

## **CSCI-572 Information Retrieval : Assignment-3-Report:**

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**Websites : LATimes and Huffingtonpost**

### **Steps followed to complete the assignment:**

1) Ubuntu is the primary operating system I use on my laptop. So I skipped ubuntu installation instructions.

2) Installed and started solar following the instructions given as a part of assignment.

[Reference : <http://lucene.apache.org/solr/quickstart.html>]

[reference : <http://www-scf.usc.edu/~csci572/2016Fall/hw3/SolrInstallation.pdf>]

Command used to start : **bin/solr start**

3) I created core using the command “**bin/solr create -c assignment3**”. Made changes to managed-schema file by adding required fields as suggested in instructions of **IndexingwithTIKAV3.pdf**.

[Reference: <http://www-scf.usc.edu/~csci572/2016Fall/hw3/IndexingwithTIKAV3.pdf>]

3) **Indexing** : I downloaded the data from the google drive and copied all files to a single directory named “all\_files”. Made specified changes to managed-schema file and started indexing these documents by following the instructions.

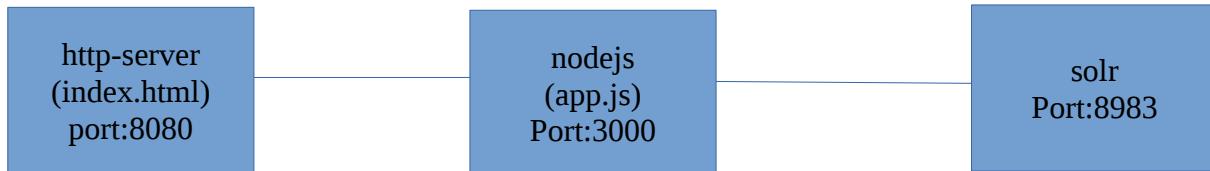
Command used is <**bin/post -c core\_name -filetype html path\_to\_all\_files**>

[Reference: <http://www-scf.usc.edu/~csci572/2016Fall/hw3/IndexingwithTIKAV3.pdf>]

I tested solr after indexing by querying for string “NATO”. Refer screenshot #7 for same.

4) **Setting up Nodejs and frontend:** After Indexing, I proceeded towards writing my front end html page and intermediate server. I wanted to get rid of Php and start using javascript. As suggested by professor I used **nodejs** server for this part. I wrote my front end HTML page using html and jquery. I wrote my nodejs server to interact with solr and http-server(based of javascript) running my front-end html code. Following is the picture of same.

**[PS: Credits go to Google and stackoverflow for helping me to get this up and running for this first time]**



### **How to run this setup with nodejs server:**

a. Save front end html file “index.html” in a directory. Move to that directory and start “http-server”(Refer screenshot 1 below.).

(http-server can be installed using “**sudo npm install -g http-server** ”. npm is node package manager, a package manager for javascript modules. To install npm run command “**sudo apt install npm**”)

b. Move nodejs server program in to another directory. And start it with command “**node app.js**” where app.js is name of my server program. Please install required dependency modules I.e fs, solr-client and

Express. Also **please copy the map\*.csv files to this directory** as I am using those while mapping filenames to urls(to forward to http-server) on receiving reply for a query from solr.

(To install nodejs : <https://nodejs.org/en/download/package-manager/> )

(To bringup nodejs for first time: <https://expressjs.com/en/starter/hello-world.html>)

(To install dependencies : “npm install <package-name>” from directory of app.js)

(Refer screenshot 2 below)

c. Used javascript client of solr called “solr-client” to send a request to solr from nodejs to utilise rest services provided by solr.

(Please replace “**assignment3**” in **client.get('assignment3/select',query,function(err,obj)** in app.js with your corresponding core name while running on your setup )

## Part-2 of Assignment:

### Tools used to computer page rank:

1. **Jsoup java package** : Extended given java program in Appendix to make use of jsoup package. I added to Jsoup as a library to my eclipse IDE. Used this package to traverse through the list of given html files, obtains all the outgoing links from a page. Each html file in the directory is parsed(using Jsoup.parse) and all outgoing links are extracted (using doc.select("a[href]")). Each link is checked to see whether it has a mapping in map\*.csv file(after getting url via **link.attr("abs:href").trim()**) and then added to hash set of edges if it has a mapping. This hash set of edges is edgeList and is written in to a file.

2. **Ixnetwork python package**: I installed networkx python package using “pip install networkx”.I created a directed graph from edgelist file I got from previous java program.

```
G=nx.read_edgelist("/home/raghuvamsi/edgeListSup_final.txt",create_using=nx.DiGraph(),node_type=str)
```

I followed this Directed graph, G, to pagerank() api of networkx to create a dictionary of pages(as keys) and corresponding page ranks(as values).I followed the described parameters to networkx api to obtain the pagerank.

### Parameters:

alpha=0.85, personalization=None, max\_iter=30, tol=1e-06, nstart=None, weight='weight', dangling=None .

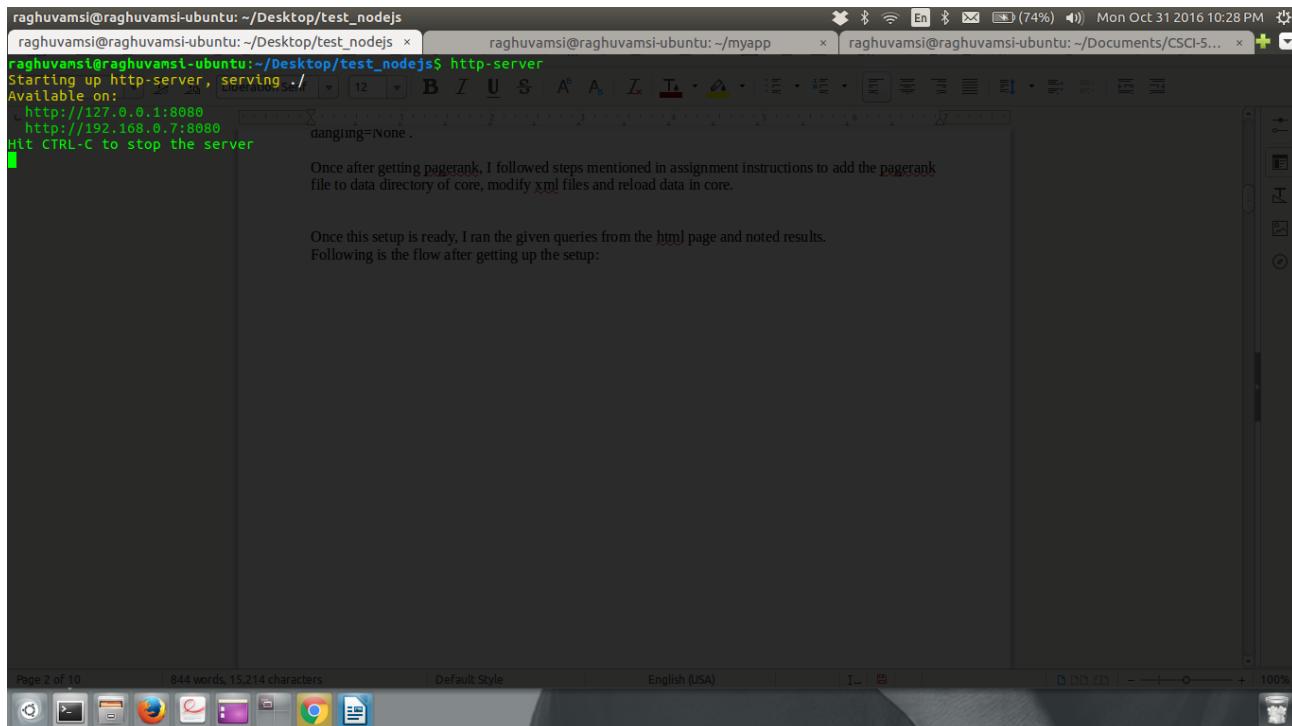
```
x = nx.pagerank(G, alpha=0.85, personalization=None, max_iter=30, tol=1e-06, nstart=None, weight='weight', dangling=None)
```

- Once after getting pagerank file I copied it to data directory of my core, I.e assignment3
- I made changes to solarconfig.xml and managed-schema as specified in part-2 of assignment.  
**(Reference : <http://www-scf.usc.edu/~csci572/2016Fall/hw3/Homework3.pdf>)**
- After making these changes I reloaded my data from “core admin” tab of solr dashboard UI.  
(Refer screenshot #10 to have a glance)
- After reload, I tested for NATO by mentioning “pageRankFile desc” in sort field of form. Refer screenshot #8 or screenshot #6 for same.

Once this setup is ready, I ran the given queries from the html page and noted results.

