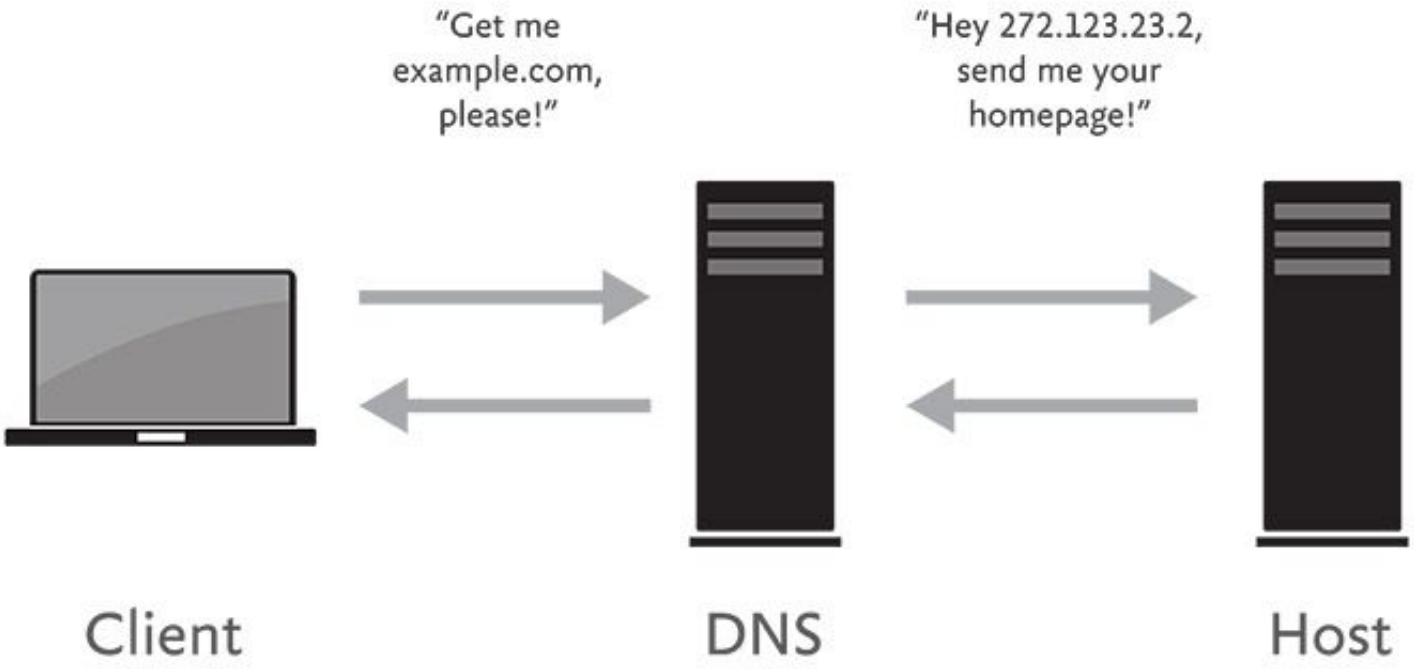
Navigation and Related Concepts

I399 Web Development

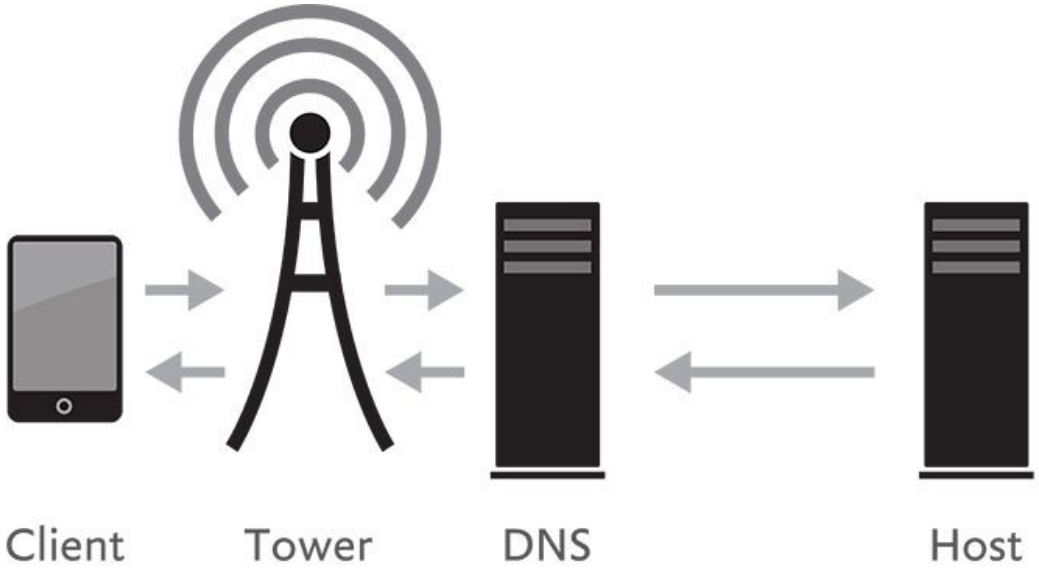
A note on adding plugins

The foundation of a web connection



The foundation of a web connection

The addition of the tower can lead to lag times of 2 seconds or more. Considering that users can spot, and are often bothered by, lags of 300 milliseconds. LTE helps for when users aren't on fast WiFi, but we can't assume everyone is on LTE.



