



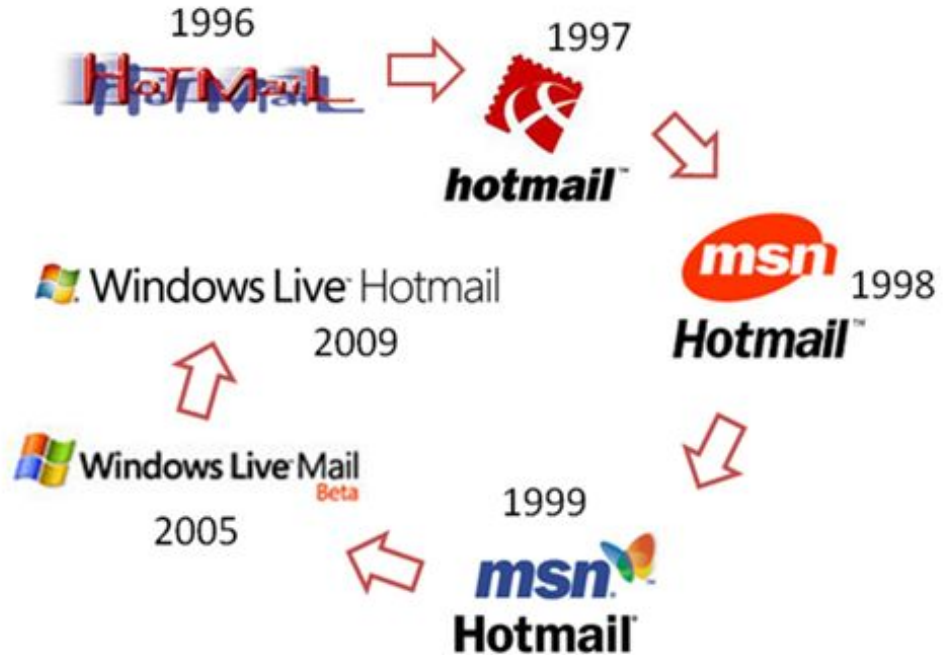
## WELCOME TO FRONT-END WEB DEVELOPMENT

Please sit next to a different classmate  
and write your name on your name tag.

Wi-fi: GA-Guest  
pw: yellowpencil

# HoTMaiL

The name “Hotmail” was chosen out of many possibilities ending in “-mail” as it included the letters HTML. To emphasize this, the original type casing was “HoTMaiL”.



