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# CASCADING STYLE SHEETS

WEEK 5 – 09/25/2019



## NOTE

- Recitation deadlines have been changed to provide you 1 week to complete your lab exercises.
- They will be due right before the following week's recitation
- This week's recitation: HTML & CSS

# WIREFRAMES

How a team designs a web site

- The wireframes tell the story

Contains important layout and content, not style

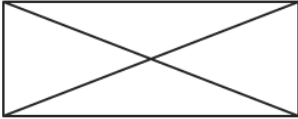
No color; no graphics, no images

Includes

- Information design (describes what's being presented)
- Navigation design (describes links and nav menus)
- Interface design (drop down menus, buttons, form fields)

# WIREFRAMES

- Your Website Begins with a Story
- <https://www.youtube.com/watch?v=7LKPVAIcDXY>  
(Jump to 2:45)
- <https://www.youtube.com/watch?v=Z5-a9uQkzac>



[View Cart](#) [Order History](#)

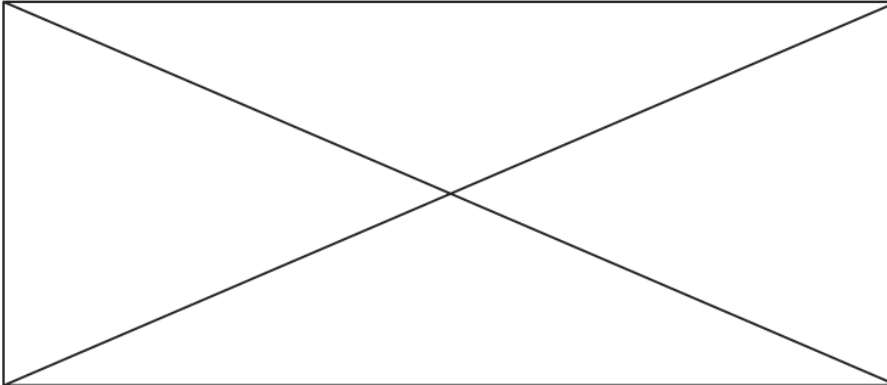
Products, Parts, Keywords Search

[Search](#)

[Home](#) | [About Us](#) | [Products](#) | [Blog](#) | [News](#) | [Support](#) | [Contact](#)

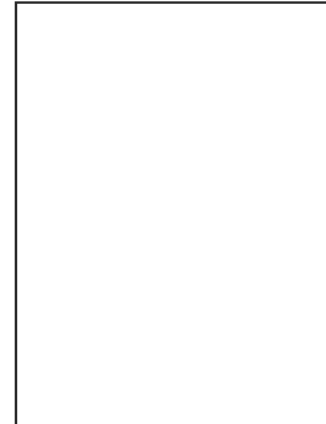
800-888-8888

Rainfall Sensors
Wind Anemometer
Weather Stations
Controllers
Indicators/Displays
Temp/Humidity Sensors
Barometric Pressure
Solar Radiation
Replacement Parts



#### Featured Products

	<b>Product Title</b> SKU Lorem ipsum dolor sit amet, consectetur adipiscing elit. <a href="#">More Info »</a>		<b>Product Title</b> SKU Lorem ipsum dolor sit amet, consectetur adipiscing elit. <a href="#">More Info »</a>
	<b>Product Title</b> SKU Lorem ipsum dolor sit amet, consectetur adipiscing elit. <a href="#">More Info »</a>		<b>Product Title</b> SKU Lorem ipsum dolor sit amet, consectetur adipiscing elit. <a href="#">More Info »</a>



