

UCSD GWC

HTML / CSS Workshop

5 / 21 / 2020

INTRODUCTIONS

Club Updates:

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- Fresh Prints x Kaplan Scholarship
 - Chance to win \$1,000 - Apply by May 31st!
 - [Link to apply](#)
- Possible meeting in the next couple weeks...Be sure to stay up to date by following us!
 - [Facebook](#)
 - Instagram - [@girlswhocodeucsd](#)
 - [Slack](#)
 - [Email list](#)

What is HTML?

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- **HyperText Markup Language**
 - Standard markup language
 - What you see on the web, but just the bare bones
 - Provides the structure of the site
 - HTML5 - latest version of HTML

What is CSS?

- **Cascading Style Sheets**
 - Style sheet language
- Presentation – design, styling, layout of websites
- Several forms:
 - Inline – Within element tags
 - Internal – In style tags, located in the head region
 - External – Contained in a different file and referred to in html file

Why learn how to make a site?

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- Good for your resume
 - If it's related to your career, then it's good experience
 - If it isn't related to your career, it'll be even more impressive!
- Can show off to potential employers/recruiters
- Maybe you discovered you have a passion for tech

Time for some HTML!

Basic Terminology - TAGS / ELEMENTS

- Used to add structures to the website (body text, headings, line breaks)
- Syntax for basic elements: need opening & closing tags (almost all)
 - Opening tag: `< Element >`
 - Closing tag: `< / Element >`

Opening Tag

`<p>`

. . .

Closing Tag

`</p>`

Single Tag

`
`

Basic Terminology - ATTRIBUTES

- Different tags have different attributes
 - lang - tells what language the website is in (<html> tag)
 - href - a url that a link should go to (<a> tag)
- More helpful in later concepts of HTML when we look into Javascript

Attribute Name

Attribute Value



<html lang="en-us"> . . . </html>

The diagram illustrates the structure of an HTML tag with attributes. A red arrow points from the 'Attribute Name' box to the 'lang' attribute in the tag. Another red arrow points from the 'Attribute Value' box to the value 'en-us' within the quotes of the 'lang' attribute. The tag is shown as '<html lang="en-us"> . . . </html>'. The ellipsis indicates that there can be more attributes and content between the opening and closing tags.

Basic Terminology - COMMENTS

- As files get longer, it is important to have notes for people who want to read your file but are unfamiliar with your code
- All coding languages have a way to add comments
- For HTML comments are done as follows:

Start of comment

End of comment



```
<!-- commented out section -->
```

Basic Terminology - REGIONS

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The parts of the webpage are divided into sections, which each hold varying types of HTML elements and can be customized within that section

<head>

</head>

<body>

</body>

<div>

</div>

Basic Terminology - Semantic HTML

- Semantic HTML - the tags you use should represent what the content you are putting in means, not by how it looks
 - Makes code more readable and easy to understand
- Example: Say you want some really big text in a paragraph.
 - You can use the `<h1>` tag to get big text, but that wouldn't be using tags by what they mean
 - Semantic HTML: Since it's a paragraph, we should use the `<p>` tag. We can then style the tag to make the text big.

Basic Terminology - DOCTYPE

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- Tells what version of HTML or what markup language you are using
- Not a tag
- It may still render your HTML document but you should always include it at the top of your HTML file

```
1.  <!DOCTYPE html>
```

COMMON TAGS - <html>, <head>, <body>

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- **<html>**
 - Root of HTML document
 - Contains all other HTML elements except for DOCTYPE
- **<head>**
 - Container for metadata/data info.
- **<body>**
 - Contains content, what you see

```
1.  <!DOCTYPE html>
2.  <html>
3.    <head>
4.    </head>
5.
6.    <body>
7.    </body>
8.  </html>
```

COMMON TAGS - <meta>

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- **<meta>**
 - Metadata - just data about data
 - Goes between head tag
- Example on the right: UTF-8 is a character encoding; tag tells browser to convert characters into code machine can understand
- Other metadata that you may include:
 - Open Graph meta tags(social media integration), description of web page, etc.

```
1.  <!DOCTYPE html>
2.  <html>
3.    <head>
4.      <meta charset="utf-8">
5.    </head>
6.
7.    <body>
8.  </body>
9. </html>
```

COMMON TAGS

- For Head Region:
 - **Title**
- For Body Region:
 - **Paragraphs**
 - **Headings**
 - Different sizes available shrinking from h1 to h6
 - div, section

```
1.  <!DOCTYPE html>
2.  <html>
3.    <head>
4.      <meta charset="utf-8">
5.      <title> GWC site </title>
6.    </head>
7.    <body>
8.      <h1> Big Heading! </h1>
9.      <p> Some body text here </p>
10.
11.      <h2> Smaller Heading </h2>
12.      <p> More body text </p>
13.
14.    </body>
15.  </html>
```


COMMON TAGS: Resulting Webpage

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Big Heading!

