

Music & the Internet

MUMT 301

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Plan

- Music Discovery
- Javascript
- jQuery
- Echonest

Discovery Tools

- ex.fm (listen to music mentioned in blogs)
 - try: <http://almostmainstream.tumblr.com/> (compare on Safari & Chrome w/ex.fm)
 - <http://ex.fm/labs/blogfinder>
- Music blog aggregators:
 - <http://elbo.ws/> (see “What is Elbows” “Getting Started”)
 - <http://shuffler.fm/> (see About; listen by blogs)
 - hypem.com/popular
- later.fm (listen later: need to login)
- By mood:
 - <http://musicoverly.com/> (Android & iPhone)
 - <http://www.moodagent.com/> (mobile devices and Windows app)
- Time of day
 - <http://songza.com>
- Visualization
 - <http://audiomap.tuneglue.net/>
 - <http://www.musicroamer.com/>

Discovery Tools: Humans

- Experts:

- <http://wearehunted.com>

“The chart provides a continually updated list of the best new songs in the world today, as measured by popularity on music blogs and social media.”

“each month that look at more than 200,000 music articles and 12 million tweets.”

- <http://www.thesixtyone.com>

- Crowd sourced:

- last.fm

- [GoRankem](#) (see About)

Discovery Tools: Machines

- Apple Genius
- Google's Instant Mix (US only)
 - <http://musicmachinery.com/2011/05/14/how-good-is-googles-instant-mix/>
 - <http://musicmachinery.com/2011/05/24/google-instant-mix-and-itunes-genius-fix-their-wtfs/>
- <http://www.mtvmusicmeter.com/>
 - Upcoming artists with EchoNest (click "What is this?")
- http://uplaya.com/games/music_universe (a game)

Break

JS: Arrays

- A special variable, which can store more than one value
- To store a list of things
- To create an Array (3 ways)

=====

```
var artists = new Array();
```

```
artists[0] = "Adele";
```

```
artists[1] = "Barbra Streisand";
```

```
artists[2] = "U2";
```

=====

```
var artists = new Array("Adele", "Barbra Streisand", "U2");
```

=====

```
var artists = ["Adele", "Barbra Streisand", "U2"];
```

=====

http://www.w3schools.com/js/js_obj_array.asp

JS: Objects

- An object is a special type of data
- It has **properties** and **methods** (functions)
- **Properties** are the details about an object
- **Methods** are things that can be done with the object
- You can create your own objects
- You can use Javascript built-in objects:
 - String
 - Math
 - Date
 - etc.
- You can use HTML objects
 - Document
 - Window
 - Navigator
 - etc.

JS: Built-in object examples

- **String object**

- **String property: length**

```
var text = "Hello World";  
document.write("The string length is: " + text.length);
```

- **String method: substr(start, length)**

```
document.write("Substring: " + text.substr(6, 5));
```

- **Math object**

- **Math property: PI**

```
document.write("PI accoring to JS: " + Math.PI);
```

- **Math method: sqrt**

```
var x = 16;  
document.write("Square root of " x " is " + Math.sqrt(x));
```

- **Date object**

- **Need to create it first**

```
var d = new Date();  
document.write(d);
```

- **Date method: getDay**

```
document.write("Today is the day " + d.getDay() + " of the week.");
```

JS: DOM object examples

- DOM (Document Object Model)
- Examples:
 - **document** object is the current html page in the browser window
 - document property: URL

