

LESSON 5.01 HTML

Why learn about **HTML** in DSI?

- Understanding HTML structures will be crucial for:
 - Scraping data from the web
 - Building interactive online dashboards / data visualisations

HTML Basics

- HTML is composed of "tags".
- These tags provide structure to the document
- Mostly implies that content should be rendered by browser in a manner specific to that tag.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>GA</title>
```

```
</head>
```

```
<body>
```

```
<p>Hey GA!</p>
```

```
</body>
```

```
</html>
```

`<html>` tag
ALWAYS encloses
the entire document

`<head>` and `<body>`
tags are where page
content go. The
`<head>` contains
what machines see,
`<body>` is what
people see.

The doctype for all HTML documents is the same: `<!DOCTYPE html>`. It is ALWAYS the first item on a page.

Regular Tags

`<p>Hello GA</p>`

Opening Tag Content Closing Tag

Self Closing Tags (Void Tags)

``
``

Tag Attribute

```
<h1>Top-level Heading</h1>
```

```
<h2>Secondary Heading</h2>
```

Heading tags

```
<p>This is a paragraph</p>
```

Paragraph tag

```
<ul class="small-list">
```

```
  <li>List item</li>
```

```
</ul>
```

Unordered list with list item

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

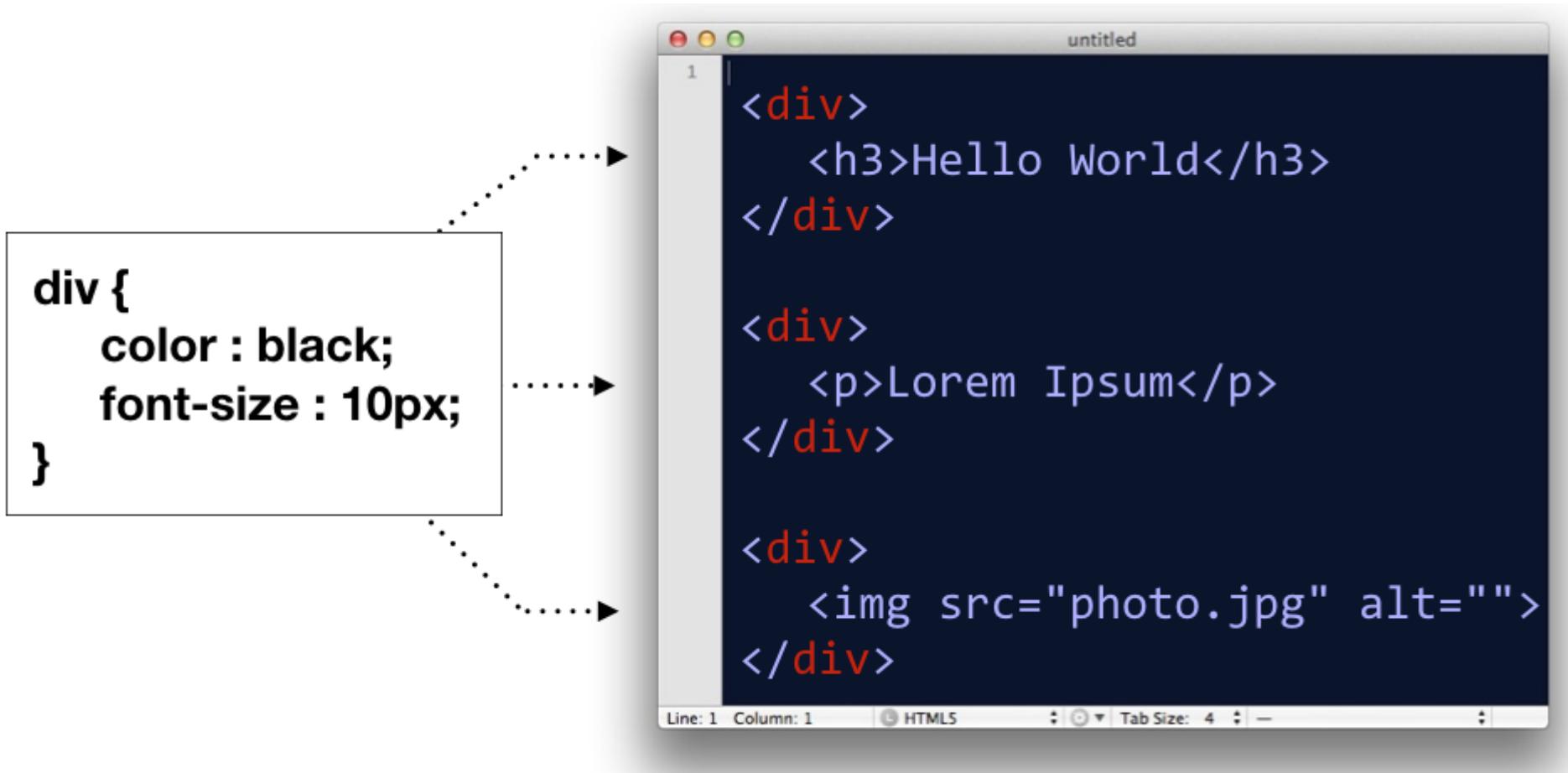
Hyperlink

