On a walk through the park, Marco stumbles across a teddy bear fallen on the side of the path.

Realizing it must be lost, he uses his mobile phone to photograph it where he found it, and takes the bear home.

Once home, Marco uploads the photo to iFound®. The MapIt! function uses the GPS from the photo to record where the bear was found.

As soon as the iFound® match list is generated, Marco sees a photo of the very same bear he has just found. He immediately contacts the finder and they arrange a way to get the bear back to its owner.

The teddy bear is handed off to a very relieved mom.

When it is recorded that the bear has made it safely home, Marco receives a ‘thank you’ email from iFound®, offering him a choice of coupons for anything from ice cream to flowers. Marco’s choice provides useful information to corporate sponsors.
human use analysis?
last class!
web 101

Hi I'm Rebecca

Did it update?
YAY!!!
last class!
web 101

I'm Ned!

Good to meet you.
last class!

web 101
last class!

web 101

Hi I'm Carrie
web design 101.5
last time...

client
you!

server
MIT / Akamai
last time...

http://web.mit.edu/2.744/www/Results/studentSubmissions/web101/vhung


http://web.mit.edu/2.744/www/Results/studentSubmissions/web101/vhung/page2.html
sketch then code
wireframes

visual guide to help prioritization of content, functionalities available, and intended behaviors

wireframing apps: sketch (mac), balsamic (online)
HTML basics
HTML structure

```
<lunch>
  <hamburger>
    <bun>
      <lettuce></lettuce>
      <tomato></tomato>
      <cheese></cheese>
      <patty></patty>
    </bun>
  </hamburger>
</lunch>
```

(2 spaces)
HTML tags

tag structure

open tag  `<tag attr="value">`  content...

close tag  `</tag>`
HTML tags

tag structure

<patty cooked="med">yum.</patty>
HTML tags

tag structure

<a href="http://xkcd.com">Link to XKCD</a>
HTML tags

tag structure

large chunk of text and suddenly

large chunk of text and suddenly <a>link to xkcd</a>.
**HTML structure**

- Document Type: `<!DOCTYPE html>`
- Root of Document: `<html>`
- Information about Doc: `<head>`
  - Title of Page: `<title>My First Page</title>`
- Document Body: `<body>`
  - Paragraph Tag: `<p>Hello World!</p>`
- `</body>`
- `</html>`
HTML tags

- **<p>** - paragraph
- **<h1>...<h6>** - headings
- **<a>** - link / anchor
- **<ul>,<li>** - lists
- **<table>,<tr>,<td>** - tables
- **<img/>,** **<video>** - images, videos

view all the tags at: [http://www.w3schools.com/tags/](http://www.w3schools.com/tags/)
HTML tags

lists

<ul>
  <li>Item 1</li>
  <li>Item 2</li>
  <li>Item 3</li>
</ul>

• item 1
• item 2
• item 3

view all the tags at: http://www.w3schools.com/tags/
HTML tags

text formatting

<strong> - bold

<em> - emphasis (italics)

view all the tags at: http://www.w3schools.com/tags/
HTML tags
organization

<div> - section in document
<span> - section in document (text)

view all the tags at: http://www.w3schools.com/tags/
Here is a large chunk of text, along with a bunch of nonsense. This is a mess.

view all the tags at: http://www.w3schools.com/tags/
Here is a large chunk of text, along with a bunch of nonsense.

this is less of a mess.

view all the tags at: http://www.w3schools.com/tags/
From Wireframe to HTML

demo

view all the tags at: http://www.w3schools.com/tags/
relative vs absolute path
relative vs absolute path

```
<img src="images/chapter-3-icon.png">
```
relative vs absolute path

```html
<img src="../images/chapter-3-icon.png">
```
relative vs absolute path
From **Wireframe to HTML**

web.mit.edu/2.744

**your turn**

download file “1”

view all the tags at: [http://www.w3schools.com/tags/](http://www.w3schools.com/tags/)
web design principles
visual hierarchy

organization and prioritization of content to communicate a message
visual hierarchy implying importance by using size
Today's Spotlight

Seeking the unexpected
Experimental physicist Pablo Jarillo-Herrero explores the wild frontiers of ultrathin materials

MIT 2016
Celebrating a Century in Cambridge
visual hierarchy
implying importance by using
color
visual hierarchy implying importance by using white space
Two Superpowers We Wish We Had

By Bill and Melinda Gates

If you could have one superpower, what would it be?

