

General Formatting Rules

Capitalization

Use only lowercase.

All code has to be lowercase: This applies to HTML element names, attributes, attribute values (unless `text/CDATA`), CSS selectors, properties, and property values (with the exception of strings).

`<!-- Not recommended -->`

`Home`

`<!-- Recommended -->`

``

`/* Not recommended */`

`color: #E5E5E5;`

`/* Recommended */`

`color: #e5e5e5;`

Trailing Whitespace

Remove trailing white spaces.

Trailing white spaces are unnecessary and can complicate diffs.

`<!-- Not recommended -->`

`<p>What?_`

`<!-- Recommended -->`

`<p>Yes please.`

General Meta Rules

Encoding

Use UTF-8 (no BOM).

Make sure your editor uses UTF-8 as character encoding, without a byte order mark.

Specify the encoding in HTML templates and documents via `<meta charset="utf-8">`. Do not specify the encoding of style sheets as these assume UTF-8.

(More on encodings and when and how to specify them can be found in [Handling character encodings in HTML and CSS](#).)

Comments

Explain code as needed, where possible.

Use comments to explain code: What does it cover, what purpose does it serve, why is respective solution used or preferred?

(This item is optional as it is not deemed a realistic expectation to always demand fully documented code. Mileage may vary heavily for HTML and CSS code and depends on the project's complexity.)

Action Items

Mark todos and action items with **TODO**.

Highlight todos by using the keyword **TODO** only, not other common formats like **@@**.

Append a contact (username or mailing list) in parentheses as with the format **TODO(contact)**.

Append action items after a colon as in **TODO: action item**.

```
{# TODO(john.doe): revisit centering #}
```

```
<center>Test</center>
```

```
<!-- TODO: remove optional tags -->
```

```
<ul>
```

```
<li>Apples</li>
```

```
<li>Oranges</li>
```

```
</ul>
```

HTML Style Rules

Document Type

Use HTML5.

HTML5 (HTML syntax) is preferred for all HTML documents: **<!DOCTYPE html>**.

(It's recommended to use HTML, as **text/html**. Do not use XHTML. XHTML, as **application/xhtml+xml**, lacks both browser and infrastructure support and offers less room for optimization than HTML.)

Although fine with HTML, do not close void elements, i.e. write **
**, not **
**.

HTML Validity

Use valid HTML where possible.

Use valid HTML code unless that is not possible due to otherwise unattainable performance goals regarding file size.

Use tools such as the [W3C HTML validator](#) to test.

Using valid HTML is a measurable baseline quality attribute that contributes to learning about technical requirements and constraints, and that ensures proper HTML usage.

```
<!-- Not recommended -->
```

```
<title>Test</title>
```

```
<article>This is only a test.
```

```
<!-- Recommended -->
```

```
<!DOCTYPE html>
```

```
<meta charset="utf-8">
```

```
<title>Test</title>
```

```
<article>This is only a test.</article>
```

Semantics

Use HTML according to its purpose.

Use elements (sometimes incorrectly called “tags”) for what they have been created for. For example, use heading elements for headings, `p` elements for paragraphs, `a` elements for anchors, etc.

Using HTML according to its purpose is important for accessibility, reuse, and code efficiency reasons.

`<!-- Not recommended -->`

`<div onclick="goToRecommendations();">All recommendations</div>`

`<!-- Recommended -->`

`All recommendations`

Multimedia Fallback

Provide alternative contents for multimedia.

For multimedia, such as images, videos, animated objects via `canvas`, make sure to offer alternative access.

For images that means use of meaningful alternative text (`alt`) and for video and audio transcripts and captions, if available.

Providing alternative contents is important for accessibility reasons: A blind user has few cues to tell what an image is about without `@alt`, and other users may have no way of understanding what video or audio contents are about either.

(For images whose `alt` attributes would introduce redundancy, and for images whose purpose is purely decorative which you cannot immediately use CSS for, use no alternative text, as in `alt=""`.)

`<!-- Not recommended -->`

``

`<!-- Recommended -->`

``

Separation of Concerns

Separate structure from presentation from behavior.

Strictly keep structure (markup), presentation (styling), and behavior (scripting) apart, and try to keep the interaction between the three to an absolute minimum.

That is, make sure documents and templates contain only HTML and HTML that is solely serving structural purposes. Move everything presentational into style sheets, and everything behavioral into scripts.

In addition, keep the contact area as small as possible by linking as few style sheets and scripts as possible from documents and templates.

Separating structure from presentation from behavior is important for maintenance reasons. It is always more expensive to change HTML documents and templates than it is to update style sheets and scripts.