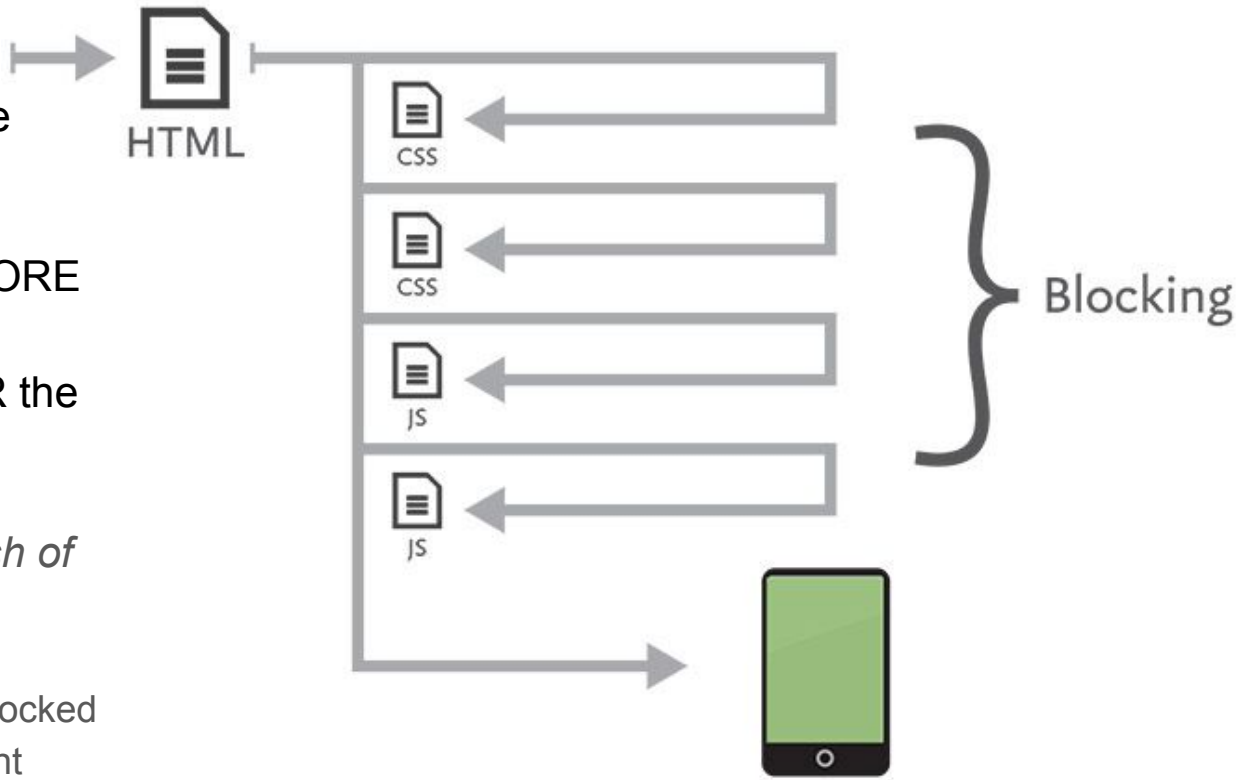
Loading code

A page won't load until all the resources have also loaded:

- CSS should come BEFORE the page content
- JS should come AFTER the page content

*This helps avoid **FOUC** - flash of unstyled content.*

Images are resources, but not blocked nor crucial to the DOM (Document Object Model) so they will load whenever they appear in the code.