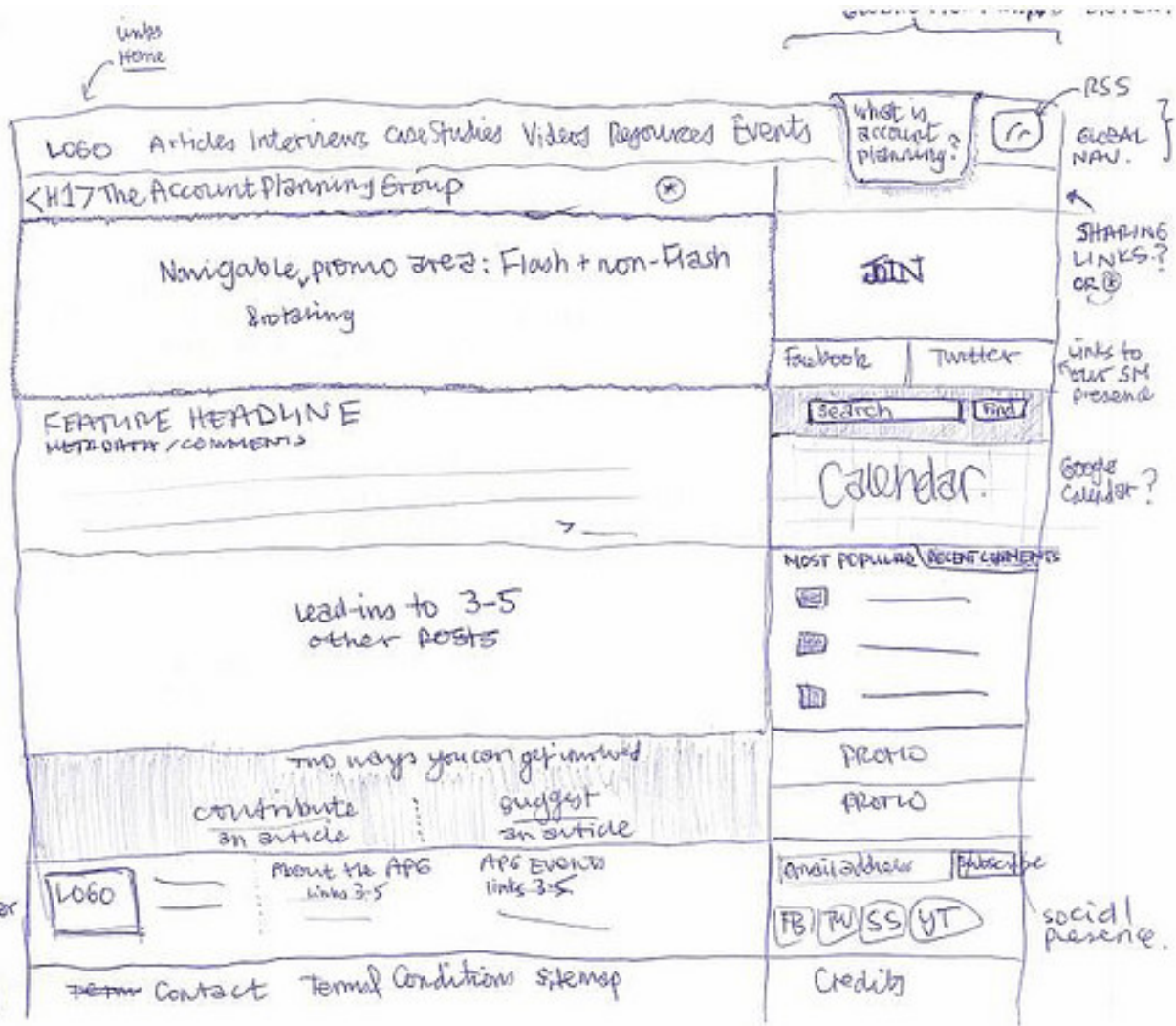
APG  
Homepage

CORE THOUGHT:  
Sparkling ideas

possibly an image?

Global content footer

Global mandatory footer



# WIREFRAMES

- Free Wireframe Tools
- <https://www.designforfounders.com/free-wireframe-tools/>

# WHAT IS STYLE?

- Objects in an HTML document have “style” attributes
  - Font, font size, font color assigned to headings, paragraphs
  - Background color
  - Size and shape of images
  - Hyperlinks, colors, behaviors
  - Placement of objects on the page



## EDITORS YOU COULD USE

- Sublime: <https://www.sublimetext.com/>
- Brackets: <http://brackets.io/>
- Atom: <https://atom.io/>
- Komodo IDE: <https://www.activestate.com/products/komodo-edit/>
- Or any normal text editor..

# APPLYING STYLE

## Tag

Tag-level: Style attributes within a tag on a page.

- Very Granular. Difficult to maintain, No Consistency

## Page

Page-level: Style defined within <head> of each page.