### Following are the screenshots of flow after getting up the setup:

#### 1. Starting http-server

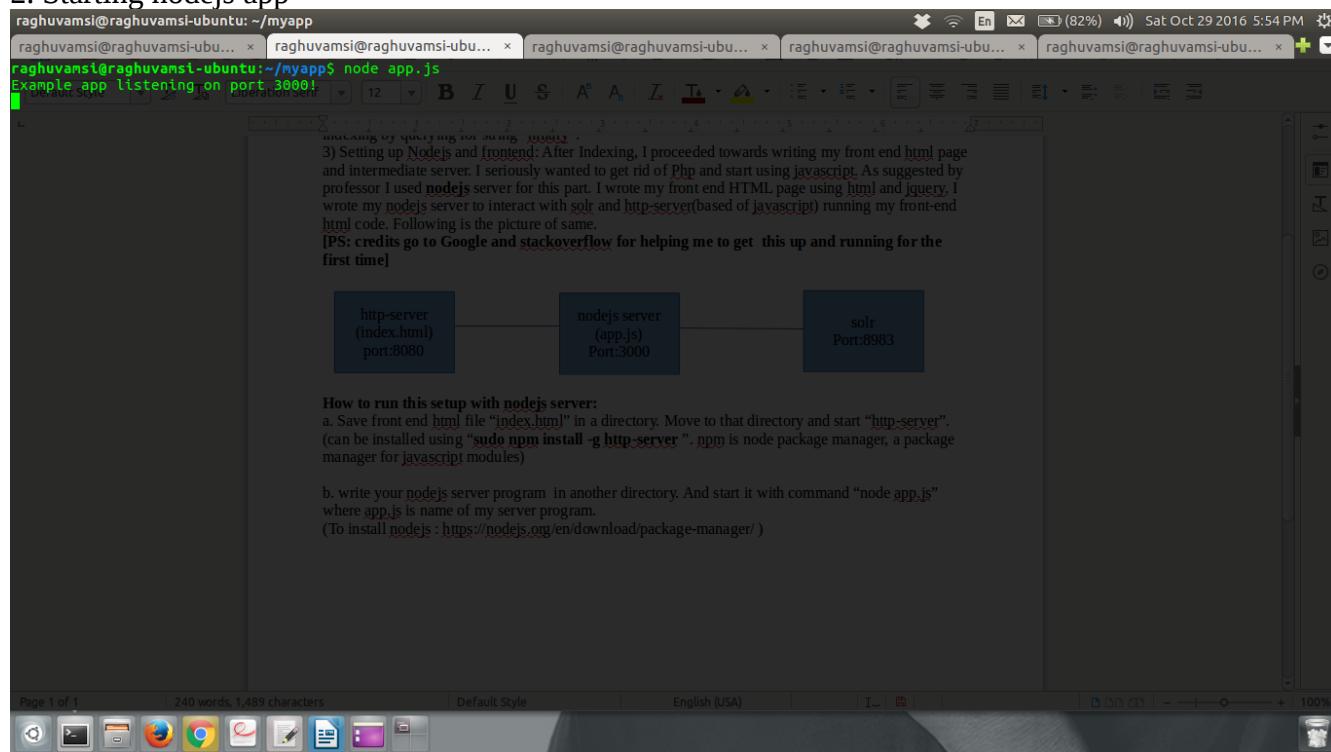


raghuvamsi@raghuvamsi-ubuntu: ~/Desktop/test\_nodejs\$ http-server  
Starting up http-server, serving ./  
Available on: http://127.0.0.1:8080  
http://192.168.0.7:8080  
dangling=None  
Hit CTRL-C to stop the server

Once after getting pagerank, I followed steps mentioned in assignment instructions to add the pagerank file to data directory of core, modify XML files and reload data in core.

Once this setup is ready, I ran the given queries from the HTML page and noted results.  
Following is the flow after getting up the setup:

#### 2. Starting nodejs app



raghuvamsi@raghuvamsi-ubuntu: ~/myapp\$ node app.js  
Example app listening on port 3000!

3) Setting up Nodejs and frontend: After Indexing, I proceeded towards writing my front end HTML page and intermediate server. I seriously wanted to get rid of PHP and start using javascript. As suggested by professor I used nodejs server for this part. I wrote my front end HTML page using HTML and Jquery. I wrote my nodejs server to interact with solr and http-server(based of javascript) running my front-end HTML code. Following is the picture of same.  
[PS: credits go to Google and stackoverflow for helping me to get this up and running for the first time]

http-server  
(index.html)  
port:8080

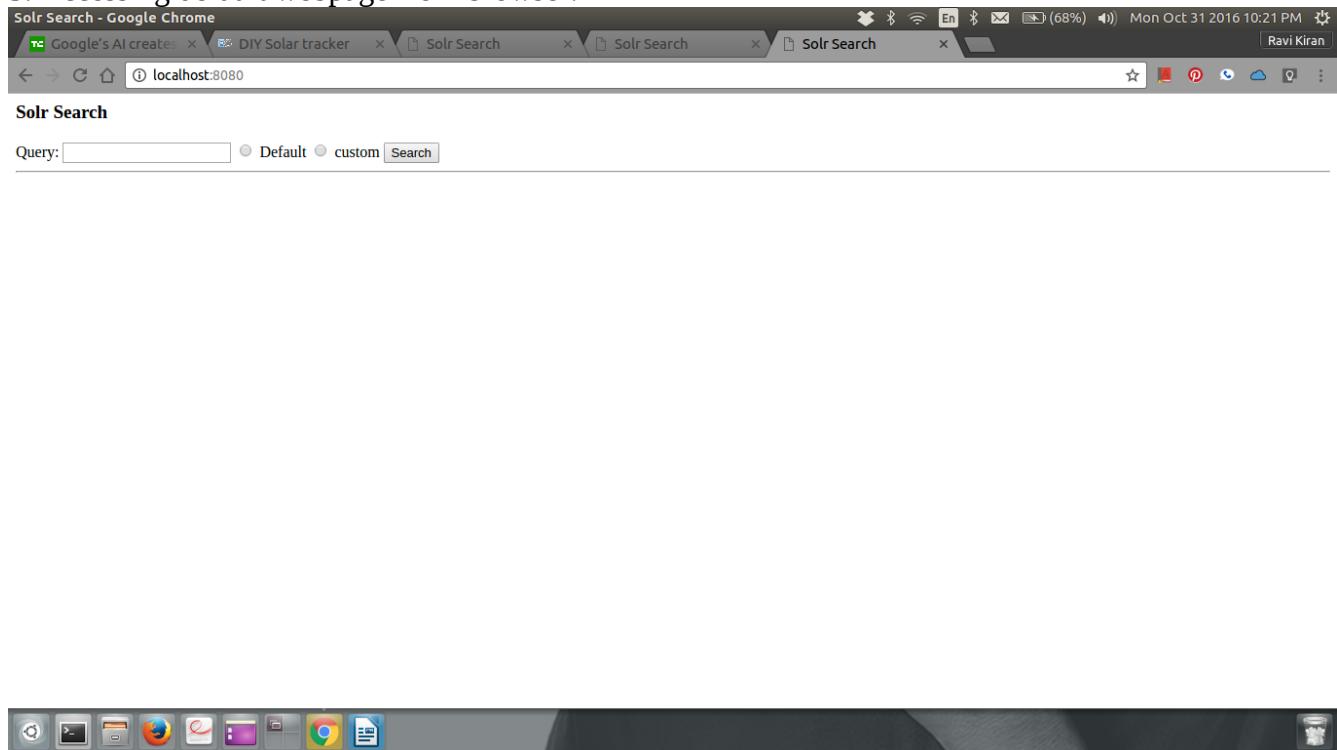
nodejs server  
(app.js)  
Port:3000

solr  
Port:8983

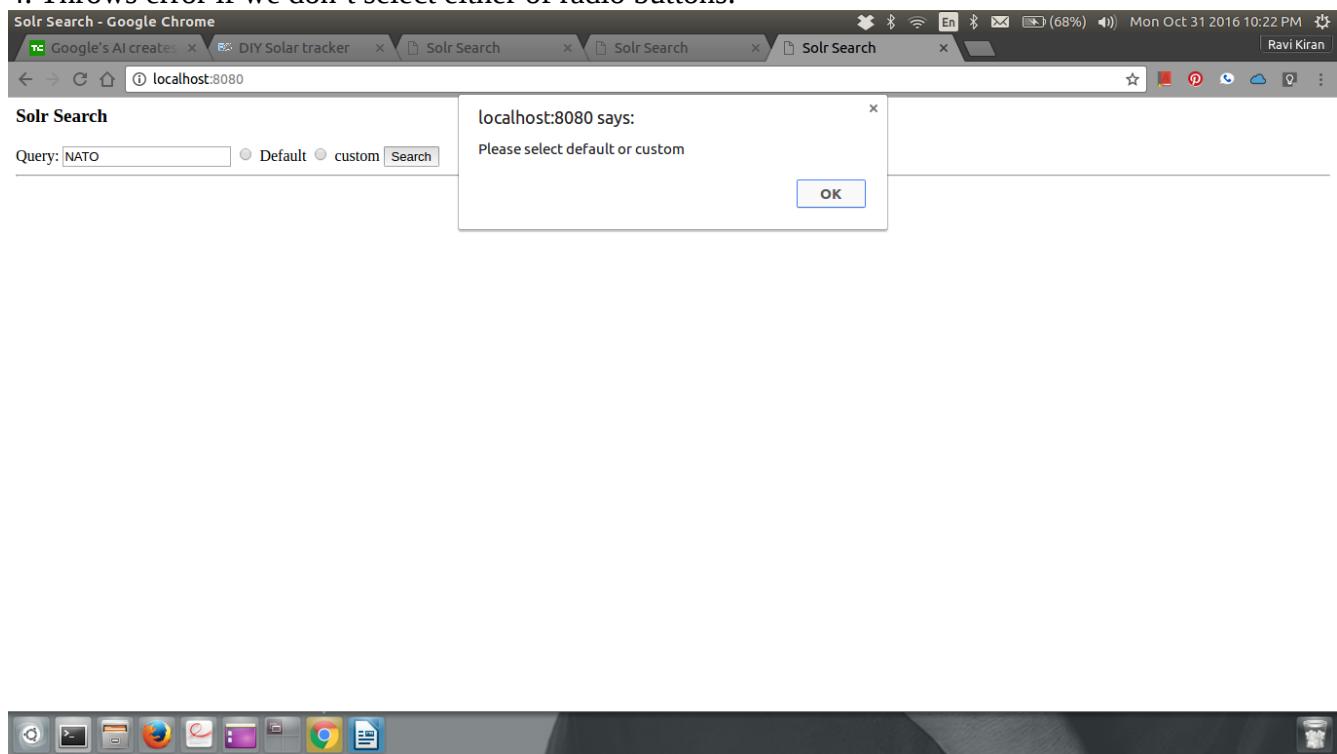
How to run this setup with nodejs server:  
a. Save front end HTML file "index.html" in a directory. Move to that directory and start "http-server". (can be installed using "sudo npm install -g http-server". npm is node package manager, a package manager for javascript modules)