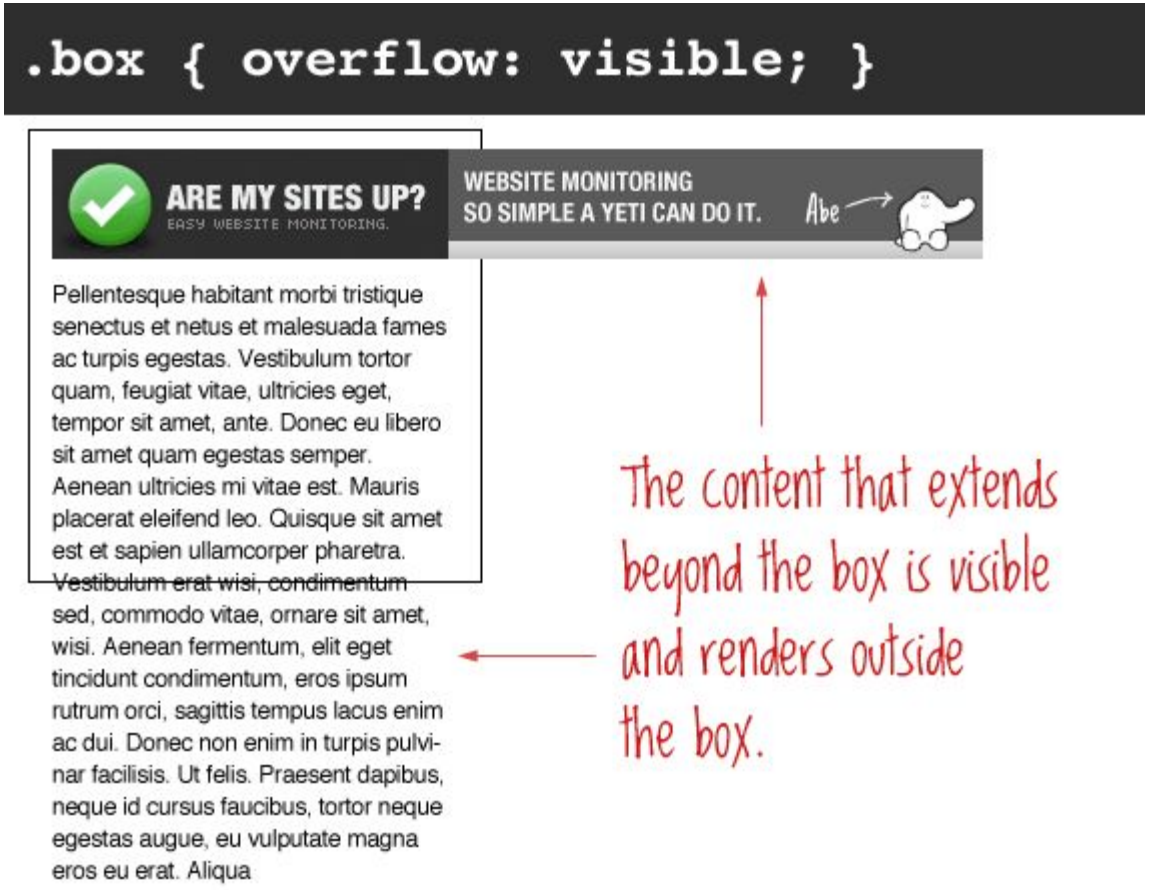
overflow: hidden;

overflow: visible;

All tags are boxes, right?

overflow: visible; simply tells the browser to let any content that is outside of the bounding box still be seen.

This is not ideal, and if you find your content does this, it's probably because you set a hard-coded height or width.



