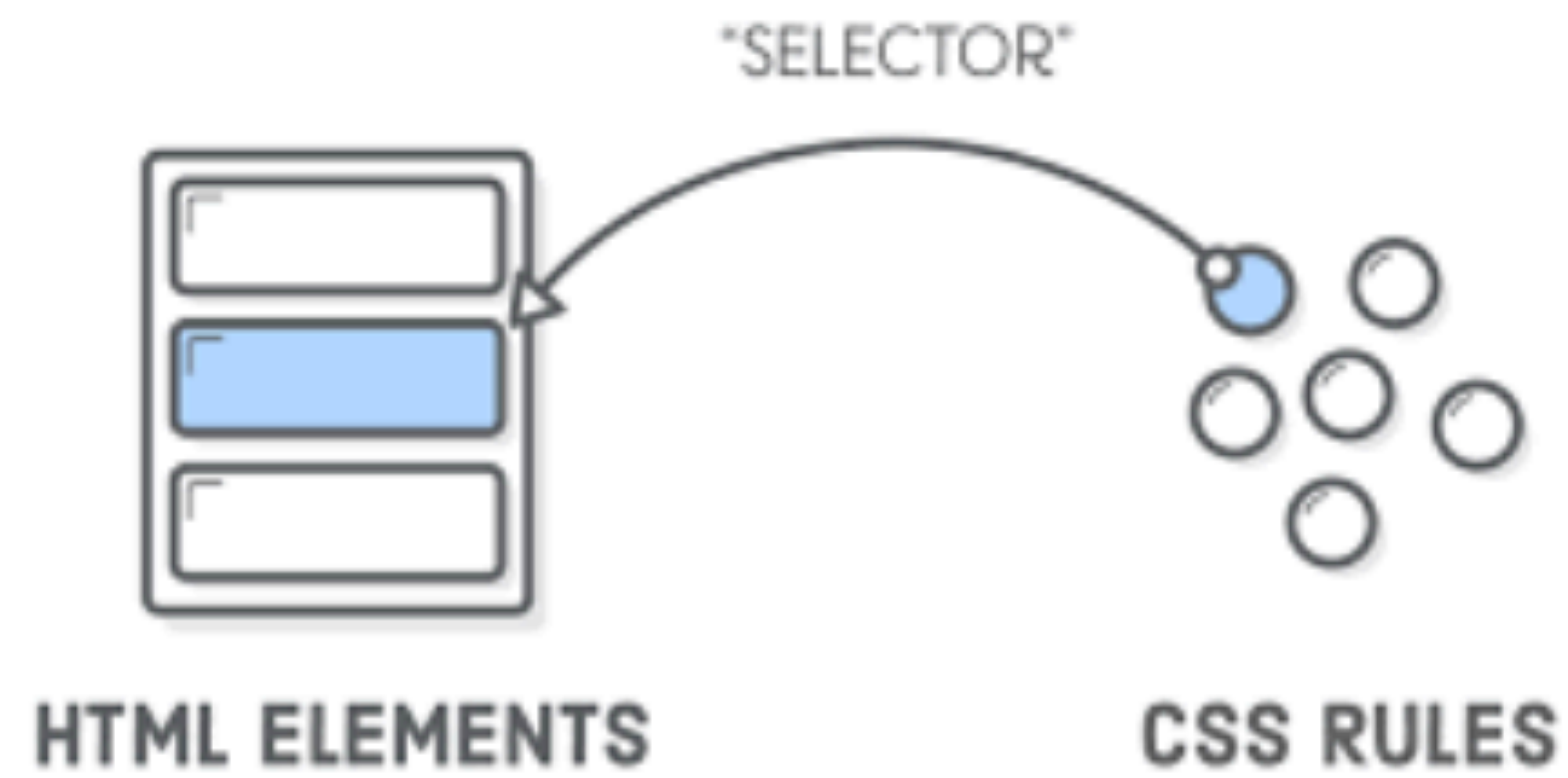# CSS Cascade

Example of selector rule evaluation with a worked example

Rules, Classes, Elements - which ones get selected?

```html
<body>
  <p>
    My Normal Tea <br>
    Customers say they <q>really like</q> this one!
  </p>
  <blockquote>
    All of the best teas
  </blockquote>
  <p class="greentea">
    My Green Tea
  </p>
  <p class="greentea blueberry">
    My Mixed Tea — what colour is it?
  </p>
</body>
```

My Normal Tea
Customers say they "really like" this one!

