HTML

Living Standard

precisely

HTML List Elements

User Guide

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About the user guide

HTML is a Markup Language for creating Web pages. In this guide, we will discuss the list of HTML elements and how to use it in practice.

Audience

This guide is designed for beginners to make them understand how to use the list of HTML elements.

Prerequistes

Before starting the guide, you should have a basic understanding of different HTML elements.

Disclaimer and Copyright

HTML List Elements

1.1 Grouping Content

HTML elements are grouped in containers with classes and id selectors. This makes it easier to position and style HTML via CSS.

1.1.1. The <p> element

The <p> element represents a paragraph in HTML.

Categories

The <p> element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications is categorized as flow content.
- **Palpable Content**: Elements whose content model allows any flow content or phrasing content should have at least one node in its contents that is palpable content and that does not have the hidden attribute specified.

Contexts in which the <p> element is used

This is used where flow content is expected.

Content Model

Content model for <p> element comprises of phrasing content.

Tag omission in text/html

A <p> element's end tag is omitted if the <p> element is immediately followed by an address, article, aside, blockquote, details, div, dl, fieldset, figcaption, figure, footer, form, h1, h2, h3, h4, h5, h6, header, hgroup, hr, main, menu, nav, ol, p, pre, section, table, or <ul> element, or if there is no more content in the parent element and the parent element is an HTML element that is not an a, audio, del, ins, map, noscript, or video element, or an autonomous custom element.

Content Attributes

Global attributes are used for <p> elements.

Example: In the following xml example, the "bogus" element does not have a dir attribute as defined in this specification, despite having an attribute with the literal name "dir". Thus, the directionality of the inner-most span element is 'rtl', inherited from the element indirectly through the "bogus" element.

```
<div xmlns="http://www.w3.org/1999/xhtml" dir="rtl">
<bogus xmlns="https://example.net/ns" dir="ltr">
<span xmlns="http://www.w3.org/1999/xhtml"></span>
</bogus>
</div>
```

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
IDL [Exposed=Window]

interface HTMLParagraphElement : HTMLElement {

        [HTMLConstructor] constructor();

         // also has obsolete members

};
```

Note: Paragraphs are usually represented in visual media by blocks of text that are physically separated from adjacent blocks through blank lines or a style sheet.

Example: For instance, the following HTML code describes how text is separated from adjacent blocks through blank lines or a style sheet.

```
<section>
<!-- ... -->
        <p>Last modified: 2001-04-23</p>
        <p>Author: fred@example.com</p>
</section>
However, it would be better marked-up as:

<section>
<!-- ... -->
        <footer>Last modified: 2001-04-23</footer>
        <address>Author: fred@example.com</address>
</section>
Or:

<section>
<!-- ... -->
        <footer>
        <p>Last modified: 2001-04-23</p>
        <address>Author: fred@example.com</address>
        </footer>
</section>
```

Note: List elements (in particular, ol and <ul> elements) cannot be children of <p> elements.

Example: For instance, this fantastic sentence has bullets relating to wizards, faster-than-light travel, and telepathy.

The markup for the above sentence could therefore be:

```
<p>For instance, this fantastic sentence has bullets relating to</p>
<ul>
    <li>wizards,
    <li>faster-than-light travel, and
    <li>telepathy
</ul>
```

Example: For instance, the above example could be written using the element as shown below.

```
<div>For instance, this fantastic sentence has bullets relating to
<ul>
    <li>wizards,
     <li>faster-than-light travel, and
    <li>telepathy,
</ul>
and is further discussed below.</div>
```

1.1.2. The <hr> element

The <hr> element represents a paragraph-level thematic break. This could be a scene change in a story or a transition to another topic within a section of a reference book.

Categories

The <hr> element is categorized into:

- **Flow Content:** Elements that are used in the body of documents and applications is categorized as flow content.

Contexts in which the <hr> element is used

This is used where flow content is expected.

Content Model

There is no content model. Hence, void elements are used.

Tag omission in text/html

There is no end tag.

Content Attributes

Global attributes are used for <hr> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
IDL [Exposed=Window]

interface HTMLHRElement : HTMLElement {

        [HTMLConstructor] constructor();

        // also has obsolete members

};
```