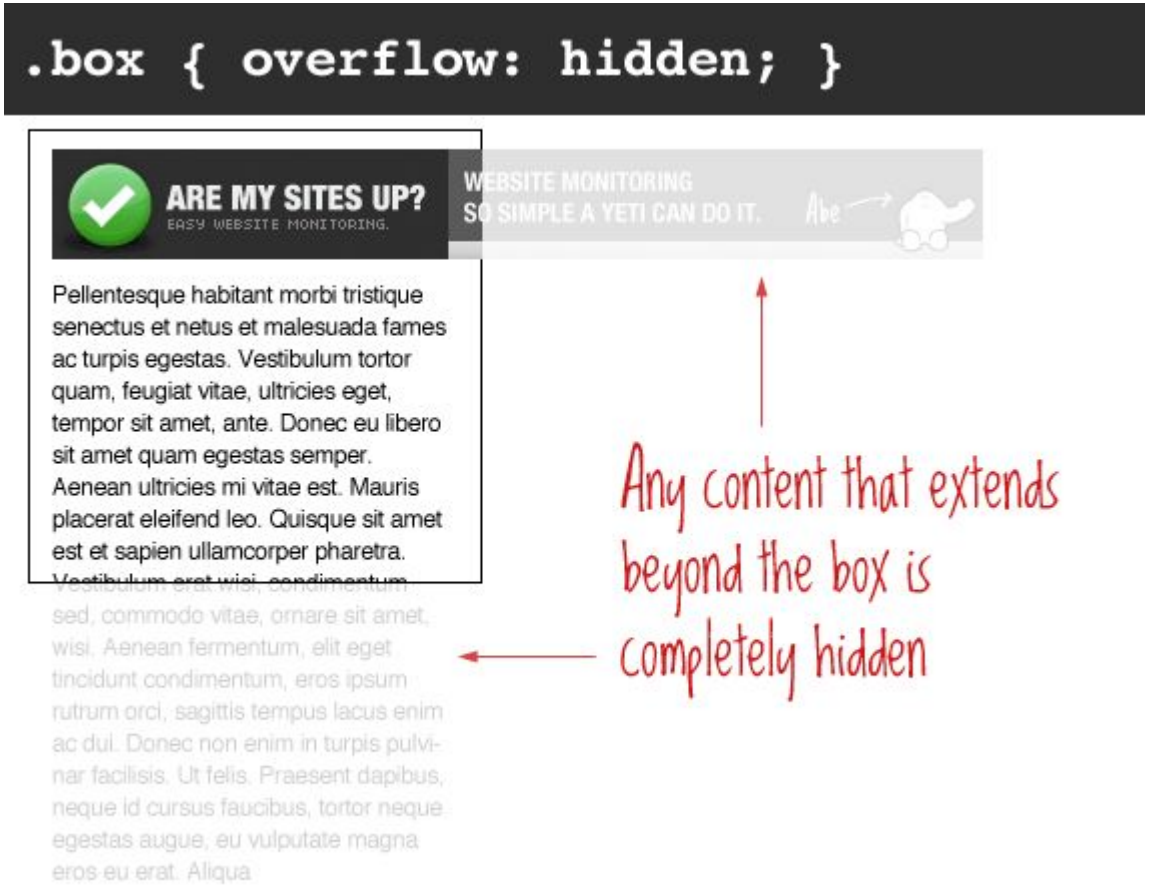
https://css-tricks.com/the-css-overflow-property/

overflow: hidden;

overflow: hidden; keeps this from happening. Hidden content is NOT viewable -- be careful of hiding important text.

As in our navbar, it's mainly used to **self clear floats.**

Ex. Navbars, fancy rollover effects...

