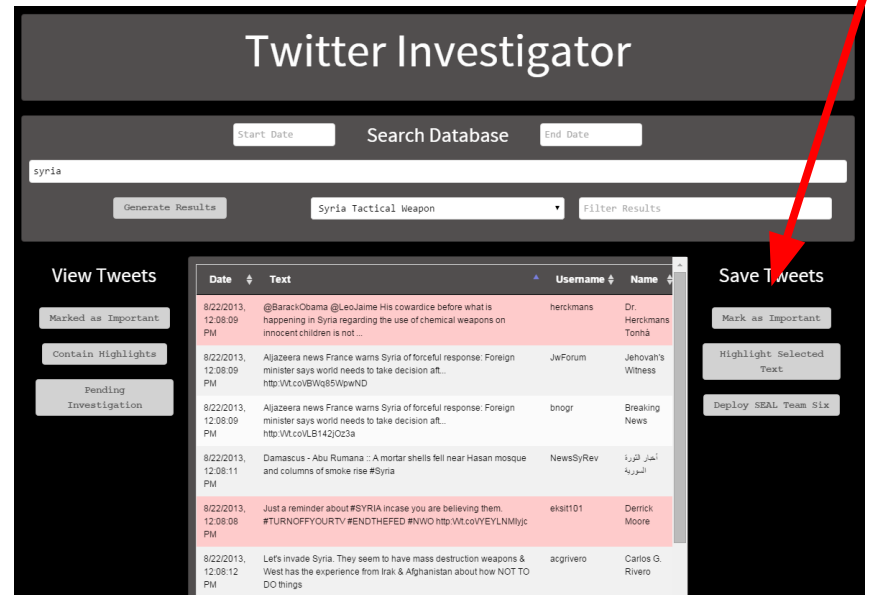
Date	Text	Username	Name
8/22/2013, 12:08:07 PM	RT @Editorayeh: Hundreds gassed to death in #Syria. Call on @UN inspection team to immediately investigate #CWMassacre sites. http://vt.co/vX...	_Mad_Shah	Mad Shah
8/22/2013, 12:08:07 PM	RT @EyeBlinks: Who cares that I won't sleep tonight? You all should ... https://vt.co/vAmqcV/Koi Stop this now ... #syria	kayikci_m	M.Kayıkçı
8/22/2013, 12:08:08 PM	Obama's thick red line on Syria Obama's thick red line on Syria http://vt.co/vJmc4AAdy2	bobbit266	Bobbit
8/22/2013, 12:08:08 PM	Just a reminder about #SYRIA incase you are believing them. #TURNOFFYOURTV #ENDTHEFED #NWO http://vt.co/vYEYLNmlyc	eksit101	Derrick Moore
8/22/2013, 12:08:09 PM	@BarackObama @LeoJaimie His cowardice before what is happening in Syria regarding the use of chemical weapons on innocent children is not...	herckmans	Dr. Herckmans Tonhá
8/22/2013, 12:08:09 PM	Aljazeera news France warns Syria of forceful response: Foreign minister says world needs to take decision aft... http://vt.co/vBwq85WpwND	JwForum	Jehovah's Witness

Save Tweets

Mark as Important

Highlight Selected Text

Deploy SEAL Team Six



Twitter Investigator

Start Date Search Database End Date

syria

Generate Results Syria Tactical Weapon Filter Results

View Tweets

Marked as Important

Contain Highlights

Pending Investigation

Date	Text	Username	Name
8/22/2013, 12:08:09 PM	@BarackObama @LeoJaimie His cowardice before what is happening in Syria regarding the use of chemical weapons on innocent children is not...	herckmans	Dr. Herckmans Tonhá
8/22/2013, 12:08:09 PM	Aljazeera news France warns Syria of forceful response: Foreign minister says world needs to take decision aft... http://vt.co/vBwq85WpwND	JwForum	Jehovah's Witness
8/22/2013, 12:08:09 PM	Aljazeera news France warns Syria of forceful response: Foreign minister says world needs to take decision aft... http://vt.co/vLB142/Oe3a	bnogr	Breaking News
8/22/2013, 12:08:11 PM	Damascus - Abu Rumana - A mortar shells fell near Hasan mosque and columns of smoke rise #Syria	NewsSy/Rev	محمد قزويني
8/22/2013, 12:08:08 PM	Just a reminder about #SYRIA incase you are believing them. #TURNOFFYOURTV #ENDTHEFED #NWO http://vt.co/vYEYLNmlyc	eksit101	Derrick Moore
8/22/2013, 12:08:12 PM	Let's invade Syria. They seem to have mass destruction weapons & West has the experience from Irak & Afghanistan about how NOT TO DO things	acrivero	Carlos G. Rivero