`<!-- Not recommended -->`

`<!DOCTYPE html>`

`<title>HTML sucks</title>`

`<link rel="stylesheet" href="base.css" media="screen">`

`<link rel="stylesheet" href="grid.css" media="screen">`

`<link rel="stylesheet" href="print.css" media="print">`

`<h1 style="font-size: 1em;">HTML sucks</h1>`

```

<p>I've read about this on a few sites but now I'm sure:
  <u>HTML is stupid!!1</u>
<center>I can't believe there's no way to control the styling of
  my website without doing everything all over again!</center>
<!-- Recommended -->
<!DOCTYPE html>
<title>My first CSS-only redesign</title>
<link rel="stylesheet" href="default.css">
<h1>My first CSS-only redesign</h1>
<p>I've read about this on a few sites but today I'm actually
  doing it: separating concerns and avoiding anything in the HTML of
  my website that is presentational.
<p>It's awesome!

```

Entity References

Do not use entity references.

There is no need to use entity references like `—`, `”`, or `☺`, assuming the same encoding (UTF-8) is used for files and editors as well as among teams.

The only exceptions apply to characters with special meaning in HTML (like `<` and `&`) as well as control or “invisible” characters (like no-break spaces).

```
<!-- Not recommended -->
```

The currency symbol for the Euro is `“&eur;”`.

```
<!-- Recommended -->
```

The currency symbol for the Euro is “€”.

type Attributes

Omit `type` attributes for style sheets and scripts.

Do not use `type` attributes for style sheets (unless not using CSS) and scripts (unless not using JavaScript).

Specifying `type` attributes in these contexts is not necessary as HTML5 implies `text/css` and `text/javascript` as defaults. This can be safely done even for older browsers.

```
<!-- Not recommended -->
```

```
<link rel="stylesheet" href="//www.google.com/css/maia.css"
  type="text/css">
```

```
<!-- Recommended -->
```

```
<link rel="stylesheet" href="//www.google.com/css/maia.css">
```

```
<!-- Not recommended -->
```

```
<script src="//www.google.com/js/gweb/analytics/autotrack.js"
  type="text/javascript"></script>
```

```
<!-- Recommended -->
```

```
<script src="//www.google.com/js/gweb/analytics/autotrack.js"></script>
```

HTML Formatting Rules

General Formatting

Use a new line for every block, list, or table element, and indent every such child element.

Independent of the styling of an element (as CSS allows elements to assume a different role per `display` property), put every block, list, or table element on a new line.

Also, indent them if they are child elements of a block, list, or table element.

(If you run into issues around whitespace between list items it's acceptable to put all `li` elements in one line.

A linter is encouraged to throw a warning instead of an error.)

```
<blockquote>
  <p><em>Space</em>, the final frontier.</p>
</blockquote>
<ul>
  <li>Moe
  <li>Larry
  <li>Curly
</ul>
<table>
  <thead>
    <tr>
      <th scope="col">Income
      <th scope="col">Taxes
    </tr>
  <tbody>
    <tr>
      <td>$ 5.00
      <td>$ 4.50
    </tr>
  </tbody>
</table>
```

HTML Quotation Marks

When quoting attributes values, use double quotation marks.

Use double (") rather than single quotation marks (') around attribute values.

`<!-- Not recommended -->`

`Sign in`

`<!-- Recommended -->`

`Sign in`

CSS Style Rules

CSS Validity

Use valid CSS where possible.

Unless dealing with CSS validator bugs or requiring proprietary syntax, use valid CSS code.

Use tools such as the [W3C CSS validator](#) to test.

Using valid CSS is a measurable baseline quality attribute that allows to spot CSS code that may not have any effect and can be removed, and that ensures proper CSS usage.

ID and Class Naming

Use meaningful or generic ID and class names.

Instead of presentational or cryptic names, always use ID and class names that reflect the purpose of the element in question, or that are otherwise generic.

Names that are specific and reflect the purpose of the element should be preferred as these are most understandable and the least likely to change.

Generic names are simply a fallback for elements that have no particular or no meaning different from their siblings. They are typically needed as “helpers.”

Using functional or generic names reduces the probability of unnecessary document or template changes.

/ Not recommended: meaningless */*

#yee-1901 {}

/ Not recommended: presentational */*

.button-green {}

.clear {}

/ Recommended: specific */*

#gallery {}

#login {}

.video {}

/ Recommended: generic */*

.aux {}

.alt {}

ID and Class Name Style

Use ID and class names that are as short as possible but as long as necessary.

Try to convey what an ID or class is about while being as brief as possible.

Using ID and class names this way contributes to acceptable levels of understandability and code efficiency.

```
/* Not recommended */
#navigation {}
.atr {}
/* Recommended */
#nav {}
.author {}
```

Type Selectors

Avoid qualifying ID and class names with type selectors.

Unless necessary (for example with helper classes), do not use element names in conjunction with IDs or classes.

Avoiding unnecessary ancestor selectors is useful for [performance reasons](#).

```
/* Not recommended */
ul#example {}
div.error {}
/* Recommended */
#example {}
.error {}
```

Shorthand Properties

Use shorthand properties where possible.