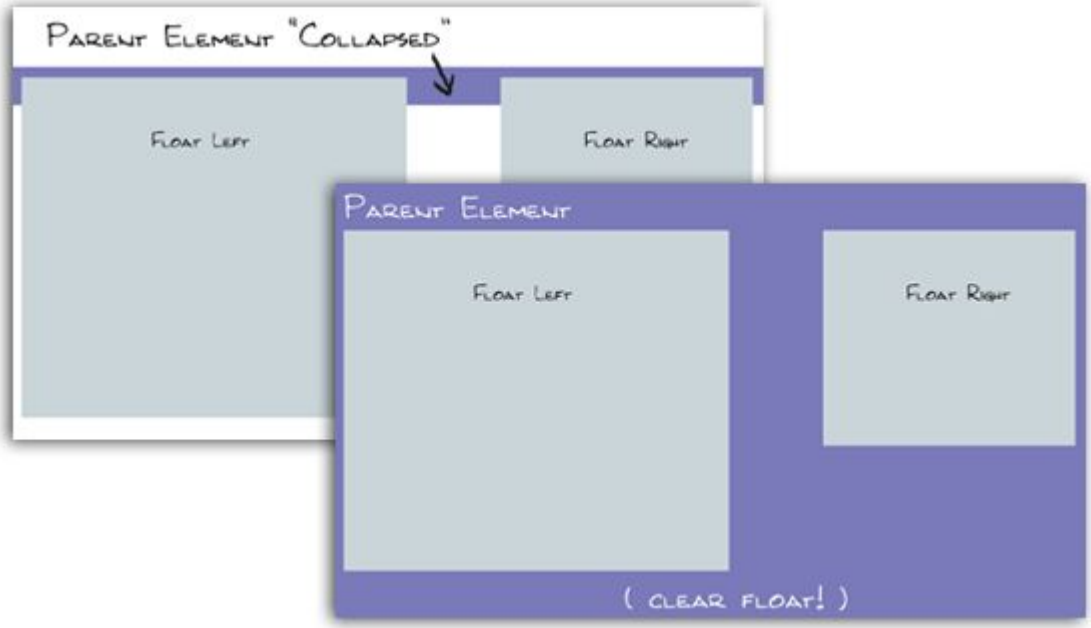


https://css-tricks.com/the-css-overflow-property/

overflow: hidden;

Self clearing floats:
Applying **overflow: hidden** to an element allows that element to expand to hold the height of the floated elements inside of it ***instead of collapsing.***

This assumes a height is not set on that element.



https://css-tricks.com/the-css-overflow-property/

visibility: hidden;

versus

display: none;

visibility: hidden; versus **display: none;**

The `visibility` property in CSS can hide an element *without changing the layout*.

```
p {
    visibility: hidden;
}
```

A hidden element can (1) still have visible children, and (2) will still take up space on the screen.

https://css-tricks.com/almanac/properties/v/visibility/

visibility: hidden; versus **display: none;**

```
div {
  display: inline;            /* Default of all elements, unless UA stylesheet overrides */
  display: inline-block;   /* Characteristics of block, but sits on a line */
  display: block;             /* UA stylesheet makes things like <div> and
                                    <section> block */
  display: run-in;            /* Not particularly well supported or common */
  display: none;              /* Hide */
  /* ALSO, display: table (whole set of these).. display: flex… display:grid */
}
```

** UA = "User Agent Stylesheet" = the default styles that come with the browser*

visibility: hidden; versus **display: none;**

Totally removes the element from the page.

Note that while the element is still in the DOM, it is removed visually and any other conceivable way (you can't tab to it or its children, it is ignored by screen readers, etc).

DOM = “Document Object Model” = the organizational tree created by the HTML tags

https://css-tricks.com/almanac/properties/d/display/

Document Object Model

Document Object Model

The HTML read in by the browser is parsed (analyzed by the browser and broken into roles - like diagramming a sentence into nouns, verbs, adjectives, etc..). This parsed version is the DOM. It’s the browsers understanding of the structure of your web page.

When you use the **Developer Tools** in Chrome, you are looking at the DOM. It’s based on your HTML, but it won’t always be exactly the same.

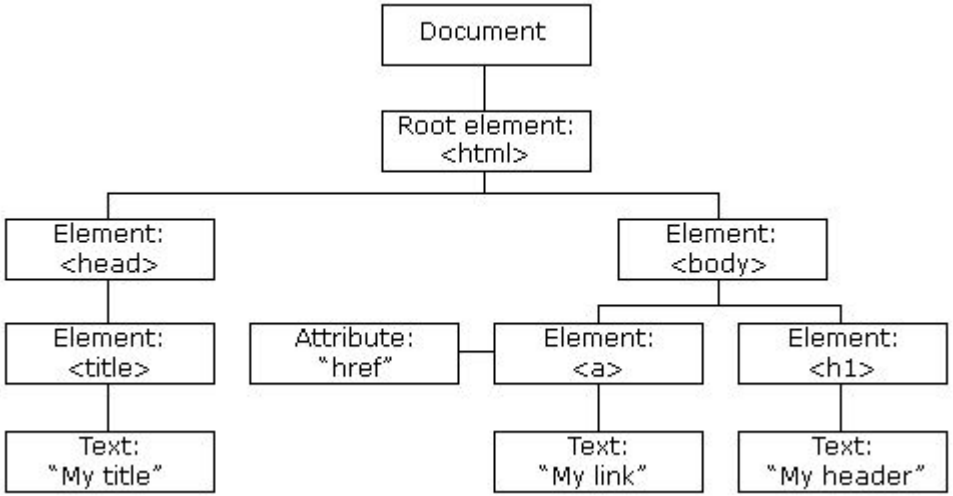
https://css-tricks.com/dom/

Document Object Model

The HTML DOM is a standard **object** model and **programming interface** for HTML. It defines:

- The HTML elements as **objects**
- The **properties** of all HTML elements
- The **methods** to access all HTML elements
- The **events** for all HTML elements

In other words: **The HTML DOM is a standard for how to get, change, add, or delete HTML elements.**



https://www.w3schools.com/js/js_htmldom.asp

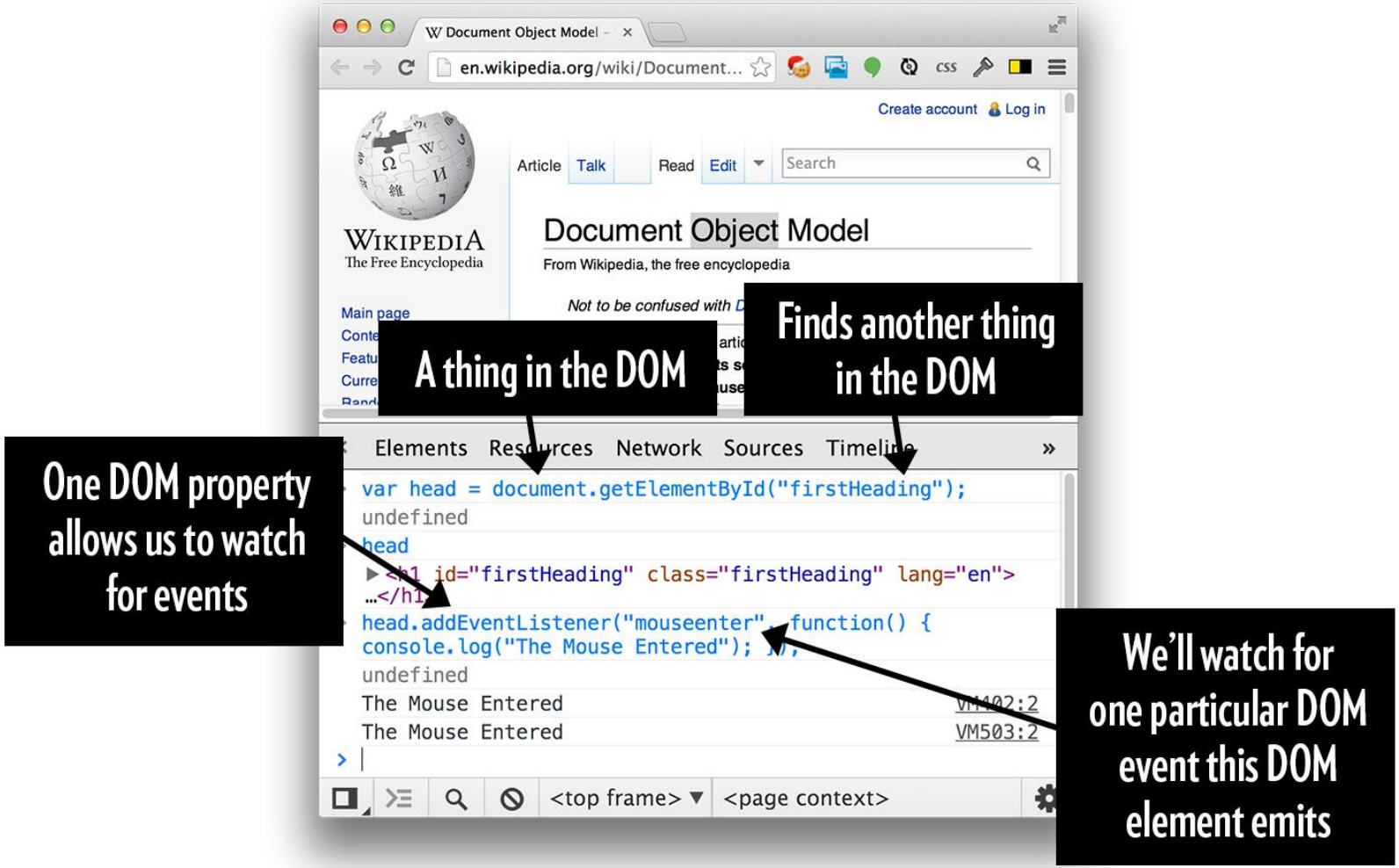
Document Object Model

Nouns = content (**HTML** is more like the sentence structure)

Adjectives = **CSS**

Verbs = **Javascript**

We can use Javascript (or jQuery) to manipulate the DOM. This is its super power. It allows us to access the mighty DOM "API" and manipulate our website.