We were asked that question recently by high school students in Kentucky. Our answers must have sounded pretty lame to fans of superheroes like Supergirl and the Flash—we simply wished for more energy and time to help us keep up with all the moving pieces in our busy lives.
design for the screen

1997

today
design for **the screen**

**responsive design**
design for the screen

bostonglobe.com
design for the screen

wikipedia.org
design for the screen

2.744 Website
design for the screen

some content may be “below the fold”
design for the screen

http://www.nngroup.com/articles/scrolling-and-attention/
adding style
CSS basics

rule syntax

```css
selector {
  property: value;
  property: value;
  ...
}
```
**CSS basics**

**rule syntax**

```css
selector {
    property: value;
    property: value;
    ...
}

<p> Hello world! </p>
```
CSS basics

rule syntax

```css
p {
  color: #E742F4;
}

<p>Hello world!</p>
```

hello world
CSS basics

rule syntax

```css
p {
  color: #E742F4;
}
```

<p>Hello world!</p>

hello world
CSS basics
rule syntax

```css
p {
  color: #E742F4;
}

<p> Hello world! </p>
<p> Is this pink? </p>
```

hello world
is this pink?
CSS basics

rule syntax

.greeting {
  color: #E742F4;
}

<p class="greeting">Hello world!</p>

<p>Is this pink?</p>
CSS basics
rule syntax

#greeting {
  color: #E742F4;
}

<p id="greeting">
  Hello world!
</p>

<p>
  Is this pink?
</p>
# CSS basics

## rule syntax

<table>
<thead>
<tr>
<th>Typography</th>
<th>Colors</th>
<th>Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>font-size</td>
<td>color</td>
<td>position</td>
</tr>
<tr>
<td>font-weight</td>
<td>background-color</td>
<td>width, height</td>
</tr>
<tr>
<td>font-family</td>
<td>background-image</td>
<td>margin</td>
</tr>
<tr>
<td>line-height</td>
<td>line-height</td>
<td>padding</td>
</tr>
<tr>
<td>text-align</td>
<td>text-align</td>
<td>border</td>
</tr>
</tbody>
</table>
CSS basics

rule syntax

<table>
<thead>
<tr>
<th>HTML element</th>
<th>CSS rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;p&gt;</td>
<td>p {</td>
</tr>
<tr>
<td></td>
<td>font-size: 14px;</td>
</tr>
<tr>
<td></td>
<td>}</td>
</tr>
<tr>
<td>&lt;p class=&quot;caption&quot;&gt;</td>
<td>.caption {</td>
</tr>
<tr>
<td>(multiple elements)</td>
<td>color: gray;</td>
</tr>
<tr>
<td></td>
<td>}</td>
</tr>
<tr>
<td>&lt;h1 id=&quot;headline&quot;&gt;</td>
<td>#headline {</td>
</tr>
<tr>
<td>(unique elements)</td>
<td>font-size: 20px;</td>
</tr>
<tr>
<td></td>
<td>}</td>
</tr>
</tbody>
</table>
CSS basics

cascading selectors

---

**HTML element**

```html
<div class="intro">
  <h1>...</h1>
</div>
```

**CSS rule**

```css
.intro h1 {
  font-size: 18px;
}
```

---

style `h1` inside every element with `class="intro"`
CSS basics
box model

Diagram showing the CSS box model with layers for margin, border, padding, and content.
CSS basics

box model

.quote {
    border: 1px solid #000000;
}

hello
CSS basics
box model

.quote {
  border: 1px solid #000000;
  padding: 15px;
}

hello
.quote {
    border: 1px solid #000000;
    padding: 15px 0px 0px 0px;
}

    top  right  bottom  left

hello
CSS basics

box model

.quote {
    border: 1px solid #000000;
    padding-top: 15px;
}

hello
CSS basics

display properties

```html
<div class="cupboard">
  plates & bowls
</div>

<div class="cupboard">
  cups
</div>
```

```css
.cupboard {
  display: block;
}
```
CSS basics

display properties

```html
<div class="cupboard">
  plates & bowls
</div>
<div class="cupboard">
  cups
</div>

.cupboard {
  display: inline;
}
```
CSS basics
display properties

```html
<div class="cupboard">
  plates & bowls
</div>

<div class="cupboard">
  cups
</div>
```

```css
.cupboard {
  display: inline;
  width: 100px;
}
```
CSS basics
display properties

```html
<div class="cupboard">
  plates & bowls
</div>
<div class="cupboard">
  cups
</div>
```

```css
.cupboard {
  display: inline-block;
  width: 100px;
}
```
Adding style

demo

references
http://htmldog.com/reference/cssproperties/
http://www.w3schools.com/cssref/
Adding style

web.mit.edu/2.744

your turn

download file “3”

references
http://htmldog.com/reference/cssproperties/
http://www.w3schools.com/cssref/
Multiple Pages

references
http://htmldog.com/reference/cssproperties/
http://www.w3schools.com/cssref/
WYSIWYG Editor

what
you
see
is
what
you
get
WYSIWYG Editor
web design 101.5
/web design 101
what’s next?

human-use analysis

Tuesday, Feb. 4 — Thursday, March 3

user experience design/storyboard

Thursday, Feb. 18 — Tuesday, March 1