



Cascading Style Sheets

Introduction: CSS vs HTML

■ HTML:

- Originally intended to markup structure of a document (<h1>, <h2> ... <h6>, <p>, , , <blockquote>, ...)

■ CSS

- Developing technology, CSS1, CSS2 (CSS3 under discussion)
- Markup presentation, i.e. formats and layout

→ Separation of content and presentation

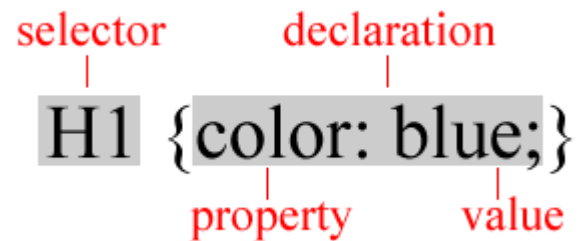
CSS Structure

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

- Selector:
 - on a simple level HTML element you wish to define
- Property:
 - attribute you wish to change
- Value:
 - value the property takes

Sample Style sheet

Rule Structure



Element Selectors – (refer to HTML tags)

H1 {color: purple;}

H1, H2, P {color: purple;}

Contextual – (refer to HTML, but in context)

LI B {color: purple;}

Selectors

■ Class Selectors

```
<H1 CLASS="warning">Danger!</H1>
```

```
<P CLASS="warning">Be careful...</P>
```

.....

In your HTML code -

```
H1.warning {color: red;}
```

OR to an entire class...

```
.warning {color:red;}
```

Applying CSS to HTML

- **External style sheets:**
 - `<HEAD>`
 - `<LINK REL=stylesheet" TYPE="text/css"`
 - `HREF="styles/mystyles.css">`
 - `</HEAD>`
- **This is true “separation” of style and content. Keeping all your styles in an external document is simpler**

Internal Style Sheets (1/2)

- Inline
 - Affects individual HTML tag

```
<html>
  ...

  <body>
    ...
    <p style="font-family: Arial, sans-
      serif; ">some text</p>
  </body>
</html>
```

Internal Style Sheets (2/2)

- Embedded
 - Affects individual document

```
<html>
  <head>
    ...
    <style type="text/css">
      p {font-family: Arial, sans-serif;}
    </style>
  </head>

  <body>
    ...
    <p>some text</p>
  </body>
</html>
```


External Style Sheets (1/4)

- Separate text file (.css)
 - e.g. styles.css

```
p {  
  font-family: Arial, Sans-serif;  
}
```

External Style Sheets (2/4)

- Linked styles
 - Affect all documents that are linked to the style sheet

```
<html>
  <head>
    ...
    <link href="styles.css"
          rel="stylesheet" type="text/css" />
  </head>
  <body>
    ...
    <p>some text</p>
  </body>
</html>
```

External Style Sheets (3/4)

- Imported styles (1/2)
 - Affect all documents that are linked to the style sheet
 - Not supported by level 4 browsers
 - Often used to hide CSS2 styles from older browsers

External Style Sheets (4/4)

■ Imported styles (2/2)

Into HTML file

```
<head>
  ...
  <style type="text/css">
    <!--
      import url("styles.css");
    -->
  </style>
</head>
```

Into another style sheet (sectionstyles.css)

- @import instruction must be first line of file!

```
@import url("styles.css");

/*sectionstyles start
here*/

h1 {
  font-size: 200%;
  color: #6b84b5
}
```

Order of precedence

1. HTML formatting instructions (e.g. `` tags)
2. Inline styles
3. Embedded styles
4. Linked styles
5. Imported styles
6. Default browser styles

Types of CSS styles

- Styles assigned to a HTML element
- Class selector styles
 - Define different styles for one or more HTML elements
 - Assigned to the class attribute within an HTML element
- ID selector styles
 - Define different styles for one and the same HTML element
 - Assigned to the ID attribute within an HTML element

Class selector styles

- CSS:

...

```
.blue {color: #082984}
```

```
.red {color: #de2131}
```

- HTML

...

```
<h1 class="red">Headline</h1>
```

```
<p class="red">a summary</p>
```

```
<p class="blue">some text</p>
```

...

Pseudo-classes

- Used when an HTML element can display more than one behaviour (e.g. hyperlinks)

- CSS:

```
a:link {color: #000}  
a:visited {color: #000}  
a:hover {color: #69f}  
a:active {color: #000}
```

- HTML

```
<a href="nextpage.html">Next page</a>
```


ID Selector styles

- CSS

...

```
#red_heading {color: red}
```

```
#summary {color: red}
```

```
p#conclusion {color: blue}
```

- HTML

...

```
<h1 id="red_heading">Headline</h1>
```

```
<p id="summary">Summary</p>
```

```
<p id="conclusion">Conclusion</p>
```

...