What is CSS?

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files

CSS stands for Cascading Style Sheets. It is a style sheet language which is used to describe the look and formatting of a document written in markup language. It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces.

CSS is used along with HTML and JavaScript in most websites to create user interfaces for web applications and user interfaces for many mobile applications.

History of CSS

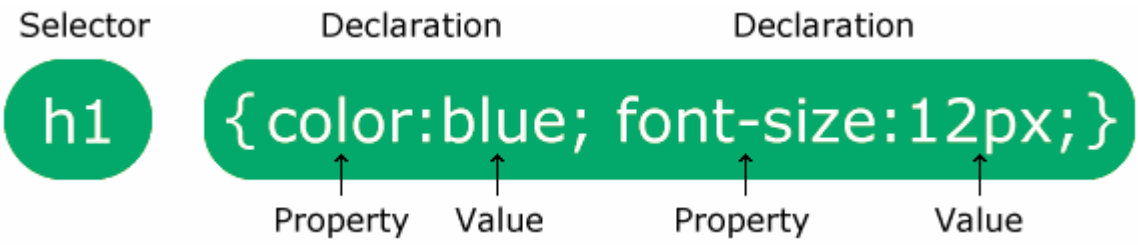
1994- HÃ¥kon Wium Lie proposed the idea of CSS. 1996- The first version of CSS was invented. 1998- CSS 2 was released and work on CSS 3 began. CSS 3 was very different from the other versions, for instead of being a single monolithic specification, it was published as a set of separate documents known as modules.

HÃ¥kon Wium Lie

The Timline of CSS

- **1994-** HAYkon Wium Lie proposed the idea of CSS.
- **1996-** The first version of CSS was invented.
- **1998-** CSS 2 was released and work on CSS 3 began. CSS 3 was very different from the other versions.
- **2011-** CSS 3 was released, which fixed the errors found in CSS 2

CSS Syntax



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

Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

IMPLEMENTATION OF CSS

Three Ways to Insert CSS

There are three ways of inserting a style sheet:

- INLINE CSS
- INTERNAL CSS
- EXTERNAL CSS

Inline CSS

An inline style may be used to apply a unique style for a single element.

To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

EX- `<h1 style="color:blue;text-align:center;">This is a heading</h1>`

Internal CSS

An internal style sheet may be used if one single HTML page has a unique style.

The internal style is defined inside the <style> element, inside the head section.

```
<!DOCTYPE html>

<html>

<head>

<style>

body {

  background-color: linen;

}


h1 {
```

```
  color: maroon;
  margin-left: 40px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

External CSS

With an external style sheet, you can change the look of an entire website by changing just one file!

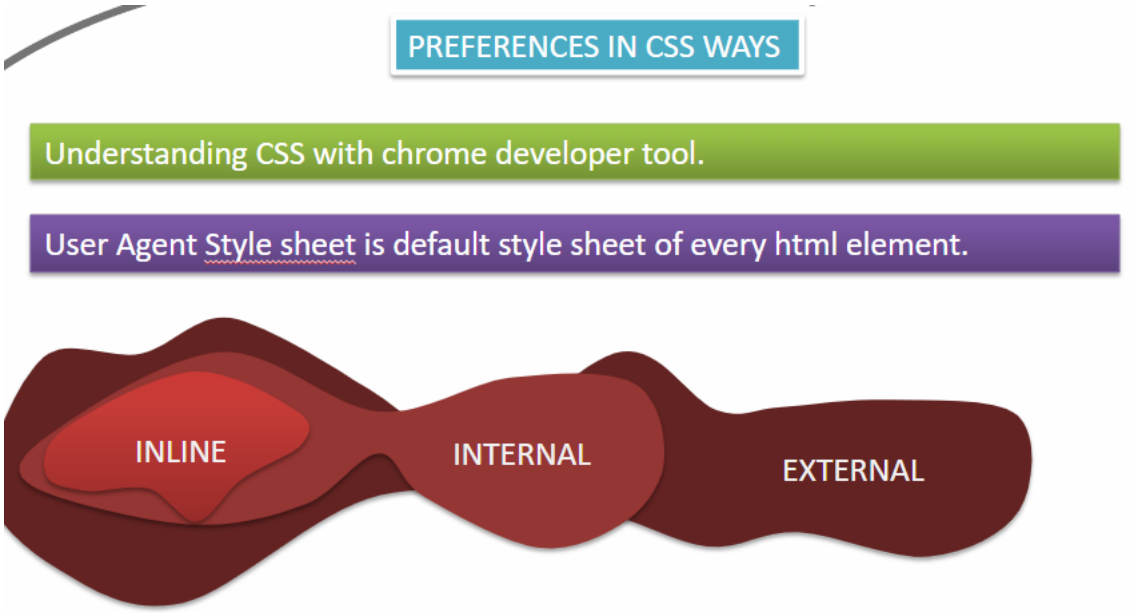
Each HTML page must include a reference to the external style sheet file inside the <link> element, inside the head section.

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="mystyle.css">
</head>
<body>
```

```
<h1>This is a heading</h1>

<p>This is a paragraph.</p>


</body>

</html>
```

NOTE: THE FIRST PRIORITY ALWAYS GOES TO INLINE CSS.

BUT WE CAN SET THE PRIORITY WITH HELP OF !important KEYWORD.