b. write your nodejs server program in another directory. And start it with command "node app.js" where app.js is name of my server program.  
(To install nodejs : <https://nodejs.org/en/download/package-manager/>)

### 3. Accessing default webpage from browser:



### 4. Throws error if we don't select either of radio buttons.



## 5. Results returned for default page rank algorithm.

Solr Search - Google Chrome

Google's AI creates DIY Solar tracker Sol Search Sol Search (70%) Mon Oct 31 2016 10:24 PM Ravi Kiran

localhost:8080

## Sol Search

Query:   Default  custom

Top 10 results

<http://www.latimes.com/world/europe/la-fg-russia-nato-nuclear-threat-20150507-story.html>  
NATO signals to Russia that the alliance is ready to defend its Eastern European members against Kremlin threats.

<http://www.latimes.com/world/europe/la-fg-ukraine-russia-nato-20150527-story.html>  
Casualties mount in eastern Ukraine as NATO officials assure Kiev leadership of support for path to membership

<http://www.latimes.com/world/europe/la-fg-ukraine-russia-nato-aid-20140807-001-photo.html>  
A Thursday meeting in Kiev between NATO chief Anders Fogh Rasmussen, right, and Ukrainian President Petro Poroshenko, middle left, in this photo provided by the presidential press service.

<http://www.latimes.com/visuals/video/la-fg-vn-kerry-urges-nato-states-to-fight-islamic-state-militants-20151202-embeddedvideo.html>  
Secretary of State John Kerry said on Wednesday that NATO members stood ready to step up military efforts against the Islamic State and held out hope of broadening cooperation between the West and Russia to end Syria's protracted civil war. (Dec. 2)

<http://www.latimes.com/world/europe/la-fg-ukraine-nato-referendum-20141124-001-photo.html>  
Ukrainian President Petro Poroshenko, right, with President Dalia Grybauskaitė of NATO-member Lithuania at a Kiev news conference where he said that whether Ukraine joins the Western military alliance will be decided by voters years from now.

<http://www.latimes.com/world/la-fg-nato-summit-20160707-snap-story.html>  
Amid Britain's decision to leave the EU, the threat from Russia and Donald Trump's dismissal of the NATO alliance, this weekend's NATO summit is shaping up as a test of the decades-old compact.

<http://www.latimes.com/politics/la-fg-trump-nato-reactions-20160721-snap-story.html>  
Hours before he accepted the Republican presidential nomination Thursday, Donald Trump faced fierce international criticism for suggesting his administration

<http://www.latimes.com/opinion/op-ed/la-1464392994-snap-photo-photo.html>  
Russian President Vladimir Putin at the Athens international airport on May 27.

<http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>  
News, Photos and Information about Petro Poroshenko

## 6. Results returned for custom page rank:

Solr Search - Google Chrome

localhost:8080

Query: NATO

Top 10 results

- <http://www.huffingtonpost.com/syndication/>
- undefined
- <http://www.huffingtonpost.com/news/afghanistan-war-blog/>  
Big News on Afghanistan War Blog. Includes blogs, news, and community conversations about Afghanistan War Blog.
- <http://www.latimes.com/world/asia/>  
Find the latest on what's happening in Asia. Breaking news and reports, economic data and analysis.
- <http://www.latimes.com/world/europe/>  
Breaking news and reporting from our European bureaus. Find what's happening overseas here.
- <http://www.latimes.com/topic/unrest-conflicts-war/islamic-state-ORCIG000120-topic.html>  
News, Photos and Information about Islamic State
- <http://www.latimes.com/world/middleeast/>  
News from the Middle East
- <http://www.latimes.com/topic/business/economy/european-union-ORG0V000067-topic.html>  
News, Photos and Information about European Union
- <http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>  
News, Photos and Information about Petro Poroshenko
- <http://www.latimes.com/topic/politics-government/government/jimmy-carter-PEHST000385-topic.html>  
News, Photos and Information about Jimmy Carter
- <http://www.latimes.com/topic/international/britain-PLGEO000005-topic.html>  
News, Photos and Information about Britain

## 7. Results for default search from solar UI.

## 8. Results for custom pagerank search from solar UI.

Solr Admin - Google Chrome

localhost:8983/solr/#/assignment3/query

Request-Handler (qt)

/select

common

q NATO

fq

sort pageRankFile desc

start, rows 0 10

fl id

df

Raw Query Parameters key1=val1&key2=val2

wt json

indent

debugQuery

dismax

edismax

hl

http://localhost:8983/solr/assignment3/select?fl=id&indent=on&q=NATO&sort=pageRankFile desc&wt=json

```
{
  "responseHeader": {
    "status": 0,
    "QTime": 0,
    "params": {
      "q": "NATO",
      "indent": "on",
      "fl": "id",
      "sort": "pageRankFile desc",
      "wt": "json",
      "_": "1477977941303"
    }
  },
  "response": {
    "numFound": 127,
    "start": 0,
    "docs": [
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_1"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_2"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_3"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_4"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_5"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_6"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_7"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_8"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_9"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_10"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_11"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_12"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_13"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_14"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_15"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_16"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_17"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_18"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_19"
      },
      {
        "id": "/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1//LATimesHuffingtonPostData/all_20"
      }
    ]
  }
}
```

9. Opening one of the links I got from solr in a separate tab. In this case it is the first link from the results for NATO using default pagerank algorithm. (Refer Screenshot #5)

NATO military exercises aim to send message of resolve to Russia

DON'T MISS CALIFORNIA

A \$72-million apartment project. Top politicians. Unlikely donors. Who wrote the checks?

10. Screenshot of reloading core after adding external\_pageRankFile to data directory of core.

assignment3

Core

startTime: about 11 hours ago  
instanceDir: /home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1/server/solr/assignment3  
dataDir: /home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1/server/solr/assignment3/data/

Index

lastModified: 6 days ago  
version: 228  
numDocs: 11722  
maxDoc: 11722  
deletedDocs: 0  
optimized: ✓  
current: ✓  
directory: org.apache.lucene.store.NRTCachingDirectory:NRTCachingDirectory(MMapDirectory@/home/raghuvamsi/Documents/CSCI-572/Assignments/assignment-3/solr-6.2.1/server/solr/assignment3/data/index  
lockFactory=org.apache.lucene.store.NativeFSLockFactory@6d1da356; maxCacheMB=48.0 maxMergeSizeMB=4.0

Documentation Issue Tracker IRC Channel Community forum Solr Query Syntax

## **Data**

### **Query 1 : NATO**

#### **Default:**

- 1) <http://www.latimes.com/world/europe/la-fg-russia-nato-nuclear-threat-20150507-story.html>
- 2) <http://www.latimes.com/world/europe/la-fg-ukraine-russia-nato-20150527-story.html>
- 3) <http://www.latimes.com/world/europe/la-fg-ukraine-russia-nato-aid-20140807-001-photo.html>
- 4) <http://www.latimes.com/visuals/video/la-fg-vn-kerry-urges-nato-states-to-fight-islamic-state-militants-20151202-embeddedvideo.html>
- 5) <http://www.latimes.com/world/europe/la-fg-ukraine-nato-referendum-20141124-001-photo.html>
- 6) <http://www.latimes.com/world/la-fg-nato-summit-20160707-snap-story.html>
- 7) <http://www.latimes.com/politics/la-fg-trump-nato-reactions-20160721-snap-story.html>
- 8) <http://www.latimes.com/opinion/op-ed/la-1464392994-snap-photo-photo.html>
- 9) <http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>
- 10) <http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html?spell=on&target=all>

#### **Custom :**

1. <http://www.huffingtonpost.com/syndication/>
2. <http://www.huffingtonpost.com/news/afghanistan-war-blog/>
3. <http://www.latimes.com/world/asia/>
4. <http://www.latimes.com/world/europe/>
5. <http://www.latimes.com/topic/unrest-conflicts-war/islamic-state-ORCIG000120-topic.html>
6. <http://www.latimes.com/world/middleeast/>
7. <http://www.latimes.com/topic/business/economy/european-union-ORG000067-topic.html>
8. <http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>
9. <http://www.latimes.com/topic/politics-government/government/jimmy-carter-PEHST000385-topic.html>
10. <http://www.latimes.com/topic/international/britain-PLGEO000005-topic.html>

#### **Overlap : 1**

<http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>

## **Screenshot : Default Pagerank**

Solr Search - Google Chrome

localhost:8080

**Solr Search**

Query:   Default  custom

Top 10 results

<http://www.latimes.com/world/europe/la-fg-russia-nato-nuclear-threat-20150507-story.html>  
NATO signals to Russia that the alliance is ready to defend its Eastern European members against Kremlin threats.