Some body text here

Smaller Heading

More body text

SIMPLE BODY TAGS:

- Use inside body region
- For Body Elements:
 - **Bold:**
`...`
 - *Italicize:*
`<i>...</i>`
 - Horizontal Line:
`<hr />`

```
1.  ...
2.      <body>
3.
4.      <h1> Big Heading! </h1>
5.      <p>
6.          Some <b>body text</b> here
7.      </p>
8.      <hr />
9.      <h2> Smaller Heading </h2>
10.     <p>
11.         More <i>body text</i>
12.     </p>
13.
14.     </body>
15.  ...
```

SIMPLE BODY TAGS: Resulting Webpage

— — —

Big Heading!

Some **body text** here

Smaller Heading

More *body text*

ADDING LINKS

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- As we saw in the attributes slide, adding links uses the `<a>` tag
- Can be done between tags, outside of them, or around them
 - Caution: around other tags is only allowed in HTML5, but the other two are allowed in all versions of HTML

Done between tags:

```
<p> Puppies are  
<a href="Insert Link"> pawsome. </a>  
</p>
```

Done outside tags:

```
<p> Puppies are pawsome </p>  
<a href="https://google.com">Google</a>
```

Done around tags:

```
<a href="https://google.com">  
<p>Google</p>  
</a>
```

ADDING LINKS: Resulting Webpage

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Adding Links

Done between tags

The link will be inside the body of text: Puppies are [pawsome](#).

Done outside tags

The link will be separate from the text: Puppies are pawsome

[Google](#)

Done around tags

[All of the components inside tags is a link: Google](#)

ADDING IMAGES

- Use the `` tag
 - `src` - path to image; can be a link to an image, a file stored locally, etc.
 - `alt` - text that appears in case image fails to load; good to have in case

Path to image

Alternative text

``

Set image width

Set image height

ADDING IMAGES: Resulting Webpage

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Smaller Heading

More *body text*

Adding Images



Lists

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- ``
 - Unordered list
- ``
 - Ordered list
- `` (yellow)
 - List element
 - Can have as many as you want

```
1. <h2>Grocery Shopping List</h2>
2. <ul>
3.   <li>Apples</li>
4.   <li>Tissues</li>
5.   <li>Chips</li>
6. </ul>
7. <h2>Morning Schedule To Dos</h2>
8. <ol>
9.   <li>Wake up</li>
10.  <li>Eat breakfast</li>
11.  <li>Do laundry</li>
12. </ol>
```