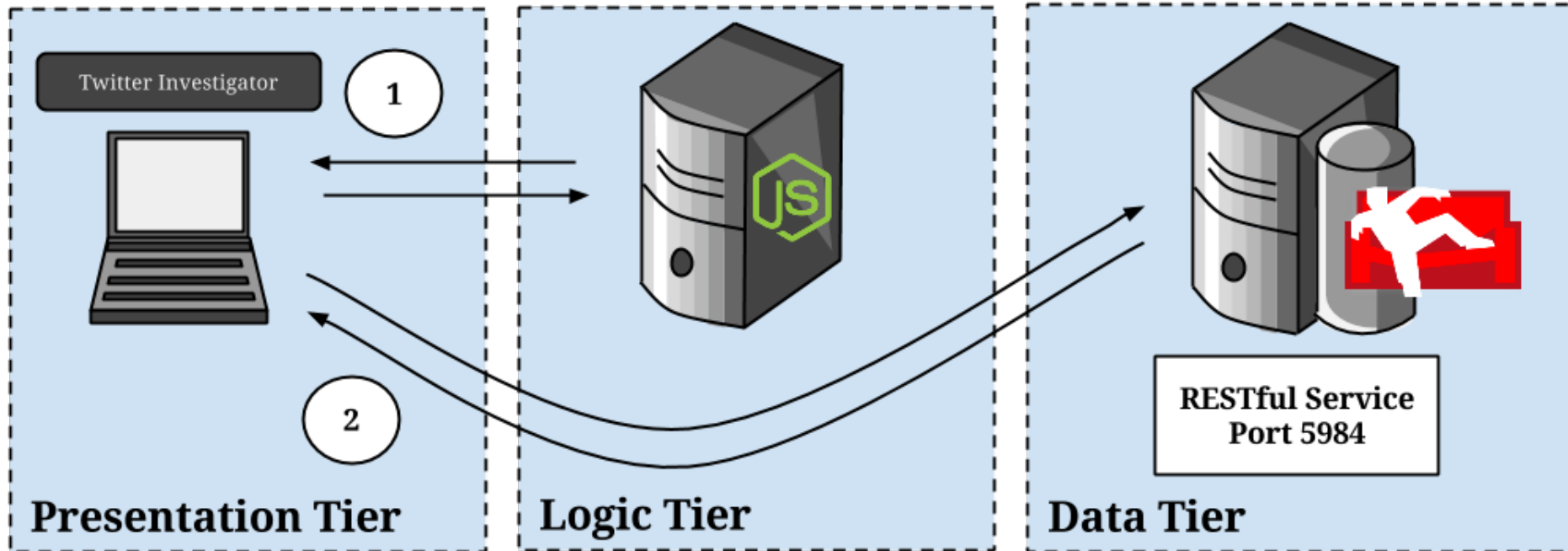
Save Tweets

Mark as Important

Highlight Selected Text

Deploy SEAL Team Six

# Current Configuration



# RESTful API

## Operation

GET /search

## Request

<b>Property</b>	<b>Type</b>
database	<i>string</i>
query	<i>string</i>

# RESTful API

## Operation

PUT /mark

## tweet Object

```
{ "ID": string }
```

## Request

### Property

database

tweetList

### Type

*string*

*array of tweet objects*



# RESTful API

## Operation

PUT /highlight

## Request

<b>Property</b>	<b>Type</b>
database	<i>string</i>
tweetID	<i>string</i>
text	<i>string</i>

# Test Cases

- **Control Case: Single Server + DB Instance**
- **Testing Methodology:**
  - Condor jobs for 100 and 1000 clients
  - Record rates of 1, 10, 50, 100, 1000 requests per second via ELB Access Log File

# Future Work