<http://www.latimes.com/world/europe/la-fg-ukraine-russia-nato-20150527-story.html>  
Casualties mount in eastern Ukraine as NATO officials assure Kiev leadership of support for path to membership

<http://www.latimes.com/world/europe/la-fg-ukraine-russia-nato-aid-20140807-001-photo.html>  
A Thursday meeting in Kiev between NATO chief Anders Fogh Rasmussen, right, and Ukrainian President Petro Poroshenko, middle left, in this photo provided by the presidential press service.

<http://www.latimes.com/visuals/video/la-fg-vn-kerry-urges-nato-states-to-fight-islamic-state-militants-20151202-embeddedvideo.html>  
Secretary of State John Kerry said on Wednesday that NATO members stood ready to step up military efforts against the Islamic State and held out hope of broadening cooperation between the West and Russia to end Syria's protracted civil war. (Dec. 2)

<http://www.latimes.com/world/europe/la-fg-ukraine-nato-referendum-20141124-001-photo.html>  
Ukrainian President Petro Poroshenko, right, with President Dalia Grybauskaite of NATO-member Lithuania at a Kiev news conference where he said that whether Ukraine joins the Western military alliance will be decided by voters years from now.

<http://www.latimes.com/world/la-fg-nato-summit-20160707-snap-story.html>  
Amid Britain's decision to leave the EU, the threat from Russia and Donald Trump's dismissal of the NATO alliance, this weekend's NATO summit is shaping up as a test of the decades-old compact.

<http://www.latimes.com/politics/la-fg-trump-nato-reactions-20160721-snap-story.html>  
Hours before he accepted the Republican presidential nomination Thursday, Donald Trump faced fierce international criticism for suggesting his administration

<http://www.latimes.com/opinion/op-ed/la-1464392994-snap-photo-photo.html>  
Russian President Vladimir Putin at the Athens international airport on May 27.

<http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>  
News, Photos and Information about Petro Poroshenko

## Screenshot : Custom Pagerank

Solr Search

Query:   Default  custom

Top 10 results

<http://www.huffingtonpost.com/syndication/>  
undefined

<http://www.huffingtonpost.com/news/afghanistan-war-blog/>  
Big News on Afghanistan War Blog. Includes blogs, news, and community conversations about Afghanistan War Blog.

<http://www.latimes.com/world/asia/>  
Find the latest on what's happening in Asia. Breaking news and reports, economic data and analysis.

<http://www.latimes.com/world/europe/>  
Breaking news and reporting from our European bureaus. Find what's happening overseas here.

<http://www.latimes.com/topic/unrest-conflicts-war/islamic-state-ORCIG000120-topic.html>  
News, Photos and Information about Islamic State

<http://www.latimes.com/world/middleeast/>  
News from the Middle East

<http://www.latimes.com/topic/business/economy/european-union-ORG0V000067-topic.html>  
News, Photos and Information about European Union

<http://www.latimes.com/topic/politics-government/government/petro-poroshenko-PEPLT0009136-topic.html>  
News, Photos and Information about Petro Poroshenko

<http://www.latimes.com/topic/politics-government/government/jimmy-carter-PEHST000385-topic.html>  
News, Photos and Information about Jimmy Carter

<http://www.latimes.com/topic/international/britain-PLGEO000005-topic.html>  
News, Photos and Information about Britain

## **Query 2: Dow Jones**

### **Default :**

1. <http://www.latimes.com/business/la-fi-wall-street-20151125-story.html>
2. <http://www.latimes.com/business/la-fi-brexit-economic-impact-20160624-snap-story.html>
3. <http://www.latimes.com/business/la-fi-financial-markets-20160923-snap-story.html>
4. <http://www.latimes.com/business/la-fi-0125-agenda-markets-economy-20160125-story.html>
5. <http://www.latimes.com/business/la-fi-wall-street-stocks-20151117-story.html>
6. <http://www.latimes.com/business/la-fi-markets-20160630-snap-story.html>
7. <http://www.latimes.com/business/la-fi-markets-20160922-snap-story.html>
8. <http://www.latimes.com/business/la-fi-brexit-why-americans-care-20160624-snap-story.html>
9. <http://www.latimes.com/business/la-fi-financial-markets-20160216-story.html>
10. <http://www.latimes.com/topic/business/financial-business-services/wells-fargo-ORCRP016609-topic.html?page=9>

### **Custom :**

1. <http://www.latimes.com/business/jobs/>
2. <http://www.latimes.com/topic/business/economy/european-union-ORG000067-topic.html>
3. <http://www.latimes.com/topic/business/consumer-goods-industries/the-home-depot-ORCRP007365-topic.html>
4. <http://www.latimes.com/topic/business/consumer-goods-industries/04007000-topic.html>
5. <http://www.latimes.com/topic/lifestyle-leisure/10000000-topic.html>
6. <http://www.latimes.com/topic/business/market-exchange/securities/u.s.-securities-exchange-commission-ORG000050-topic.html>
7. <http://www.latimes.com/projects/la-me-pension-crisis-davis-deal/>
8. <http://www.latimes.com/topic/lifestyle-leisure/cooking/10000032-topic.html>
9. <http://www.latimes.com/entertainment/tv/la-et-st-busking-with-bull-20160915-snap-story.html>
10. <http://www.latimes.com/world/europe/la-fg-brexit-updates-20160624-htmlstory.html>

Overlaps : 0

## Screenshot : Default Pagerank

Solr Search - Google Chrome  
localhost:8080

**Solr Search**

Query: Dow Jones  Default  custom

Top 10 results

<http://www.latimes.com/business/la-fi-wall-street-20151125-story.html>  
Stocks wobbled on Wednesday and finished little changed before the Thanksgiving holiday in the U.S. The market was positive for most of the day, but its gains dissipated in the final minutes of trading. Last week the markets made their biggest weekly jump of 2015, but the indexes have hardly budged...

<http://www.latimes.com/business/la-fi-brexit-economic-impact-20160624-snap-story.html>  
British rejection of the EU is setback for global economy. You may never have cared about Brexit, but your 401(k) is about to take a hit and the future of globalization is facing new uncertainty.40in

<http://www.latimes.com/business/la-fi-financial-markets-20160923-snap-story.html>  
U.S. stock indexes closed moderately lower Friday after three days of gains. Several technology stocks traded heavily, including Yahoo, Twitter and Facebook. Energy stocks fell along with a steep decline in the price of oil. The Dow Jones industrial average sank 131.01 points, or 0.7%, to 18,261.45....

<http://www.latimes.com/business/la-fi-0125-agenda-markets-economy-20160125-story.html>  
An overvalued stock market has run head-on into anxiety about slowing global growth ; with falling oil prices lubricating the skid.

<http://www.latimes.com/business/la-fi-wall-street-stocks-20151117-story.html>  
U.S. stocks ended little changed on Tuesday after a late-afternoon slump wiped out much of the market's gains from earlier in the day. Investors weighed mixed results from Wal-Mart stores, Home Depot and other big U.S. retailers, as well as new data on inflation. Energy stocks were among the biggest...

<http://www.latimes.com/business/la-fi-markets-20160630-snap-story.html>  
U.S. stocks closed higher, extending a rally into a third day as traders feel less anxious about Britain's vote last week to leave the European Union.

<http://www.latimes.com/business/la-fi-markets-20160922-snap-story.html>  
Stocks posted solid gains Thursday as investors, comfortable that the Federal Reserve will keep interest rates low for now, bought up stocks that pay big dividends. Real estate companies rose as investors looked for income. So did telecom stocks, which also typically pay higher-than-average dividends....

<http://www.latimes.com/business/la-fi-brexit-why-americans-care-20160624-snap-story.html>  
The vote to exit the 28-nation EU bloc is a move that will have an impact on Americans' investment portfolios, retirement savings and more.

<http://www.latimes.com/business/la-fi-financial-markets-20160216-story.html>

## Screenshot : Custom Pagerank

Solr Search - Google Chrome  
localhost:8080

**Solr Search**

Query: Dow Jones  Default  custom

Top 10 results

<http://www.latimes.com/business/jobs/>  
News and commentary on the state of the job market in California and beyond. Get economic forecasts, job trends, career changes, unemployment and more.

