



CS472 WAP

# Global DOM Objects

## JavaScript Programming Environment

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# Main Point Preview

- JavaScript has a set of global DOM objects accessible to every web page. Every JavaScript object runs inside the global window object. The window object has many global functions such as alert and timer methods.
- *At the level of the unified field, an impulse anywhere is an impulse everywhere.*

# The six global DOM/BOM objects

- Every JavaScript program can refer to the following global objects:

Name	Description
document	Current HTML page and its content
history	List of pages the user has visited
location	URL of the current HTML page
navigator	Info about the web browser you are using
screen	Info about the screen area occupied by the browser
window	The browser window



# The window object

- *the entire browser window; the top-level object in DOM hierarchy*
- technically, all global code and variables become part of the window object
- properties:
  - [document](#), [history](#), [location](#), screen, navigator, ...
- methods:
  - [alert](#), [confirm](#), [prompt](#) (popup boxes)
  - [setInterval](#), [setTimeout](#), [clearInterval](#), [clearTimeout](#) (timers)
  - [open](#), [close](#) (popping up new browser windows)
  - [blur](#), [focus](#), [moveBy](#), [moveTo](#), [print](#), [resizeBy](#), [resizeTo](#), [scrollBy](#), [scrollTo](#)



# The 'document' object

- *JavaScript representation of the current web page and the elements inside it*
- properties:
  - [anchors](#), `body`, [cookie](#), [domain](#), [forms](#), [images](#), [links](#), [referrer](#), [title](#), [URL](#)
- methods:
  - [getElementById](#)
  - [getElementsByName](#)
  - [getElementsByTagName](#)
  - [close](#), [open](#), [write](#), [writeln](#)
- [complete list](#)

# The 'location' object



- *the URL of the current web page*
- properties:
  - [host](#), [hostname](#), [href](#), [pathname](#), [port](#), [protocol](#), [search](#)
- methods:
  - [assign](#), [reload](#), [replace](#)
- [complete list](#)



# The 'navigator' object

- *information about the web browser application*
- properties:
  - appName, appVersion, cookieEnabled, platform, userAgent
  - [complete list](#)
- Some web programmers examine the navigator object to see what browser is being used, and write browser-specific scripts and hacks:
  - ```
if (navigator.appName === "Microsoft Internet Explorer")  
{ ...
```
  - this is poor style; you should not need to do this

# The 'screen' object



- *information about the client's display screen*
- properties:
  - availHeight, availWidth, colorDepth, height, pixelDepth, width
  - complete list

# The history object



- *the list of sites the browser has visited in this window*
- properties:
  - [length](#)
- methods:
  - Moving backward and forward through the user's history is done using the [back](#), [forward](#), [go](#) methods.
  - `window.history.back()`;
  - HTML5 history API allows JavaScript to [manipulate for SPA](#)
- [complete list](#)
- sometimes the browser won't let scripts view history properties, for security

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