

Introduction to Software Systems (CS6.201)

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Taught by Sai Anirudh Karri

Cascading Style Sheets

CSS helps to separate content and the details of its presentation. It enables one to focus on content during development and easily change the presentation later.

Ways to Use CSS

Inline CSS

```
<!DOCTYPE html>
<html>
  <head>
    <title> My Home Page
    </title>
  </head>
  <body style="color: red;">
    <p>About myself.</p>
  </body>
</html>
```

The `style="color: red;"` statement is an argument to the `<body>` tag. Code written in this style is hard to maintain and therefore not common.

Internal CSS

```
<style>
  body {
    color: red;
  }
</style>
```

The `<style>` tag should always be inside the scope of the `<head>` tag. It will apply to the whole document.

External CSS

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

The `style.css` file could contain, for example,

```
body {
    color: red;
}
```

More than one file can be linked in this way.

Syntax

A CSS statement consists of a *selector* (like `body`) and one or more *rules* (like `color: red;`).

The rule consists of a *property* (`color`) and a value (`red`).

Stmt = Selector { Rule }

Rule = Property: Value; | Rule Rule

Comments can be written enclosed in `/* ... */`.

Class and ID Selectors

The selector can be either a tag (as above), a class or an ID.

An example of a class selector is

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

In this case,

```
<h1 class="heading">
    Section 1</h1>
```

would be coloured red.

Similarly, an example of an ID selector is

```
#first-p {
    color: red;
}
```

Now,

```
<p id="first-p">
    About myself.</p>
```

would be coloured red.

The class selector can be applied to many tags, but the ID selector to only one.

The disjunction of two selectors is done using a comma, as in

```
h1, h2 {
    color: red;
}
```

which applies to all elements with either the tag `<h1>` *or* the tag `<h2>`.

Their conjunction is by concatenation (tag + class or tag + ID); for example,

```
p.even { color: red; }
```

applies to all elements with the tag `p` *and* the class `even`; and

```
p#first-p { color: red; }
```

applies to all elements with the tag `p` *and* the ID `first-p`.

Pseudo-Selectors

Pseudo-selectors indicate a special or phantom state of an element that can be targeted, like `:hover`.

Pseudo-elements are used to style only certain parts of an element, like `::first-character`.

A complete CSS reference can be found [here](#).