CSS Selectors

CSS selectors are used to "find" (or select) the HTML elements you want to style.

We can divide CSS selectors into five categories:

- Simple selectors (select elements based on name, id, class)

- Combinator selectors (select elements based on a specific relationship between them)
- Attribute selectors (select elements based on an attribute or attribute value)

The CSS id Selector

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element is unique within a page, so the id selector is used to select one unique element!

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

SYNTAX

```
#id_Name {
  key:”value”;
}
```

The CSS class Selector

The class selector selects HTML elements with a specific class attribute.

To select elements with a specific class, write a period (.) character, followed by the class name.

SYNTAX

```
.class_Name {
  key:”value”;
}
```

The CSS element Selector

The element selector selects HTML elements based on the element name.

SYNTAX

```
elementNAme {
  key:”value”;
}
```

The CSS Universal Selector

The universal selector (*) selects all HTML elements on the page.

SYNTAX

```
*{
  key:”value”;
}
```

NOTE : THE FIRST PRIORITY ALWAYS GOES TO ID SELECTOR.

PRIORITY BASIS

- ID SELECTOR
- CLASS SLEECTOR
- ELEMENT SELECTOR
- UNIVERSAL SELECTOR

BUT WE CAN SET THE PRIORITY WITH HELP OF !important KEYWORD.

CSS Combinators

A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator.

There are four different combinators in CSS:

- descendant selector (space)
- child selector (>)
- adjacent sibling selector (+)
- general sibling selector (~)

Descendant Selector

The descendant selector matches all elements that are descendants of a specified element.

The following example selects all <p> elements inside elements:

EX-

```
<!DOCTYPE html>

<html>

<head>

<style>

div p {

  background-color: yellow;

}

</style>

</head>

<body>


<h2>Descendant Selector</h2>


<p>The descendant selector matches all elements that are descendants of a specified element.</p>


<div>

  <p>Paragraph 1 in the div.</p>

  <p>Paragraph 2 in the div.</p>

  <section><p>Paragraph 3 in the div.</p></section>

</div>
```

```
<p>Paragraph 4. Not in a div.</p>

<p>Paragraph 5. Not in a div.</p>



</body>

</html>
```

Child Selector (>)

The child selector selects all elements that are the children of a specified element.

The following example selects all <p> elements that are children of a element:

EX-

```
<head>

<style>

div > p {

  background-color: yellow;

}

</style>

</head>

<body>



<h2>Child Selector</h2>



<p>The child selector (>) selects all elements that are the children of a specified element.</p>



<div>
```

```
  <p>Paragraph 1 in the div.</p>

  <p>Paragraph 2 in the div.</p>

  <section>

    <!-- not Child but Descendant -->

    <p>Paragraph 3 in the div (inside a section element).</p>

  </section>

  <p>Paragraph 4 in the div.</p>

</div>


<p>Paragraph 5. Not in a div.</p>

<p>Paragraph 6. Not in a div.</p>


</body>

</html>
```

Adjacent Sibling Selector (+)

The adjacent sibling selector is used to select an element that is directly after another specific element.

Sibling elements must have the same parent element, and "adjacent" means "immediately following".

The following example selects the first <p> element that are placed immediately after elements:

EX-

```
<!DOCTYPE html>

<html>
```

```
<head>
<style>
div + p {
  background-color: yellow;
}
</style>
</head>
<body>

<h2>Adjacent Sibling Selector</h2>

<p>The + selector is used to select an element that is directly after another specific element.</p>
<p>The following example selects the first p element that are placed immediately after div elements:</p>

<div>
  <p>Paragraph 1 in the div.</p>
  <p>Paragraph 2 in the div.</p>
</div>

<p>Paragraph 3. After a div.</p>
<p>Paragraph 4. After a div.</p>

<div>
  <p>Paragraph 5 in the div.</p>
```

```
  <p>Paragraph 6 in the div.</p>

</div>


<p>Paragraph 7. After a div.</p>

<p>Paragraph 8. After a div.</p>


</body>

</html>
```

General Sibling Selector (~)

The general sibling selector selects all elements that are next siblings of a specified element.

The following example selects all <p> elements that are next siblings of elements:

EX-

```
<!DOCTYPE html>

<html>

<head>

<style>

div ~ p {

  background-color: yellow;

}

</style>

</head>
```

```
<body>

<h2>General Sibling Selector</h2>

<p>The general sibling selector (~) selects all elements that are next siblings of a specified element.</p>

<p>Paragraph 1.</p>

<div>
  <p>Paragraph 2.</p>
</div>

<p>Paragraph 3.</p>
<section>code </section>
<p>Paragraph 4.</p>

</body>
</html>
```

The CSS Grouping Selector

The grouping selector selects all the HTML elements with the same style definitions.

Look at the following CSS code (the h1, h2, and p elements have the same style definitions):

It will be better to group the selectors, to minimize the code.

To group selectors, separate each selector with a comma.

EX-

```
<!DOCTYPE html>
<html>
<head>
<style>
h1, h2, p {
  text-align: center;
  color: red;
}
</style>
</head>
<body>

<h1>Hello World!</h1>
<h2>Smaller heading!</h2>
<p>This is a paragraph.</p>

</body>
</html>
```