

## 5. CSS Tutorial I

충남대학교 컴퓨터공학과  
데이타베이스시스템 연구실

# CSS Introduction

## CSS Demo – One page – Multiple Styles!

## What is CSS?

- Cascading Style Sheets
- Defines **how HTML elements are to be displayed**
- Styles were added to HTML 4.0 **to solve a problem**
- Saves a lot of work

## CSS Examples

# CSS Introduction (cont'd)

## ❏ CSS Solved a Big Problem

- Development of large web sites, where fonts and color information were added to every single page, became a long and expensive process.
- To solve this problem, the World Wide Web Consortium (W3C) created CSS.
- In HTML4.0, all formatting could (and should!) be removed from the HTML document, and stored in a separate CSS file.

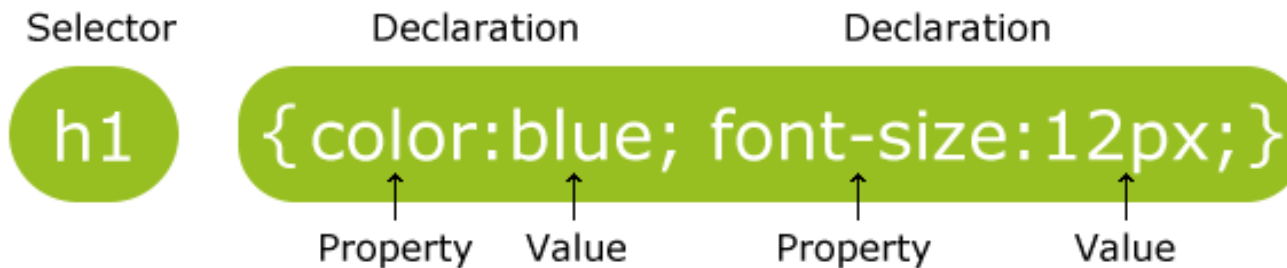
## ❏ CSS Saves a Lot of Work!

- The style definitions are normally saved in external .css files.
- You can change the look of an entire web site by changing just one file!

# CSS Syntax

## ❖ CSS Syntax Try it!

- A CSS rule set consists of a selector and a declaration block.



- 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 property name and a value, separated by a colon.

## ❖ CSS Comments Try it!

- Starts with "/\*", and ends with "\*/".

# CSS Selectors

## CSS Selectors

- Allow you to select and manipulate HTML elements
- Are used to “find” (or select) HTML elements based on their id, class, type, attribute, and more.

## The element Selector *Try it!*

- Selects elements based on the element name.

# CSS Selectors (cont'd)

## ❏ The id selector *Try it!*

- Uses the id attribute of an HTML element to select a specific element.
- Is used if you want to select a single, unique element.
- To select an element with a specific id, write a hash character, followed by the id of the element.

## ❏ The class Selector *Try it!* *Try it!*

- Selects elements with a specific class attribute.
- To select elements with a specific class, write a period character, followed by the name of the class.

# CSS Selectors (cont'd)

## Grouping Selectors

- If you have elements with the same style definitions, like this
- You can group the selectors, to minimize the code *Try it!*

```
h1 {  
    text-align: center;  
    color: red;  
}  
  
h2 {  
    text-align: center;  
    color: red;  
}  
  
p {  
    text-align: center;  
    color: red;  
}
```

# CSS How To...

## ❏ Three Ways to Insert CSS

- ❏ External style sheet
- ❏ Internal style sheet
- ❏ Inline style

## ❏ External Style Sheet

- ❏ Ideal when the style is applied to many pages.
- ❏ You can change the look of an entire Web site by changing just one file.
- ❏ Each page must include a link to the style sheet with the <link> tag. The <link> tag goes inside the head section.
- ❏ The style sheet file must be saved with a .css extension.

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



# CSS How To... (cont'd)

## Internal Style Sheet *Try it!*

- Should be used when a single document has a unique style.
- You define internal styles in the head section of an HTML page, inside the <style> tag.

## Inline Styles *Try it!*

- Add the style attribute to the relevant tag. The style attribute can contain any CSS property.

# CSS How To... (cont'd)

## ❏ Multiple Styles Will Cascade into One

- ❏ If some properties have been set for the same selector in different style sheets, the values will be inherited from the more specific style sheet.

## ❏ Cascading Order Try it!

- ❏ What style will be used when there is more than one style specified for an HTML element?
  1. Browser default
  2. External style sheet
  3. Internal style sheet (in the head section)
  4. Inline style (inside an HTML element) : highest priority
- ❏ **Note** : If the link to the external style sheet is placed after the internal style sheet in HTML <head>, the external style sheet will override the internal style sheet!

# CSS Background

## ❏ CSS background properties

- Are used to define the background effects of an element.
- background-color, background-image, background-repeat, background-attachment, background-position.

## ❏ Background Color Try it! Try it!

- The background-color property specifies the background color of an element

## ❏ Background Image Try it!

- The background-image property specifies an image to use as the background of an element.
- By default, the image is repeated so it covers the entire element.

