

Get started with HTML and CSS

Feng Zhou

2016-10-21

Outline

HTML

- What is HTML?
- Tags
- More on Elements
- Quiz

CSS

- What is CSS?
- Integrating CSS
- Syntax
- Selectors
- Rules
- Quiz

Define HTML

Hypertext Markup Language

Markup Languages

- ▶ xml
- ▶ haml
- ▶ yaml
- ▶ toml

But I still don't get it

the structure of the web pages

- ▶ list
- ▶ table
- ▶ form
- ▶ button
- ▶ and more

Example

```
<html>
  <head>
    <title>Example</title>
  </head>
  <body>
    <h1>Heading</h1>
    <p>this is a paragraph</p>
  </body>
</html>
```

<head>

most tags in <head> are invisible

```
<head>
  <meta charset="UTF-8">
  <meta name="description" content="web dev tutorials">
  <link rel="stylesheet" type="text/css" href="theme.css">
  <script src="main.js" />
</head>
```

<body>

<body> contains the real content

<a> for anchor

the most important tag

```
<a href="http://w3c.org">w3c</a>
```

<h1> - <h6> for headings

```
<h1>Title</h1>
```

```
<h2>Section Title</h2>
```

<p> for paragraph

html was for documentation

```
<p>a paragraph</p>
```

```
<p>  
another  
paragraph  
</p>
```


 line break

line break in the source code are ignored, but why?

```
<p>  
line1  
<br>  
line2  
</p>
```

<pre> preformatted

```
<pre>
line1
line2
</pre>
```

 ordered list

```
<ol>  
  <li>first</li>  
  <li>last</li>  
</ol>
```

 unordered list

```
<ul>  
  <li>first</li>  
  <li>last</li>  
</ul>
```

<div>

div is ubiquitous

div has no semantic meaning, think it as a container

```
<div class="ad"></div>
```


Some outdated tags

why you should not use them?

- ▶ `i` for italic
- ▶ `b` for bold

More tags

- ▶ `http://www.w3schools.com/tags/default.asp`

Attribute

```
<a href="http://gnu.org">GNU</a>
```

Children

```
<ol>
  <li>first</li>
  <li>second</li>
  <li>last</li>
</ol>
```

To close or not to close

p has children, must be closed

```
<p></p>
```

img has no children

```
  

```

Inline vs Block

```
<p>  
begin  
<span>inline</span>  
<span>element</span>  
end  
</p>
```

```
<div>  
begin  
<div>block</div>  
<div>element</div>  
end  
</div>
```

Block element examples

- ▶ p
- ▶ div
- ▶ table
- ▶ pre
- ▶ form

Inline element examples

- ▶ `span`
- ▶ `a`
- ▶ `img`
- ▶ `input`

Valide?

```
<span> 1 < 2 </span>
```

Escaping

```
<span> 1 &lt; 2 </span>
```

```
<span>1&nbsp;2</span>
```

Define CSS

Cascading Style Sheet

What is CSS?

the presentation of web pages

- ▶ color
- ▶ font
- ▶ layout
- ▶ animation
- ▶ and more

Example

```
body {  
  background: #efefef;  
  width: 960px;  
}
```

Ways to adding css to web page

- ▶ inline
- ▶ use the `<style>` element
- ▶ use `<link>`

Inlining

```
<div style="font-size: 20px; color: red">  
  in read  
</div>
```

Inlining

it's quick but ugly, why?

Using <style>

```
<style type="text/css">
body {
  color: black;
}
div {
  color: white;
}
</style>
```

Using <link>

loading external style sheet

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

Selector and rule

```
a {  
  color: red;  
}
```

By tag name

```
a {  
  color: red;  
}
```

By id

```
<div id="main"></div>
```

```
#main {  
}
```

By class

```
<div class="container"></div>
```

```
.container {  
}
```

Which way is better?

Which way is better?

font

```
color: #ccc;  
font-size: 30px;  
font-family: 'Helvetica';  
font-weight: bold;
```


color

```
color: #333;  
color: #eaeaea;  
color: blue;  
color: rgb(255, 0, 0);
```

margin

```
margin-top: 10px;  
margin-right: 20px;  
margin-bottom: 30px;  
margin-left: 40px;
```

margin

```
margin: 10px 20px 30px 40px;
```

margin

```
margin: 0 auto;
```

padding

syntax ideneical as margin

border

```
border: 1px solid red;
```

Selectors

```
body div.ad {}
```

```
div.ad p {}
```

Margin

```
margin: 10px 20px
```