

# CSS

# Basics & Navigation



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# Reviews

- ◎ History (ARPANET)
  - ◎ Evolution (1.0 -> 2.0 -> 3.0)
  - ◎ Ideas
  - ◎ New Media Design
  - ◎ Interaction Design
  - ◎ HTML5 Elements
-

# Course Outline

- ⦿ Web Navigation Design Philosophies
  - ⦿ Mechanism of Navigation
  - ⦿ Defining styles with CSS
  - ⦿ CSS Text Styling
  - ⦿ CSS Navigation
  - ⦿ CSS Tabular Data
  - ⦿ CSS Validation
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# Web Navigation Design Philosophy

## ☉ User-centered Design

Replace guesswork and assumptions about user behavior with research. Not easy, extra time and cost. The benefits are not short term and pay off in the end.

## ☉ Designer-centered Design

Quickly becomes unsuccessful for sites that deal with vast amounts of information or complex interactions.

## ☉ Enterprise-centered Design

All-too-common perspective. The web site is designed around the structure and needs of the stakeholder's company. May increase the efficiency for site maintenance later on but generally run the risk of users becoming confused, getting lost or going somewhere else.

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# Web Navigation Design Philosophy

## ☉ Content-centered Design

The existing body of information is the basis for structuring navigation. Organize the content by document format.

## ☉ Technology-centered Design

Technology is the driving force here. The focus is on implementation and reaching a final product.

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# What is CSS?

- ◎ CSS – **Cascading Style Sheets**
  - ◎ It is a simple mechanism to add **style** (e.g. fonts, colors, spacing, etc.) into a web document.
  - ◎ Since it divides the structural from presentation (design) of a web document, it could simplified the organization and modification of web page.
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# Defining Styles with CSS

The basic purpose of CSS is to allow the designer to define style declaration and then apply those styles to selected portions of HTML pages using **selector** (i.e. references to an element to which the style is applied).

## ● Inline Styles

```
<p style="font-weight: bold; color: blue;">  
  Universitas Sultan Ageng Tirtayasa  
</p>
```

## ● Embedded Styles

```
<head>  
  <style> p{ font-weight: bold; color: red; } </style>  
</head>
```

---



# Defining Styles with CSS

## ☉ External Styles

Week2.html

```
<head>
```

```
<link rel="stylesheet" href="styles.css">
```

```
</head>
```

styles.css

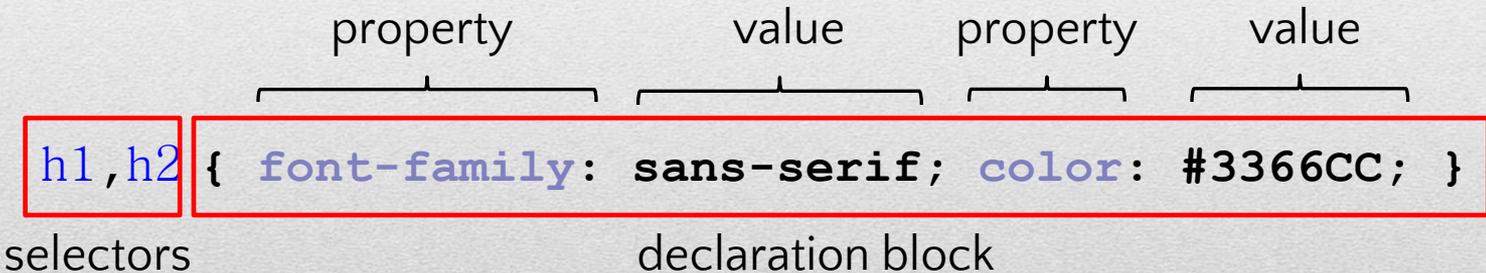
```
p{ font-style: italic; color: #00FF00; }
```

---



# CSS Syntax

A stylesheet is a collection of style definitions. Every CSS style definition, or rule, has two main components: **selectors** and **declaration block**.





# CSS Selector

## ☉ Type Selectors

html

```
<h1>Lorem Ipsum</h1>
```

CSS

```
h1{ font-family: Tahoma; }
```

**Lorem Ipsum**

## ☉ Class Selectors

html

```
<h1 class="lorem">Lorem Ipsum</h1>
```

CSS

```
.lorem{ color: #0000FF; }
```

**Lorem Ipsum**



# CSS Selector

## ☉ ID Selectors

html  
`<p id="ipsum">Lorem Ipsum</p>`

CSS  
`#ipsum { color: #00aa00; }`

Lorem Ipsum

## ☉ Attribute Selectors

html  
`<form><input type="text" value="Lorem" /></form>`

CSS  
`form input[type="text"] { color: #0000ff; }`

Lorem



# CSS Selector

## ● Combinators

```
<article>
  <p>This is article header</p>
  <section><p>Section 1 Paragraph</p></section>
  <section><p>Section 2 Paragraph</p></section>
  <p>Ordinary Paragraph</p>
  <span>Adjacent P Span</span>
  <span>Non Adjacent P Span</span>
</article>
```

- Descendants

```
article p { color: #ff0000; }
```

- Child

```
section > p { color: #ff00ff; }
```

- Adjacent

```
p + span { color: #0000ff; }
```

This is article header

Section 1 Paragraph

Section 2 Paragraph

Ordinary Paragraph

Adjacent P Span Non Adjacent P Span



# CSS Selector

## ◎ Pseudo-class Selectors

- Links

```
a:link { color: #0000ff; }  
a:visited { color: #ff00ff; }  
a:hover { color: #00ccff; }  
a:active { color: #ff0000; }
```