<http://www.latimes.com/topic/business/economy/european-union-ORGVO000067-topic.html>  
News, Photos and Information about European Union

<http://www.latimes.com/topic/business/consumer-goods-industries/the-home-depot-ORCRP007365-topic.html>  
News, Photos and Information about The Home Depot

<http://www.latimes.com/topic/business/consumer-goods-industries/04007000-topic.html>  
News, Photos and Information about Consumer Goods Industries

<http://www.latimes.com/topic/lifestyle-leisure/10000000-topic.html>  
News, Photos and Information about Lifestyle and Leisure

<http://www.latimes.com/topic/business/market-exchange/securities/u.s.-securities-exchange-commission-ORGVO000050-topic.html>  
News, Photos and Information about U.S. Securities and Exchange Commission

<http://www.latimes.com/projects/la-me-pension-crisis-davis-deal/>  
It was a deal that wasn't supposed to cost taxpayers an extra dime. Now California's annual tab is in the billions, and the cost keeps climbing.

<http://www.latimes.com/topic/lifestyle-leisure/cooking/10000032-topic.html>  
News, Photos and Information about Cooking

<http://www.latimes.com/entertainment/tv/la-et-st-busking-with-bull-20160915-snap-story.html>  
On a sweltering September morning, Michael Weatherly, former "NCIS" star, pauses near the entrance of the Bedford Avenue L train station and explains that the

<http://www.latimes.com/world/europe/la-fg-brexit-updates-20160624-htmlstory.html>  
Brexit updates: What's happening now that Britain voted to leave the EU June 28, 2016, 8:27 a.m. Britons voted Thursday to leave the 28-nation European Union, a stunning decision that appeared to defy

## **Query 3: Rio Olympics**

### **Default :**

1. <http://www.latimes.com/sports/olympics/la-sp-oly-rio-2016-olympics-htmlstory.html>
2. <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=4>
3. <http://www.latimes.com/topic/sports/2016-summer-olympics-EVSPR000247-topic.html>
4. <http://www.latimes.com/world/mexico-americas/la-fg-brazil-rio-olympics-sign-20160705-snap-story.html>
5. <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=5>
6. <http://www.latimes.com/ct-bravo-cnbc-msnbc-usa-325-hours-olympics-20160524-story.html>
7. <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=9>
8. <http://www.latimes.com/sports/sportsnow/la-sp-olympics-ioc-russia-20160724-snap-story.html>
9. <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=2>
10. <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=3>

### **Custom :**

1. <http://www.huffingtonpost.com/impact/>
2. <http://www.latimes.com/sports/clippers/>
3. <http://www.latimes.com/world/mexico-americas/>
4. <http://www.huffingtonpost.com/syndication/>
5. <http://www.huffingtonpost.com/news/sleep--wellness/>
6. <http://www.latimes.com/visuals/video/>
7. <http://www.latimes.com/topic/sports/15000000-topic.html>
8. <http://www.latimes.com/sports/sportsnow/>
9. <http://www.latimes.com/sports/ducks/>
10. <http://www.huffingtonpost.com/news/paving-the-way/>

Overlaps : 0

## Screenshot : Default Pagerank

The screenshot shows a Google Chrome browser window with multiple tabs open. The active tab is titled "Solr Search". The search query "Rio Olympics" has been entered into the search bar. The search results are displayed as follows:

Query: Rio Olympics     Default  custom

Top 10 results

- <http://www.latimes.com/sports/olympics/la-sp-oly-rio-2016-olympics-htmlstory.html>  
2016 Summer Olympics: The U.S. dominates Rio Games with 121 medals Aug. 27, 2016, 10:01 a.m. The 2016 Rio Olympics have come to a close with Americans earning 121 medals -- 46 gold, 37 silver and 38 bronze -- their biggest haul ever, not counting the boycotted 1984 Los Angeles Games or the 1904...
- <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=4>  
Helene Elliott joined the Los Angeles Times' Sports department in 1989. She became the first female journalist to be honored with a plaque in the Hall of Fame of a major professional sport as the 2005 winner of the Hockey Hall of Fame's Elmer Ferguson Award, awarded to writers "who have brought..."
- <http://www.latimes.com/topic/sports/2016-summer-olympics-EVSPR000247-topic.html>  
News, Photos and Information about 2016 Summer Olympics
- <http://www.latimes.com/world/mexico-americas/la-fg-brazil-rio-olympics-sign-20160705-snap-story.html>  
As the state confronts a fiscal crisis, it's delayed paying police and firefighters.
- <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=5>  
Helene Elliott joined the Los Angeles Times' Sports department in 1989. She became the first female journalist to be honored with a plaque in the Hall of Fame of a major professional sport as the 2005 winner of the Hockey Hall of Fame's Elmer Ferguson Award, awarded to writers "who have brought..."
- <http://www.latimes.com/ct-bravo-cnbc-msnbc-usa-325-hours-olympics-20160524-story.html>  
NBCUniversal networks Bravo, CNBC, MSNBC and USA will combine to televise 325½ hours of programming from the Rio Olympics this summer.
- <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=9>  
Helene Elliott joined the Los Angeles Times' Sports department in 1989. She became the first female journalist to be honored with a plaque in the Hall of Fame of a major professional sport as the 2005 winner of the Hockey Hall of Fame's Elmer Ferguson Award, awarded to writers "who have brought..."
- <http://www.latimes.com/sports/sportssnow/la-sp-olympics-ioc-russia-20160724-snap-story.html>  
The IOC has decided against a complete ban on Russian athletes from the Olympics in Rio de Janeiro.
- <http://www.latimes.com/newsletters/sports/lanews-helene-elliott-20130507-staff.html?page=2>

## Screenshot : Custom Pagerank

The screenshot shows a Google Chrome browser window with multiple tabs open. The active tab is titled "Solr Search". The search query "Rio Olympics" has been entered into the search bar. The search results are displayed as follows:

Query: Rio Olympics     Default  custom

Top 10 results

- <http://www.huffingtonpost.com/impact/>  
Discover worthy causes, find ways to take action, and read truly inspiring stories. Hear from social good experts and share how you can make an impact.
- <http://www.latimes.com/sports/clippers/>  
News about the Los Angeles Clippers from the Los Angeles Times.
- <http://www.latimes.com/world/mexico-americas/>  
Breaking news and reporting from Mexico, Latin America and North America.
- <http://www.huffingtonpost.com/syndication/>  
undefined
- <http://www.huffingtonpost.com/news/sleep--wellness/>  
Big News on Sleep + Wellness. Includes blogs, news, and community conversations about Sleep + Wellness.
- <http://www.latimes.com/visuals/video/>  
Video and shorts featuring breaking news, investigative journalism, interviews and more.
- <http://www.latimes.com/topic/sports/15000000-topic.html>  
News, Photos and Information about Sports
- <http://www.latimes.com/sports/sportssnow/>  
Sports news from Los Angeles and beyond.
- <http://www.latimes.com/sports/ducks/>  
News about the NHL and the Anaheim Ducks from our sportswriters.
- <http://www.huffingtonpost.com/news/paving-the-way/>  
Big News on Paving The Way. Includes blogs, news, and community conversations about Paving The Way.

## **Query 4: Pokemon Go**

### **Default:**

1. <http://www.latimes.com/science/sciencenow/la-sci-sn-pokemon-go-distraction-20160916-snap-story.html>
2. <http://www.latimes.com/sports/la-sp-oly-rio-2016-star-gymnast-kohei-uchimura-racks-up-a-1470238205-htmlstory.html>
3. <http://www.huffingtonpost.com/news/pet/>
4. <http://www.latimes.com/science/popular/>
5. <http://www.latimes.com/topic/science/scientific-research/13004000-topic.html>
6. <http://www.huffingtonpost.com/author/nmjones303-720>
7. <http://www.latimes.com/science/sciencenow/la-sci-sn-opioid-naloxone-app-20160919-snap-story>
8. <http://www.latimes.com/opinion/op-ed/la-oe-daum-the-problem-with-problematic-20160721-snap-story.html>
9. <http://www.latimes.com/business/technology/la-fi-tn-apple-products-20160906-snap-story.html>
10. <http://www.huffingtonpost.com/news/baltimore/>

### **Custom:**

1. <http://www.huffingtonpost.com/detroit/>
2. <http://www.huffingtonpost.com/syndication/>
3. <http://www.huffingtonpost.com/news/eat-the-press/>
4. <http://www.huffingtonpost.com/news/what-is-working-small-businesses/>
5. <http://www.huffingtonpost.com/news/power-of-humanity/>
6. <http://www.huffingtonpost.com/section/healthy-living>
7. <http://www.huffingtonpost.com/news/womens-health/>
8. <http://www.latimes.com/science/popular/>
9. <http://www.huffingtonpost.com/news/baltimore/>
10. <http://www.huffingtonpost.com/news/indiebride/>

### **OverLaps : 2**

1. <http://www.latimes.com/science/popular/>
2. <http://www.huffingtonpost.com/news/baltimore/>

## Screenshot : Default Pagerank

Solr Search - Google Chrome

localhost:8080

**Solr Search**

Query:   Default  custom

Top 10 results

<http://www.latimes.com/science/scienconow/la-sci-sn-pokemon-go-distraction-20160916-snap-story.html>  
Hundreds of thousands of Pokemon Go users are driving while playing or distracted by other players, risking serious injury, a new study found by mining social media and news reports.