Example: The following fictional extract from a project manual shows two sections that use the <hr> element to separate topics within the section.

```
<section>
    <h1>Communication</h1>
    <p>There are various methods of communication. This section covers
    a few of the important ones used by the project.</p>
<hr>
    <p>Communication stones seem to come in pairs and have
    mysterious properties:</p>
    <ul>
        <li>They can transfer thoughts in two directions once activated if
        used alone.</li>
        <li>If used with another device, they can transfer one's
        consciousness to another body.</li>
        <li>If both stones are used with another device, the
        consciousnesses switch bodies.</li>
    </ul>
<hr>
    <p>Radios use the electromagnetic spectrum in the meter range and longer.</p>
 <hr>
    <p>Signal flares use the electromagnetic spectrum in the nanometer range.</p>
</section>
<section>
<h1>Food</h1>
    <p>All food at the project is rationed:</p>
    <dl>
        <dt>Potatoes</dt>
         <dd>Two per day</dd>
        <dt>Soup</dt>
        <dd>One bowl per day</dd>
        </dl>
    <hr>
        <p>Cooking is done by the chefs on a set rotation.</p>
```

Note: *The <hr> element does not affect the document's outline.*

1.1.3. The <pre> element

The <pre> element represents a block of preformatted text in which structure is represented by typographic conventions rather than by elements. It is used in email with paragraphs indicated by blank lines, lists, and so on. It is also used in fragments of computer code with structure describing the conventions of that language, and it is also used in displaying ASCII art.

Categories

The <pre> element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content**: Elements whose content model allows any flow content or phrasing content should have at least one node in its contents that is palpable content and that does not have the hidden attribute specified.

Contexts in which the <pre> element is used

This is used where flow content is expected.

Content Model

Content model comprises of phrasing content.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <pre> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

Note: *In the HTML syntax, a leading newline character immediately following the <pre> element start tag is stripped.*

Example: For instance, in the following snippet a sample of computer code is presented.

```
<p>This is the <code>Panel</code> constructor:</p>
<pre><code>function Panel(element, canClose, closeHandler) {
        this.element = element;
        this.canClose = canClose;
        this.closeHandler = function () { if (closeHandler) closeHandler() };
}</code></pre>
```

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
IDL [Exposed=Window]
interface HTMLPreElement : HTMLElement {
        [HTMLConstructor] constructor();
        // also has obsolete members
};
```

Example: The following shows a contemporary poem that uses the <pre> element to preserve its unusual formatting, which forms an intrinsic part of the poem itself.

```
<pre>              maxling

          it is with a         heart
          heavy

          that i admit loss of a feline
           so          loved

          a friend lost to the
          unknown
      (night)

cdr 11dec07</pre>
```

1.1.4. The <blockquote> element

The <blockquote> element represents a section that is quoted from another source. Content inside a blockquote is quoted from another source, whose address, if it has one, may be cited in the cite attribute. The content of a blockquote may be abbreviated or may have context added in the conventional manner for the text's language.

Categories

The <blockquote> element is categorized into three types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Sectioning Root**: Elements that are considered subsections of their nearest ancestor sectioning root or their nearest ancestor element of sectioning content, whichever is nearest is categorized as sectioning root.
- **Palpable Content**: Elements whose content model allows any flow content or phrasing content should have at least one node in its contents that is palpable content and that does not have the hidden attribute specified.

Contexts in which the <blockquote> element is used

This is used where flow content is expected.

Content Model

Content model comprises of flow content.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <blockquote> elements.

cite — Link to the source of the quotation or more information about the edit.

Accessibility considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
[Exposed=Window]
interface HTMLQuoteElement : HTMLElement {
        [HTMLConstructor] constructor();
        [CEReactions] attribute USVString cite;
};
```

