Lecture 02: Style Sheets

Learning goals

After the course, attendees will be able to:

- Understand CSS, CSS3

- Using CSS in HTML documents

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Trainee's missions

To complete this course and achieve goals, trainees must:

▶ **Read Lecture, Reference**

▶ **Do Exercises**

▶ **Take quiz**

▶ **Complete Assignment**

Dynamic HTML

- DHTML is used to describe the combination of HTML, the stylesheet and script language make the website come alive.

- The ability to write the script allows to add dynamic features to Web pages.

- Microsoft DHTML implementation through focusing on the use of CSS (Cascading Style Sheets). The script code is used for interactive elements of CSS.

What is CSS?

CSS stands for **Cascading Style Sheet.** Typical CSS file is a text file with an extention.**.css** and contains a series of commands or rules. These rules tell the HTML how to display.

HTML
(content)

+

CSS

style sheet
(appearance)

=

website

Attaching a Style Sheet

There are *3 ways* to attach CSS to a page:

1. Inline Style Sheet*: CSS is not attached in the <header> but is used directly within HTML tags.

<p style="color: red">Some Text</p>

2. Internal Style Sheet: Best used to control styling on one page.

<head>

<style type="text/css">
    h1 {color: red)
</style>

</head>

3. External Style Sheet: Best used to control styling on multiple pages.

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

Import

- You can place the normal CSS link, but you'll add special code,@import, to add the extra color.

```html
<link rel="stylesheet" type="text/css" href="main.css" title="Default"/>
   <style type="text/css">
     @import url(coolblue.css);
 </style>
```
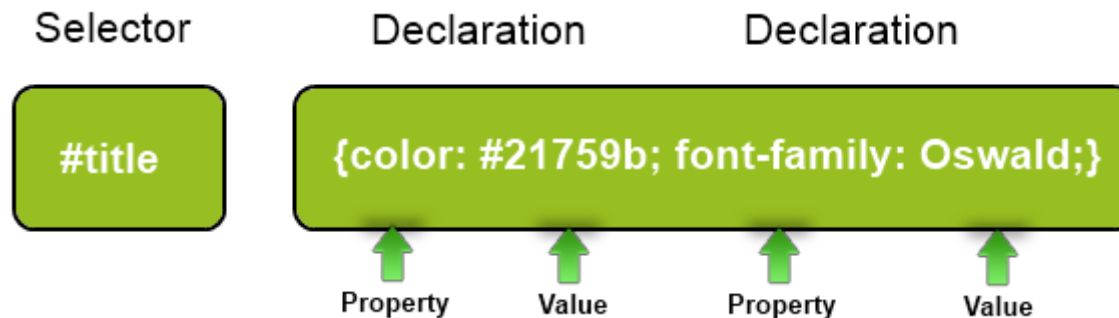
CSS Rule Structure

A CSS RULE is made up of a selector and a declaration. A declaration consists of property and value.

A selector is often an element of HTML.

Properties and values tell an HTML element how to display.

Selector	Declaration	Declaration
#title	**{color: #21759b; font-family: Oswald;}**	

Property Value Property Value

```
<style>
    p {color:blue;}
</style>
```

Selector Property Value

Noname2.html

file:///C:/Use

This is blue

Grouping Selectors

Group **the same selector** with different declarations together on one line.

Group **different selectors** with the same declaration on one line.

The same selectors (1)

```
h1 {color: black;}
h1 {font-weight: bold;}
h1 {background: white;}
```

