

HACK YALE

< FRONT END />

WWW.HACKYALE.COM



BEST FAVICON

DEVIN CODY HENRY LI

LOWDEST COLOR SCHEME

BEN ROSENBLUTH

MOST DISRUPTIVE

AARON EFFRON

BEST PUN

CHARLOTTE DILLON

BEST BACKGROUND

JAIME SUNWOO MADDIE MCMAHON

LOGISTICS

When turning in homework:

- Zip up your assignment and name the file as:
`hw1_firstname_lastname.zip`

Office hours

- Josh: Mondays, 1-2pm in Bass Cafe

REVIEW OF IMPORTANT CONCEPTS

POPULAR TAGS

- » !DOCTYPE
- » html
- » head
- » title
- » meta
- » link
- » body
- » div
- » h1, h2, ..., h6
- » p
- » img /
- » br /
- » <!-- ... -->
- » span
- » ol
- » ul
- » li
- » form
- » fieldset
- » label
- » button
- » input
- » textarea
- » and a few more later on

HTML DOCUMENT STRUCTURE

HTML DOCUMENT STRUCTURE

<!DOCTYPE>

HTML DOCUMENT STRUCTURE

<!DOCTYPE>

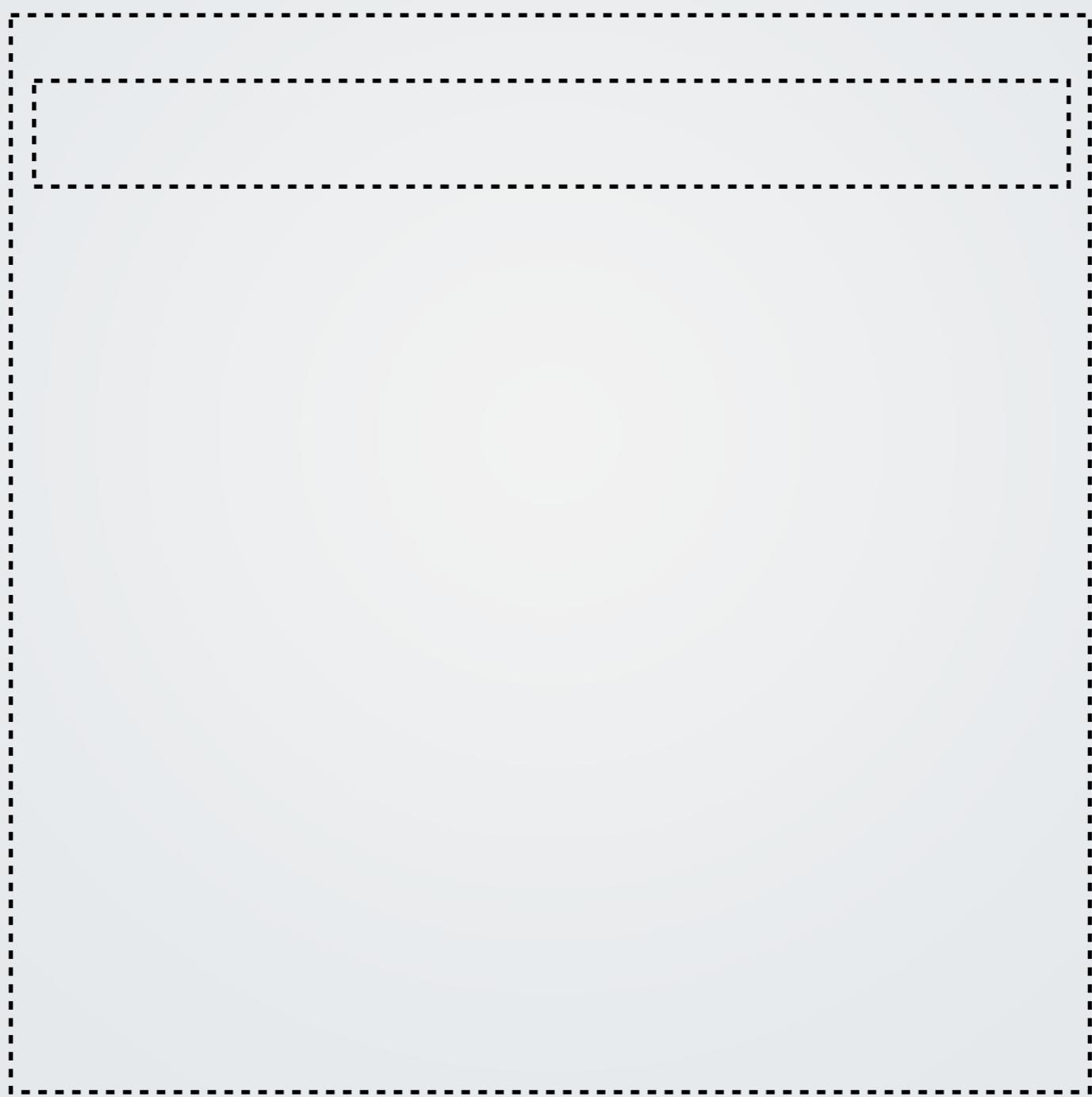


<html>

</html>

HTML DOCUMENT STRUCTURE

<!DOCTYPE>

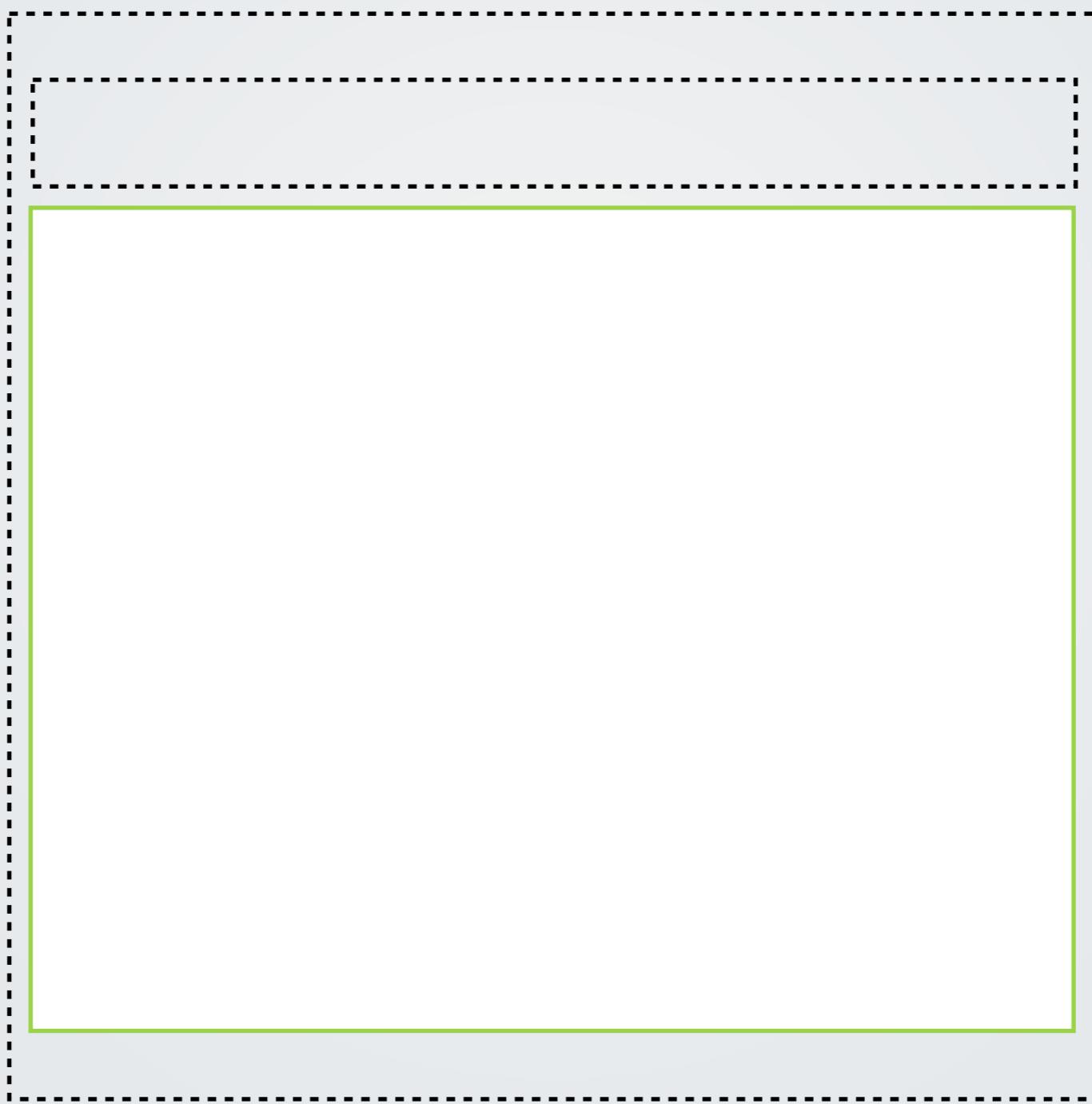


<html>
<head>
</head>

</html>

HTML DOCUMENT STRUCTURE

<!DOCTYPE>



<html>
<head>
</head>
<body>

</body>
</html>

SPAN

Used to specify an *alternate* styling for a small section of text

```
<p>My paragraph of text is fine  
in black, but sometimes I like  
my words all <span style="font-  
style: italic; color:  
pink;">frilly</span>, not  
plain.</p>
```

FILE NAMING CONVENTIONS

Restricted characters

- Avoid capitals, numbers and spaces whenever possible
- Never use %, &, #, +, *, etc.