Note: *The HTMLQuoteElement interface is also used by the q element.*

Example: In English this is traditionally done using square brackets. For instance, consider a page with the sentence "Jane ate the cracker. She then said she liked apples and fish."; this could be quoted as follows.

```
<blockquote>
        <p>[Jane] then said she liked [...] fish.</p>
</blockquote>
```

Note: *Attribution for the quotation, if any, must be placed outside the <blockquote> element.*

Example: For instance, here the attribution is given in a paragraph after the quote:

```
<blockquote>
        <p>I contend that we are both atheists. I just believe in one fewer
        god than you do. When you understand why you dismiss all the other
        possible gods, you will understand why I dismiss yours.</p>
</blockquote>
<p>— Stephen Roberts</p>
```

Example: For instance, this snippet shows the use of a blockquote demonstrating that one does not have to use <p> elements inside <blockquote> elements.

```
<p>He began his list of "lessons" with the following:</p>

<blockquote>One should never assume that his side of the issue will be recognized, let alone that it will be conceded to have merits.</blockquote>

<p>He continued with a number of similar points, ending with:</p>

<blockquote>Finally, one should be prepared for the threat of breakdown in negotiations at any given moment and not be cowed by the possibility.</blockquote>

<p>We shall now discuss these points...
```

1.1.5. The <ol> element

The <ol> element represents a list of items, where the items have been intentionally ordered, such that changing the order would change the meaning of the document. The items of the list are the <li> element child nodes of the <ol> element, in tree order.

An <ol> element has a starting value, which is an integer determined as follows:

1. If the <ol> element has a start attribute, then:
    1.1. Let parsed be the result of parsing the value of the attribute as an integer.
    1.2. If parsed is not an error, then return parsed.
2. If the <ol> element has a reversed attribute, then return the number of owned <li> elements.
3. Return 1.

Categories

The <ol> element is categorized into two types:

- **Flow Content:** Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content:** If the element's children has at least one <li> element.

Contexts in which the <ol> element is used

This is used where flow content is expected.

Content Model

Content model comprises of zero or more li and script-supporting elements.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

The <ol> element uses global attributes such as:

- reversed — Number the list backwards
- start — Starting value of the list
- type — Kind of list marker

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
[Exposed=Window]
interface HTMLOListElement : HTMLElement {
    [HTMLConstructor] constructor();
    [CEReactions] attribute boolean reversed;
    [CEReactions] attribute long start;
    [CEReactions] attribute DOMString type;
    // also has obsolete members
};
```

The type attribute is used to specify the kind of marker to use in the list. The attribute, if specified, must have a value that is identical to one of the characters given in the first cell of one of the rows of the below table. The type attribute represents the state given in the cell in the second column of the row whose first cell matches the attribute's value; if none of the cells match, or if the attribute is omitted, then the attribute represents the decimal state.

Keyword	State	Description	Examples for values 1-3 and 3999-4001							
1 (U+0031)	**decimal**	Decimal numbers	1.	2.	3.	…	3999.	4000.	4001.	…
a (U+0061)	**lower-alpha**	Lowercase latin alphabet	a.	b.	c.	…	ewu.	ewv.	eww.	…
A (U+0041)	**upper-alpha**	Uppercase latin alphabet	A.	B.	C.	…	EWU	EWV	EWW	…
I (U+0069)	**lower-roman**	Lowercase roman numerals	i.	ii.	iii.	…	mmmcmxcix.	$\overline{\text{IV}}$.	$\overline{\text{IV}}$i.	…
I (U+0049)	**upper-roman**	Uppercase roman numerals	I.	II.	III.	…	MMMCMXCIX.	$\overline{\text{IV}}$.	$\overline{\text{IV}}$I.	…

Table 1: Type Attributes

Note: For CSS user agents, a mapping for the attribute to the 'list-style-type' CSS property is given in the rendering section.

Note: It is possible to redefine the default CSS list styles used to implement this attribute in CSS user agents; doing so will affect how list items are rendered.

The reversed and type IDL attributes must reflect the respective content attributes of the same name.

The start IDL attribute must reflect the content attribute of the same name, with a default value of 1.

Note: This means that the start IDL attribute does not necessarily match the list's starting value, in cases where the start content attribute is omitted and the reversed content attribute is specified.

Example: For instance, the following markup shows a list where the order matters, and where the <ol> element is therefore appropriate. Compare the list to the equivalent list in the ul section to see an example of the same items using the <ul> element.

