

Google Ajax Search API

CSE 190 M (Web Programming), Spring 2008
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References: [homepage](#), [code samples](#), [API reference](#)

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JavaScript frameworks

Many groups have released JavaScript frameworks you can include in your web pages to add effects:

- Yahoo! UI : set of rich UI widgets (demos 1, 2, 3)
- Scriptaculous : rich UI animation/effects library
- Prototype : DOM/Ajax extender
- jQuery : DOM/event library
- Dojo : graphics (demos)
- Sarissa : XML-related tools
- Google Ajax Search API, Ajax Feeds API, Maps API, Web Toolkit

What is the Google Ajax Web API?



- a set of JavaScript objects that allow you to perform Google searches
 - web, local, map, image, video, blog, news, books
- you can manipulate the search results or place them on your web page
- implemented as a . js file you include in your web page

API keys

- the API requires a "key" that is bound to your web domain (such as `www.cs.washington.edu` or `students.washington.edu`)
- you can sign up to get a key for a particular domain
- code to use API on `https://students.washington.edu`:

```
<script src="http://www.google.com/uds/api?file=uds.js&v=1.0&key=
ABQIAAAAJwpa3Lmr7L0oXrBemAIp0BSx00SUw7R9ozDoChrVVXrbgKdJeBTWWRQkTwM5gzSfgnTYruTJLircA" type="text/javascript"></script>
```

- (must remove line breaks from above code)

Ways of using the API

- onscreen search controls
 - simple
 - not much customization in appearance or behavior
- raw search results
 - more work
 - very customizable

"Hello, World!" app

```
// in your window.onload handler:
var searchControl = new GSearchControl();
searchControl.addSearcher(new search());
searchControl.draw(document.getElementById( "id" ));
searchControl.execute( "query" );
```

JS

- *id* is the CSS ID of a div where you want the search to show up
- *search* is one of the following: `GwebSearch`, `GlocalSearch`, `GvideoSearch`, `GblogSearch`, `GnewsSearch`, `GbookSearch`
 - can add multiple searches to the same `GSearchControl`
- *query* is what you initially want to search for (optional)
- complete HTML file: for `www.cs.washington.edu`, for `students.washington.edu`

Search control example

hamburger
powered by 

Local
(4)

JJ Hamburger & Teriyaki
26010 Pacific Hwy S
Kent,
WA
United States
(253) 946-5873
directions
Get directions:
To here
-
From here
clipped from Google - 5/2008
Web
(4)

Hamburger - Wikipedia, the free encyclopedia
A **hamburger** (or simply burger) is a sandwich that consists of a cooked patty of ground meat and is generally served with various garnish or condiments like ...
en.wikipedia.org
en.wikipedia.org/wiki/Hamburger
clipped from Google - 5/2008
Video
(4)



Pink Panther - " I Would like to buy a Hamburger"
I Would like to buy a Hamburger
Apr 17, 2006
www.youtube.com

clipped from Google - 5/2008
Blog
(4)

The Blumenburger, the Most Labor-Intensive **Hamburger** in the World
May 12, 2008

5 hours ago

Kenji wanted to try the recipe and write about it for A **Hamburger** Today. Here are the results. Grab a coffee and start readin'! —Adam. England's Heston Blumenthal follows in the footsteps of Spain's legendary Ferran Adrià, ...

<http://aht.seriousseats.com/>

clipped from Google - 5/2008

The search objects

search object	analogous to
GwebSearch	www.google.com
GlocalSearch	local.google.com
GvideoSearch	video.google.com
GblogSearch	blogsearch.google.com
GnewsSearch	news.google.com
GbookSearch	books.google.com

Methods/properties common to all searches

- new *search*()
- execute("*query*")
tells the search control to search for the given text
- setSearchCompleteCallback(*object*, *method*)
tells the search control to call the given method on the given object when the search is completed
- results[]
an array of all search results found

Web search example

```
var search = new Search();
search.setSearchCompleteCallback(window, function() {
  for (var i = 0; i < search.results.length; i++) {
    do something with search.results[i];
  }
});
search.execute("query");
```

JS

```
var search = new GwebSearch();
search.setSearchCompleteCallback(window, function() {
  for (var i = 0; i < search.results.length; i++) {
    alert(search.results[i].url);
  }
});
search.execute("miserable failure");
```

JS

[Click me](#)

Web search: GwebSearch

- elements of `results[]` have the following properties:
 - `url`
 - `content` : a snippet of the page's text
 - `titleNoFormatting` : search result title

Local search: GlocalSearch

- elements of `results[]` have the following properties:
 - `url`
 - `titleNoFormatting` : search result title
 - `lat, lng` : latitude/longitude coordinates
 - `streetAddress, city, region, country`
 - `phoneNumbers[]`
 - `ddUrl, ddUrlToHere, ddUrlFromHere` : driving directions URLs
- `GlocalSearch` method: `setCenterPoint("location")`
 - `search.setCenterPoint("Seattle, WA");`
 - `search.setCenterPoint("98105");`

Video search: GvideoSearch

- elements of `results[]` have the following properties:
 - `url`
 - `content` : a snippet of the video's text
 - `titleNoFormatting` : search result title
 - `duration` : length of clip in seconds
 - `tbUrl`, `tbWidth`, `tbHeight` : thumbnail image info
 - `playUrl` : address of Flash video that can be embedded

Blog search: GblogSearch

- elements of `results[]` have the following properties:
 - `postUrl`, `blogUrl` : web address of this post and entire blog
 - `content` : a snippet of the blog post's text
 - `titleNoFormatting` : search result title
 - `author`, `publishedDate`

News search: GnewsSearch

- elements of `results[]` have the following properties:
 - `url`
 - `content` : a snippet of the blog post's text
 - `titleNoFormatting` : search result title
 - `location` (e.g. "Edinburgh,Scotland,UK")
 - `publishedDate`
 - `relatedStories[]`

Book search: GbookSearch

- elements of `results[]` have the following properties:
 - `url`
 - `content` : a snippet of the blog post's text
 - `titleNoFormatting` : search result title
 - `authors`
 - `publishedYear`
 - `pageCount`