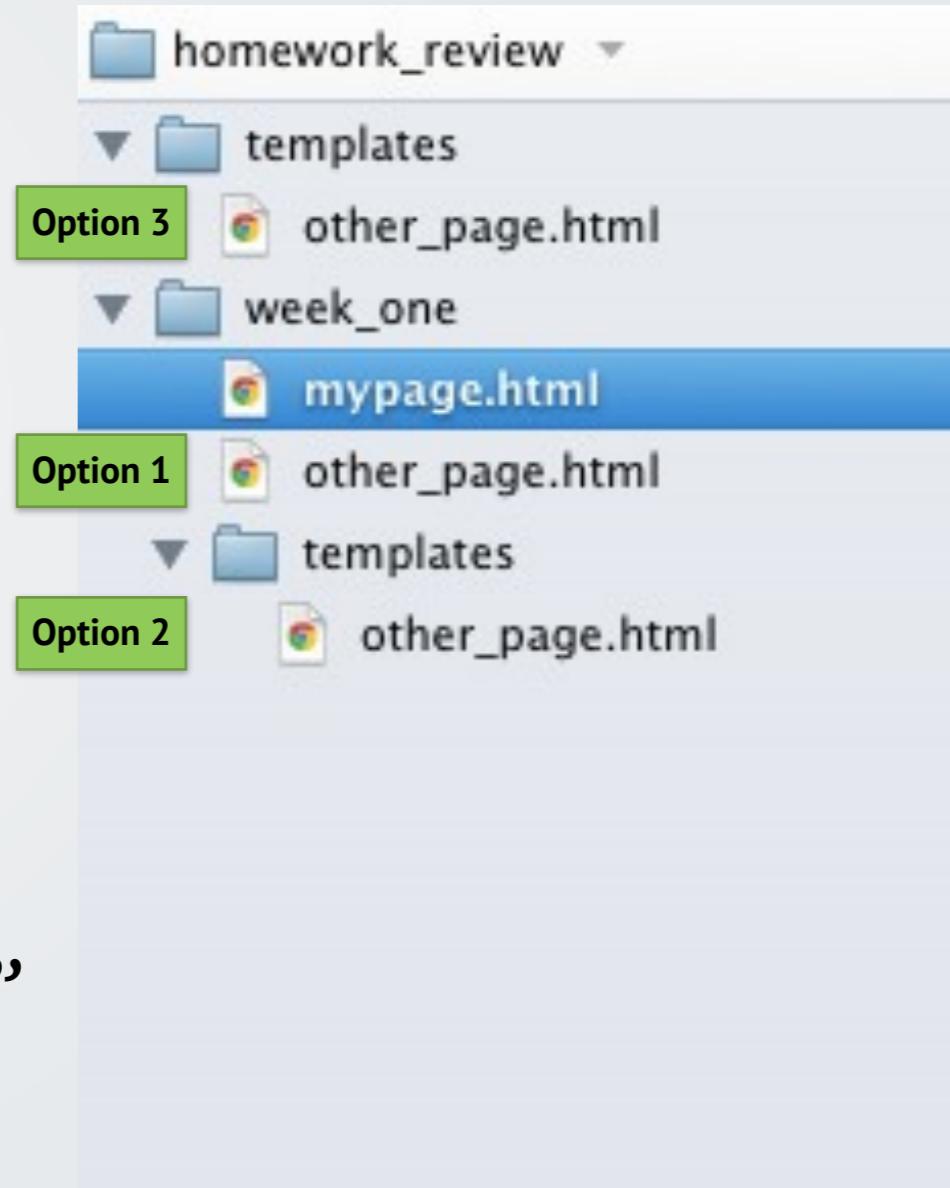
Best practices

- Use - or _ to replace spaces
 - Always add “.html” at the end
-

LINKING TO OTHER PAGES

Relative

- Use this to refer to other pages on the same website
- Option 1: `href="other_page.html"`
- Option 2:
`href="templates/other_page.html"`
- Option 3:
`href="..../templates/other_page.html"`



MOTIVATIONAL PRIMER



<http://blog.jenniferdewalt.com/>

CASCADING STYLE SHEETS (CSS)

OVERVIEW

The styling of the internet

- CSS gives web pages their colors, fonts, sizes, layouts, and more
- “CSS” stands for “cascading style sheets”

HOW IT USED TO BE: INLINE STYLES

```
<p style="color: red;">  
    Hello World!  
</p>  
<p style="color: red;">  
    Paragraphs are great!  
</p>  
<p style="color: red;">  
    Totally.  
</p>
```

Hello World!

Paragraphs are great!

Totally.

NOW MAKE THEM BLUE

UGH. SO MUCH EFFORT!

```
<p style="color: blue;">  
    Hello World!  
</p>  
<p style="color: blu;">  
    Paragraphs are great!  
</p>  
<p style="color: red;">  
    Totally.  
</p>
```

Hello World!

Paragraphs are great!

Totally.



INLINE STYLING IS SLOPPY

CSS LETS US GET **DRY**

“DON’T REPEAT YOURSELF!”

STYLING IN CSS

Two major benefits

- Cleaner code
 - DRY
 - Flexible code
 - Modular
 - Re-usable
-

OVERVIEW

CSS consists of **selectors** and *styles*

- Use **selectors** to select HTML elements on a page, and apply *styles* to them

STYLES

Styles consist of **properties** and **values**

- To define a style, use this syntax:

property: value;

STYLES

Each property accepts a discrete class of values specific to that property

- For example, the property `font-size` accepts integers suffixed with `px` or `pt`, or decimals suffixed with `em` or `%`

```
font-size: 27px;
```

STYLES

There are **many** properties

- Read about them in the W3Schools CSS tutorial
- We will go over the trickier ones
- Learn the rest by immersion

SELECTORS

Selectors are used to designate which HTML elements are to be styled

- Here is the syntax:

```
selector { /* styles go here */ }
```

SELECTORS

There are three ways to select elements

- (1) By element type (tag)
- (2) By class
- (3) By id

SELECTING BY ELEMENT TYPE

Use the element (tag) name

- To select all paragraph elements => p
- To select all links (“anchors”) => a
- To select all divs => div
- etc.