```
<p>I have lived in the following countries (given in the order of when I first lived there):</p>
<ol>
    <li>Switzerland
    <li>United Kingdom
    <li>United States
    <li>Norway
</ol>
```

1.1.6. The <ul> element

The <ul> element represents a list of items, where the order of the items is not important — that is, where changing the order would not materially change the meaning of the document. The items of the list are the <li> element child nodes of the <ul> element.

Categories

The <ul> element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content:** If the element's children include at least one <li> element.

Contexts in which the <ul> element is used

This is used where flow content is expected.

Content Model

Content model comprises of zero or more li and script-supporting elements.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <ul> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
[Exposed=Window]
interface HTMLUListElement : HTMLElement {
    [HTMLConstructor] constructor();
    // also has obsolete members
};
```

Example: For instance, the following markup shows a list where the order does not matter, and where the <ul> element is therefore appropriate. Compare the list to the equivalent list in the ol section to see an example of the same items using the <ol> element.

```
<p>I have lived in the following countries:</p>
<ul>
<li>Norway
    <li>Switzerland
    <li>United Kingdom
    <li>United States
</ul>
```

Example: Changing the order of the list does not change the meaning of the document. For instance, the items in the snippet above are given in alphabetical order, but in the snippet below they are given in order of the size of their current account balance in 2007, without changing the meaning of the document whatsoever:

```
<p>I have lived in the following countries:</p>
<ul>
        <li>Switzerland
        <li>Norway
        <li>United Kingdom
        <li>United States
</ul>
```

1.1.7. The <menu> element

The <menu> element represents a toolbar consisting of its contents, in the form of an unordered list of items (represented by <li> elements), each of which represents a command that the user can perform or activate.

Categories

The <menu> element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content:** If the element's children include at least one <li> element.

Contexts in which the <menu> element is used

This is used where flow content is expected.

Content Model

Content model comprises of zero or more li and script-supporting elements.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <menu> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

Note: *The <menu> element is simply a semantic alternative to ul to express an unordered list of commands (a "toolbar").*

Example: For instance, a text-editing application uses a <menu> element to provide a series of editing commands.

```
<menu>
    <li><button onclick="copy()"><img src="copy.svg"
    alt="Copy"></button></li>
    <li><button on click="cut()"><img src="cut.svg" alt="Cut"></button></li>
    <li><button on click="paste()"><imgsrc="paste.svg"
</menu>
```

1.1.8. The <li> element

The <li> element represents a list item. If its parent element is an ol, ul, or <menu> element, then the element is an item of the parent element's list, as defined for those elements. Otherwise, the list item has no defined list-related relationship to any other <li> element.

The value attribute, if present, must be a valid integer. It is used to determine the ordinal value of the list item, when the li's list owner is an <ol> element.

Any element whose computed value of 'display' is 'list-item' has a list owner, which is determined as follows:

1. If the element is not being rendered, return null; the element has no list owner.
2. Let ancestor be the element's parent.
3. If the element has an ol, ul, or menu ancestor, set ancestor to the closest such ancestor element.
4. Return the closest inclusive ancestor of ancestor that produces a CSS box.

Note: Such an element will always exist, as at the very least the document element will always produce a CSS box.

To determine the ordinal value of each element owned by a given list owner, perform the following steps:

1. Let i be 1.
2. If owner is an <ol> element, let numbering be owner's starting value. Otherwise, let numbering be 1.
3. Loop: If i is greater than the number of list items that owner owns, then return; all of owner's owned list items have been assigned ordinal values.
4. Let item be the ith of owner's owned list items, in tree order.
5. If item is a <li> element that has a value attribute, then:
   5.1. Let parsed be the result of parsing the value of the attribute as an integer.
   5.2. If parsed is not an error, then set numbering to parsed.
6. The ordinal value of item is numbering.
7. If owner is an <ol> element, and owner has a reversed attribute, decrement numbering by 1; otherwise, increment numbering by 1.
8. Increment i by 1.
9. Go to the step labeled loop.

