

HTML5

Presentation by Uplatz

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TabIndex:

Value

Meaning

negative element will be focusable, but it should not be reachable via sequential keyboard navigation

0 element will be focusable and reachable through keyboard sequential navigation, but it's relative order is defined by the platform convention

positive element must be focusable and accessible via sequential keyboard navigation; it's relative order will be defined by the attribute value: the sequential follow the increasing number of the tabindex

Add an element to the tabbing order

<div tabindex="0">Some button</div>

Note: Try to use a native HTML button or an a tag where appropriate.

Remove an element from the tabbing order:

<button tabindex="-1">This button will not be reachable by tab</button>

- The element will be removed from the tabbing order but will still be focusable.

Define a custom tabbing order (not recommended):

<div tabindex="2">Second</div>

<div tabindex="1">First</div>

- Positive values will insert the element at the tabbing order position of its respective value.

- Elements without preference (i.e. `tabindex="0"` or native elements such as `button` and `a`) will be appended after those with preference.
- Positive values are not recommended as they disrupt the expected behavior of tabbing and might confuse people who rely on screenreaders.

Global Attributes:

Attribute	Description
-----------	-------------

class	Defines one or more class names for an element. See Classes and IDs.
--------------	--

contenteditable	Sets whether the content of an element can be edited.
------------------------	---

contextmenu	Defines a context menu shown when a user right-clicks an element.
--------------------	---

dir	Sets the text direction for text within an element.
------------	---

draggable Sets whether an element can be dragged.

hidden Hides an element not currently in use on the page.

id Defines a unique identifier for an element.
See Classes and IDs.

lang Defines the language of an element's content and its text attribute values.

spellcheck Sets whether to spell/grammar check the content of an element.

style Defines a set of inline CSS styles for an element.

tabindex Sets the order in which elements on a page are navigated by the tab keyboard shortcut.

title Defines additional information about an element, generally in the form of tooltip text on mouseover.

translate Defines whether to translate the content of an element.

Contenteditable Attribute:

<p contenteditable>This is an editable paragraph.</p>

- Upon clicking on the paragraph, the content of it can be edited similar to an input text field.
- When the contenteditable attribute is not set on an element, the element will inherit it from its parent.
- So all child text of a content editable element will also be editable, but you can turn it off for specific text, like so:

<p contenteditable>

This is an editable paragraph.

But not this.

</p>

- Note that an uneditable text element inside an editable element will still have a text cursor as inherited from its parent as well

HTML 5 Cache

Basic Example of HTML5 cache

this is our index.html file

<!DOCTYPE html>

<html manifest="index.appcache">

<body>

<p>Content</p>

</body>

</html>

- then we will create index.appcache file with below codes

CACHE MANIFEST

index.html

- write those files that you want to be cached load index.html then go for offline mode and reload the tab

Note: The two files must be in the same folder in this example

HTML Event Attributes:

HTML Form Events:

- Events triggered by actions inside a HTML form (applies to almost all HTML elements, but is most used in form elements):

Attribute

Description

onblur Fires the moment that the element loses focus

onchange Fires the moment when the value of the element is changed

oncontextmenu Script to be run when a context menu is triggered

onfocus Fires the moment when the element gets focus

oninput Script to be run when an element gets user input

oninvalid Script to be run when an element is invalid

onreset Fires when the Reset button in a form is clicked

onsearch Fires when the user writes something in a search field (for `<input="search">`)

onselect Fires after some text has been selected in an element

onsubmit Fires when a form is submitted

Keyboard Events

Attribute	Description
------------------	--------------------

onkeydown	Fires when a user is pressing a key
------------------	-------------------------------------

onkeypress	Fires when a user presses a key
-------------------	---------------------------------

onkeyup	Fires when a user releases a key
----------------	----------------------------------

Character Entities:

Character Entities in HTML

- Many symbols and special characters are required while developing a web page in html, but as we know that sometimes the use of characters directly may interfere with the actual html code which have certain characters reserved and also certain characters being not available on keyboard.