<http://www.latimes.com/sports/la-sp-oly-rio-2016-star-gymnast-kohel-uchimura-racks-up-a-1470238205-htmlstory.html>  
Japanese gymnast Kohel Uchimura had some spare time on his hands last week after landing in Sao Paulo, Brazil, with his teammates for s...

<http://www.huffingtonpost.com/news/pet/>  
Big News on Pets. Includes blogs, news, and community conversations about Pets.

<http://www.latimes.com/science/popular/>  
undefined

<http://www.latimes.com/topic/science/scientific-research/13004000-topic.html>  
News, Photos and Information about Scientific Research

<http://www.huffingtonpost.com/author/nmjones303-720>  
undefined

<http://www.latimes.com/science/scienconow/la-sci-sn-opioid-naloxone-app-20160919-snap-story>  
The Food and Drug Administration challenges coders to create an app that would help opioid overdose victims find the nearest source of naloxone, a drug that could save their lives.

<http://www.latimes.com/opinion/op-ed/la-oe-daua-the-problem-with-problematic-20160721-snap-story.html>  
Cropping up particularly in online discussions about social justice and unacknowledged privilege, "problematic" is sort of like "utilize" for the Smuggy McSanctipants set.

<http://www.latimes.com/business/technology/la-fi-tn-apple-products-20160906-snap-story.html>  
Apple didn't wow at its annual product event in San Francisco on Wednesday. No ground-breaking products, no last-minute surprises and nothing the rumor mill hadn't already predicted.

<http://www.huffingtonpost.com/news/baltimore/>  
Big News on Baltimore. Includes blogs, news, and community conversations about Baltimore.

Firefox icon

## Screenshot : Custom Pagerank

Solr Search - Google Chrome

localhost:8080

**Solr Search**

Query:   Default  custom

Top 10 results

<http://www.huffingtonpost.com/detroit/>  
Find local Detroit news, opinion, politics, culture, real estate, restaurants and events. Join the conversation! Contribute your thoughts and comments to up-to-the minute coverage of what matters to you.

<http://www.huffingtonpost.com/syndication/>  
undefined

<http://www.huffingtonpost.com/news/eat-the-press/>  
Big News on Eat The Press. Includes blogs, news, and community conversations about Eat The Press.

<http://www.huffingtonpost.com/news/what-is-working-small-businesses/>  
Big News on What Is Working: Small Businesses. Includes blogs, news, and community conversations about What Is Working: Small Businesses.

<http://www.huffingtonpost.com/news/power-of-humanity/>  
Big News on The Power Of Humanity. Includes blogs, news, and community conversations about The Power Of Humanity.

<http://www.huffingtonpost.com/section/healthy-living>  
Healthy Living news and opinion

<http://www.huffingtonpost.com/news/womens-health/>  
Big News on Women's Health. Includes blogs, news, and community conversations about Women's Health.

<http://www.latimes.com/science/popular/>  
undefined

<http://www.huffingtonpost.com/news/baltimore/>  
Big News on Baltimore. Includes blogs, news, and community conversations about Baltimore.

<http://www.huffingtonpost.com/news/indiebride/>  
Big News on Indiebride. Includes blogs, news, and community conversations about Indiebride.

Firefox icon

## **Query 5 : California Wild Fires**

### **Default :**

1. <http://www.latimes.com/travel/themeparks/la-tr-walking-dead-universal-studios-year-round-20160623-snap-story.html>
2. <http://www.latimes.com/topic/international/canada-PLGEO000006-topic.html?page=9>
3. <http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story>
4. <http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story.html>
5. <http://www.huffingtonpost.com/news/2012-speculatron/>

### **Custom:**

1. <http://www.huffingtonpost.com/news/2012-speculatron/>
2. <http://www.latimes.com/travel/themeparks/la-tr-walking-dead-universal-studios-year-round-20160623-snap-story.html>
3. <http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story.html>
4. <http://www.latimes.com/topic/international/canada-PLGEO000006-topic.html?page=9>
5. <http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story>

### **Over laps : 5**

1. <http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story.html>
2. <http://www.latimes.com/topic/international/canada-PLGEO000006-topic.html?page=9>
3. <http://www.latimes.com/travel/themeparks/la-tr-walking-dead-universal-studios-year-round-20160623-snap-story.html>
4. <http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story>
5. <http://www.huffingtonpost.com/news/2012-speculatron/>

## Screenshot : Default Pagerank

Solr Search - Google Chrome  
localhost:8080

Query: California Wild Fires  Default  custom

Top 5 results

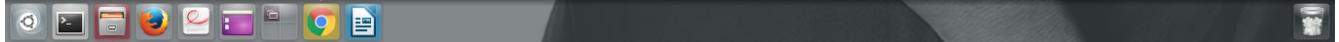
<http://www.latimes.com/travel/themeparks/la-tr-walking-dead-universal-studios-year-round-20160623-snap-story.html>  
After four seasons headlining Halloween Horror Nights, the Walking Dead haunted maze will move from seasonal tenant at Universal Studios Hollywood to a year-round resident starting July 4.

<http://www.latimes.com/topic/international/canada-PLGEO000006-topic.html?page=9>  
News, Photos and Information about Canada

<http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story>  
California's majestic old-growth coastal redwoods — the tallest trees on Earth — will leave one humbled, awed and waxing poetic.

<http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story.html>  
California's majestic old-growth coastal redwoods — the tallest trees on Earth — will leave one humbled, awed and waxing poetic.

<http://www.huffingtonpost.com/news/2012-speculatron/>  
Big News on 2012 Speculatron. Includes blogs, news, and community conversations about 2012 Speculatron.



## Screenshot : Custom Pagerank

Solr Search - Google Chrome  
localhost:8080

Query: California Wild Fires  Default  custom

Top 5 results

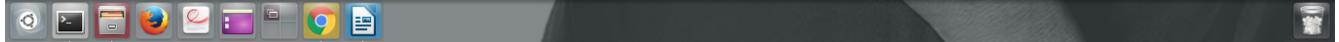
<http://www.huffingtonpost.com/news/2012-speculatron/>  
Big News on 2012 Speculatron. Includes blogs, news, and community conversations about 2012 Speculatron.

<http://www.latimes.com/travel/themeparks/la-tr-walking-dead-universal-studios-year-round-20160623-snap-story.html>  
After four seasons headlining Halloween Horror Nights, the Walking Dead haunted maze will move from seasonal tenant at Universal Studios Hollywood to a year-round resident starting July 4.

<http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story>  
California's majestic old-growth coastal redwoods — the tallest trees on Earth — will leave one humbled, awed and waxing poetic.

<http://www.latimes.com/topic/international/canada-PLGEO000006-topic.html?page=9>  
News, Photos and Information about Canada

<http://www.latimes.com/travel/la-tr-redwoods-postcards-mainbar-20140518-story.html>  
California's majestic old-growth coastal redwoods — the tallest trees on Earth — will leave one humbled, awed and waxing poetic.



## **Query 6 : Donald Trump**

### **Default:**

1. <http://www.huffingtonpost.com/news/donald-trump/>
2. <http://www.huffingtonpost.com/author/christina-wilkie>
3. <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-donald-trump-sells-miss-universe-wme-img-20150914-story.html>
4. <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-donald-trump-univision-settle-lawsuit-20160211-story.html>
5. <http://www.huffingtonpost.com/news/eric-trump/>
6. <http://www.latimes.com/local/lanow/la-me-ln-trump-university-20160614-snap-story.html>
7. <http://www.latimes.com/visuals/photography/la-na-donald-trump-in-arizona-photos-20160831-photogallery.html>
8. <http://www.latimes.com/nation/politics/la-na-trump-entertainer-20160129-story.html>
9. <http://www.latimes.com/local/lanow/la-me-ln-trump-university-20160601-snap-story.html>
10. <http://www.latimes.com/entertainment/tv/showtracker/la-et-st-jimmy-fallon-full-house-donald-trump-20160216-story.html>

### **Custom:**

1. <http://www.latimes.com/>
2. <http://www.huffingtonpost.com/>
3. <http://www.huffingtonpost.com/terms.html>
4. <http://www.huffingtonpost.com/contact/>
5. <http://www.huffingtonpost.com/p/frequently-asked-question.html>
6. <http://www.huffingtonpost.com/science/>
7. <http://www.huffingtonpost.com/green/>
8. <http://www.huffingtonpost.com/?country=US>
9. <http://www.huffingtonpost.com/impact/>
10. <http://www.huffingtonpost.com/media/>

### **Overlaps : 0**

## Screenshot : Default Pagerank

Solr Search - Google Chrome  
Google's Al... DIY Solar tra... priya\_tweets Lecture Video CSCI 572 (41 Los Angeles Solr Search Solr Search Ravi Kiran  
localhost:8080

**Solr Search**

Query: Donald Trump  Default  custom

Top 10 results

<http://www.huffingtonpost.com/news/donald-trump/>  
Big News on Donald Trump. Includes blogs, news, and community conversations about Donald Trump.