⬇

```
h1 {
color: black;
font-weight: bold;
background: white;
}
```

Different selectors (2)

```
h1 {color: yellow;}
h2 {color: yellow;}
h3 {color: yellow;}
```
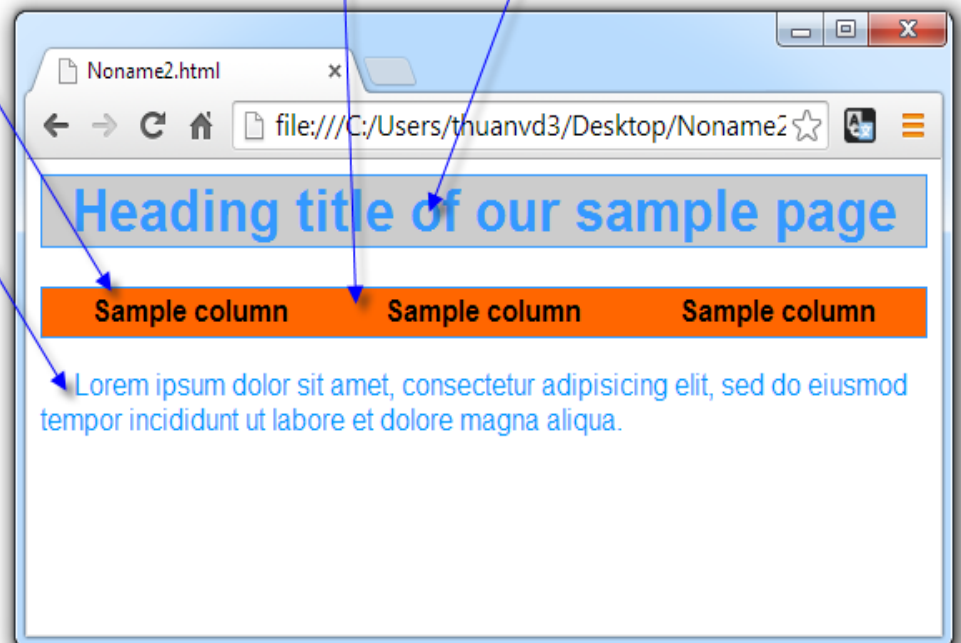
⬇

```
h1, h2, h3 {color: yellow;}
```

Comments in CSS

- Explain the purpose of the coding

- Help others read and understand the code

- Serve as a reminder to you for what it all means

- Starts with /*and ends with*/

```
p {color: #ff0000;} /*Company Branding*/
```
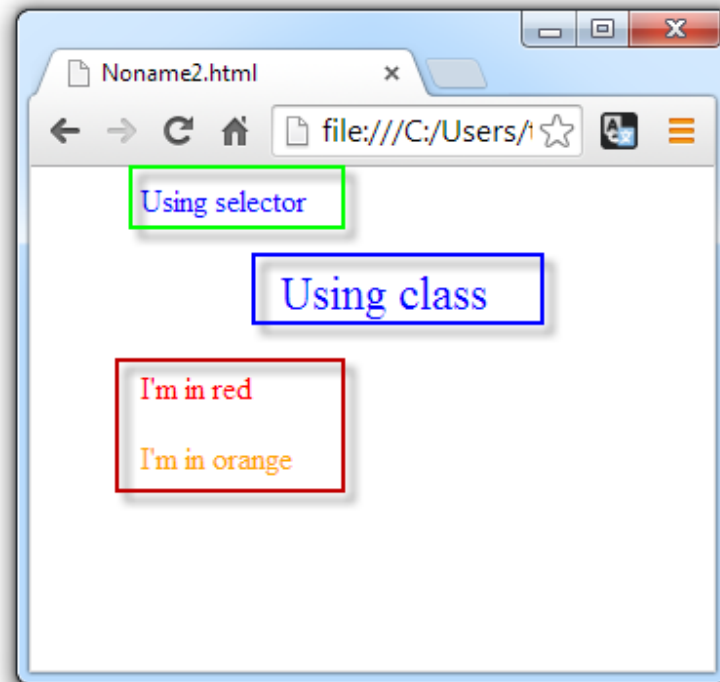
Systax: /* content of comment */

1

First Example

```html
<head>
  <style>
    body {font-family: arial;}                                              1

    h1 {background-color:#CCC; border: 1px solid; color:#39F;    text-align: center;}   2

    table { background-color: #F60; border: 1px solid #39F; width: 100%;}    3

    td { border: 0px;    text-align: center;        }                        4

    p {color:#09F;    text-indent: 20px;}                                    5

  </style>
</head>
<body>
<h1>Heading title of our sample page </h1>
<table border="1">
<tr>
    <td><strong>Sample column</strong></td>
    <td><strong>Sample column</strong></td>
    <td><strong>Sample column</strong></td>
</tr>
</table>
<p>Lorem ipsum dolor sit amet, consectetur
adipisicing elit, sed do  eiusmod tempor
incididunt ut labore et dolore magna aliqua.</p>
</body>
```

Noname2.html

file:///C:/Users/thuanvd3/Desktop/Noname2

Heading title of our sample page

| Sample column | Sample column | Sample column |

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Using selector, class, id

Pseudo Class

A pseudo-class is used to define a special state of an element. For example, it can be used to:

Style an element when a user mouses over it
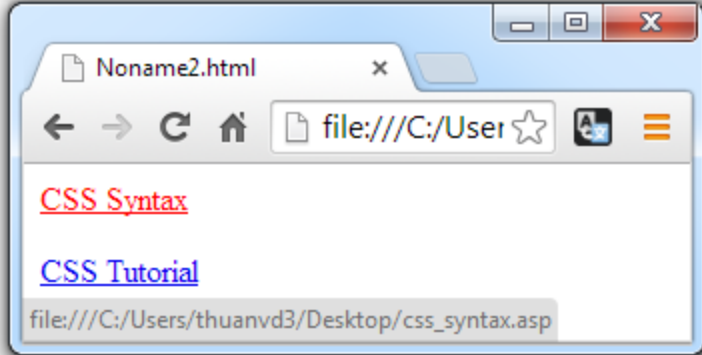
Style visited and unvisited links differently

```html
<html>
<head>
<style>
a.highlight:hover {
    color: #ff0000;
}
</style>
</head>
<body>

<p><a class="highlight" href="css_syntax.asp">CSS Syntax</a></p>
<p><a href="default.asp">CSS Tutorial</a></p>

</body>
</html>
```
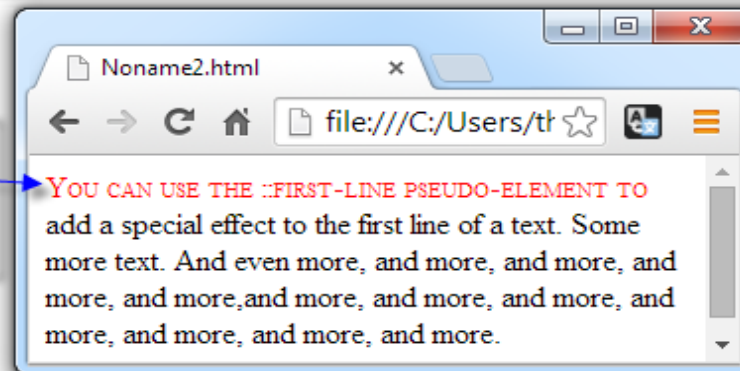
Pseudo element

A CSS pseudo-element is used to style specified parts of an element.For example, it can be used to:

- Style the first letter, or line, of an element

- Insert content before, or after, the content of an element
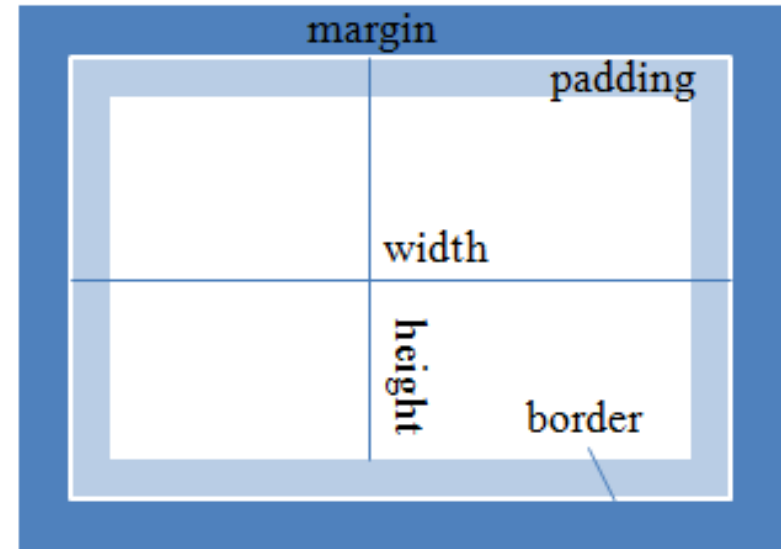
Common CSS Properties

- Layout properties
- Text properties
- CSS Colors
- Styling link
- Box Model

Layout Properties

- Width: %, px;

- Height: %, px

- Float: left, right, none, inherite

- Clear: left, right, both, none, inherit

- Border: px;

- Padding: pading, padding-left, padding-right, padding-top, padding-bottom (px, em)

- Margin: margin, margin -left, margin -right margin -top, margin -bottom (px, em)

Text Properties

To style the text, it consist of some properties:

- Color

- letter-spacing

- text-transform

- word-spacing

- text-align

- font

```css
<style type="text/css">
    .mainHeading {
        color: red;

        letter-spacing: 5px;

        text-transform: uppercase;

        word-spacing: 15px;

        text-align: left;

        font-family: Times;

        text-decoration: underline;

        font-size: 12px;

        font-style: italic;

        font-weight: bold;

    }
</style>
```

CSS Colors

To style color for text

Standard

- White
- Black
- Blue
- Fuchsia
- Gray
- Green
- Lime
- Aqua

Hexadecimal

- #ffffff
- #fff
- #cccf0f3

```
<style type="text/css">
    .mainHeading {

(1)     color: red;

        letter-spacing: 5px;

        text-transform: uppercase;
    }
</style>
```

Styling Links

The links property defines how inactive, hovered, active, and visited link states appear to the user.

```
a:link {color: red; text-decoration: none;border-bottom: 1px dashed red; background: white;}

a:visited {color: yellow;}

a:active {color: green;}

a:hover {color: orange;}
```

Box Model

The CSS box model is essentially a box that wraps around HTML elements, and it consists of: margins, borders, padding, and the actual content.

Introduction CSS3 – Basic

- CSS3 is the latest standard CSS.
- CSS3 fully backward compatible with previous versions of CSS.
- Some important components of CSS3:

  - Selectors
  – Box Model
  – Backgrounds và Borders
  – Image Values và Replaced Content
  – Text Effects
  – 2D/3D Transformations
  – Animations
  – Multiple Column Layout
  – User Interface

Introduction CSS3 – Some new features 1/6

- Border effects :

  – border-radius

  – box-shadow

  – border-image

  ```
  div
  {
  box-shadow: 10px 10px 5px
  #888888;
  }
  ```
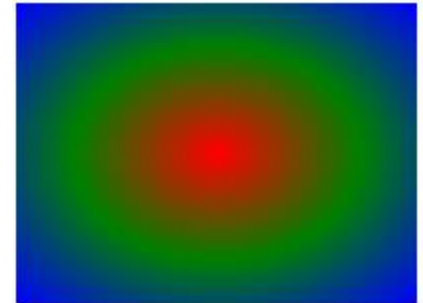
- Background effects:

  – background-size

  – background-origin

- Gradient effects:

  – Linear Gradients (goes down/up/left/right/diagonally)

  – Radial Gradients (defined by their center)

- Examples of Radial Gradients

```
#grad1
{
height:150px;
width:200px;
background: -webkit-radial-gradient(red, green, blue);
background: -o-radial-gradient(red, green, blue);
background: -moz-radial-gradient(red, green, blue);
background: radial-gradient(red, green, blue);
}
```

Internal Use

Introduction CSS3 – Some new features 3/6

- Text Effects:

  – text-shadow

  – word-wrap

Examples of text-shadow

```
h1
{
text-shadow: 5px 5px 5px #FF0000;
}
```

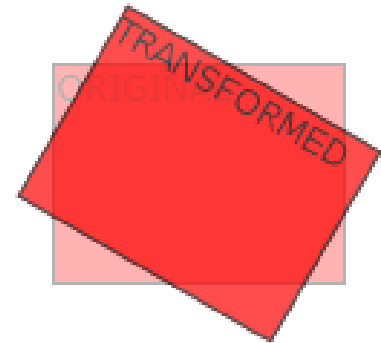Text shadow effect!

- Fonts effects:
  – @font-face

Introduction CSS3 – Some new features 4/6

- 2D-Transformation Effects:
  - translate()
  - rotate()
  - scale()
  - skew()
  - matrix()

Examples of rotate()

```
div
{
-ms-transform: rotate(30deg);
-webkit-transform: rotate(30deg);
transform: rotate(30deg);
}
```

- 3D-Transformation Effects:
  - rotateX()

  - rotateY()

Examples of rotateX()

```
div
{
-webkit-transform: rotateX(120deg);
transform: rotateX(120deg);
}
```

Introduction CSS3 – Some new features 6/6

- Transition Effects:
    - transition
    - transition-delay
    - transition-duration
    - transition-property
    - transition-timing-function

- Animation Effects:
    - @keyframes
    - animation

- Multiple Columns Effects:
    - column-count
    - column-gap
    - column-rule

- User Interface Effects:
    - resize
    - box-sizing
    - outline-offset

Introduction CSS3

- CSS3 specification continues to grow by WC3.

- However, new effects have been supported by the new browser.

Summary

- Understand CSS.

- Practice with CSS

- Understand the new features in CSS3