- Thus, to avoid the conflict and at same time to be able to use different symbols in our code w3 org provides us with 'Character Entities'.
- Character Entities are predefined with 'Entity Name' - &entity_name; and 'Entity Number' - &entity_number; so we need to use either of the two for the required symbol to be rendered on our page.
- A simple example with the use of character entity for 'magnifying glass' :

<input type="text" placeholder=" 🔍 Search"/>

which renders as

A rectangular search input field with a light gray border. Inside the field, on the left, is a magnifying glass icon. To the right of the icon, the word "Search" is written in a light blue, sans-serif font.

Common Special Characters:

- Some character may be reserved for HTML and cannot be used directly as it may obstruct the actual HTML codes.
- For example, trying to display the left and right angle brackets (<>) in the source code may cause unexpected results in the output.
- Similarly, white spaces as written in the source code may not display as expected in the output HTML.
- Some, like ☎, are not available in the ASCII character set.
- For this purpose, character entities are created.
- These are of the form &entity_name; or &entity_number;. The following are some of the available HTML entities.

Character	Description	Entity Name	Entity Number
“ ”	non-breaking space	 	
“<”	less than	<	<
“>”	greater than	>	>
“&”	ampersand	&	&
“—”	em dash	—	—
“_”	en dash	–	–
“©”	copyright	©	©
“®”	registered trademark	®	®
“™”	trademark	™	™
“☎”	phone	☎	☎

ARIA:

role="presentation":

- An element whose implicit native role semantics will not be mapped to the accessibility API.

<div style="float:left;">Some content on the left.</div>

<div style="float:right;">Some content on the right</div>

<div role="presentation" style="clear:both;"></div> <!-- Only used to clear floats -->

role="alert":

- A message with important, and usually time-sensitive, information.

<div role="alert" aria-live="assertive">Your session will expire in 60 seconds.</div>

- Note that I've included both `role="alert"` and `aria-live="assertive"` at the same time.
- These are synonymous attributes, but some screen readers only support one or the other.
- By using both simultaneously we therefore maximize the chances that the live region will function as expected.

`role="alertdialog":`

- A type of dialog that contains an alert message, where initial focus goes to an element within the dialog.

```
<div role="alertdialog">
```

```
<h1>Warning</h1>
```

```
<div role="alert">Your session will expire in 60  
seconds.</div>
```

```
</div>
```


role="application":

- A region declared as a web application, as opposed to a web document.
- In this example, the application is a simple
- calculator that might add two numbers together.

```
<div role="application">
```

```
<h1>Calculator</h1>
```

```
<input id="num1" type="text"> + <input id="num2"  
type="text"> =
```

```
<span id="result"></span>
```

```
</div>
```

role="article":

- A section of a page that consists of a composition that forms an independent part of a document, page or site

<article>

<h1>My first article</h1>

<p>Lorem ipsum...</p>

</article>

- You would use `role=article` on non-semantic elements (not recommended, invalid)

<div role="article">

<h1>My first article</h1>

<p>Lorem ipsum...</p>

</div>

role="banner":

- A region that contains mostly site-oriented content, rather than page-specific content.

```
<div role="banner">
  <h1>My Site</h1>
  <ul>
    <li><a href="/">Home</a></li>
    <li><a href="/about">About</a></li>
    <li><a href="/contact">Contact</a></li>
  </ul>
</div>
```

role="button":

- An input that allows for user-triggered actions when clicked or pressed.

```
<button role="button">Add</button>
```

role="cell":

A cell in a tabular container.

```
<table>
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <td role="cell">95</td>
    <td role="cell">14</td>
    <td role="cell">25</td>
  </tbody>
</table>
```

role="checkbox":

- A checkable input that has three possible values: true, false, or mixed.

<p>

<input type="checkbox" role="checkbox" aria-checked="false">

I agree to the terms

</p>

role="columnheader":

- A cell containing header information for a column.

<table role="grid">

<thead>

<tr>

<th role="columnheader">Day 1</th>

<th role="columnheader">Day 2</th>

<th role="columnheader">Day 3</th>

</tr>

</thead>

<tbody>

<!-- etc -->

</tbody>

<table>

role="combobox":

- A presentation of a select; usually similar to a textbox where users can type ahead to select an option, or type to enter arbitrary text as a new item in the list.

