

## Assignment 3:

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### Design:

The Web based query system is designed mainly using the 4 components – MongoDB, NodeJS, Express and Jade.

Firstly, the data is preprocessed in the apiJSON.py and MashupJSON.py files and the respective JSON files are created. This JSON files are then loaded in the mongodb. Once the this files are loaded they are being queried in the NodeJS. Through Jade the output of the query is being displayed.

### Workflow:

1. Go to the home page i.e localhost:3000
2. Then select the query enter the values to the query. This text field values are passed to the NodeJS where this query are executed through the data in mongodb.
3. Once the result is fetch this result is passed to the Jade and is the outcomes are displayed in the table format on the web page

### Screenshots of Application:

1. Api Data in mongodb

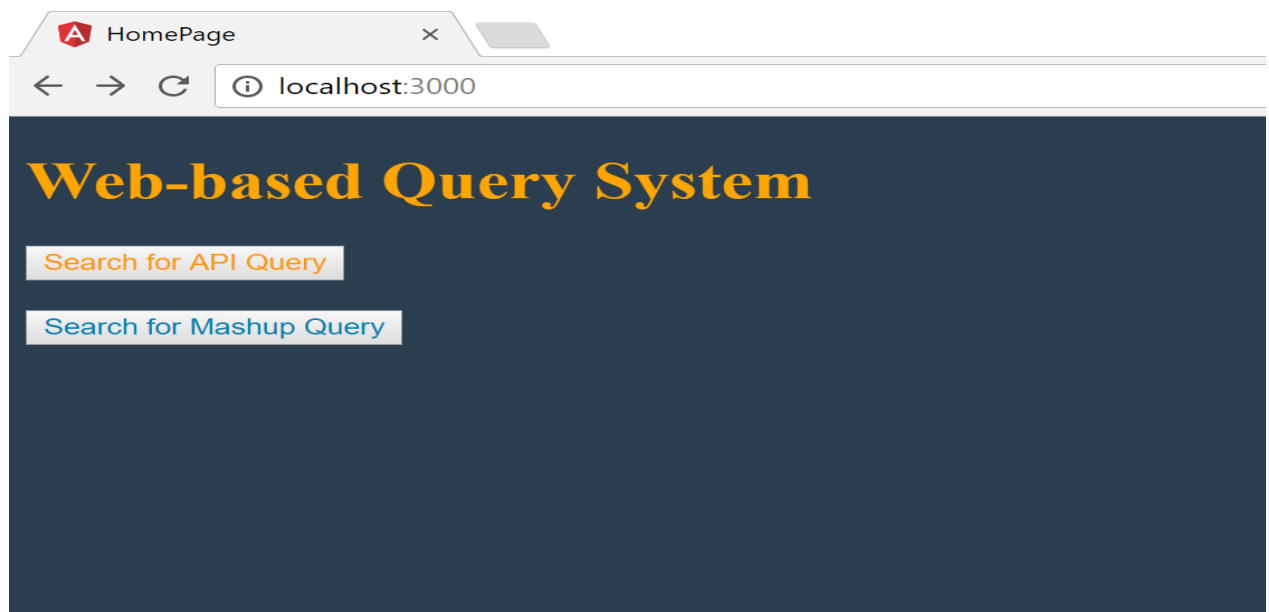
```
db.apicollections.find().pretty()

  "_id" : ObjectId("58f7c0e77b33a66c17c73932"),
  "CommunityApiKits" : "",
  "VendorApiKits" : "",
  "accountReq" : "No",
  "apigroups" : "",
  "authentication" : "",
  "author" : "",
  "blog" : "",
  "category" : "Science",
  "clientInstall" : "",
  "commentsUrl" : "http://api.programmableweb.com/apis/the-global-proteome-machine/comments",
  "commercial" : "",
  "company" : "",
  "dataFormats" : "JSON",
  "dataLicensing" : "",
  "dateModified" : "2012-12-17T09:51:40Z",
  "description" : "The Global Proteome Machine is an attempt to create knowledge from proteomics data and reuse it
to solve biomedical research problems. The Global Proteome Machine Database was built to use GPM data to help validate
peptide MS/MS spectra and protein coverage patterns. The Global Proteome Machine Database API provides RESTful access to
commonly required information based on data from the GPM Database. Responses are JSON formatted.",
  "downloadUrl" : "",
  "downloads" : "",
  "example" : "",
  "fees" : "",
  "forum" : "",
  "id" : "http://www.programmableweb.com/api/the-global-proteome-machine",
  "label" : " The Global Proteome Machine",
```

