

*Moving science to action for
the planet and all who live here.*



Web Tools Workshop

Design systems



Speaking
Presentations
Print
Web

Code
Maps and dataviz
Infographics
Project Management

Agenda



HTML & CSS

Web Accessibility

Development Tools

Codepen

WordPress



What are the building blocks of the web?



HTML & CSS

HTML tag attributes



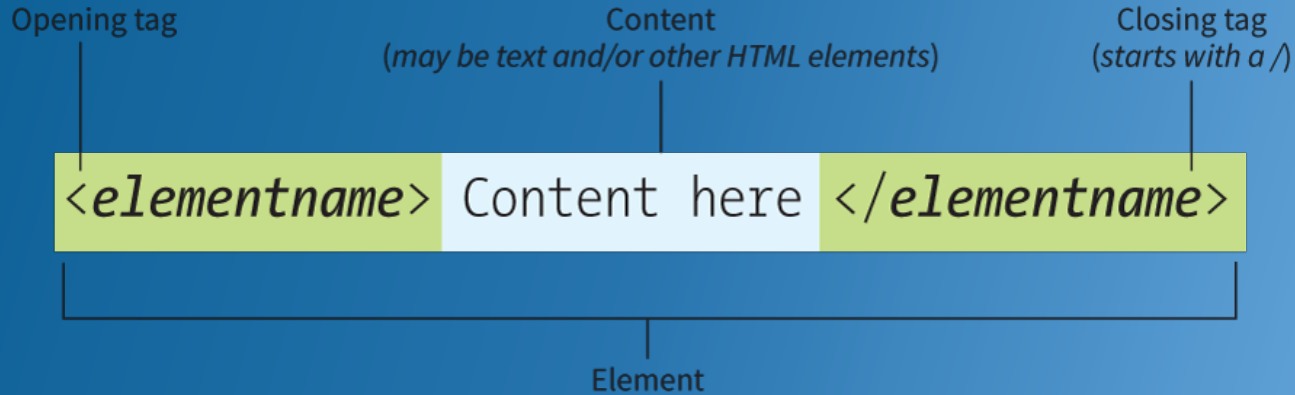
```
<a href="https://www.ioes.ucla.edu">UCLA IoES</a>
```

```
<h1 class="title">UCLA IoES</h1>
```

```

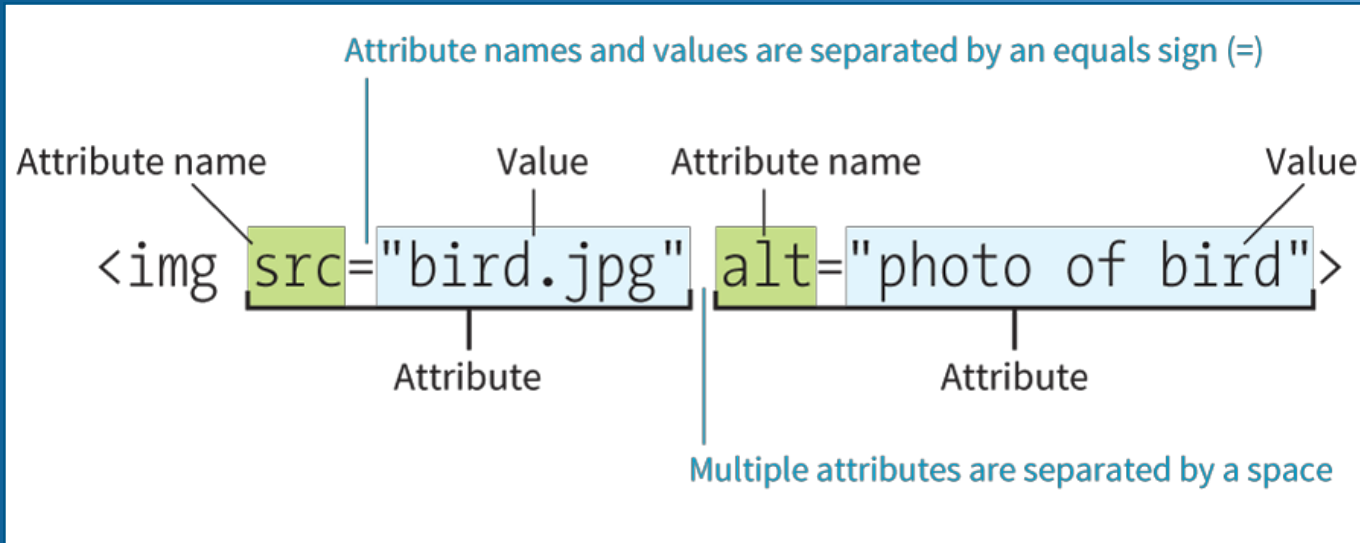
```

HTML tags and elements



Example: `<h1>Black Goose Bistro</h1>`

HTML tag, attributes and values



Nesting elements



Putting elements inside other elements is called **nesting**. Make sure closing tags don't overlap:

```
<div>  
  <h1>Headline</h1>  
  <p>This is <em>emphasized</em> text.</p>  
</div>
```

Web page



```
<!DOCTYPE html>
<html>

  <head>
    <meta charset="utf-8">
    <title>Title here</title>
  </head>

  <body>
    <!-- Page content goes here.-->
  </body>

</html>
```

CSS



Cascading Style Sheets

Style Separate from Structure



These pages have the exact same HTML source but different style sheets.



Style Rule Structure



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

```
h2 { color: red;  
     font-size: 2em;  
     margin-left: 30px;  
     opacity: .5;  
 }
```

Declarations



- **Properties** are defined in the CSS specifications.
- **Values** are dependent on the type of property:
 - Measurements: px, em, rem, %
 - Keywords: center, italic
 - Color values: hex, RGB, HSL, blue
 - More

External style sheets



Via `link` element in HTML:

```
<head>
```

```
<title>Titles are require</title>
```

```
<link rel="stylesheet" href="/path/example.css">
```

```
</head>
```

Embedded style sheets



Embedded style sheets are placed in the `head` of the document via the `style` element:

```
<head>  
  <title>Titles are required</title>  
  <style>  
    /* style rules go here */  
  </style>  
</head>
```


CSS Units of Measurement



CSS provides a variety ways to specify measurements:

Absolute units

Have predefined meanings or real-world equivalents

Relative units

Based on the size of something else, such as the default text size or the size of the parent element

Percentages

Calculated relative to another value, such as the size of the parent element

CSS Units of Measurement



CSS provides a variety ways to specify measurements:

Absolute units: px

Relative units

Based on the size of something else, such as the default text size or the size of the parent element

Percentages

Relative units are based on the size of something else:

- em** a unit equal to the current font size
- ex** x-height, equal to the height of a lowercase *x*
- rem** root em, equal to the font size of the `html` element
- ch** zero width, equal to the width of a zero (0)
- vw** viewport width unit (equal to 1/100 of viewport width)
- vh** viewport height unit (1/100 of viewport height)
- vmin** viewport minimum unit (value of `vh` or `vw`, whichever is smaller)
- vmax** viewport maximum unit (value of `vh` or `vw`, whichever is larger)



Thank You

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4356 Life Sciences