<input type="text" role="combobox" aria-expanded="false">

- Typically, you would use JavaScript to build the rest of the typeahead or list select functionality.

role="complementary":

- A supporting section of the document, designed to be complementary to the main content at a similar level in the DOM hierarchy, but remains meaningful when separated from the main content.

<div role="complementary">

<h2>More Articles</h2>

<!-- etc -->

</div>

role="contentinfo":

- A large perceivable region that contains information about the parent document.

<p role="contentinfo">

**Author: Albert Einstein
**

Published: August 15, 1940 </p>

role="definition":

A definition of a term or concept.

```
<span role="term" aria-labelledby="def1">Love</span>
```

```
<span id="def1" role="definition">an intense feeling of  
deep affection.</span>
```

role="dialog":

- A dialog is an application window that is designed to interrupt the current processing of an application in order to prompt the user to enter information or require a response.

```
<div role="dialog">
```

```
<p>Are you sure?</p>
```

```
<button role="button">Yes</button>
```

```
<button role="button">No</button>
```

```
</div>
```


role="directory"

- A list of references to members of a group, such as a static table of contents.

<ul role="directory">

Chapter 1

Chapter 2

Chapter 3

role="document":

- A region containing related information that is declared as document content, as opposed to a web application.

<div role="document">

<h1>The Life of Albert Einstein</h1>

<p>Lorem ipsum...</p>

</div>

role="form":

- A landmark region that contains a collection of items and objects that, as a whole, combine to create a form.
- Using the semantically correct HTML element `<form>` implies default ARIA semantics, meaning `role=form` is not required as you should not apply a contrasting role to an element that is already semantic, as adding a role overrides the native semantics of an element.

`<form action="">`

`<fieldset>`

`<legend>Login form</legend>`

`<div>`

`<label for="username">Your username</label>`

```
<input type="text" id="username" aria-  
describedby="username-tip" required />  
  <div role="tooltip" id="username-tip">Your username  
is your email address</div>  
</div>  
<div>  
  <label for="password">Your password</label>  
  <input type="text" id="password" aria-  
describedby="password-tip" required />  
  <div role="tooltip" id="password-tip">Was emailed to  
you when you signed up</div>  
</div>  
</fieldset>  
</form>
```

- You would use `role=form` on non-semantic elements (not recommended, invalid)

`<div role=form>`

`<input type="email" placeholder="Your email address">`

`<button>Sign up</button>`

`</div>`

`role="grid":`

- A grid is an interactive control which contains cells of tabular data arranged in rows and columns, like a table.

`<table role="grid">`

`<thead>`

`<!-- etc -->`

</thead>

<tbody>

<!-- etc -->

</tbody>

</table>

role="gridcell":

- A cell in a grid or treegrid.

<table role="grid">

<thead>

<!-- etc -->

</thead>

<tbody>

<tr>

<td role="gridcell">17</td>

```
<td role="gridcell">64</td>  
<td role="gridcell">18</td>  
</tr>  
</tbody>
```

```
<table>
```

role="group":

- A set of user interface objects which are not intended to be included in a page summary or table of contents by assistive technologies.

```
<div role="group">
```

```
<button role="button">Previous</button>
```

```
<button role="button">Next</button>
```

```
</div>
```

role="heading":

- A heading for a section of the page.

```
<h1 role="heading">Introduction</h1>
```

```
<p>Lorem ipsum...</p>
```

role="img":

- A container for a collection of elements that form an image.

```
<figure role="img">
```

```

```

```
<figcaption>This is my cat, Albert.</figcaption>
```

```
<figure>
```

role="list":

- A group of non-interactive list items.

```
<ul role="list">
```

```
<li role="listitem">One</li>
```

```
<li role="listitem">Two</li>  
  <li role="listitem">Three</li>  
</ul>
```

role="listbox":

- A widget that allows the user to select one or more items from a list of choices.

```
<ul role="listbox">  
  <li>One</li>  
  <li>Two</li>  
  <li>Three</li>  
</ul>
```

- Typically, you would use JavaScript to build the multiple-selection functionality.

role="listitem":

- A single item in a list or directory.