CSS

# **LESSON 04**

## **BOX MODEL**

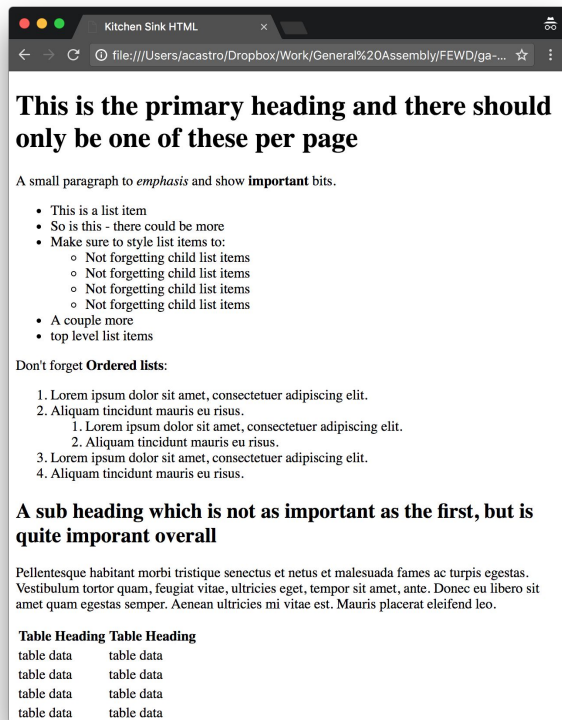
### **& LAYOUT**

### **RECAP**

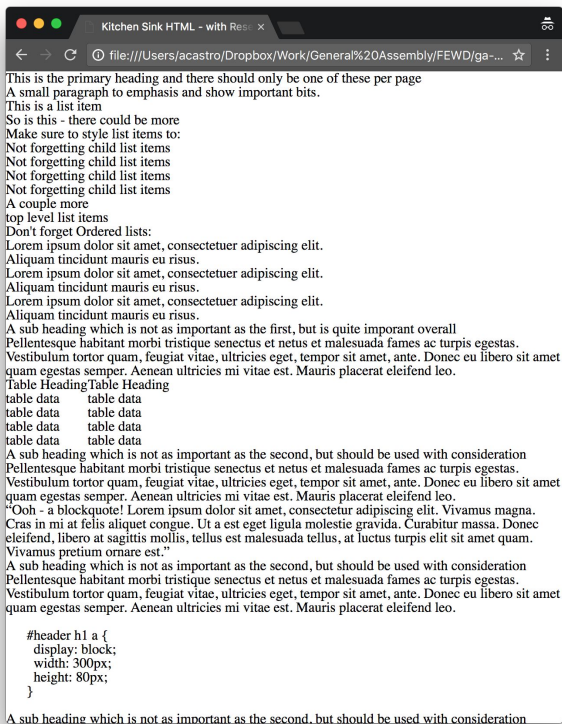


# CSS Reset and Normalize

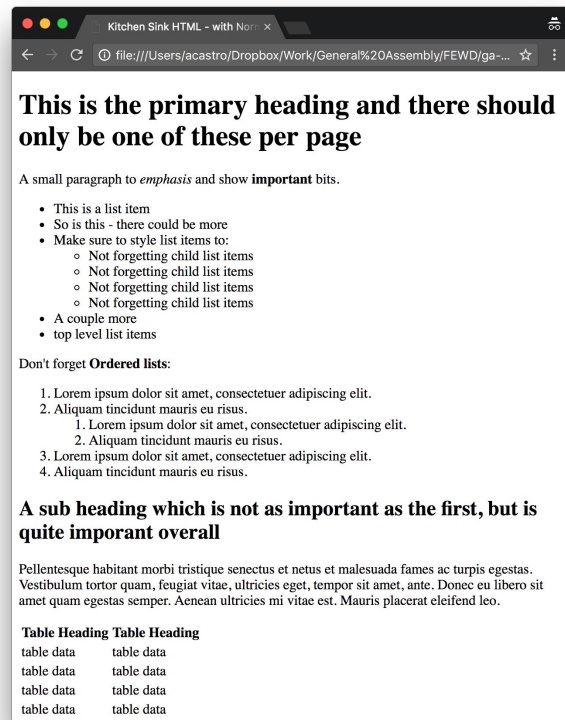
## Default rendering



## With reset.css

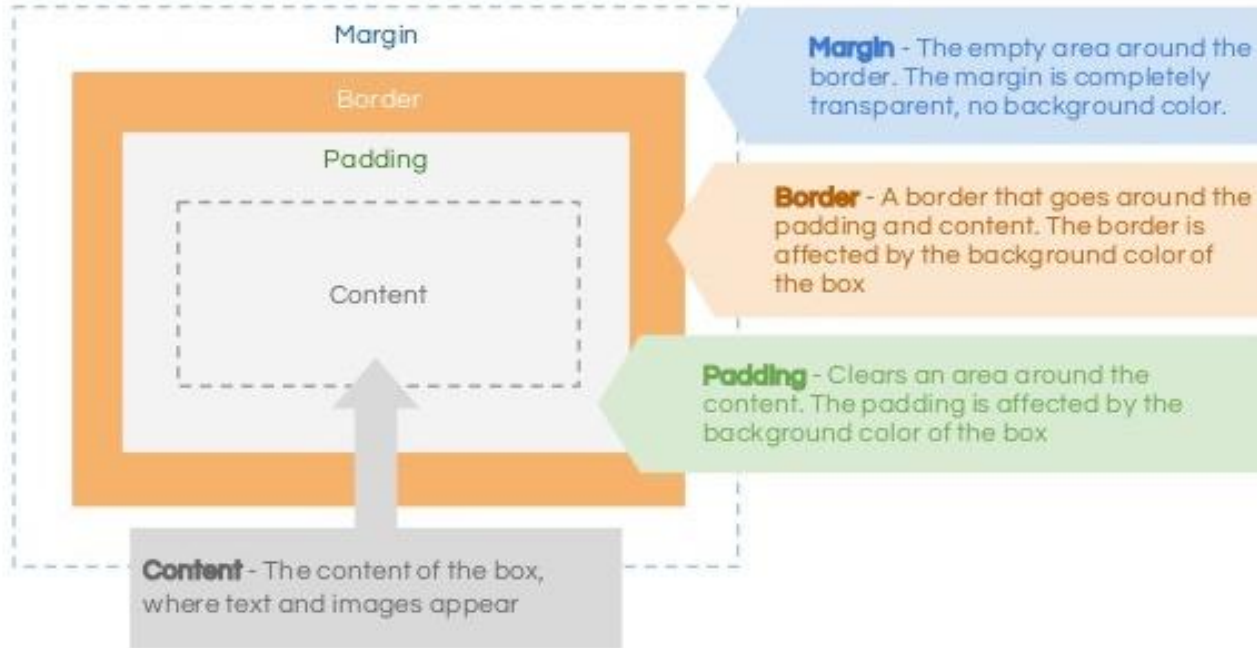


## With normalize.css



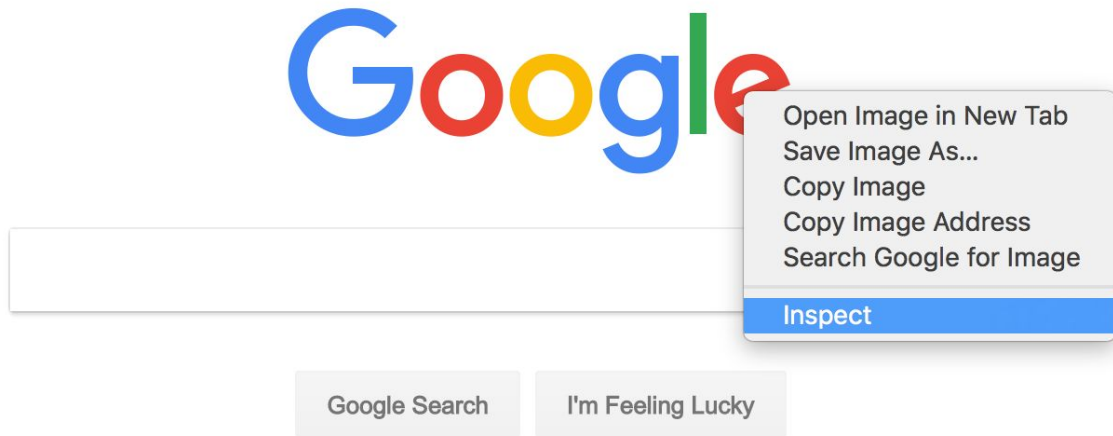
# CSS Box Model

In an HTML document, each element is represented as a rectangular box, with the box's content, padding, border, and margin built up around one another **like the layers of an onion**.



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# Introducing the Developer Tools' Inspector



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# Classes & ID

Useful for:

- Classes and IDs are **selectors**
- id is used to define **one unique element**
- Classes can define more than one element

```
/* ID */  
#main-content {  
    color: black;  
}
```

```
/* class */  
.messages {  
    color: red;  
}
```

---

# CSS Selectors – Basic

Selector	Description	Example
<code>element</code>	<b>Type</b> selector. Matches an element.	<pre>p { color: red } /* matches paragraphs */</pre>
<code>.class</code>	<b>Class</b> selector. Matches the value of a <b>class</b> attribute.	<pre>.warning { color: red } /* matches elements containing class="warning" */</pre>
<code>#id</code>	<b>ID</b> selector. Matches the value of an <b>id</b> attribute.	<pre>#warning { color: red } /* matches elements containing id="warning" */</pre>
<code>*</code>	<b>Universal</b> selector. Matches everything.	<pre>* { color: red } /* matches everything */</pre>



