

Introduction to HTML & CSS

Software Testing



[Agenda]

- Introduction to HTML
- HTML syntax
- Introduction to CSS
- CSS selectors
- CSS properties



Introduction



- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- HTML is a **markup** language
- A markup language is a set of markup **tags**
- The tags **describe** document content
- HTML documents contain HTML **tags** and plain **text**
- HTML documents are also called **web pages**
- The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.



Example

```
<!DOCTYPE html>
```

```
<html>
```

```
  <body>
```

```
    <h1>My First Heading</h1>
```

```
    <p>My first paragraph.</p>
```

```
  </body>
```

```
</html>
```

[HTML editors]

- HTML files can be opened with every text redactor program (example: Notepad)
- Some of the popular HTML editor programs include: Notepad ++, Sublime Text, Atom, Adobe Dreamweaver, CoffeeCup, NetBeans, etc.
- HTML editors provide advanced capabilities as auto-complete, syntax checkers, snippets, etc.



[HTML syntax]

attribute

↓

↑ ↑

name value

- Each html tag has a predefined name and set of possible attributes
- Tags are closed using </ > (last opened – first-closed principle)
- Some tags are auto-closed, i.e. do not require a closing tag
- (img, br, input, etc.)



[HTML tags]

- Current version of HTML is HTML5
- HTML5 contains **32 tags** – see [complete tag list reference](#)
- Examples:
 - <table>** - *table element*
 - <h1>** - *header (from h1 to h6)*
 - <p>** - *paragraph*
 - <a>** - *link*
 - ** - *image*
 - <input>** - *input form*





DEMO WEB PAGE



The Beauty of CSS

[CSS - Concept and application]

- CSS stands for **C**ascading **S**tyle **S**heets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- Powerful concept – separate content from style formatting
- Created back in 1994, CSS is used in almost every website nowadays



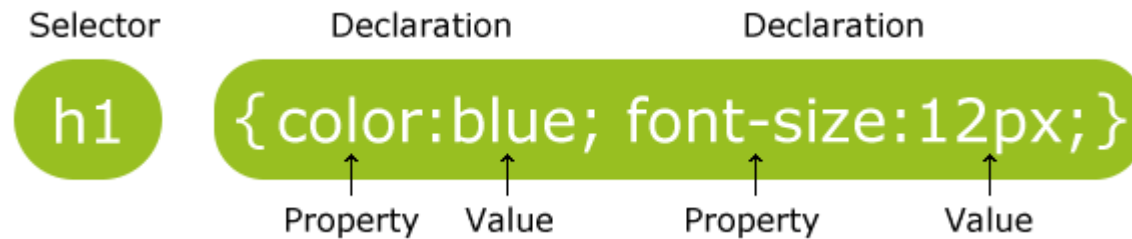
Example:

```
p {  
  color: red;  
  text-align: center;  
}
```

```
#mainContainer {  
  background-color: maroon;  
  margin: 10px auto 200px auto;  
}
```

```
.floatLeft {  
  float: left;  
  font-style: italic;  
}
```

CSS syntax



- The **selector** points to the HTML element you want to style.
- The **declaration block** contains one or more declarations separated by semicolons.
- Each **declaration** includes a CSS property name and a value, separated by a colon.
- A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.



[CSS integration with HTML]

When a browser reads a style sheet, it will format the HTML document according to the information in the style sheet.

There are three ways to insert a style sheet:

- External style sheet
- Internal style sheet
- Inline style



- External style sheet:

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

- Internal style sheet:

```
<head>  
<style>  
body {  
    background-color: linen;  
}  
  
h1 {  
    color: maroon;  
    margin-left: 40px;  
}  
</style>  
</head>
```

- Inline style sheet:

```
<h1 style="color:blue;margin-left:30px;">This is a heading.</h1>
```

[CSS selectors]

In CSS, selectors are patterns used to select the element(s) you want to style.

Most common selectors:

- Element selector
- ID selector
- Class selector

See complete list of CSS selectors [here](#).



The *element* selector selects all elements with the specified element name.

Example:

```
<p>This is the first paragraph of text</p>
```

```
p {  
  text-align: left;  
}
```


The *#id* selector styles the element with the specified id.

Example:

```
<div id = "mainContainer">  
<p>This is the first paragraph of text</p>  
</div>
```

```
#mainContainer {  
    background-color: maroon;  
}
```

*Each element can have only one ID, i.e. IDs are unique.
Each page can have only one element with this ID.*

The *.class* selector styles all elements with the specified class.

Example:

```
<p class = "centerText">This is the first paragraph of text</p>
```

```
.centerText {  
  text-align: center;  
}
```

*One class can be used on multiple elements, i.e. it's not unique.
Multiple classes can be used on the same element.*

[CSS properties]

Common groups of CSS properties:

- Color
- Text
- Text decoration
- Fonts
- Basic Box
- Background and Borders
- etc.

See complete list of CSS parameters [here](#).



[Resources]

- <http://www.w3schools.com/html/default.asp>
- <http://www.w3schools.com/css/default.asp>