Document Object Model
en.wikipedia.org/wiki/Document...
Create account
Log in
Article
Talk
Read
Edit
Search
WIKIPEDIA
The Free Encyclopedia
Document Object Model
From Wikipedia, the free encyclopedia
Not to be confused with
Main page
A thing in the DOM
Finds another thing in the DOM
One DOM property allows us to watch for events
Elements
Network
Sources
var head = document.getElementById("firstHeading");
undefined
head
<h1 id="firstHeading" class="firstHeading" lang="en">
…</h1>
head.addEventListener("mouseenter", function() {
console.log("The Mouse Entered");
undefined
The Mouse Entered
VM402:2
The Mouse Entered
VM503:2
<top frame>
<page context>
We'll watch for one particular DOM event this DOM element emits

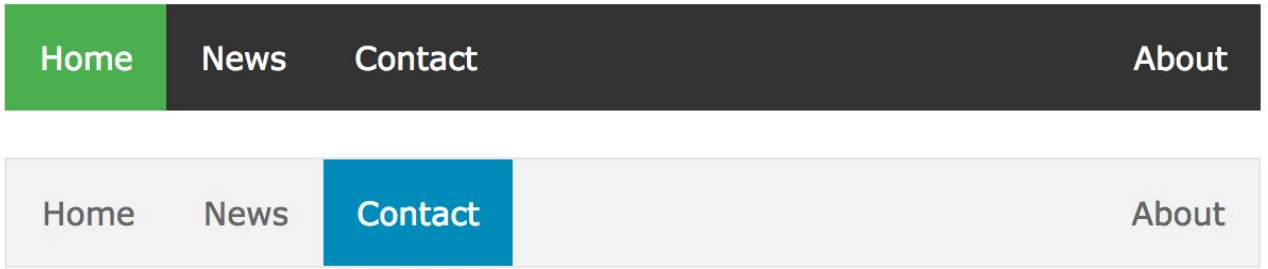
Navigation

Basic Navbar - not responsive

https://www.w3schools.com/css/css_navbar.asp

Vertical

Horizontal

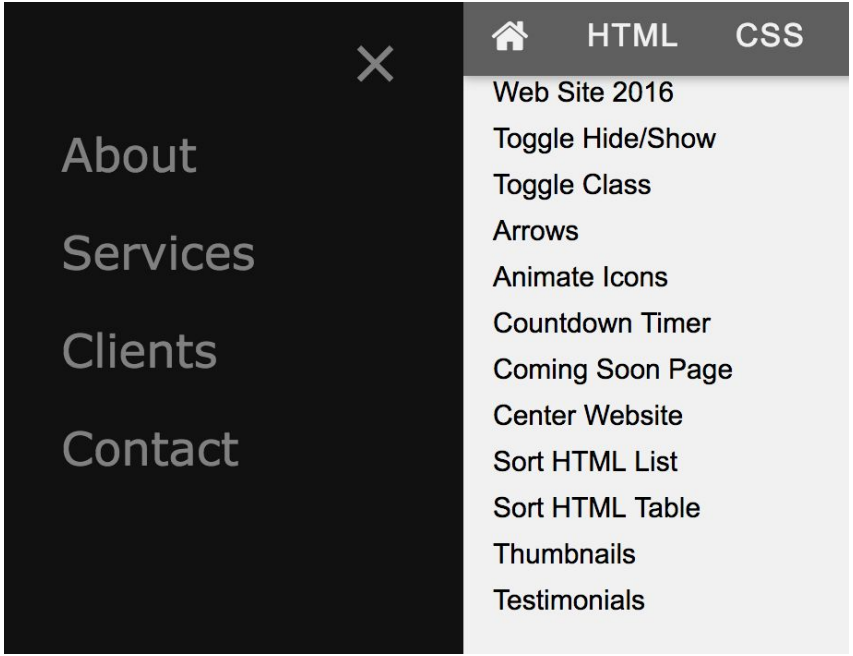


Basic Navbar - responsive

https://www.w3schools.com/howto/howto_js_topnav.asp

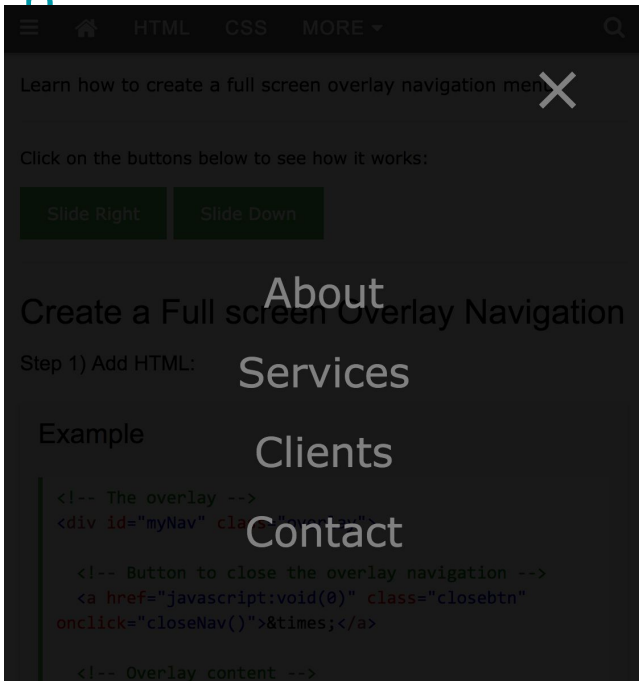