```
<main>  
  <section>  
    <div>  
      Content A  
    </div>  
    <div>  
      Content B  
    </div>  
  </section>  
</main>
```

Nesting Tags

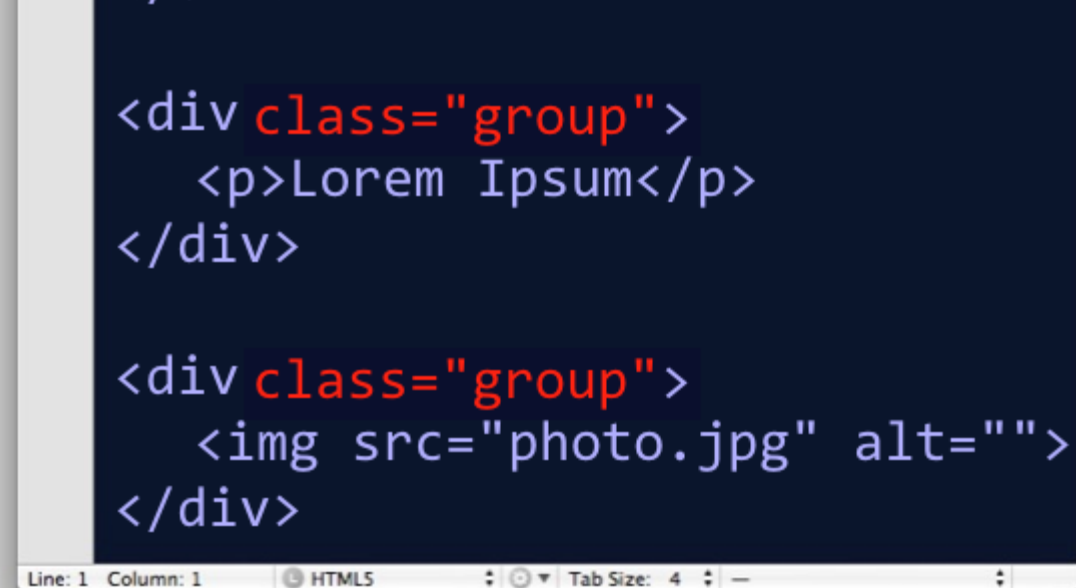
CSS

Apply formatting to all elements of the same tag



class attribute should be used on **2 or more elements** of the same tag

```
.group {  
  color : black;  
  font-size : 10px;  
}
```



The diagram illustrates the application of a CSS class to multiple HTML elements. On the left, a CSS rule is shown in a white box: `.group { color : black; font-size : 10px; }`. Two dotted arrows originate from this box: one points to the `<div class="group">` line in the first code block, and the other points to the `<div class="group">` line in the second code block. On the right, a code editor window titled 'untitled' displays two HTML snippets. The first snippet shows a `<div>` containing an `<h3>Hello World</h3>`. The second snippet shows a `<div class="group">` containing an `<p>Lorem Ipsum</p>`, followed by another `<div class="group">` containing an ``. The status bar at the bottom of the editor shows 'Line: 1 Column: 1', 'HTML5', and 'Tab Size: 4'.

```
<div>  
  <h3>Hello World</h3>  
</div>  
  
<div class="group">  
  <p>Lorem Ipsum</p>  
</div>  
  
<div class="group">  
    
</div>
```

id attribute should be used on **unique element**
of the same tag

#oneitem {
 color : black;
 font-size : 10px;
}

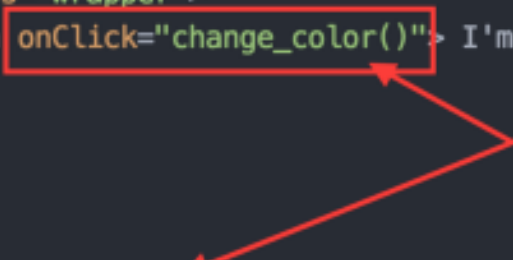
```
1 | <div id="oneitem">  
   |   <h3>Hello World</h3>  
   | </div>  
  
   | <div>  
   |   <p>Lorem Ipsum</p>  
   | </div>  
  
   | <div>  
   |     
   | </div>
```

JS

Create a JavaScript function to change formatting on button click

```
15 <script>
16   function change_color() {
17     document.getElementById("title").style.color = "#003366";
18   }
19 </script>
```

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <link rel="stylesheet" type="text/css" href="css_sample_file.css">
5   <link href='http://fonts.googleapis.com/css?family=Fredoka+One' rel='stylesheet' type='text/css'>
6 </head>
7 <body>
8   <h1 id="title">Hey there! I'm a header!</h1>
9   <div class="wrapper">
10    <button onClick="change_color()"> I'm a button! </button>
11  </div>
12 </body>
13 </html>
14
15 <script>
16   function change_color() {
17     document.getElementById("title").style.color = "#003366";
18   }
19 </script>
```



This button is now linked to the javascript function 'change_color()' and will now execute the function upon being clicked.