<ul role="list">

<li role="listitem">One

<li role="listitem">Two

<li role="listitem">Three

role="log":

- A type of live region where new information is added in meaningful order and old information may disappear.

<ul role="log">

User 1 logged in.

User 2 logged in.

User 1 logged out.

role="main":

- The main content of a document.

```
<!-- header & nav here -->
```

```
<div role="main">
```

```
<p>Lorem ipsum...</p>
```

```
</div>
```

```
<!-- footer here -->
```

role="marquee":

- A type of live region where non-essential information changes frequently.

```
<ul role="marquee">
```

```
<li>Dow +0.26%</li>
```

```
<li>Nasdaq +0.54%</li>
```

```
<li>S&amp;P +0.44%</li>
```

```
</ul>
```

role="math":

- Content that represents a mathematical expression.

role="menu":

- A type of widget that offers a list of choices to the user.

<ul role="menu">

<li role="menuitem">New

<li role="menuitem">Open

<li role="menuitem">Save

<li role="menuitem">Close

role="menubar":

- A presentation of menu that usually remains visible and is usually presented horizontally.

```
<ul role="menubar">  
  <li role="menuitem">File</li>  
  <li role="menuitem">Edit</li>  
  <li role="menuitem">View</li>  
  <li role="menuitem">Help</li>  
</ul>
```

role="menuitem"

- An option in a group of choices contained by a menu or menubar.

```
<ul role="menubar">  
  <li role="menuitem">File</li>  
  <li role="menuitem">Edit</li>  
  <li role="menuitem">View</li>  
  <li role="menuitem">Help</li>  
</ul>
```

role="menuitemcheckbox":

- A checkable menuitem that has three possible values: true, false, or mixed.

```
<ul role="menu">
```

```
<li role="menuitem">Console</li>
```

```
<li role="menuitem">Layout</li>
```

```
<li role="menuitemcheckbox" aria-checked="true">Word wrap</li>
```

```
</ul>
```

role="menuitemradio":

- A checkable menuitem in a group of menuitemradio roles, only one of which can be checked at a time.

```
<ul role="menu">
```

```
<li role="menuitemradio" aria-checked="true">Left</li>
```

```
<li role="menuitemradio" aria-checked="false">Center</li>
```

```
<li role="menuitemradio" aria-checked="false">Right</li>
```

```
</ul>
```

role="navigation":

- A collection of navigational elements (usually links) for navigating the document or related documents.

```
<ul role="navigation">
```

```
<li><a href="/">Home</a></li>
```

```
<li><a href="/about">About</a></li>
```

```
<li><a href="/contact">Contact</a></li>
```

```
</ul>
```

role="note":

- A section whose content is parenthetical or ancillary to the main content of the resource.

<p>Lorem ipsum...</p>

<p>Lorem ipsum...</p>

<p role="note">Lorem ipsum...</p>

role="option":

- A selectable item in a select list.

<ul role="listbox">

<li role="option">Option 1

<li role="option">Option 2

<li role="option">Option 3

role="progressbar":

- An element that displays the progress status for tasks that take a long time.

```
<progress role="progressbar" value="25"  
max="100">25%</progress>
```

role="radio":

- A checkable input in a group of radio roles, only one of which can be checked at a time.

```
<div role="radiogroup">
```

```
<input role="radio" type="radio" aria-checked="true">  
One<br>
```

```
<input role="radio" type="radio" aria-  
checked="false"> Two<br>
```

```
<input role="radio" type="radio" aria-  
checked="false"> Three  
</div>
```


role="region":

- A large perceivable section of a web page or document, that the author feels is important enough to be included in a page summary or table of contents, for example, an area of the page containing live sporting event statistics.

<div role="region">

**Home team: 4
**

Away team: 2

</div>

Summary:



Tabindex



Global Attributes



HTML 5 Cache



HTML Event Attributes



Character Entities



ARIA

Thank You.....

If you have any queries please write to info@uplatz.com".