All of the best teas

My Green Tea

My Mixed Tea - what colour is it?

```css
p {
    color: black;
}

.greentea {
    color: green;
}

p.greentea {
    color: green;
}

p.raspberry {
    color: blue;
}

p.blueberry {
    color: purple;
}
```

```html
<body>
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```
p { color: black;}
```

Here's a rule that selects any old paragraph element.

```
.greentea { color: green; }
```

This rule selects members of the greentea class. That's a little more specific.

```
p.greentea { color: green; }
```

And this rule selects only paragraphs that are in the greentea class, so that's even more specific.

```
p.raspberry { color: blue; }

p.blueberry { color: purple; }
```

These rules also select only paragraphs in a particular class. So they are about the same in specificity as the p.greentea rule.

Rules, Classes, Elements - which ones get selected?

(1) *Explicit Match:*   Do any selectors select your element?

- Examine CSS rules for *explicit match* for element.

(2) *Inheritance Match*:   What if no rules match the element:

- Rely on *inheritance*.

- Look at the element's parents, and parents' parents, and so on, until you find the property defined.

(3) *Default Match:*   Still no explicit or inherited match

- use the *default* value defined by the browser

(4) *Most Specific Match*:   What if more that one match (of different rules)?

- select rule that is the *most specific*

Example

```css
p          { color: black;  }
.greentea  { color: green;  }
p.greentea { color: green;  }
p.raspberry { color: blue;  }
p.blueberry { color: purple; }
```

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1- Explicit Match

2- Inheritance Match

3- Default Match

4- Most Specific Match

?

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```

Ordering Match

- Element belongs to two classes: greentea and blueberry.

  - p.greentea and p.blueberry all select the element, and are of equal specificity.

- Which colour selected?

  - The one that is listed **last** in the CSS file.

5: *Ordering Match: -* If you can't resolve a conflict because two selectors are equally specific

  - use the ordering of the rules in your style sheet file. That is, you use the rule listed last in the CSS file (nearest the bottom). And in this case, that would be the p.blueberry rule.

```
p.greentea  { color: green;  }
p.blueberry { color: purple; }
```

```
<p class="greentea blueberry">
    My Mixed Tea - what colour is it?
</p>
```

My Mixed Tea - what colour is it?

Example

```
p          { color: black;  }
.greentea  { color: green;  }
p.greentea { color: green;  }
p.raspberry { color: blue;   }
p.blueberry { color: purple; }
```