Categories

None of the categories are used for the <li> element.

Contexts in which the <li> element is used

This is used:

- Inside <ol> elements
- Inside <ul> elements
- Inside <menu> elements

Content Model

Content model comprises of flow content.

Tag omission in text/html

A <li> element's end tag is omitted if the <li> element is immediately followed by another <li> element or if there is no more content in the parent element.

Content Attributes

Global attributes are used for <li> elements. If the element is not a child of an ul or <menu> element, then the value of the list item is ordinal value.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
IDL [Exposed=Window]
interface HTMLLIElement : HTMLElement {
        [HTMLConstructor] constructor();
        [CEReactions] attribute long value;
        // also has obsolete members
};
```

Example: The element's value IDL attribute does not directly correspond to its ordinal value; it simply reflects the content attribute. For example, given this list:

```
<ol>
        <li>Item 1
        <li value="3">Item 3
        <li>Item 4
</ol>
```

The ordinal values are 1, 3, and 4, whereas the value IDL attributes return 0, 3, 0 on getting.

Example: For instance, the following example has top ten movies listed(in reverse order). Note the way the list is given a title by using a <figure> element and its <figcaption> element.

```
<figure>
    <figcaption>The top 10 movies of all time</figcaption>
    <ol>
        <li value="10"><cite>Josie and the Pussycats</cite>, 2001</li>
        <li value="9"><cite lang="sh">Црна мачка, бели мачор</cite>, 1998</li>
        <li value="8"><cite>A Bug's Life</cite>, 1998</li>
        <li value="7"><cite>Toy Story</cite>, 1995</li>
        <li value="6"><cite>Monsters, Inc</cite>, 2001</li>
    </ol>
</figure>
```

The markup could also be written as follows, using the reversed attribute on the <ol> element.

```
<figure>
    <figcaption>The top 10 movies of all time</figcaption>
    <ol reversed>
        <li><cite>Josie and the Pussycats</cite>, 2001</li>
        <li><cite lang="sh">Црна мачка, бели мачор</cite>, 1998</li>
        <li><cite>A Bug's Life</cite>, 1998</li>
        <li><cite>Toy Story</cite>, 1995</li>
        <li><cite>Monsters, Inc</cite>, 2001</li>
    </ol>
</figure>
```

Note: *While it is conforming to include heading elements (e.g. h1) inside <li> elements, it likely does not convey the semantics that the author intended. A heading starts a new section, so a heading in a list implicitly splits the list into spanning multiple sections.*

1.1.9. The <dl> element

The <dl> element represents an association list consisting of zero or more name-value groups (a description list). A name-value group consists of one or more names (<dt> elements, possibly as children of a element child) followed by one or more values (<dd> elements, possibly as children of a element child), ignoring any nodes other than dt and <dd> element children, and dt and <dd> elements that are children of element children.

Name-value groups are terms and definitions, metadata topics and values, questions and answers, or any other groups of name-value data.

The name-value groups of a <dl> element is determined using the following algorithm. A name-value group has a name (a list of <dt> elements, initially empty) and a value (a list of <dd> elements, initially empty).

1. Let groups be an empty list of name-value groups.
2. Let current be a new name-value group.
3. Let seenDd be false.
4. Let child be dl's first child.
5. Let grandchild be null.
6. While child is not null
    6.1. If child is a element, then:
        6.1.1. Let grandchild be child's first child.
        6.1.2. While grandchild is not null:
            6.1.2.1. Process dt or dd for grandchild.
            6.1.2.2. Set grandchild to grandchild's next sibling.
    6.2. Otherwise, process dt or dd for child.
    6.3. Set child to child's next sibling.
7. If current is not empty, then append current to groups.
8. Return groups.

Categories

The <menu> element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content:** If the element's children include at least one <li> element.

Contexts in which the <dl> element is used

This is used where flow content is expected.

Content Model

Content model comprises of:

- Either: Zero or more groups each consisting of one or more <dt> elements followed by one or more <dd> elements, optionally intermixed with script-supporting elements.
- Or: One or more elements, optionally intermixed with script-supporting elements.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <dl> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
IDL [Exposed=Window]

interface HTMLDListElement : HTMLElement {

        [HTMLConstructor] constructor();

        // also has obsolete members

};
```