- First Child

```
tr:first-child td { font-weight: bold; }
```

- Only Child

```
li:only-child { list-style-type: none; }
```

- N-th Child

```
tr:nth-child(odd) td { background-color: #f0e9c5; }  
tr:nth-child(3n) td { background-color: #0feeaa; }
```

- Last Child

```
tr:last-child td { background-color: #e9e9FF; }
```

Student ID	Name
08110110000	Student 000
08110110099	Student 099
08110110699	Student 699
08110110799	Student 799
08110110899	Student 899
08110110999	Student 999
Student ID	Name



# CSS Selector

## ◎ Pseudo-element Selectors

```
<div class="wrapper">  
  Lorem Ipsum<br>Dolor sit amet  
</div>
```

*S*tart Here Lorem Ipsum  
Dolor sit amet End Here

- First Letter

```
.wrapper::first-letter { font-size: 200%; font-weight: bold; }
```

- First Line

```
.wrapper::first-line { font-style: italic; }
```

- Before

```
.wrapper::before { content: "Start Here"; }
```

- After

```
.wrapper::after { content: "End Here"; }
```

---



# CSS Text Styling

Property	Description
<a href="#"><u>color</u></a>	Sets the color of text
<a href="#"><u>direction</u></a>	Specifies the text direction/writing direction
<a href="#"><u>letter-spacing</u></a>	Increases or decreases the space between characters in a text
<a href="#"><u>line-height</u></a>	Sets the line height
<a href="#"><u>text-align</u></a>	Specifies the horizontal alignment of text
<a href="#"><u>text-decoration</u></a>	Specifies the decoration added to text
<a href="#"><u>text-indent</u></a>	Specifies the indentation of the first line in a text-block
<a href="#"><u>text-transform</u></a>	Controls the capitalization of text
<a href="#"><u>vertical-align</u></a>	Sets the vertical alignment of an element
<a href="#"><u>word-spacing</u></a>	Increases or decreases the space between words in a text

Source:  
[http://www.w3schools.com/css/css\\_text.asp](http://www.w3schools.com/css/css_text.asp)

Source: [https://www.w3schools.com/css/css\\_text.asp](https://www.w3schools.com/css/css_text.asp)



# CSS Font Styling

Property	Description
<u>font</u>	Sets all the font properties in one declaration
<u>font-family</u>	Specifies the font family for text
<u>font-size</u>	Specifies the font size of text
<u>font-style</u>	Specifies the font style for text
<u>font-variant</u>	Specifies whether or not a text should be displayed in a small-caps font
<u>font-weight</u>	Specifies the weight of a font

Source: [http://www.w3schools.com/css/css\\_font.asp](http://www.w3schools.com/css/css_font.asp)



# CSS Navigation

```
<div>
  <ul class="nav">
    <li><a href="">Student Center</a></li>
    <li><a href="">Student Information</a></li>
    <li><a href="">Evaluation</a></li>
    <li><a href="">Self Service</a></li>
  </ul>
</div>
```



# CSS Navigation

```
.nav{
  list-style: none;
  margin: 0;
  padding: 0;
  width: 200px;
}
.nav li {
  border-left: 10px solid rgb(144,154,181);
  border-bottom: 1px solid rgb(144,154,181);
}
.nav li a:link,
.nav li a:visited {
  background-color: rgb(192,202,229);
  color: rgb(49,52,61);
  padding: 0.5em;
  display: block;
  text-decoration: none;
  border-left: 5px solid rgb(239,213,252);
}
```

Student Center

Student Information

Evaluation

Self Service



# CSS Tabular Data

```
<table class="myTable">
  <tr>
    <th width="120px">Student ID</th>
    <th width="150px">Student Name</th>
    <th width="50px">GPA</th>
  </tr>
  <tr>
    <td class="center">08110110000</td>
    <td>Student Name 000</td>
    <td class="center">4.00</td>
  </tr>
  ...
  <tr>
    <td id="average" colspan="2">Average GPA : </td>
    <td class="center">3.90</td>
  </tr>
</table>
```



# CSS Tabular Data

```
.myTable { border: 1px solid #d6dde6; border-collapse: collapse; }
.myTable td { border: 1px solid #d6dde6; padding: 0.3em; }
.myTable th {
  border: 1px solid #828282;
  background-color: #bcbcbc;
  font-weight: bold;
  padding-left: 0.3em;
}
.myTable tr:nth-child(odd) {
  background-color: #dfe7f2;
  color #000000;
}
.myTable tr:last-child td { background-color: #ecec; }
.myTable .center { text-align: center; }
#average { text-align: right; }
```

Student ID	Student Name	GPA
08110110000	Student Name 000	4.00
08110110099	Student Name 099	3.80
08110110999	Student Name 999	3.90
Average GPA :		3.90



# CSS Validation

- W3C provides a service to validate any CSS made by programmers.
- <http://jigsaw.w3.org/css-validator/>

Deutsch English Español Français 한국어 Italiano Nederlands 日本語 Polski Português Русский العربية Svenska Български Українська Čeština Romanian Magyar Ελληνικά हिन्दी 繁体中文

**W3C** CSS Validation Service  
Check Cascading Style Sheets (CSS) and (X)HTML documents with style sheets

By URI **By file upload** By direct input

Validate by URI

Enter the URI of a document (HTML with CSS or CSS only) you would like validated:

Address:

▸ More Options

Check

 The W3C validators are developed with assistance from the Mozilla Foundation, and supported by community donations. [Donate](#) and help us build better tools for a better web.

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**Note:** If you want to validate your CSS style sheet embedded in an (X)HTML document, you should first [check that the \(X\)HTML you use is valid](#).

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