CSS



# **LESSON 05**

## **ADVANCED CSS**

### **& LAYOUT LAB**

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# Understanding block-level vs inline elements

## Block-level elements:

- If no **width** is set, **will expand naturally** to fill its parent container
- If no **height** is set, **will expand naturally** to fit its child elements
- Can have margins and padding
- By default, will be placed below previous elements in the markup

Examples of block-level elements:

`<p>`, `<div>`, `<form>`, `<header>`,  
`<nav>`, `<ul>`, `<li>` and `<h1>`

**BLOCK ELEMENTS EXPAND NATURALLY** →



**AND NATURALLY DROP BELOW OTHER ELEMENTS** ↙



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# Understanding block-level vs inline elements

## Inline elements:

- Flows along with text content
- Will not clear previous content to drop to the next line like block elements
- Will ignore top and bottom margin settings, but will apply left and right margins, and any padding
- Will ignore the width and height properties

Examples of inline elements:

`<a>`, `<span>`, `<b>`, `<em>`, `<i>`,  
`<cite>`, `<mark>` and `<code>`

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## INLINE ELEMENTS FLOW WITH TEXT

PELLENTESQUE HABITANT MORBI TRISTIQUE SENECTUS  
ET NETUS ET MALESUADA FAMES AC TURPIS EGESTAS.  
VESTIBULUM **INLINE ELEMENT** VITAE, ULTRICIES  
EGET, TEMPOR SIT AMET, ANTE. DONEC ULIBERO SIT  
AMET QUAM EGESTAS SEMPER. AENEAN ULTRICIES MI  
VITAE EST. MAURIS PLACERAT ELEIFEND LEO.

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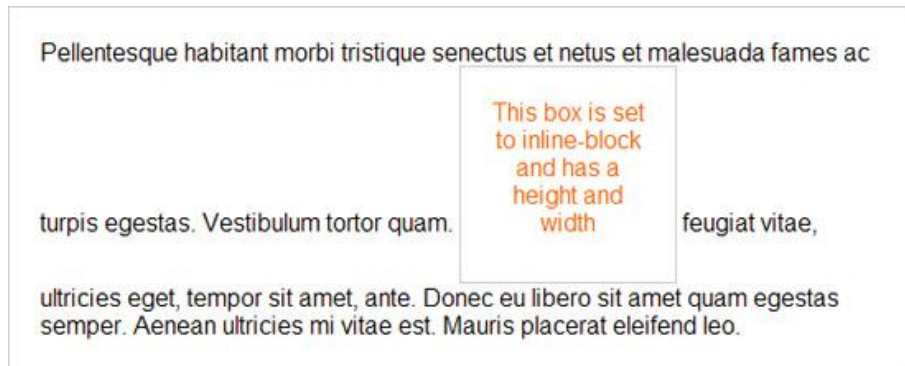
# Introducing inline-block

## Inline-block elements:

- Allow other elements to sit to their left and right
- Can have margins and padding
- Can have explicit height and width

Inline-block level elements are defined:

```
element {  
  Display: inline-block;  
}
```



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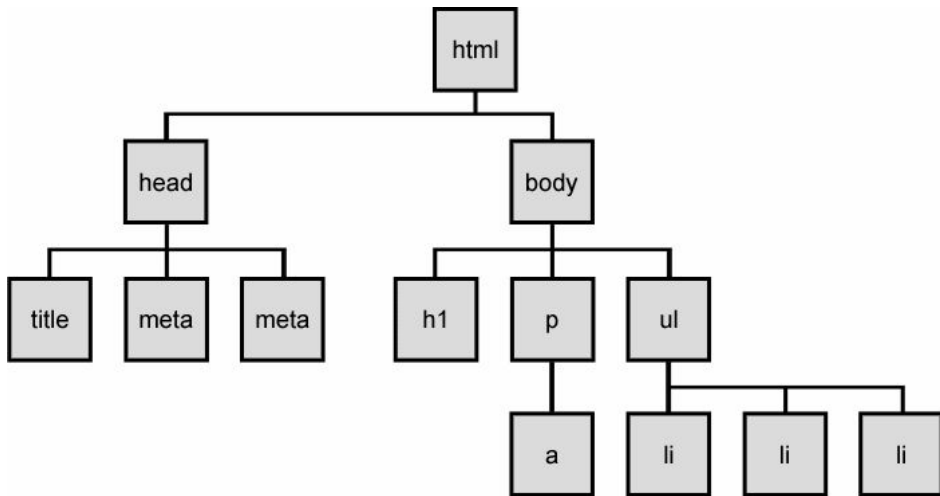
# The DOM Tree