Note: When a name-value group has an empty list as name or value, it is often due to accidentally using <dd> elements in the place of <dt> elements and vice versa.

Example: For instance, in the following example, one entry ("Authors") is linked to two values ("John" and "Luke").

```
<dl>
        <dt> Authors
        <dd> John
        <dd> Luke
        <dt> Editor
        <dd> Frank
</dl>
```

Example: In the following example, one definition is linked to two terms.

```
<dl>
        <dt lang="en-US"> <dfn>color</dfn> </dt>
        <dt lang="en-GB"> <dfn>color</dfn> </dt>
        <dd> A sensation which (in humans) derives from the ability of the fine structure of the eye to distinguish three differently filtered analyses of a view. </dd>
</dl>
```

Note: The <dl> element is inappropriate for marking up dialogue.

1.1.10. The <dt> element

The <dt> element represents the term, or name, part of a term-description group in a description list (<dl> element).

Categories

None of the categories are used.

Contexts in which the <dt> element is used

- Before dd or <dt> elements inside <dl> elements.
- Before dd or <dt> elements inside elements that are children of a <dl> element.

Content Model

Content model comprises of flow content, but with no header, footer, sectioning content, or heading content descendants.

Tag omission in text/html

A <dt> element's end tag is omitted if the <dt> element is immediately followed by another <dt> element or a <dd> element.

Content Attributes

Global attributes are used for the <dt> element.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

DOM interface for <dt> element uses HTMLElement.

Note: *The <dt> element itself, when used in a <dl> element, does not indicate that its contents are a term being defined, but this can be indicated using the dfn element.*

Example: For instance, the following example shows a list of frequently asked questions (a FAQ) marked up using the <dt> element for questions and the <dd> element for answers.

```
<article>
    <h1>FAQ</h1>
    <dl>
        <dt>What do we want?</dt>
        <dd>Our data.</dd>
        <dt>When do we want it?</dt>
        <dd>Now.</dd>
        <dt>Where is it?</dt>
        <dd>We are not sure.</dd>
    </dl>
</article>
```

1.1.11. The <dd> element

The <dd> element represents the description, definition, or value, part of a term-description group in a description list (<dl> element).

Categories

None of the categories are used for <dd> element.

Contexts in which the <dd> element is used

- After dt or <dd> elements inside <dl> elements.
- After dt or <dd> elements inside elements that are children of a <dl> element.

Content Model

Content model comprises of flow content.

Tag omission in text/html

A <dd> element's end tag is omitted if the <dd> element is immediately followed by another <dd> element or a <dt> element, or if there is no more content in the parent element.

Content Attributes

Global attributes are used for <dd> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

DOM interface for <dd> element uses HTMLElement.

Example: A dl is used to define a vocabulary list, like in a dictionary. For instance, in the following example, each entry, given by a dt with a dfn, has several dds, showing the various parts of the definition.

```
<dl>
    <dt><dfn>happiness</dfn></dt>
    <dd class="pronunciation">/'hæ p. nes/</dd>
    <dd class="part-of-speech"><i><abbr>n.</abbr></i></dd>
    <dd>The state of being happy.</dd>
    <dd>Good fortune; success. <q>Oh <b>happiness</b>! It worked!</q></dd>
    <dt><dfn>rejoice</dfn></dt>
    <dd class="pronunciation">/ri jois'/</dd>
    <dd><i class="part-of-speech"><abbr>v.intr.</abbr></i> To be delighted oneself.</dd>
    <dd><i class="part-of-speech"><abbr>v.tr.</abbr></i> To cause one to be delighted.</dd>
</dl>
```

1.1.12. The <figure> element

The <figure> element represents some flow content, optionally with a caption, that is self-contained (like a complete sentence) and is typically referenced as a single unit from the main flow of the document.