Side Nav - responsive

https://www.w3schools.com/howto/howto_js_sidenav.asp



Side Nav - full screen

https://www.w3schools.com/howto/howto_js_fullscreen_overlay.asp



More from W3Schools

Breadcrumbs

https://www.w3schools.com/howto/howto_css_breadcrumbs.asp

How To

Look also at Fixed Menu and Accordion. And any of the options shown under the How To section. Many of these will come in handy for your final projects!

https://www.w3schools.com/howto/default.asp

W3.css

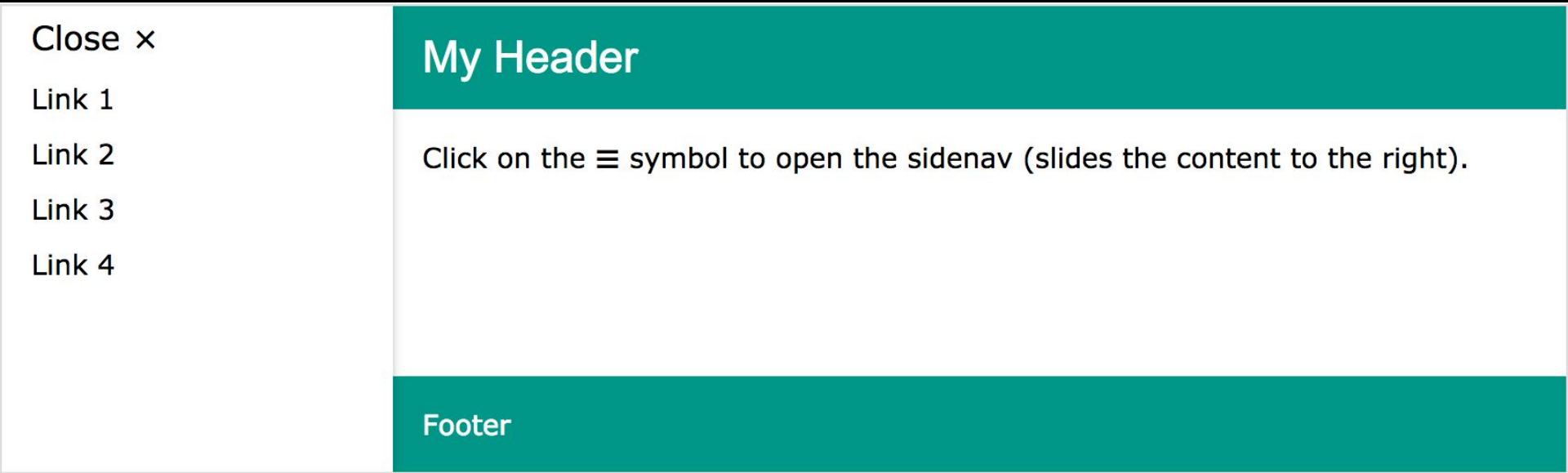
https://www.w3schools.com/w3css/default.asp

W3Schools has a lightweight framework that we can use for navigation in Project 4, however, it is not required.

You may also use the W3.CSS framework for your **grid system** instead of Bootstrap or Flexbox for your final project, **but you MAY NOT use a W3 pre-made template for I399.**

Example use for W3.css - Side Navigation

https://www.w3schools.com/w3css/w3css_sidenav.asp



Bookmark for your final projects

http://navnav.co/

Created by your new AI Hayden Mills!