LISTS: Resulting Webpage

Lists

Grocery Shopping List

- Apples
- Tissues
- Chips



ul

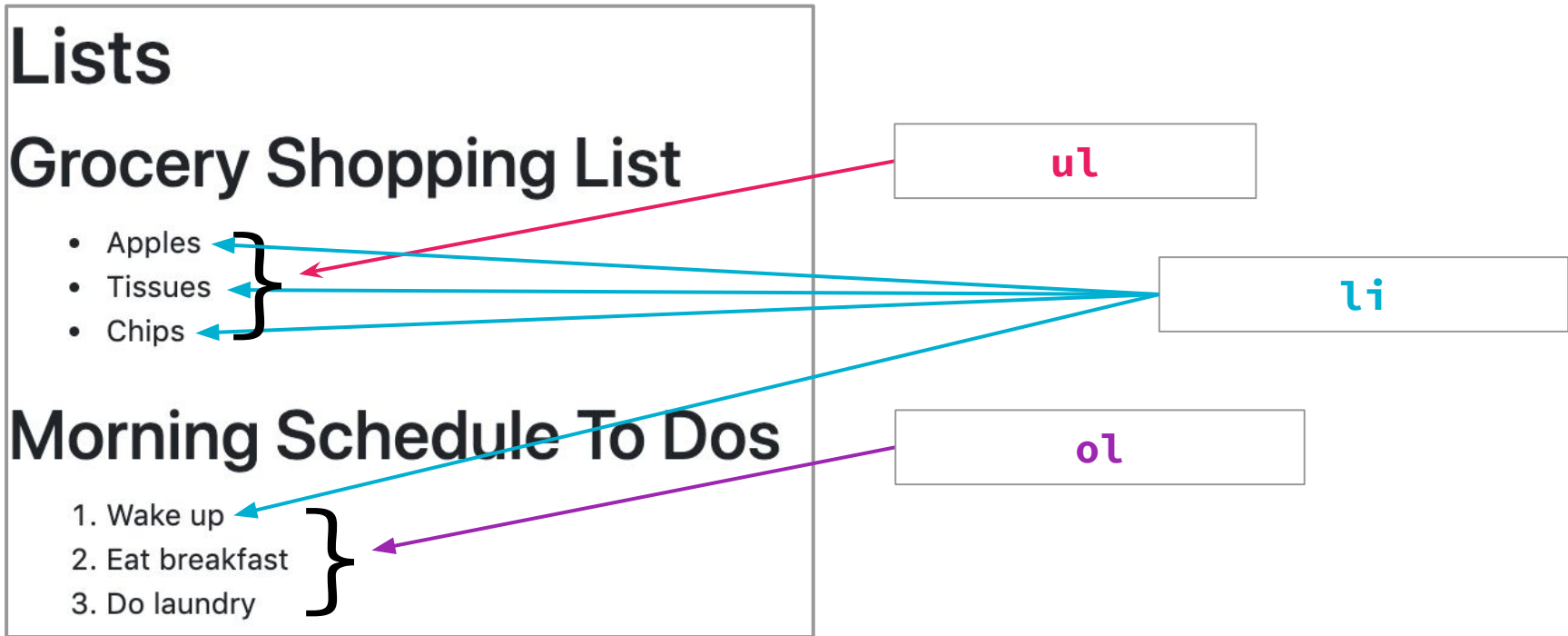
li

Morning Schedule To Dos

1. Wake up
2. Eat breakfast
3. Do laundry



ol



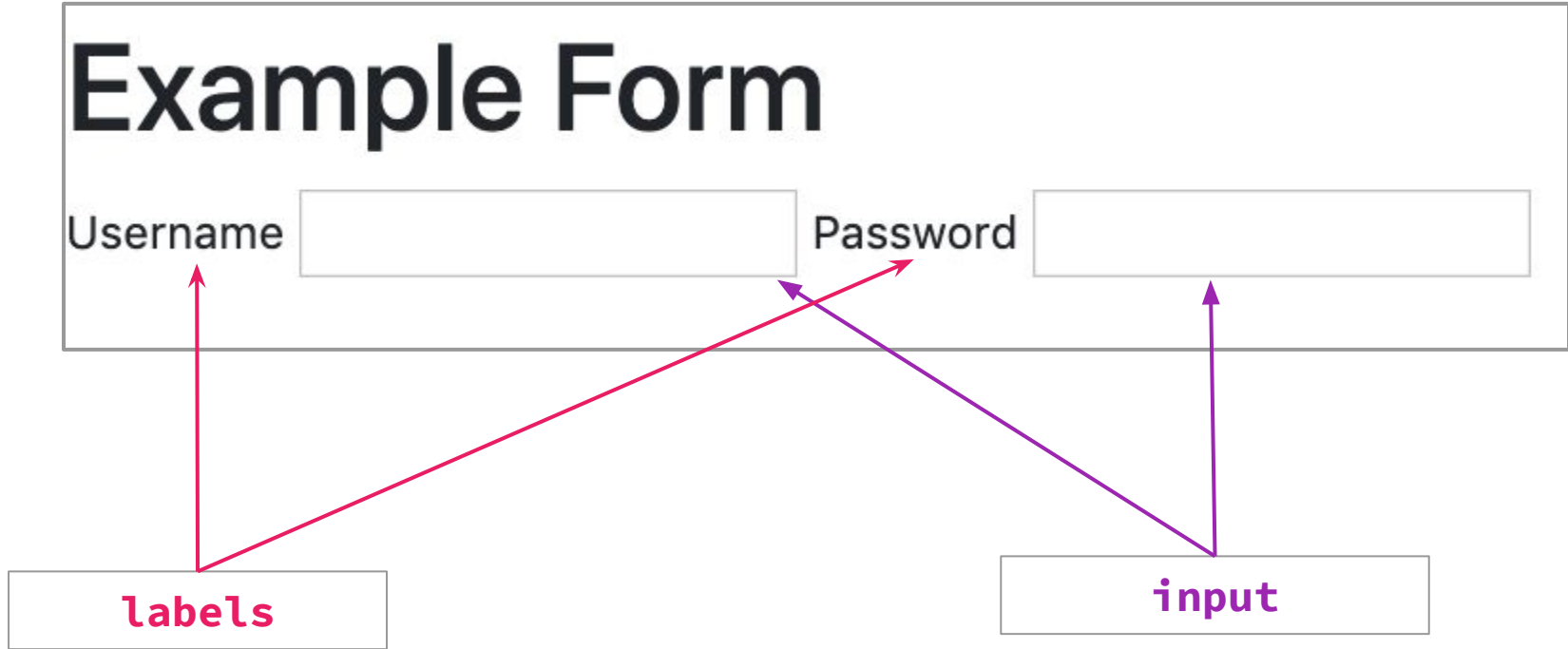
Forms

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- `<form>`
 - Form that takes in user input
- `<label>` (yellow)
 - A label for another element
- `<input>`
 - User input field, many different types
 - Text, checkbox, date, email, number, password, etc.

```
1.    <form>
2.        <label for="username">
3.            Username
4.        </label>
5.        <input type="text"
6.            name="username">
7.        <label for="password">
8.            Password