The first <figcaption> element child of the element, if any, represents the caption of the <figure> element's contents. If there is no child <figcaption> element, then there is no caption.

A <figure> element's contents are part of the surrounding flow.

Categories

The <figure> element is categorized into two types:

- **Flow Content:** Elements that are used in the body of documents and applications are categorized as flow content.
- **Sectioning Root:** Elements that are considered subsections of their nearest ancestor sectioning root or their nearest ancestor element of sectioning content, whichever is nearest is categorized as sectioning root.
- **Palpable Content:** If the element's children include at least one <li> element.

Contexts in which this element can be used:

This is used where flow content is expected.

Content Model

Content model comprises of:

- Either: one <figcaption> element followed by flow content.
- Or: flow content followed by one <figcaption> element.
- Or: flow content.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <figure> element.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

DOM interface for <figure> element uses HTMLElement.

Note: "Self-contained" in this context does not necessarily mean independent. For example, each sentence in a paragraph is self-contained; an image that is part of a sentence would be inappropriate for figure, but an entire sentence made of images would be fitting.

Note: *When a figure is referred to from the main content of the document by identifying it by its caption (e.g., by figure number), it enables such content to be easily moved away from that primary content, e.g., to the side of the page, to dedicated pages, or to an appendix, without affecting the flow of the document.*

Note: *If a <figure> element is referenced by its relative position, e.g., "in the photograph above" or "as the next figure shows", then moving the figure would disrupt the page's meaning. Authors are encouraged to consider using labels to refer to figures, rather than using such relative references, so that the page can easily be restyled without affecting the page's meaning.*

Example: This example is written using attributes in place of the nested figure/figcaption pairs

```
<figure>
    <img src="castle1423.jpeg" title="Etching. Anonymous, ca. 1423."
    alt="The castle has one tower, and a tall wall around it.">
    <img src="castle1858.jpeg" title="Oil-based paint on canvas. Maria Towle, 1858." alt="The castle now has two towers and two walls.">
    <img src="castle1999.jpeg" title="Film photograph. Peter Jankle, 1999."alt="The castle lies in ruins, the original tower all that remains in one piece.">
    <figcaption>The castle through the ages: 1423, 1858, and 1999 respectively.</figcaption>
</figure>
```

1.1.13. The <figcaption> element

The <figcaption> element represents a caption or legend for the rest of the contents of the <figcaption> element's parent <figure> element, if any.

Categories

None of the categories are used for the <figcaption> element.

Contexts in which the <figcaption> element is used

This is used where flow content is expected.

Content Model

Content model comprises of the first or last child of a <figure> element.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for the <figcaption> element.

Accessibility Considerations

Accessibility Considerations are accessible to both authors and implementers.

DOM Interface

DOM interface for <figcaption> element uses HTMLElement.

Example: For instance, in the following example the element can contain additional information about the source

```
<figcaption>
    <p>A duck.</p>
    <p><small>Photograph courtesy of ✸ News.</small></p>
    </figcaption>
    <figcaption>
    <p>Average rent for 3-room apartments, excluding non-profit apartments</p>
    <p>Zürich's Statistics Office — <time datetime=2017-11-14>14 November 2017</time></p>
</figcaption>
```

1.1.14. The <main> element

The <main> element represents the dominant contents of the document.

A document must not have more than one <main> element that does not have the hidden attribute specified.

A hierarchically correct <main> element is one whose ancestor elements are limited to html, body, div, form without an accessible name, and autonomous custom elements.

Categories

The <main> element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content**: Elements whose content model allows any flow content or phrasing content should have at least one node in its contents that is palpable content and that does not have the hidden attribute specified.

