

# Information Technologies for Industrial Engineers

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# CSS

- Cascading Style Sheets (CSS)
- Stylesheet language used to describe the presentation of a document written in HTML.
- Not a programming language nor a markup language.

# Structure

- Inline style
- Internal stylesheet
- External stylesheet

# Inline style

```
<h1 style="color: blue">Header</h1>
```

# Internal stylesheet

```
<head>
  ...
  <style>
    h1 {
      color: blue;
    }
  </style>
  ...
</head>
```

# External stylesheet

index.html

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

style.css

```
h1 {
  color: blue;
}
```

# Anatomy

- Selector
  - Defines the element(s) to be styled
- Properties
- Property values

The diagram illustrates the components of a CSS rule. The selector 'p' is highlighted in yellow and labeled 'Selector' with a line pointing to it. The opening curly brace '{' follows the selector. The property 'color:' is highlighted in yellow and labeled 'Property' with a bracket underneath. The value 'red;' is labeled 'Property value' with a bracket underneath. A large bracket spanning from the opening brace to the end of the rule is labeled 'Declaration'.

```
Selector  
p {  
  color: red;  
}
```

Property      Property value  
Declaration

# Selectors

- Element selector
  - Also called a tag or type selector
- ID selector
- Class selector
- Attribute selector
- Pseudo-class selector
- Pseudo-element selector



# Element selector

- Select all `<h1>` elements

```
h1 {  
  color: blue;  
}
```

# ID Selector

- Select the element on the page with the specified ID

```
<p id="my-id">Text</p>
```

```
#my-id {  
  color: blue;  
}
```

# Class selector

- Select the element(s) on the page with the specified class.
  - Multiple instances of the same class can appear on a page.

```
<p class="my-class">Text</p>
```

```
.my-class {  
  color: blue;  
}
```

# Attribute selector

- Select the element(s) on the page with the specified attribute.

```
<a href="https://www.google.com" target="_blank">Google</a>
```

```
a[target] {  
  color: blue;  
}
```

# Pseudo-class selector

- Select the specified element(s), but only when in the specified state.
  - For example, when a cursor hovers over a link.
- Selects `<a>` but only when the mouse pointer is hovering over the link.

```
a:hover {  
  color: blue;  
}
```

# Pseudo element selector

- Keyword added to a selector that lets you style a specific part of the selected element(s).

```
/* The first line of every <p> element. */  
p::first-line {  
  color: blue;  
  text-transform: uppercase;  
}
```

```
/* Add content after <a> element*/  
a::after {  
  content: " ";  
}
```

# CSS selector refernces

- <https://developer.mozilla.org/en-US/docs/Web/CSS/Reference#selectors>
- [https://www.w3schools.com/cssref/css\\_selectors.asp](https://www.w3schools.com/cssref/css_selectors.asp)

# Specificity

- Specificity is the means by which browsers decide which CSS property values are the most relevant to an element and, therefore, will be applied.
- When multiple declarations have equal specificity, the last declaration found in the CSS is applied to the element.



# Specificity - Selector

- Level of specificity (increasing order)
  - i. **Type selectors** ( `h1` ) and pseudo-elements ( `::before` )
  - ii. **Class selectors** ( `.example` ), attributes selectors ( `[type="radio"]` ) and pseudo-classes ( `:hover` )
  - iii. **ID selectors** ( `#example` )
  - iv. **Inline style** ( `<h1 style="color: blue">` )

## !important

- When an important rule is used on a style declaration, this declaration overrides any other declarations, even inline style.
- **พ่วงทุกสทบบ**

```
<h1 style="color: red">I am red.</h1>
```

```
h1 {  
  color: blue !important;  
}
```