1- Explicit Match

2- Inheritance Match

```
<p>
  My Normal Tea <br>
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3- Default Match

4- Most Specific Match

5- Ordering Match

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p {
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    color: blue;
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Other Examples

CSS Selectors Summary (simple)

Selector	Applies to
p	All paragraphs in the document
.about	All elements in the document with a class value of about
#corporatehistory	The element in the document with an id value of corporate history (if present)
h1,h2,h3	All first-, second-, and third-level headings in the document
.privacy, .copyright	All elements with a class of privacy or copyright
#header,#footer	The element assigned an id of header, and the element assigned an id of footer
p.footnote	All paragraphs assigned a class of footnote

CSS Selectors Summary (advanced)

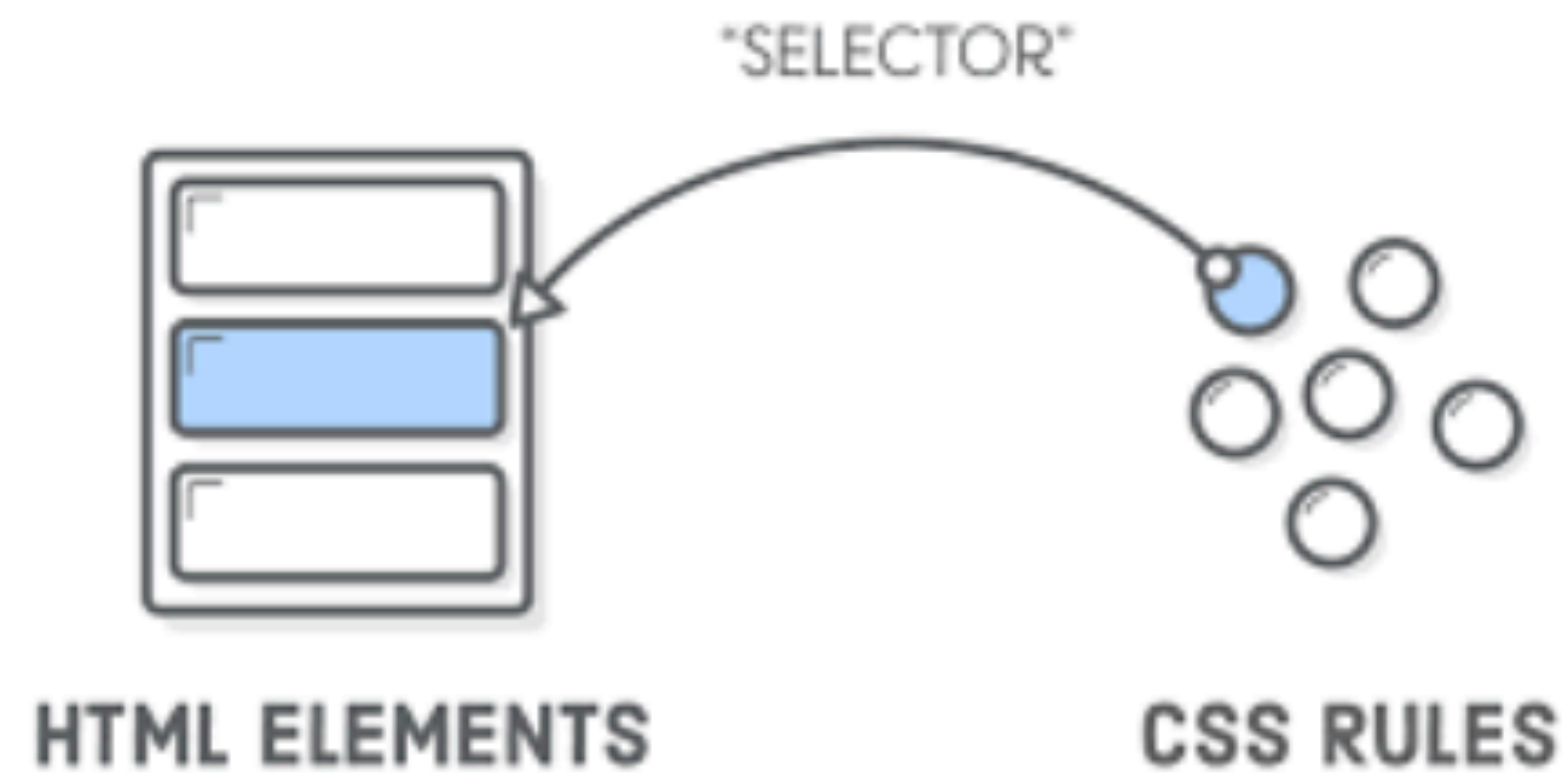| Selector	Applies to
#bodycopy.usergenerated	An element that has been assigned both an id of bodycopy and a class of usergenerated
.navigation a	All links with an ancestor parent assigned a class of navigation
#primarynavigation li.current	All list items with a class of current and an ancestor parent with an id of primarynavigation
.about #bodycopy	Any element on the site with an id of bodycopy and an ancestor parent assigned a class of about
body#personalproducts, body#proproducts, body#enterpriseproducts	The body elements within the site assigned the ids personalproducts, proproducts, and enterpriseproducts
body#personalproducts #bodycopy, body#proproducts #bodycopy, body#enterpriseproducts #bodycopy	The elements assigned an id of bodycopy, within the documents suggested by the previous example
ol li ol li ol li	A list item in the third level of a nested ordered list

The cascade 🔗

CSS is an abbreviation for *Cascading Style Sheets*, which indicates that the notion of the cascade is important. At its most basic level, it indicates that the order of CSS rules matter, but it's more complex than that. What selectors win out in the cascade depends on three factors (these are listed in order of weight — earlier ones will overrule later ones):

1. Importance
2. Specificity
3. Source order

Importance 🔗

In CSS, there is a special piece of syntax you can use to make sure that a certain declaration will *always* win over all others: `!important`.

CSS Cascade

"SELECTOR"

HTML ELEMENTS

CSS RULES

Example of selector rule evaluation with a worked example