<http://www.huffingtonpost.com/author/christina-wilkie>  
undefined

<http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-donald-trump-sells-miss-universe-wme-img-20150914-story.html>  
Three days after becoming the sole owner of the Miss Universe Organization, Donald Trump has turned around and sold the grouping of pageants to the WME/IMG agency. The media agency announced the acquisition Monday morning. Financial terms of the deal were not disclosed. The events put on within...

<http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-donald-trump-univision-settle-lawsuit-20160211-story.html>  
Donald Trump has settled his lawsuit with Univision over the media company's decision to drop his Miss Universe pageant last year.

<http://www.huffingtonpost.com/news/eric-trump/>  
undefined

<http://www.latimes.com/local/lanow/la-me-ln-trump-university-20160614-snap-story.html>  
Donald Trump fights to keep videos of his Trump University depositions private

<http://www.latimes.com/visuals/photography/la-na-donald-trump-in-arizona-photos-20160831-photogallery.html>  
undefined

<http://www.latimes.com/nation/politics/la-na-trump-entertainer-20160129-story.html>  
Bemoaning the migration of U.S. jobs overseas, Donald Trump reminded a New Hampshire audience this week that Pfizer was moving its headquarters to Ireland. "No more Viagra!" a man hollered. "Shout that out once more," Trump responded with a grin. "No more Viagra!" The Republican presidential candidate...

<http://www.latimes.com/local/lanow/la-me-ln-trump-university-20160601-snap-story.html>  
Court documents unsealed this week in two class-action lawsuits against Trump University portray the program as a "fraudulent scheme" that employed high-pressure sales tactics — as well as a place where some participants got "exceptional" advice about profiting from real estate.

Navigation icons: back, forward, search, etc.

## Screenshot : Custom Pagerank

Solr Search - Google Chrome  
Google's Al... DIY Solar tra... priya\_tweets Lecture Video CSCI 572 (41 Los Angeles Solr Search Solr Search Ravi Kiran  
localhost:8080

**Solr Search**

Query: Donald Trump  Default  custom

Top 10 results

<http://www.latimes.com/>  
The LA Times is a leading source of breaking news, entertainment, sports, politics, and more for Southern California and the world.

<http://www.huffingtonpost.com/>  
The destination for news, blogs and original content offering coverage of US politics, entertainment, style, world news, technology and comedy - Huffington Post

<http://www.huffingtonpost.com/terms.html>  
undefined

<http://www.huffingtonpost.com/contact/>  
undefined

<http://www.huffingtonpost.com/p/frequently-asked-question.html>  
undefined

<http://www.huffingtonpost.com/science/>  
Join the discussion with top scientists on the latest news in spaceflight, brain/body research, evolution and the influence of science on culture.

<http://www.huffingtonpost.com/green/>  
Get the latest environment news, explore the hottest green topics of the day and share your opinions on how to make the planet greener and cleaner.

<http://www.huffingtonpost.com/?country=US>  
The destination for news, blogs and original content offering coverage of US politics, entertainment, style, world news, technology and comedy - Huffington Post

<http://www.huffingtonpost.com/impact/>  
Discover worthy causes, find ways to take action, and read truly inspiring stories. Hear from social good experts and share how you can make an impact.

<http://www.huffingtonpost.com/media/>  
Gain insight into the world of mass media with news and commentary on the business and journalistic integrity of top news sources and media outlets.

Navigation icons: back, forward, search, etc.

## **Query 7 : Harry Potter**

### **Default :**

1. <http://www.latimes.com/travel/deals/la-trb-wizarding-world-harry-potter-photos-03201130-pg-photogallery.html>
2. <http://www.latimes.com/business/la-fi-harry-potter-merchandise-20160302-story.html>
3. <http://www.latimes.com/travel/themeparks/la-trb-forbidden-journey-wizarding-world-harry-potter-20160404-story.html>
4. <http://www.latimes.com/business/la-fi-harry-potter-crowds-20160319-story.html>
5. <http://www.latimes.com/travel/themeparks/la-trb-hippogriff-coaster-wizarding-world-harry-potter-20160401-story.html>
6. <http://www.latimes.com/books/la-et-jc-harry-potter-book-sales-20160810-snap-story.html>
7. <http://www.latimes.com/business/la-fi-universal-studios-prices-20160323-story.html>
8. <http://www.latimes.com/entertainment/herocomplex/la-et-hc-pottermore-patronus-harry-potter-20160922-snap-story>
9. <http://www.latimes.com/entertainment/herocomplex/la-et-hc-pottermore-patronus-harry-potter-20160922-snap-story.html>
10. <http://www.latimes.com/entertainment/la-et-wizarding-world-hollywood-review-20160404-column.html>

### **Custom:**

1. <http://www.huffingtonpost.com/syndication/>
2. <http://www.latimes.com/entertainment/herocomplex/>
3. <http://www.huffingtonpost.com/section/arts>
4. <http://www.latimes.com/entertainment/tv/showtracker/>
5. <http://www.latimes.com/travel/themeparks/>
6. <http://www.huffingtonpost.com/news/themed-guides/>
7. <http://www.huffingtonpost.com/news/indiebride/>
8. <http://www.huffingtonpost.com/news/lesbian/>
9. <http://www.huffingtonpost.com/news/tv-spoilers/>
10. <http://www.latimes.com/travel/themeparks/la-trb-star-wars-land-disneyland-20150817-story.html>

**Overlaps : 0**

## Screenshot : Default Pagerank

The screenshot shows a Google Chrome browser window with multiple tabs open. The active tab is titled "Solr Search". The search query "Harry Potter" has been entered into the search bar. The search results are displayed as follows:

Query: Harry Potter

Top 10 results

- <http://www.latimes.com/travel/deals/la-trb-wizarding-world-harry-potter-photos-03201130-pg-photogallery.html>  
The Wizarding World of Harry Potter at Universal's Island of Adventure theme park in Orlando, Fla., features rides, shows and shops based on the book and film series.
- <http://www.latimes.com/business/la-fi-harry-potter-merchandise-20160302-story.html>  
Visiting from Missouri, Alexander Godbey concentrated on the shop window before him, trying again and again to make something happen. After a fifth circular wave, the electronic wizardry in the 9-year-old's wand triggered a small chest of drawers in the window to open, rearrange its contents and...
- <http://www.latimes.com/travel/themeparks/la-trb-forbidden-journey-wizarding-world-harry-potter-20160404-story.html>  
Theme park fans are in for a treat when Harry Potter and the Forbidden Journey officially opens on Thursday inside Hogwarts Castle at Universal Studios
- <http://www.latimes.com/business/la-fi-harry-potter-crowds-20160319-story.html>  
It doesn't matter that Adrienne Alipia has already visited Harry Potter attractions in London (once) and Orlando, Fla., (twice).
- <http://www.latimes.com/travel/themeparks/la-trb-hippogriff-coaster-wizarding-world-harry-potter-20160401-story.html>  
After you've shopped at Honeydukes, downed a Butterbeer, dined at the Three Broomsticks, tested your new magic wand and braved the phenomenal Harry Potter and the Forbidden Journey dark ride, there's still one more thing to do at the Wizarding World of Harry Potter. The often-overlooked Flight...
- <http://www.latimes.com/books/la-et-jc-harry-potter-book-sales-20160810-snap-story.html>  
The book 'Harry Potter and the Cursed Child' sold 3.3 million copies in its first 10 days on sale in the US and Canada
- <http://www.latimes.com/business/la-fi-universal-studios-prices-20160323-story.html>  
Only a few weeks before the opening of its much-anticipated Harry Potter attraction, Universal Studios Hollywood is performing a shrinking spell on your wallet. Over the weekend, the park quietly raised prices up to 20%, pushing its highest-priced daily ticket beyond that of its sister parks in...
- <http://www.latimes.com/entertainment/herocomplex/la-et-hc-pottermore-patronus-harry-potter-20160922-snap-story>  
Pottermore introduces a "Patronus experience" aimed at revealing what users Harry Potter
- <http://www.latimes.com/entertainment/herocomplex/la-et-hc-pottermore-patronus-harry-potter-20160922-snap-story.html>  
Pottermore introduces a "Patronus experience" aimed at revealing what users Harry Potter

## Screenshot : Custom Pagerank

The screenshot shows a Google Chrome browser window with multiple tabs open. The active tab is titled "Solr Search". The search query "Harry Potter" has been entered into the search bar. The search results are displayed as follows:

Query: Harry Potter

Top 10 results

- <http://www.huffingtonpost.com/syndication/>  
undefined
- <http://www.latimes.com/entertainment/herocomplex/>  
Read Hero Complex from the L.A. Times, covering all things science fiction, superheroes and fantasy.
- <http://www.huffingtonpost.com/section/arts>  
Arts news and opinion
- <http://www.latimes.com/entertainment/tv/showtracker/>  
Television blog dedicated to the latest tv and entertainment news, recaps and commentary and criticism.
- <http://www.latimes.com/travel/themeparks/>  
Travel guides to theme parks by the Los Angeles Times
- <http://www.huffingtonpost.com/news/themed-guides/>  
Big News on Themed Guides. Includes blogs, news, and community conversations about Themed Guides.
- <http://www.huffingtonpost.com/news/indiebride/>  
Big News on Indiebride. Includes blogs, news, and community conversations about Indiebride.
- <http://www.huffingtonpost.com/news/lesbian/>  
Examine issues like gay marriage, explore lesbian culture and join discussions on the latest news that matters most to the lesbian community.
- <http://www.huffingtonpost.com/news/tv-spoilers/>  
Big News on TV Spoilers. Includes blogs, news, and community conversations about TV Spoilers.
- <http://www.latimes.com/travel/themeparks/la-trb-star-wars-land-disneyland-20150817-story.html>  
Disney raised more questions than it answered at the D23 Expo with the announcement of plans to unveil Star Wars Lands at Disneyland in Anaheim and Disney's Hollywood Studios in Orlando, Fla. Here's

## **Query 8 : Brazil**

### **Default:**

1. <http://www.latimes.com/world/brazil/la-fg-brazil-impeachment-20160313-story.html>
2. <http://www.latimes.com/world/brazil/la-fg-0320-brazil-crisis-20160321-story.html>
3. <http://www.latimes.com/nation/ct-three-months-brazil-olympics-20160514-story.html>
4. <http://www.latimes.com/world/brazil/la-fg-brazil-coup-debate-20160402-story.html>
5. <http://www.latimes.com/world/mexico-americas/la-fg-brazil-impeach-20160328-story.html>
6. <http://www.latimes.com/topic/politics-government/government/dilma-rousseff-PEPLT00007715-topic.html>
7. <http://www.latimes.com/world/mexico-americas/la-fg-brazil-low-rider-snap-story.html>
8. <http://www.latimes.com/sports/olympics/la-fg-brazil-olympics-politics-20160808-snap-story.html>
9. <http://www.latimes.com/world/mexico-americas/la-fg-brazil-impeachment-pictures-photogallery.html>
10. <http://www.latimes.com/world/mexico-americas/la-fg-brazil-impeachment-20160725-snap-story.html>

### **Custom:**

1. <http://www.latimes.com/world/mexico-americas/>
2. <http://www.huffingtonpost.com/syndication/>
3. <http://www.latimes.com/world/>
4. <http://www.huffingtonpost.com/news/paving-the-way/>
5. <http://www.huffingtonpost.com/news/global-health/>
6. <http://www.huffingtonpost.com/section/black-voices>
7. <http://www.huffingtonpost.com/section/arts>
8. <http://www.huffingtonpost.com/news/green-technology/>
9. <http://www.latimes.com/bp/>
10. <http://www.latimes.com/local/datadesk/>

**Overlaps : 0**

## Screenshot : Default Pagerank

Solr Search - Google Chrome

localhost:8080

**Solr Search**

Query: Brazil

Default custom Search

Top 10 results

<http://www.latimes.com/world/brazil/la-fg-brazil-impeachment-20160313-story.html>  
Some of the largest antigovernment demonstrations Brazil has seen took place Sunday, after long-standing accusations of corruption against former President Luiz

<http://www.latimes.com/world/brazil/la-fg-0320-brazil-crisis-20160321-story.html>  
All three branches of Brazil's government are accused of wrongdoing. Old political heroes are being cast in new, unflattering light. And streets across the country have been filled with hundreds of thousands of demonstrators. Ge de Souza, a doorman in downtown Sao Paulo, pointed to streets Saturday...

<http://www.latimes.com/nation/ct-three-months-brazil-olympics-20160514-story.html>  
The XXXI Olympiad begins in less than three months and the host country is facing a devastating recession, a Zika epidemic and more political turbulence now

<http://www.latimes.com/world/brazil/la-fg-brazil-coup-debate-20160402-story.html>  
When author Marcelo Rubens Paiva uses the word "coup," many Brazilians listen. His father, politician Rubens Paiva, was among the hundreds tortured and murdered by the military dictatorship that seized power here in 1964. The well-known novelist is part of a vocal minority insisting that the current...

<http://www.latimes.com/world/mexico-americas/la-fg-brazil-impeach-20160328-story.html>  
Efforts to impeach Brazil's president accelerated this month as the country fell into full-blown crisis. But the congressional commission that will help decide

<http://www.latimes.com/topic/politics-government/government/dilma-rousseff-PEPLT00007715-topic.html>  
News, Photos and Information about Dilma Rousseff

<http://www.latimes.com/world/mexico-americas/la-fg-brazil-low-rider-snap-story.html>  
A lowrider culture has sprung up in Brazil, mimicking the style of East L.A. in the 1990s. There are mariachis, Dodgers and Raiders gear, loads of expensively restored cars and taco trucks.

<http://www.latimes.com/sports/olympics/la-fg-brazil-olympics-politics-20160808-snap-story.html>  
It's long been IOC policy to keep political statements out of the Games. But it's sparking debate on how to protect freedom of speech during a politically charged moment in Brazil's history.

<http://www.latimes.com/world/mexico-americas/la-fg-brazil-impeachment-pictures-photogallery.html>  
undefined

## Screenshot : Custom Pagerank

Solr Search - Google Chrome

localhost:8080

**Solr Search**

Query: Brazil

Default custom Search

Top 10 results

<http://www.latimes.com/world/mexico-americas/>  
Breaking news and reporting from Mexico, Latin America and North America.

<http://www.huffingtonpost.com/syndication/>  
undefined

<http://www.latimes.com/world/>  
Coverage of the top world news stories from across the globe, including politics, breaking news and opinion.

<http://www.huffingtonpost.com/news/paving-the-way/>  
Big News on Paving The Way. Includes blogs, news, and community conversations about Paving The Way.

<http://www.huffingtonpost.com/news/global-health/>  
Big News on Global Health. Includes blogs, news, and community conversations about Global Health.

<http://www.huffingtonpost.com/section/black-voices>  
Get Black entertainment and politics news, money and beauty advice, and discuss the issues that matter most to the African American community.

<http://www.huffingtonpost.com/section/arts>  
Arts news and opinion

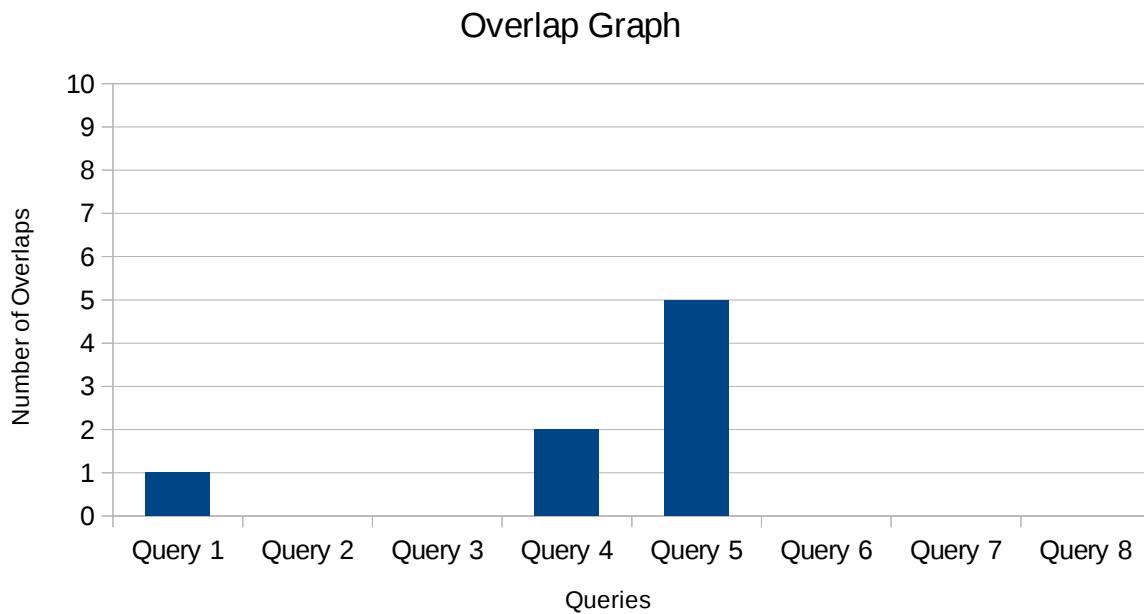
<http://www.huffingtonpost.com/news/green-technology/>  
Big News on Green Technology. Includes blogs, news, and community conversations about Green Technology.

<http://www.latimes.com/bp/>  
undefined

<http://www.latimes.com/local/datadesk/>  
Comprehensive maps, databases and visualizations by our team of reporters and analysts.

### **Overlap Graph :**

	Query1	Query2	Query3	Query4	Query5	Query6	Query7	Query8
Number of Overlaps	1	0	0	2	5	0	0	0



*Illustration : Overlap graph*

### **Why some pages have higher pagerank values ?**

Pagerank value of a page depends on the number of other pages present page is referenced in other web pages and the pageranks of those webpages. If a page rank of a particular page is high, it means that particular page is referenced in more number of web pages with good pageranks. Also on the other hand, if a pagerank of page is low, it either means the number of other web pages where it is referenced is less or page ranks of those other web pages might be less as well.

**Note:** Credits to **Google** and **Stackoverflow** for helping me to bringup nodejs,front-end for http-server and the communication between both.