# CSS Background (cont'd)

## ❖ Background Image – Repeat Horizontally or Vertically

- By default, the background-image property repeats an image both horizontally and vertically.
- To repeat an image horizontally set background-repeat : repeat-x *Try it!*
- To repeat an image vertically set background-repeat : repeat-y

## ❖ Background – Shorthand property *Try it!*

- To specify all the properties in one single property.
- The order of the property values is
  - background-color
  - background-image
  - background-repeat
  - background-attachment
  - background-position
- *Advanced Example*

# CSS Text

## ❏ Text Color Try it!

- The color property is used to set the color of the text.

## ❏ Text Alignment Try it!

- The text-align property is used to set the horizontal alignment of a text.
- Text can be centered, or aligned to the left or right, or justified.

## ❏ Text Decoration Try it! Try it!

- The text-decoration property is used to set or remove decorations from text.
- **Note** : It is not recommended to underline text that is not a link, as this often confuses users.

# CSS Text (cont'd)

## ❏ Text Transformation *Try it!*

- The text-transform property is used to specify uppercase and lowercase letters in a text.

## ❏ Text Indentation *Try it!*

- The text-indent property is used to specify the indentation of the first line of a text.

## ❏ *All CSS Text Properties*

# CSS Font

- ❖ CSS font properties define the font family, boldness, size, the style of a text.
- ❖ Difference Between Serif and Sans-serif Fonts



Sans-serif



Serif



Serif  
(red serifs)

# CSS Font (cont'd)

## ❏ CSS Font Families

- ❏ Two types of font family names
  - Generic family – a group of font families with a similar look
  - Font family – a specific font family

Generic family	Font family	Description
Serif	Times New Roman Georgia	Serif fonts have small lines at the ends on some characters
Sans-serif	Arial Verdana	"Sans" means without - these fonts do not have the lines at the ends of characters
Monospace	Courier New Lucida Console	All monospace characters have the same width

- ❏ Note : On computer screens, sans-serif fonts are considered easier to read than serif fonts



# CSS Font (cont'd)

## Font Family *Try it!*

- The font-family property should hold several font names as a “fallback” system.
  - If the browser does not support the first font, it tries the next font.
  - Start with the font you want, and end with a generic family.
- Note : If the name of a font family is more than one word, it must be in quotation marks, like: “Times New Roman”.
- More than one font family is specified in a comma-separated list.
- *Web Safe Font Combinations*

# CSS Font (cont'd)

## Font Style *Try it!*

- The font-style property is mostly used to specify.
  - Three values : normal, italic, oblique

## Font Size

- The font-size property sets the size of the text.
- The font-size value
  - Absolute size
    - Sets the text to a specified size
    - Does not allow a user to change the text size in all browsers
    - Useful when the physical size of the output is known
  - Relative size
    - Sets the size relative to surrounding elements
    - Allows a user to change the text size in browsers

# CSS Font (cont'd)

- Set Font Size With Pixels *Try it!*
- Set Font Size With Em *Try it!*
  - The em size unit is recommended by the W3C.
  - 1em = 16px

## *All CSS Font Properties*

# CSS Links

## Styling Links

- Links can be styled with any CSS property (e.g.color, font-family, background, etc)
- Links can be styled differently depending on what state they are in.
- Four links states *Try it!*
  - a:link – a normal, unvisited link
  - a:visited – a link the user has visited
  - a:hover – a link when the user mouses over it
  - a:active – a link the moment it is clicked
- When setting the style for several link states, there are some order rules
  - a:hover MUST come after a:link and a:visited
  - a:active MUST come after a:hover

# CSS Lists

## ❏ CSS List properties allow you to

- Set different list item markers for ordered lists.
- Set different list item markers for unordered lists.
- Set an image as the list item marker.

## ❏ Different List Item Markers

- The type of list item marker is specified with the list-style-type property *Try it!*

## ❏ An Image as The List Item Marker

- Use the list-style-image property. *Try it!*
  - The example does not display equally in all browsers.

# CSS Lists (cont'd)

## ❏ List : Shorthand property *Try it!*

- The list-style property is used to set all the list properties in one declaration
- The order of the property values
  - list-style-type
    - If a list-style-image is specified, the value of this property will be displayed if the image for some reason cannot be displayed.
  - list-style-position
    - Specifies whether the list-item markers should appear inside or outside the content flow
  - list-style-image
    - Specifies an image as the list item marker

# CSS Tables

## ❏ Table Borders *Try it!*

- To specify table borders in CSS

## ❏ Collapse Borders *Try it!*

- The border-collapse property sets whether the table borders are collapsed into a single border or separated.

## ❏ Table Width and Height *Try it!*

## ❏ Horizontal Text Alignment *Try it!*

- The text-align property sets the horizontal alignment, like left, right, or center
- By default, the text in <th> elements are center-aligned and the text in <td> elements are left-aligned.

# CSS Tables (cont'd)

## ❖ Vertical Text Alignment Try it!

- The vertical-align property sets the vertical alignment, like top, bottom, or middle.
- By default, the vertical alignment of text in a table is middle (for both <th> and <td> elements)

## ❖ Table Padding Try it!

- To control the space between the border and content in table, use the padding property on <td> and <th> elements

## ❖ Table color Try it!

❖ << *Here is the end of "Introduction to CSS – CSS : An Overview" in [Codecademy.com](https://www.codecademy.com).* >>