CSS offers a variety of [shorthand](#) properties (like `font`) that should be used whenever possible, even in cases where only one value is explicitly set.

Using shorthand properties is useful for code efficiency and understandability.

```
/* Not recommended */
border-top-style: none;
font-family: palatino, georgia, serif;
font-size: 100%;
line-height: 1.6;
padding-bottom: 2em;
padding-left: 1em;
padding-right: 1em;
padding-top: 0;
/* Recommended */
border-top: 0;
font: 100%/1.6 palatino, georgia, serif;
padding: 0 1em 2em;
```

0 and Units

Omit unit specification after “0” values.

Do not use units after 0 values unless they are required.

```
margin: 0;
padding: 0;
```

Leading 0s

Omit leading “0”s in values.

Do not use put 0s in front of values or lengths between -1 and 1.

```
font-size: .8em;
```

Hexadecimal Notation

Use 3 character hexadecimal notation where possible.

For color values that permit it, 3 character hexadecimal notation is shorter and more succinct.

```
/* Not recommended */
```

```
color: #eebbcc;
```

```
/* Recommended */
```

```
color: #ebc;
```

ID and Class Name Delimiters

Separate words in ID and class names by a hyphen.

Do not concatenate words and abbreviations in selectors by any characters (including none at all) other than hyphens, in order to improve understanding and scannability.

```
/* Not recommended: does not separate the words “demo” and “image” */
```

```
.demoimage {}
```

```
/* Not recommended: uses underscore instead of hyphen */
```

```
.error_status {}
```

```
/* Recommended */
```

```
#video-id {}
```

```
.ads-sample {}
```

Hacks

Avoid user agent detection as well as CSS “hacks”—try a different approach first.

It’s tempting to address styling differences over user agent detection or special CSS filters, workarounds, and hacks. Both approaches should be considered last resort in order to achieve and maintain an efficient and manageable code base. Put another way, giving detection and hacks a free pass will hurt projects in the long run as projects tend to take the way of least resistance. That is, allowing and making it easy to use detection and hacks means using detection and hacks more frequently—and more frequently is too frequently.

CSS Formatting Rules

Block Content Indentation

Indent all block content.

Indent all [block content](#), that is rules within rules as well as declarations, so to reflect hierarchy and improve understanding.

```
@media screen, projection {
```

```
  html {  
    background: #fff;  
    color: #444;  
  }
```

```
}
```

Declaration Stops

Use a semicolon after every declaration.

End every declaration with a semicolon for consistency and extensibility reasons.

```
/* Not recommended */
```

```
.test {  
  display: block;  
  height: 100px  
}
```

```
/* Recommended */
```

```
.test {  
  display: block;  
  height: 100px;  
}
```

Property Name Stops

Use a space after a property name's colon.

Always use a single space between property and value (but no space between property and colon) for consistency reasons.

```
/* Not recommended */
```

```
h3 {  
  font-weight:bold;  
}
```

```
/* Recommended */
```

```
h3 {
```

```
font-weight: bold;
}
```

Declaration Block Separation

Use a space between the last selector and the declaration block.

Always use a single space between the last selector and the opening brace that begins the [declaration block](#).

The opening brace should be on the same line as the last selector in a given rule.

/ Not recommended: missing space */*

```
#video{
  margin-top: 1em;
}
```

/ Not recommended: unnecessary line break */*

```
#video
{
  margin-top: 1em;
}
```

/ Recommended */*

```
#video {
  margin-top: 1em;
}
```

Selector and Declaration Separation

Separate selectors and declarations by new lines.

Always start a new line for each selector and declaration.

/ Not recommended */*

```
a:focus, a:active {
  position: relative; top: 1px;
}
```

/ Recommended */*

```
h1,
h2,
h3 {
  font-weight: normal;
  line-height: 1.2;
}
```

Rule Separation

Separate rules by new lines.

Always put a blank line (two line breaks) between rules.

```
html {
  background: #fff;
}
```

```

}

body {
  margin: auto;
  width: 50%;
}

```

CSS Quotation Marks

Use single quotation marks for attribute selectors and property values.

Use single (") rather than double (") quotation marks for attribute selectors or property values. Do not use quotation marks in URI values (url()).

Exception: If you do need to use the @charset rule, use double quotation marks—[single quotation marks are not permitted](#).

```

/* Not recommended */
@import url("//www.google.com/css/maia.css");

```

```

html {
  font-family: "open sans", arial, sans-serif;
}
/* Recommended */
@import url(//www.google.com/css/maia.css);

```

```

html {
  font-family: 'open sans', arial, sans-serif;
}

```

CSS Meta Rules

Section Comments

Group sections by a section comment (optional).

If possible, group style sheet sections together by using comments. Separate sections with new lines.

```

/* Header */

#adw-header {}

/* Footer */

#adw-footer {}

/* Gallery */

.adw-gallery {}

```