The DOM tree is a **structural representation of a web page**.

The **root** of every tree is the `html` element.

The following relationships exist among elements in the tree:

- Parent
- Child
- Sibling
- Ancestor
- Descendant



# The DOM Tree

**Parent:** the element connected above another element

- `body` is the **parent** of `h1`, `p` and `ul`

**Child:** the element connected below another element

- `li` is a **child** of `ul`

**Sibling:** elements with the same parent

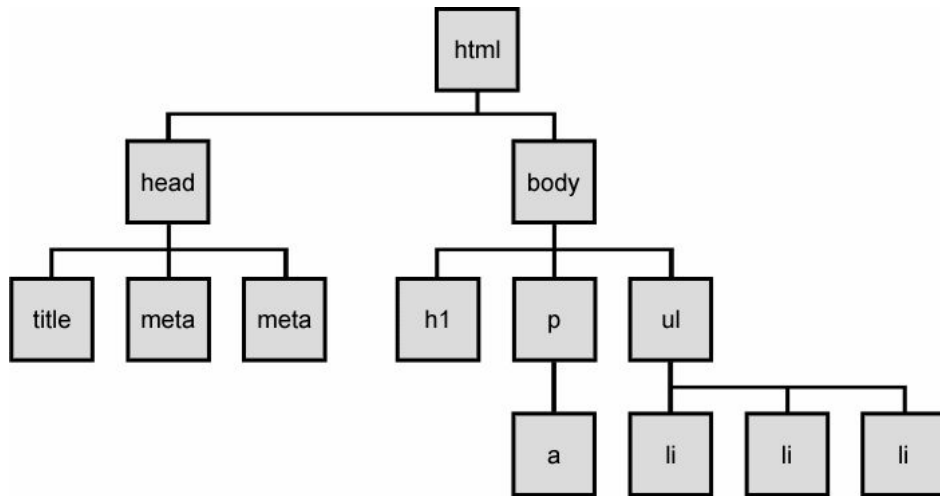
- `h1`, `p` and `ul` are **siblings**

**Ancestor:** Any element that precedes a given element

- `body` is an **ancestor** of `h1` and `p` but also `a` and `li`

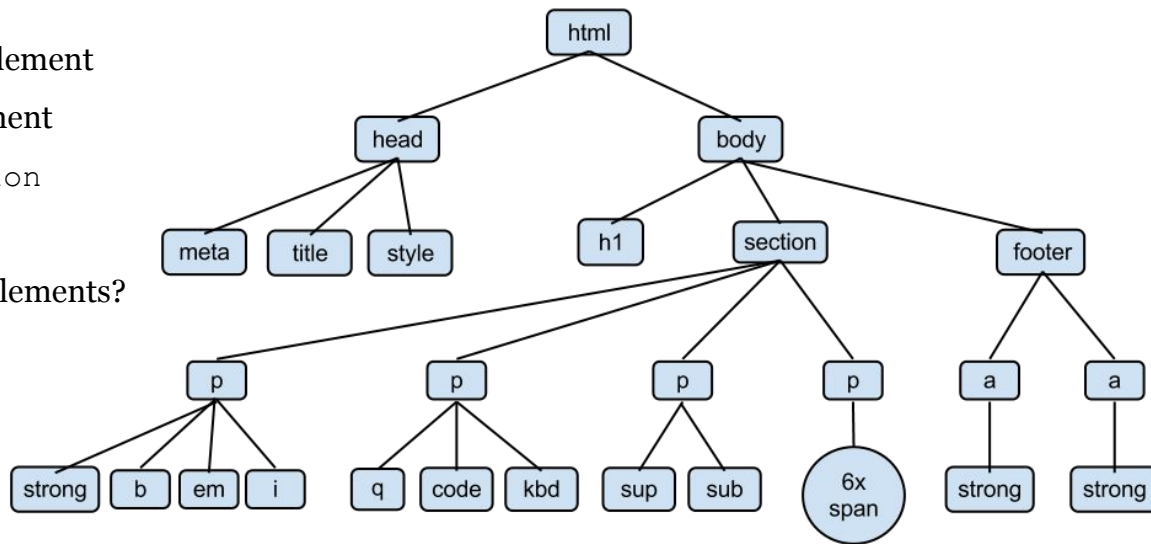
**Descendant:** Any given element that has another element as an ancestor