Contexts in which the <main> element is used

This is used where flow content is expected, but only if it is a hierarchically correct <main> element.

Content Model

Content model comprises of flow content.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for <main> elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

DOM interface for <main> element uses HTMLElement.

Example: For instance, in the following example, the author has used a presentation where each component of the page is rendered in a box. To wrap the main content of the page (as opposed to the header, the footer, the navigation bar, and a sidebar), the <main> element is used.

```
<!DOCTYPE html>
<html lang="en">
<title>RPG System 17</title>
<style>
header, nav, aside, main, footer {
margin: 0.5em; border: thin solid; padding: 0.5em;
background: #EFF; color: black; box-shadow: 0 0 0.25em #033;
}
h1, h2, p { margin: 0; }
nav, main { float: left; }
aside { float: right; }
footer { clear: both; }
</style>
<header>
<h1>System Eighteen</h1>
</header>
<nav>
<a href="../16/">← System 17</a>
<a href="../18/">RPXIX →</a>
</nav>
<aside>
<p>This system has no HP mechanic, so there's no healing.
</aside>
<main>
<h2>Character creation</h2>
<p>Attributes (magic, strength, agility) are purchased at the cost of one point per level.</p>
<h2>Rolls</h2>
<p>Each encounter, roll the dice for all your skills. If you roll more than the opponent, you win.</p>
</main>
<footer>
<p>Copyright © 2013
</footer>
</html>
```

1.1.15. The element

The element has no special meaning at all. It represents its children. It can be used with the class, lang, and title attributes to mark-up semantics common to a group of consecutive elements. It can also be used in a <dl> element, wrapping groups of dt and <dd> elements.

Categories

The element is categorized into two types:

- **Flow Content**: Elements that are used in the body of documents and applications are categorized as flow content.
- **Palpable Content**: Elements whose content model allows any flow content or phrasing content should have at least one node in its contents that is palpable content and that does not have the hidden attribute specified.

Contexts in which the element is used

This is used where flow content is expected. Also, as a child of a <dl> element.

Content Model

Content model comprises of two types:

- If the element is a child of a <dl> element: one or more <dt> elements followed by one or more <dd> elements, optionally intermixed with script-supporting
- elements.
- If the element is not a child of a <dl> element: flow content.

Tag omission in text/html

Neither tag is omissible.

Content Attributes

Global attributes are used for elements.

Accessibility Considerations

Accessibility considerations are accessible to both authors and implementers.

DOM Interface

A normative definition of a DOM interface that such elements must implement.

This is then followed by a description of what the element represents, along with any additional normative conformance criteria that may apply to authors and implementations. Below is an example module describing DOM interface.

```
[Exposed=Window]
interface HTMLDivElement : HTMLElement {
        [HTMLConstructor] constructor();
        // also has obsolete members
};
```

Note: Authors are strongly encouraged to view the element as an element of last resort, for when no other element is suitable. Use of more appropriate elements instead of the element leads to better accessibility for readers and easier maintainability for authors.

Example: For instance, in the following example, a blog post is marked up using article, a chapter using section, a page's navigation aids using nav, and a group of form controls using fieldset.

On the other hand, elements are used for stylistic purposes or to wrap multiple paragraphs within a section that are all is to be annotated in a similar way.

```
<article lang="en-US">
    <h1>My use of language and my cats</h1>
    <p>My cat's behavior hasn't changed much since her absence, except
    that she plays her new physique to the neighbors regularly, in an
    attempt to get pets.</p>
    <div lang="en-GB">
        <p>My other cat, colored black and white, is a sweetie. He
        followed us to the pool today, walking down the pavement with us.
        Yesterday he apparently visited our neighbors. I wonder if he
        recognizes that their flat is a mirror image of ours.</p>
        <p>Hm, I just noticed that in the last paragraph I used British
        English. But I'm supposed to write in American English. So, I
        shouldn't say "pavement" or "flat" or "color"...</p>
    </div>
        <p>I should say "sidewalk" and "apartment" and "color”! </p>
</article>
```