SELECTING BY CLASS

Classes are **non-unique** identifiers

- An element's classes are designated by the “class” attribute
- Classes must be one word (can be hyphenated)
- Each element can have multiple classes
- Each class can (really, should) apply to multiple elements

SELECTING BY CLASS

To select all elements of a given class, use `.className`

- Ex:
 - `<h1 class="class1 class2"> Hi! </h1>`
 - `.class1` to select all elements of `class1`
 - `.class1.class2` to select all elements with both classes
 - Notice that there is no space between the class selectors

SELECTING BY ID

Id's are **unique** identifiers

- That is, each id should refer to only one element on a page
- Id's are defined by the “id” attribute

SELECTING BY ID

To select the element with a given id, use `#id`

- Ex:
 - `<h1 id="main-header">My Title</h1>`
 - To select this by id, use `#main-header`



CSS SYNTAX

HOW TO CODE IT UP

CSS SYNTAX

```
p {  
    font-size: 18px;  
    color: blue;  
}
```

CSS SYNTAX

```
p {  
    font-size: 18px;  
    color: blue;  
}
```

SELECTOR

CSS SYNTAX

```
p {  
    font-size: 18px;  
    color: blue;  
}
```

SELECTOR

DEFINITION BLOCK

CSS SYNTAX

```
p {  
    font-size: 18px;  
    color: blue;  
}
```

SELECTOR
DEFINITION BLOCK
PROPERTY

CSS SYNTAX

```
p {  
    font-size: 18px;  
    color: blue;  
}
```

SELECTOR
DEFINITION BLOCK
PROPERTY
VALUE

CSS SYNTAX

```
p {  
    font-size: 18px;  
    color: blue;  
}
```

SELECTOR
DEFINITION BLOCK
PROPERTY
VALUE
END OF DEFINITION

USING A CLASS

```
.big-bold-text {  
    font-size: 18px;  
    font-weight: bold;  
}
```

USING AN ID

```
#main-header {  
    text-align: center;  
    color: red;  
    font-family: Helvetica, Arial, sans-serif;  
}
```

USING A COMBINATION

```
#footer a.external {  
    text-decoration: none;  
    color: #afc528;  
    padding-right: 10px;  
}
```

PRECEDENCE

- What happens when styles contradict each other?
- Selectors have different **priorities**
- They are ranked as follows:

inline >> id >> class >> element type

Q: HOW IS THE H1 STYLED?

```
<h1 class="bold" id="my_header">Hi!</h1>
```

```
h1 {  
    font-size: 30px;  
    text-align: center;  
    font-weight: normal;  
    color: #fff;  
}  
  
#my_header {  
    padding-top: 15px;  
    text-align: right;  
}  
  
h1.bold {  
    font-weight: bold;  
}  
  
h1 {  
    color: purple;  
}
```

Applying Styles

P { TEXT-SHADOW: OFFENSIVE; }

OVERVIEW

There are three ways to apply styles to HTML

- (1) Inline styling
- (2) Internal stylesheets
- (3) External stylesheets

INLINE STYLING

Inline styles are applied directly to HTML via the **style** attribute

- We already saw this
- Ex:

```
<p style="color:red;">I am red.</p>
```

INLINE STYLING

Use sparingly

- Inline styles are not DRY or modular
- Mixing styling in with HTML is bad style

INTERNAL STYLESHEETS

Put selectors and styles between `<style></style>` tags in the `<head></head>` section of your HTML

```
<html>
<head>
    <style>
        p {
            color: green;
            text-align: center;
        }
    </style>
</head>
<body>
    <p>My awesome green centered
       paragraph.</p>
</body>
</html>
```

INTERNAL STYLESHEETS

You should use internal stylesheets when:

- You have only a few selectors to apply (ideally less than 5)
- The styling is only applicable to this one page

EXTERNAL STYLESHEETS

CSS definitions reside in a separate `style.css` file

- Link the CSS file into your HTML file in the `<head>` section
- Example:

```
<head>
```

```
  <link rel="stylesheet" type="text/css"  
    href="style.css" />
```

```
</head>
```

EXTERNAL STYLESHEETS

You should use external stylesheets when:

- Internal stylesheets are not appropriate
- You want to reuse the same styling across multiple pages

HOMEWORK 2

The Monty Hall Problem

- <http://www.youtube.com/watch?v=mhlc7peGlGg>
- Build it!
- Example: http://jenniferdewalt.com/make_a_deal.html

THANKS!



QUESTIONS EVEN GOOGLE CAN'T ANSWER?
TEAM@HACKYALE.COM

WWW.HACKYALE.COM