- `li` is an **descendant** of `body`



# Playing in the DOM Tree

1. Name all the **ancestors** of the `kbd` element
2. Name all the **descendants** of the `footer` element
3. Name all the **siblings** of the `code` element
4. Name the **parent** of the `title` element
5. Name all the **children** of the `section` element
6. Which element has the most **child** elements?



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# Sketching a DOM Tree

Sketch out DOM tree for a document that has elements that satisfy each of the following relationships:

- An `html` element at the root of the element tree
  - The `head` has the required `meta` and `title` elements as children and a `style` child element for CSS
  - The `body` has a `header` element, two `section` elements, and a `footer` element, in that order, as children
  - The `header` has an `h1` element followed by a `nav` element as children
  - The `nav` element has five `a` elements as children
  - Both `section` elements have the same children: an `h2` element followed an `h3` element followed by an `ol` element followed by another `h3` element and then another `ol` element
  - All the `ol` elements have four `li` elements as children
  - The `footer` has two `a` elements as children, and each of the `a` elements has a single `strong` element as a child
-



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# CSS Selectors – Basic

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<code>.class</code>	<b>Class</b> selector. Matches the value of a <b>class</b> attribute.	<pre>.warning { color: red } /* matches elements containing class="warning" */</pre>
<code>#id</code>	<b>ID</b> selector. Matches the value of an <b>id</b> attribute.	<pre>#warning { color: red } /* matches elements containing id="warning" */</pre>
<code>*</code>	<b>Universal</b> selector. Matches everything.	<pre>* { color: red } /* matches everything */</pre>

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# CSS Selectors – Basic (continued)

Selector	Description	Example
<code>element, element</code>	Selector <b>grouping</b> . Matches multiple <b>elements</b> separated by a comma	<pre>h1, h2 { color: red } /* matches both h1 and h2 */</pre>
<code>element.class</code>	<b>Combined Class</b> selector. Matches a specific <b>element</b> with the value of a <b>class</b> attribute	<pre>p.warning { color: yellow } /* matches only paragraphs containing class="warning" */  p.warning.urgent { color: red } /* matches only paragraphs containing class="warning urgent" */</pre>

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# CSS Selectors – Combinators

Selector	Description	Example
<code>selector selector</code>	<b>Descendant</b> combinator. Matches elements that are descendants of another element.	<pre>section p { color: red } /* matches a paragraph inside a section element */</pre>
<code>selector &gt; selector</code>	<b>Child</b> combinator. Matches elements that are children of another element.	<pre>.warning &gt; p { color: red } /* matches paragraphs that are children of elements containing class="warning" */</pre>
<code>selector + selector</code>	<b>Adjacent sibling</b> combinator. Matches elements that immediately follow another element.	<pre>h1 + p { color: red } /* matches the first paragraph to follow a top-level heading */</pre>
<code>selector ~ selector</code>	<b>General sibling</b> combinator. Matches elements that follow another element.	<pre>h2 ~ p { color: red } /* matches every paragraph that follows a second-level heading */</pre>