## 2. Mashup Data in MongoDB

```
db.Mashupcollection.find().pretty()
{
  "_id" : ObjectId("58fcf7ef42d6c8c2919797ae"),
  "api" : [
    "Flickr",
    "Google Maps"
  ],
  "author" : "Unknown",
  "commentsUrl" : "http://api.programmableweb.com/mashups/-22/comments",
  "dateModified" : "2011-10-09T14:35:06Z",
  "description" : "",
  "downloads" : "0",
  "id" : "http://www.programmableweb.com/mashup/-22",
  "label" : "",
  "name" : "",
  "numComments" : "0",
  "rating" : 3.8,
  "sampleUrl" : "http://www.easypeasyphotos.net",
  "summary" : "",
  "tag" : [
    ""
  ],
  "title" : "",
  "type" : "",
  "updated" : "2011-10-09T14:35:06Z\n",
  "url" : [
    "http://www.programmableweb.com/api/flickr",
    "http://www.programmableweb.com/api/google-maps"
  ],
  "useCount" : "0"
}
```

## 3. Home page for web-based query system



4. Click on the search API query and the following web page is displayed. For combine query. Consider taking category='science' and protocol='Rest'

localhost:3000/API?keyw x

localhost:3000/API?keyword=&category=&protocols=&selectparam=lessi ☆

### API Query

Key Word : keyword.. Category : Science

Protocol : Rest Rating : Select rating..

Updated Year : updated.. Tag : tag..

Search

### API QUERY

Select	Name	Summary	Description	Category	Protocol	Tag	Rating	Updated Year
--------	------	---------	-------------	----------	----------	-----	--------	--------------

Results of the query are:

localhost:3000/API?keyw x

localhost:3000/API?keyword=&category=Science&protocols=Rest&selectparam=select&rating=&updated=&tag=

### API Query

Key Word : keyword.. Category : category..

Protocol : protocol.. Rating : Select rating..

Updated Year : updated.. Tag : tag..

Search

### API QUERY

Select	Name	Summary	Description	Category	Protocol	Tag	Rating	Updated Year
Select	The Global Proteome Machine	Proteome data for biomedical research	The Global Proteome Machine is an attempt to create knowledge from proteomics data and reuse it to solve biomedical research problems. The Global Proteome Machine Database was built to use GPM data to help validate peptide MS/MS spectra and protein coverage patterns. The Global Proteome Machine Database API provides RESTful access to commonly required information based on data from the GPM Database. Responses are JSON formatted.	Science	REST	database,science	4.4	2012-12-17T09:51:40Z
Select	The Global Proteome Machine	Proteome data for biomedical research	The Global Proteome Machine is an attempt to create knowledge from proteomics data and reuse it to solve biomedical research problems. The Global Proteome Machine Database was built to use GPM data to help validate peptide MS/MS spectra and protein coverage patterns. The Global Proteome Machine Database API provides RESTful access to commonly required information based on data from the GPM Database. Responses are JSON formatted.	Science	REST	database,science	4.4	2012-12-17T09:51:40Z

5. For query rating greater than 3.0 and updated year= 2013

The screenshot shows a web browser window with the URL `localhost:3000/API?keyword=&category=&protocols=&selectparam=I`. The page title is "API Query". Below the title, there are input fields for "KeyWord", "Category", "Protocol", "Rating" (set to "Greater than 3.0"), "Updated Year" (set to "2013"), and "Tag". A "Search" button is located below these fields. Below the search fields, there is a table header for "API QUERY" with columns: "Select", "Name", "Summary", "Description", "Category", "Protocol", "Tag", "Rating", and "Updated Year".

