Cascading Style Sheets (CSS)

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- **Cascading Style Sheets (CSS)**: is a simple mechanism for *adding style* (e.g. fonts, colors, layouts) to Web documents.
- Styles provide *powerful control* over the **presentation** of web pages.

```
h1 { color: white;
  background: orange;
  border: 1px solid blac
  padding: 0 0 0 0;
  font-weight: bold;
}
/* begin: seaside-theme */

body {
  background-color:white;
  color:black;
  font-family:Arial,sans-serif;
  margin: 0 4px 0 0;
  border: 12px solid;
}
```

CSS

- A style sheet consists of a set of *rules*.
- Each *rule* consists of one or more *selectors* and a *declaration block*.
- A *declaration block* consists of a list of *declarations* in curly braces ({}).
- Each *declaration* consists of a **property**, a **colon** (**:**), a **value**, then a **semi-colon** (**;**).

- CSS Syntax
  - selector {property: value;}

selector

property

value

rule

```
<style type="text/css">
body {
    background-color: #000000;
}
h1 {
    font-family: Georgia, "Times New Roman", Times, serif;
    font-size: 32px;
    color: #3099D3;
    text-align: center;
}
</style>
```

- Local
  - confined to a **single element (tag)**
- Internal
  - affect elements in an **entire page**
- External
  - can affect **multiple pages**
- **Precedence**
  - **Local > Internal or External**

- **Example**
  - ```
    <h1 style="color:white; background:orange;
    font-weight:bold;">Internal Style Sheet Applied
    to Header 1</h1>
    ```
- **Practice**
  1. add "text-align" property to make it centered
  2. add "border" property to let it have black, 1px thick, solid border at left, right, top, and bottom
- **Tip**: use "border: <top> <right> <bottom> <left>;" format for 4 sides; use "border-<side>: xx yy zz;" for a particular side, where <side> can be left, right, top or bottom. Can apply to other similar properties.

- How to create?
  - Put **\<style\> \</style\>** tag between \<head\> and \</head\> tags of your HTML page
  - Use type attribute to indicate the style sheet type, usually type="text/css"
  - Put your set of style sheet *rules* in between \<style\> and \</style\> tags

- Example

```
<head>
<style>
body {background-color:beige;}
p {color: purple;}
</style>
</head>
```

- An external style sheet is simply a text-only file with .css extension

- It contains only CSS **rules**. No tags inside!

- How to link to external style sheet?

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

- **Tag**
  - redefines the look of a specific tag

    E.g. `body {background-color: #000000;}`

- **Class**

  - can apply to any tag

    E.g. `.indent{margin-right:5%;margin-left: 5%;}`
    In HTML, `<p class="indent">`

- **Advanced**

  - IDs, pseudo-class selectors

    E.g. `#myId {color: #38608A;}`

- **Inheritance**
  - child elements inherit styles from parent element
- **Specificity**
  - calculated by counting various components of your css and expressing them in a form (a,b,c,d): inline, id, class, element.
- **Cascade**
  - Controls all css precedence