9.        </label>
10.       <input type="password"
11.           name="password">
12.    </form>
```

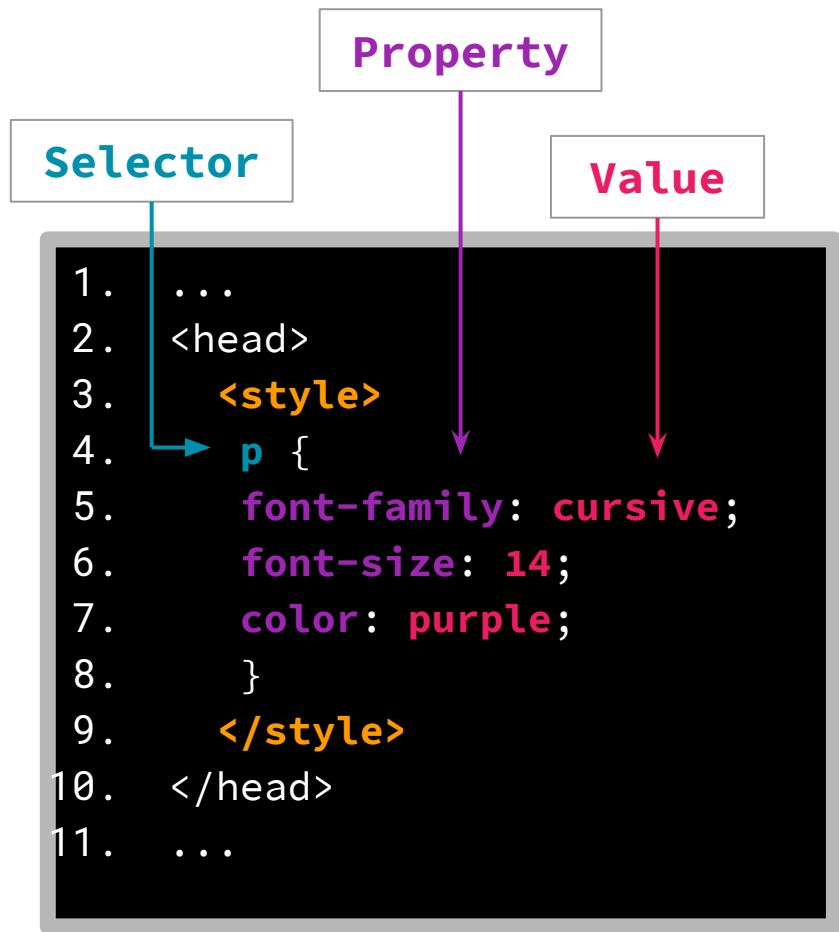
FORMS: Resulting Webpage



**Now time to make it your own using
Internal CSS.**

General Layout: Internal CSS

- Placed in **style** tags in the head
- **Selector**: The HTML element you are looking to style
- **Declaration**: The styling part!
 - **Property**: trait of the element you want to adjust (color, font, etc..)
 - **Value**: what the trait will be (blue, verdana, etc..)
- You can have multiple Selectors and Declaration parts



With Styling

Big Heading!

Some **body text** here

Smaller Heading

More *body text*

Without Styling

Big Heading!