Result of the query is shown in the below figure

The screenshot shows the same web browser window, but the URL is now `localhost:3000/API?keyword=&category=&protocols=&selectparam=greaterthan&rating=3.0&updated=2013&tag=`. The "API Query" form is still visible, but the "Rating" dropdown is now set to "Select" and the "Updated Year" field is empty. Below the search fields, the "API QUERY" table is populated with two rows of data.

Select	Name	Summary	Description	Category	Protocol	Tag	Rating	Updated Year
<a href="#">Select</a>	#CsC e-Sim	Modern world simulator information service	E-Sim is an online modern world simulation wherein the player becomes a citizen of one of 50 virtual countries. Players can take on a role such as soldier or business owner in order to affect the politics, economics, and military standing of their country. #CsC is a developer group that has created an unofficial REST API for retrieving information from E-Sim. Available information relates to citizens, battles, markets, taxes, parties, military units, regions, and more.	Games	REST	games	5	2013-06-08T05:35:07Z
<a href="#">Select</a>	#Gah People	FreeNode IRC channel user-finding service	#Gah People helps people from the FreeNode IRC channel #gah to discover one another. The website's XML-RPC API can be used to retrieve a list of all people on #gah or to retrieve people based on several factors that may include a search string, whether they have blogs, or whether they have RSS feeds. The API can also be used to retrieve all available information on a specified person.	Social	XML-RPC	internet,social	4.3	2013-02-01T05:21:43Z

6. For keyword ='google

localhost:3000/API?keyw x

localhost:3000/API?keyword=google+maps&category=&pr

### API Query

KeyWord :  Category :

Protocol :  Rating :

Updated Year :  Tag :

#### API QUERY

Select	Name	Summary	Description	Category	Protocol	Tag	Rating	Updated Year
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For google keyword resul

localhost:3000/API?keyw x

localhost:3000/API?keyword=google&category=&protocols=&selectparam=select&rating=&updated=&tag=

### API Query

KeyWord :  Category :

Protocol :  Rating :

Updated Year :  Tag :

#### API QUERY

Select	Name	Summary	Description	Category	Protocol	Tag	Rating	Updated Year
<input type="button" value="Select"/>	Google APIs Discovery	Google API directory service	This lightweight API is used within Google and made available to other developers. It makes all of Google's APIs listable and provides additional information about each API, including a full list of resources or methods. Google uses the API Discovery API internally to maintain client libraries for all of its APIs, as well as to fill a sandbox with potential API calls.	Internet	REST	Apis,internet	2.7	2011-05-10T06:19:21Z
<input type="button" value="Select"/>	Google Apps Email Migration	Migrate existing email systems to Google Apps	From their site: The Google Apps Email Migration API allows administrators and users of Google Apps to migrate mail from legacy email systems into their domains hosted Gmail accounts. Note: This API is only available to Google Apps Premier, Education, and Partner Edition domains, and cannot be used for migration into Google Apps Standard Edition email or Gmail accounts.	Email	REST, Atom	email,enterprise	4.2	2007-11-19T06:51:17Z

localhost:3000/ApiInfo?id=58fbc8c742d6c8c29196bd58

• **Api Information**

**ID** : <http://www.programmableweb.com/api/google-apis-discovery>

**Title** :Google APIs Discovery

**Summary** : Google API directory service

**Rating** :2.7

**Name** : Google APIs Discovery

**Label** :Google APIs Discovery

**Author** :

**Description** :This lightweight API is used within Google and made available to other developers. It makes all of Google's APIs listable and provides additional information about each API, including a full list of resources or methods. Google uses the API Discovery API internally to maintain client libraries for all of its APIs, as well as to fill a sandbox with potential API calls.