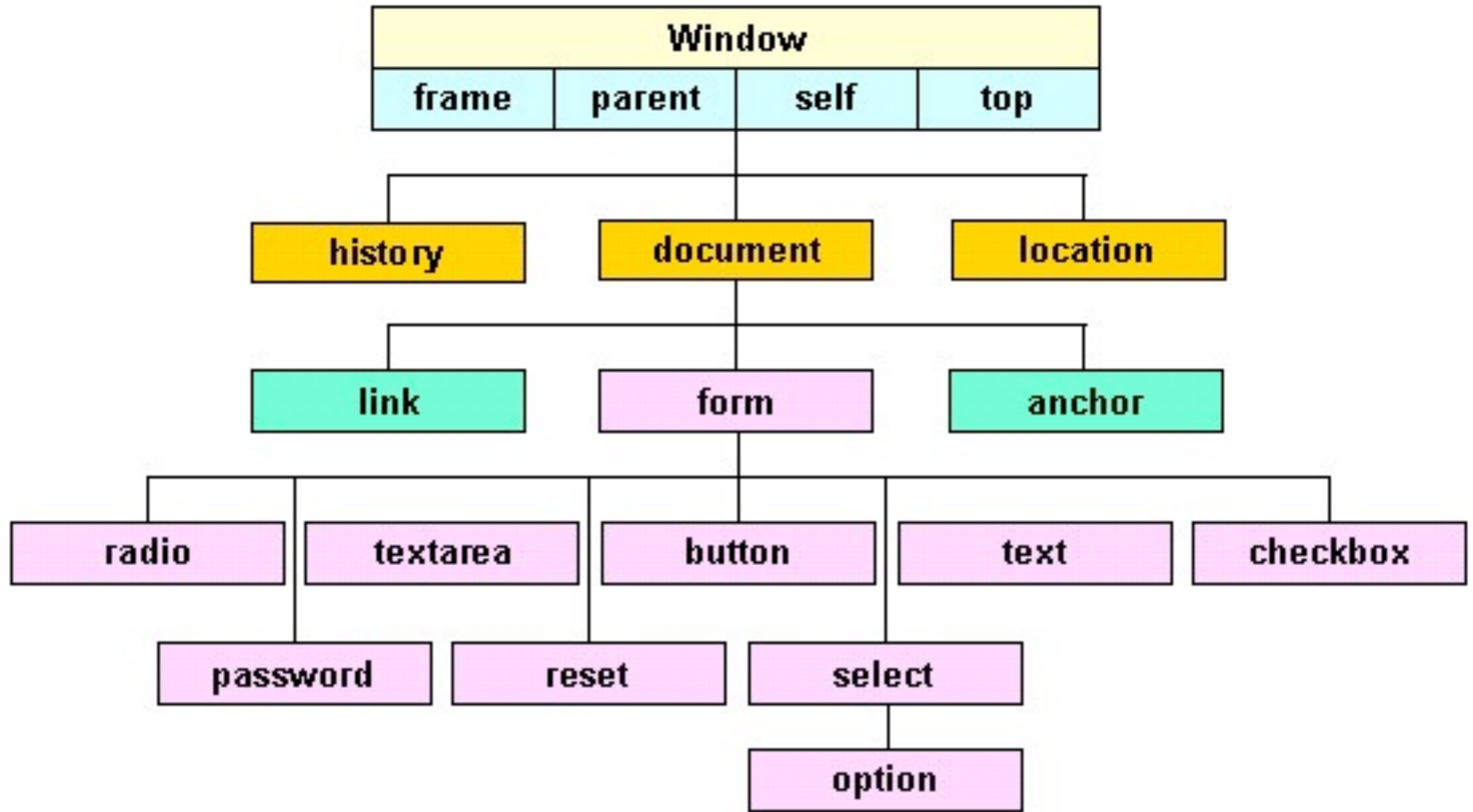
```
document.write(document.URL);
```
 - document method: write()

```
document.write("Writes to this page");
```
 - **window** object is the browser window
 - window properties: screenX & screenY

```
document.write("X:" + window.screenX + "Y:" + window.screenY);
```
 - **navigator** object contains the browser information
 - navigator properties: appName & appVersion

```
document.write(navigator.appName + navigator.appVersion);
```

JS: DOM objects



JS: DOM objects, more examples

- Button
- Event
- Image
- http://www.w3schools.com/js/js_ex_dom.asp

jQuery

- jQuery is a Javascript library
- A library is a set of tools, which makes programmer's life easier
- Demos:
 - <http://jqueryui.com/demos/>
 - <http://www.webdesignerdepot.com/2010/07/20-demos-showing-advanced-jquery-effects/>
 - <http://blog.benogle.com/2009/04/20/jquery-pong/>
 - <http://jplayer.org/latest/demos/>
- <http://www.w3schools.com/jquery/default.asp>

Echonest API

- Get Echonest API key:
 - <https://developer.echonest.com/account/register>
- <http://developer.echonest.com/docs>
- Artist API
 - Artist ID (alternative to name)
 - Pages (because there's a download limit)
 - Bucket (limit the data sent back)