Some **body text** here

Smaller Heading

More *body text*

Changing Background

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- With CSS, it is possible to edit whole regions instead of just elements
 - Future: Learning about “div” and learning about “classes”
- For changing a background:
 - `background-color: “...”;`
 - `background-image: url(“...”);`
- Note this is for a basic site using just a body region!

```
1. ...
2. <head>
3.     <style>
4.         body {
5.             background-color: blue;
6.             opacity: 0.8;
7.         }
8.     </style>
9. </head>
10. ...
```

Changing Background Color: Resulting Webpage

— — —

Big Heading!

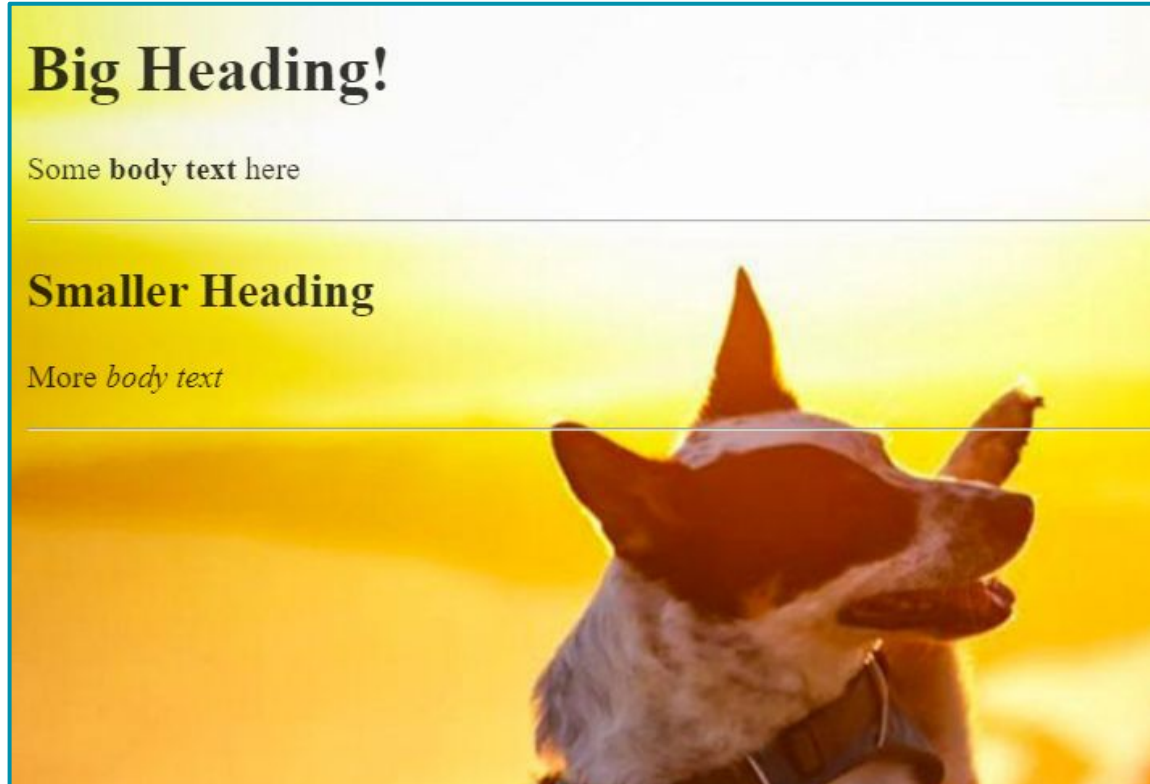
Some **body text** here

Smaller Heading

More *body text*

Changing Background Image : Resulting Webpage

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Personalizing Text

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- Some properties that can be changed:
 - Font size
 - Font
 - Boldness
 - Alignment
 - Color
- Fonts – fonts.google.com
 - Add any fonts you want
 - Click embed
 - Add the link you see to your head tag
- Example: makes text in the body 12px and blue

```
1. ...
2. <head>
3.     <style>
4.         body {
5.             font-size: 12px;
6.             color: blue;
7.         }
8.     </style>
9. </head>
10. ...
```

Personalizing Text: Resulting Webpage

Big Heading!

