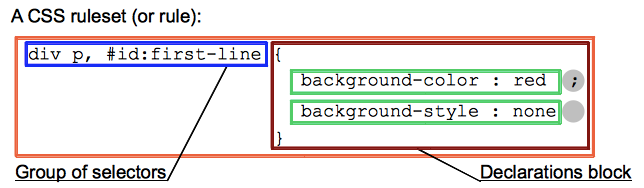
**CSS Selectors**

Selector Syntax



Div #abc > p.xyz [title] + span :first-child ::after

Legend:

Type selector; Id Selector; Class selector; Combinators; Pseudo-class; Pseudo-element

* Simple Selectors - A *simple selector* is either a [type selector](https://www.w3.org/TR/2011/REC-CSS2-20110607/selector.html#type-selectors) or [universal selector](https://www.w3.org/TR/2011/REC-CSS2-20110607/selector.html#universal-selector) followed immediately by zero or more [attribute selectors](https://www.w3.org/TR/2011/REC-CSS2-20110607/selector.html#attribute-selectors), [ID selectors](https://www.w3.org/TR/2011/REC-CSS2-20110607/selector.html#id-selectors), or [pseudo-classes](https://www.w3.org/TR/2011/REC-CSS2-20110607/selector.html#pseudo-classes), in any order. The simple selector matches if all of its components match.
* A *selector* is a chain of one or more simple selectors separated by combinators. *Combinators* are: white space, ">", and "+". White space may appear between a combinator and the simple selectors around it.
  + Type Selector - matches the name of a document language element type. A type selector matches every instance of the element type in the document tree.
  + Universal Selector - The universal selector, written "\*", matches the name of any element type. It matches any single element in the [document tree.](https://www.w3.org/TR/2011/REC-CSS2-20110607/conform.html#doctree)
* If the universal selector is not the only component of a [simple selector](https://www.w3.org/TR/2011/REC-CSS2-20110607/selector.html#simple-selector), the "\*" may be omitted.
  + Attribute Selector
    - [att] - Match when the element sets the "att" attribute, whatever the value of the attribute.
    - [att=val] - Match when the element's "att" attribute value is exactly "val".
    - [att~=val]- Represents an element with the att attribute whose value is a white space-separated list of words, one of which is exactly "val".
    - [att|=val]- Represents an element with the att attribute, its value either being exactly "val" or beginning with "val" immediately followed by "-".
  + ID Selectors - No two such attributes can have the same value;
* The ID attribute of a document language allows authors to assign an identifier to one element instance in the document tree.
* ID selectors have a higher specificity than attribute selectors.
  + Pseudo-classes (:) - classify elements on characteristics other than their name, attributes or content.
* Dynamic
* allowed anywhere in selectors
  + - Link Pseudo-classes
      * :link -  applies for links that have not yet been visited.
      * :visited - applies once the link has been visited by the user.
    - Dynamic Pseudo-classes
      * :hover - applies while the user designates an element (with some pointing device), but does not activate it.
      * :active - applies while an element is being activated by the user.
      * :focus - applies while an element has the focus (accepts keyboard events or other forms of text input).
    - Language Pseudo-class
      * :lang - the language is determined by a combination of the "lang" attribute, the META element, and possibly by information from the protocol.
    - Target Pseudo-class
      * :target - represents the unique element, if any, with an id matching the fragment identifier of the URI of the document.
    - UI element state (interaction)
      * :enabled – represents any enabled element. An element is enabled if it can be activated (e.g. selected, clicked on or accept text input) or accept focus.
      * :disabled – represents any disabled element. An element is disabled if it can't be activated (e.g. selected, clicked on or accept text input) or accept focus.
      * :checked –  selector represents any **radio**(<input type="radio">), **checkbox**(<input type="checkbox">) or **option** ([<option>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/option) in a [<select>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/select)) element that is checked or toggled to an on state.
      * :indeterminate – any <input type="checkbox"> element whose indeterminate DOM property is set to true by JavaScript
* <input type="radio"> elements whose radio button group's radio buttons are all unchecked
* [<progress>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/progress) elements in an indeterminate state
  + - Pseudo Class Structural
      * :root - matches the root element of a tree representing the document. Applied to HTML, :root represents the [<html>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/html) element and is identical to the selector html, except that its [specificity](https://developer.mozilla.org/en-US/docs/Web/CSS/Specificity) is higher.
      * :first-child - represents any element that is the first among a group of sibling elements
      * :last-child - represents any element that is the last among a group of sibling elements.
      * :only-child - represents any element which is the only element in a context where a group of siblings would be expected.
      * :nth-child() – matches an element that has *a*n+*b*-1 siblings before it in the document tree, for a given positive or zero value for n. More simply stated, the selector matches a number of child elements whose numeric position in the series of siblings matches the pattern *an+b*.
      * :nth-last-child() - matches an element that has *a*n+*b*-1 siblings after it in the document tree, for a given positive or zero value for n.
      * :first-of-type – represents the first sibling of its type in the list of children of its parent element.
      * :last-of-type –  represents the last sibling with the given element name in the list of children of its parent element.
      * :only-of-type –  represents any element that has no siblings of the given type.
      * :nth-of-type – matches an element that has *a*n+*b*-1 siblings with the same element name before it in the document tree, for a given positive or zero value for n, and has a parent element.
      * :nth-last-of-type –  matches an element that has *a*n+*b*-1 siblings with the same element name after it in the document tree, for a given positive or zero value for n, and has a parent element.
      * :empty –  represents any element that has no children at all. Only element nodes and text (including whitespace) are considered.
* Combinators
  + Descendants Combinator – is whitespace that separates two sequences of simple selectors.
  + Child Combinator – child combinator is made of the "greater-than sign" (>) character and separates two sequences of simple selectors.
  + Sibling Combinator
    - Adjacent - sibling combinator is made of the "plus sign" (+) character that separates two sequences of simple selectors.
    - General - sibling combinator is made of the "tilde" (~) character that separates two sequences of simple selectors.

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| --- | --- |
| Combinators | Select |
| AB | Any element matching both A and B at the same time. |
| A B | Any element matching B that is a *descendant* of an element matching A (that is: a child, or a child of a child, *etc*.) |
| A > B | Any element matching B that is a *direct child* of an element matching A. |
| A + B | Any element matching B that is the next *sibling* of an element matching A (that is: the next child of the same parent.) |
| A ~ B | Any element matching B that is among the next *sibling* of an element matching A (that is: one of the next children of the same parent.) |

* Pseudo-elements (::)
  + ::first-letter - selects the first letter of the first line of a block, if it is not preceded by any other content (such as images or inline tables) on its line.
  + ::first-line - applies styles only to the first line of an element. The amount of the text on the first line depends of numerous factors, like the width of the element, width of the document, and the font size of the text. As all pseudo-elements, ::first-line does not match any real HTML element.
  + ::before - creates a [pseudo-element](https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-elements) that is the first child of the element matched. It is often used to add cosmetic content to an element by using the [content](https://developer.mozilla.org/en-US/docs/Web/CSS/content) property. This element is inline by default.
  + ::after - matches a virtual last child of the selected element. It is typically used to add cosmetic content to an element by using the [content](https://developer.mozilla.org/en-US/docs/Web/CSS/content) CSS property. This element is inline by default.