- Difficult to maintain across many pages, No consistency

## Site

Site-Level: Within an external file, pulled into each page for an entire website

- Easy to maintain
- Saves time for support & maintenance
- Saves page load time
- Enables consistency across the website

# CASCADING STYLE SHEETS



## What is a Style Sheet?

The style sheet is an EXTERNAL document (.css) containing the rules of style to be applied to your document

You “link” to it to bring it into one or more pages



## Why do we use them?

Consistency from Page to Page  
Faster, Easier Page Construction

# GUIDELINES FOR A STYLE SHEET

- Should not contain any HTML tags
- Saved as file with a type/extension of “.css”
- Style Sheet –
  - Reference it and bring it into your document:

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

# CASCADING STYLE SHEETS

## Hierarchy of Applying Style

- Child tags Inherit Style from Parent tags
- Detail-Level Overrides High-Level



If I have a style defined for a tag at the page level and at the tag level, which one do you think would take precedence?

# CASCADING STYLE SHEETS

## Using the <style> tag

- Entered in <head> section
- Applies to entire document

## Style Rules are Not HTML

## Rule Syntax

- selector – the tag that the rule applies to
- { } Braces to contain the rule
- Property:value pair
- Ends with semicolon

# EXAMPLES

- Let's Look at Some Examples
- [www.w3schools.com/css](http://www.w3schools.com/css)

# EXAMPLES

```
<style type="text/css">
  body {
    font-size: 16pt;
    color: blue;
    background-color: pink;
  }
  h1 {
    font-size: 24pt;
    color: black;
  }
  p {
    margin-left: 10%;
    margin-right: 10%;
  }
</style>
```



# TYPES OF STYLE RULES

- element (tag)
- # id
- .class
- Element.class
- Group (multiple selectors)
- Nested (selector within a selector)

# CLASSES

- A class allows you to set different styles for the same tag
- Example:

```
<style>  
  h1.majorheading {  
    font-family: arial;  
    color: blue;  
  }  
</style>
```

then you refer to the **class** in the tag:

```
<h1 class="majorheading">
```

# STYLE SHEETS

- **Multiple selectors are OK**

```
h1, h2 {  
  color:purple;  
  text-align:center;  
}
```

- **Nested selectors are OK**

```
div > h1 {  
  color:red;  
}
```

- **ID References are OK**

```
<h1 id="beginning">  
<style>  
    #beginning {color:red;}  
</style>
```

# OVERRIDING STYLES

- “!important” override indicator
  - For a rule that must NOT be overridden in cascade
  - “!important” must follow the rule
- `<p style=“color: green !important;”>`

## SOME STYLE PROPERTIES

Font Size

Font Family

Font-weight

Text-  
transform

Word-  
spacing

Letter-  
spacing

Text-align

Text-indent

Color

Background-  
color

Background-  
image

Box  
properties

# BOOTSTRAP

- A style library
- Easy formatting using templates
- Easy transition from computer-based viewing to phone-based viewing
- <https://getbootstrap.com/docs/4.3/getting-started/introduction/>

# BRINGING BOOTSTRAP INTO YOUR PAGES



INCLUDE AN EXTERNAL CSS  
SHEET FROM A CDN (CONTENT  
DELIVERY NETWORK)



INCLUDE A JQUERY (JAVA SCRIPT)  
LIBRARY (ONLY NEEDED FOR  
CERTAIN JS PLUG-INS)



INCLUDE A CLIENT JAVA SCRIPT  
ENGINE FROM A CDN

# BRINGING BOOTSTRAP INTO YOUR PAGES

<!-- Latest compiled and minified CSS -->

```
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.cs
s" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2
MZwIT" crossorigin="anonymous">
```

<!-- Javascript & jQuery library -->

```
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
integrity="sha384-
q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTElPi6jizo
" crossorigin="anonymous"></script>
```

```
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
integrity="sha384-
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIH
NDz0Wl" crossorigin="anonymous"></script>
```

```
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFF/njGzlxFdsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>
```



# Bootstrap Grid System

Bootstrap's grid system allows up to 12 columns across the page.

If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											

Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

# Grid Classes

The Bootstrap grid system has four classes:

- `xs` (for phones - screens less than 768px wide)
- `sm` (for tablets - screens equal to or greater than 768px wide)
- `md` (for small laptops - screens equal to or greater than 992px wide)
- `lg` (for laptops and desktops - screens equal to or greater than 1200px wide)

The classes above can be combined to create more dynamic and flexible layouts.