**Type** : 1

**Downloads** :

**UseCount** :

**SampleURL** :<https://developers.google.com/discovery/v1/reference/>

**DownloadUrl** :

**DateModified** :2011-05-10T06:19:21Z

**RemoteFeed** :

**Number of Comment** :

**CommentsUrl** :

## 7. For api='youtube' and updated year='2011'

localhost:3000/Mashup? x

localhost:3000/Mashup?keyword=&apiused=youtube&updated=2011&tag=

**Mashup Query**

Key Word :  Api :

Updated Year :  Tag :

Select	Name	Summary	Description	API	Tag	Updated Year
<a href="#">Select</a>	50 Shops	50Shops.com allows buyers to tap into the wisdom of crowds to help with their buying decisions. Site users can see which products their friends are buying or browsing and ask other users for feedback.	50Shops.com allows buyers to tap into the wisdom of crowds to help with their buying decisions. Site users can see which products their friends are buying or browsing and ask other users for feedback.	Amazon A9 OpenSearch,Amazon Marketplace Web Service,Amazon Product Advertising,Amazon SimpleDB,Facebook,YouTube	reference,shopping,social	2011-06-23T14:35:06Z
<a href="#">Select</a>	allSongsBy	allSongsBy provides full song listings for any artist via YouTube&#039;s vast free music collection. Lists are organized by artist and album.	allSongsBy provides full song listings for any artist via YouTube&#039;s vast free music collection. Lists are organized by artist and album.	iTunes and iTunes Connect,YouTube	music,search,video	2011-09-19T14:35:07Z

## 8. For tag='bookmark'

localhost:3000/Mashup? x

localhost:3000/Mashup?keyword=&apiused=&updated=&tag=bookmark

**Mashup Query**

Key Word :  Api :

Updated Year :  Tag :

Select	Name	Summary	Description	API	Tag	Updated Year
<a href="#">Select</a>	#S42AT	The #S42AT project lets you bookmark links you share by simply adding the #S42AT hashtag to your public status messages.	The #S42AT project lets you bookmark links you share by simply adding the #S42AT hashtag to your public status messages.	Facebook,Google Plus,Instagram,Twitter	bookmark,hashtag,tools	2013-11-15T11:31:57Z
<a href="#">Select</a>	1click2destiny	If it is 1 click 2 your destiny, will you face your fate? With 1click2destiny.com you get access to hundreds of top-rated links that were suggested and voted for by thousands of active online users. Uses the Digg API.	If it is 1 click 2 your destiny, will you face your fate? With 1click2destiny.com you get access to hundreds of top-rated links that were suggested and voted for by thousands of active online users. Uses the Digg API.	Digg	bookmarks,fun,news,social	2009-01-09T10:22:16Z

## 9. For google maps keyword

localhost:3000/Mashup? x

localhost:3000/Mashup?keyword=&apiused=&update=

**Mashup Query**

KeyWord :  x Api :

Updated Year :  Tag :

Select	Name	Summary	Description	API	Tag	Updated Year
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Results of google map keywords:

localhost:3000/Mashup? x

localhost:3000/Mashup?keyword=google+maps&apiused=&updated=&tag=

**Mashup Query**

KeyWord :  Api :

Updated Year :  Tag :

Select	Name	Summary	Description	API	Tag	Updated Year
<a href="#">Select</a>	Anthems on Google Maps	Google maps mashup that allows users to watch and listen to YouTube and Google videos of world national anthems.	Google maps mashup that allows users to watch and listen to YouTube and Google videos of world national anthems.	Google Maps,YouTube	anthems,deadpool,mapping,video	2007-01-30T01:01:10Z
<a href="#">Select</a>	Business of Baseball on Google Maps	Google Maps Mashup of Forbes data on the Most valuable teams in MLB. Also includes Yahoo Sports MLB RSS feeds.	Google Maps Mashup of Forbes data on the Most valuable teams in MLB. Also includes Yahoo Sports MLB RSS feeds.	Google Maps	baseball,mapping,news,sports	2007-05-04T21:08:57Z
<a href="#">Select</a>	CartoLogic Google Maps Demo	This map from Cartologic is using cartoview to show Twitter, Gowalla, Foursquare, Youtube, Yelp, Flickr, Weather, Events, Wikipedia with the Google Maps API.	This map from Cartologic is using cartoview to show Twitter, Gowalla, Foursquare, Youtube, Yelp, Flickr, Weather, Events, Wikipedia with the Google Maps API.	Flickr,foursquare,Google Maps,Gowalla,Twitter,Weather Channel,Wikipedia,Yelp,YouTube	mapping	2010-10-14T21:35:03Z



## 10. Mashup information after selecting the select button

