**Learning Objective**

* Master the use of four simple selectors, such as wildcard selector, tag selector, id selector, and class selector
* Master the basic use of property selector
* Understand the basic use of pseudo-classes
* Master the combination of selectors

**Content**

* The selector is used to select elements from the page to define styles for them.
* wildcard selector
* ***/\* matches all elements \*/***
* **\* {**
* Box-sizing**: inherit;**
* **}**
* Tag selector
* ***/\* match all P elements \*/***
* **p {**
* Margin**: 1em 0;**
* **}**
* id selector
* ***<!-- HTML -->***
* <p id="example">**Just test content**</p>
* ***<!-- CSS -->***
* <style type="text/css">
* ***/\* match elements with id as example***
* ***\* Note: The id value must be unique in an HTML***
* ***\*/***
* **#example {**
* Font-size**: 2em;**
* Line-height**: 1.6;**
* Color**: red;**
* **}**
* </style>
* class selector
* ***<!-- HTML -->***
* <p class="error">**Error message**</p>
* ***<!-- can specify multiple classes for an element, separated by spaces -->***
* <p class="error icon">**Another error message**</p>
* ***<!-- CSS -->***
* <style type="text/css">
* **.error {**
* Color**: orange;**
* **}**
* **.icon {**
* Background**: url(error.png) no-repeat 0 0;**
* **}**
* </style>
* It can be learned above that wildcard selector, tag selector, ID selector, and class selector are all simple selectors; beside simple selectors, complex selectors include the following.
* Property selector
* ***<!-- HTML -->***
* <p>
* <label>**username:**</label>
* <input name="username" value="tw" disabled>
* </p>
* <p>
* <label>**password:**</label>
* <input type="password" required>
* </p>
* ***<!-- CSS -->***
* <style>
* ***/\* Select all disabled input boxes \*/***
* **Input[disabled] {**
* Background**: #ddd;**
* Color**: #999;**
* Cursor**: not-allowed;**
* **}**
* ***/\* Select all elements whose input box type is "password" \*/***
* **Input[type="password"] {**
* Border-color**: red;**
* Color**: red;**
* **}**
* </style>
* pseudo-class selector
  + Based on information out of the DOM (for example, based on user and web page interaction), select an element, with example below:
  + **a:link { ... } /\*unvisited links \*/**
  + **a:visited { ... } /\* visited links \*/**
  + **a:hover { ... } /\* style when the mouse moves on the connection \*/**
  + **a:active { ... } /\* style when the mouse is pressed on the connection \*/**
  + **a:focus { ... } /\* style when focus is obtained\*/**
  + ***<!-- code example for pseudo-class -->***
  + ***<!-- HTML -->***
  + <nav>
  + <ul>
  + <li><a href="http://w3.org">**W3C**</a>
  + <li><a href="http://example.com">**example.com**</a>
  + <li><a href="http://www.360.com">**360**</a>
  + </ul>
  + </nav>
  + <label>**Search:** <input name="q" type="search"></label>
  + ***<!-- CSS -->***
  + <style>
  + **a:link {**
  + Color**: black;**
  + **}**
  + **a:visited {**
  + Color**: gray;**
  + **}**
  + **a:hover {**
  + Color**: orange;**
  + **}**
  + **a:active {**
  + Color**: red;**
  + **}**
  + **:focus {**
  + Outline**: 2px solid red;**
  + **}**
  + </style>
  + Different selectors may also be combined. Examples of common selector combination are as follows.
    - Direct combination EF
    - ***<!-- HTML -->***
    - <p class="warning">**this is a warning message**</p>
    - <div class="warning icon">**this is another warning message**</div>
    - ***<!-- CSS -->***
    - **/\* tag selector and class selector combination \*/**
    - **P.warning { color: orange; }**
    - Descendant combination E F
    - ***<!-- HTML -->***
    - <article>
    - <h1>**title**</h1>
    - <p>**first paragraph first paragraph.** </p>
    - <section>
    - <h2>**sub-title**</h2>
    - <p>**second paragraph second paragraph.** </p>
    - </section>
    - </article>
    - ***<!-- CSS -->***
    - <style>
    - ***/\* descendant selector \*/***
    - ***/\* Select all p elements under the article tag \*/***
    - **Article p {**
    - Color**: coral;**
    - **}**
    - ***/\* Select all h2 elements under the section tag under the article tag\*/***
    - **Article section h2 {**
    - Border-bottom**: 1px dashed #999;**
    - **}**
    - </style>
    - Parent-child combination E > F
    - ***<!-- HTML -->***
    - <article>
    - <h1>**title**</h1>
    - <p>**first paragraph first paragraph.** </p>
    - <section>
    - <h2>**sub-title**</h2>
    - <p>**second paragraph second paragraph.** </p>
    - </section>
    - </article>
    - ***<!-- CSS -->***
    - <style>
    - ***/\* child selector \*/***
    - ***/\* The difference between child selector and descendant selector lies in: the descendant selector can select the label element nested at any level inside the label, but the child selector can only select the element of inward layer of the current label, that is parent selector can only match the direct descendants. To put in simple words, it can only match the sons and cannot match the grandchildren. \*/***
    - **Article > p {**
    - Color**: limegreen;**
    - **}**
    - </style>
    - You can also define styles for a set of selectors at the same time, with example below:
    - ***/\* The selectors below will apply CSS rules to body/h1/h2/h3/h4/h5/h6/ul/ol/li at the same time \*/*body, h1, h2, h3, h4, h5, h6, ul, ol, li {**
    - Margin**: 0;**
    - Padding**: 0;**
    - **}**
    - **[type="checkbox"], [type="radio"] {**
    - Box-sizing**: border-box;**
    - Padding**: 0;**
    - **}**

**Recommendations**

* CSS Selector Reference Manual (<http://www.w3school.com.cn/cssref/css_selectors.asp>)
* CSS Selector Notes (<http://www.ruanyifeng.com/blog/2009/03/css_selectors.html>)
* 30 CSS Selectors You Must Memorize (<https://code.tutsplus.com/zh-hans/tutorials/the-30-css-selectors-you-must-memorize--net-16048>)