Some **body text** here

Smaller Heading

More *body text*

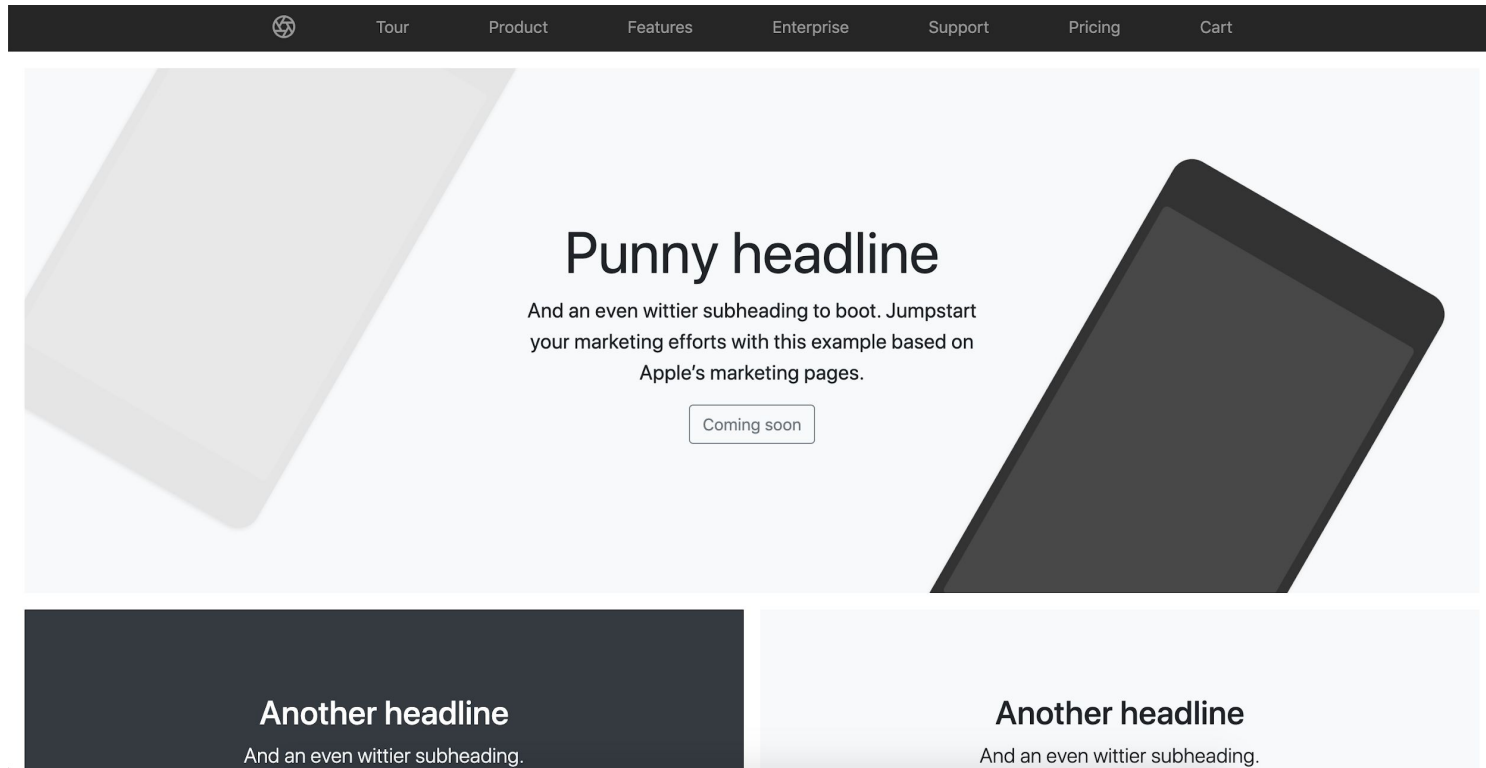
Don't have time to style everything or too lazy?

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- Bootstrap - <https://getbootstrap.com>
 - Framework for building responsive, mobile-friendly websites & classes for styling
 - Options to use: download; or include it as a stylesheet (shown below)

```
1. <head>
2.   <link rel="stylesheet"
     href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/boots
     trap.min.css"
     integrity="sha384-9aIt2nRpC12Uk9gS9baDl411NQApFmC26EwAOH8WgZl5MYX
     Ffc+NcPb1dKGj7Sk" crossorigin="anonymous">
3. </head>
```

Bootstrap Example



Other Resources

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- Want to learn more before the next workshop?
 - Codecademy.com - more comprehensive web development course (& many other courses); at your own pace
 - Udemy.com - many free courses; at your own pace
 - Coursera.org - more formal, paced course by many (prestigious) universities; can earn certificates
 - W3schools.com - tutorials for languages like HTML, CSS, SQL, and more
- Need a site but Web Dev isn't your thing?
 - Wix.com
 - Weebly.com
 - Wordpress.com

Any Questions?