

## Elements Removed in HTML5

The following HTML4 elements have been removed from HTML5:

Element	Use instead
<code>&lt;acronym&gt;</code>	<code>&lt;abbr&gt;</code>
<code>&lt;applet&gt;</code>	<code>&lt;object&gt;</code>
<code>&lt;basefont&gt;</code>	CSS
<code>&lt;big&gt;</code>	CSS
<code>&lt;center&gt;</code>	CSS
<code>&lt;dir&gt;</code>	<code>&lt;ul&gt;</code>
<code>&lt;font&gt;</code>	CSS
<code>&lt;frame&gt;</code>	
<code>&lt;frameset&gt;</code>	
<code>&lt;noframes&gt;</code>	
<code>&lt;strike&gt;</code>	CSS
<code>&lt;tt&gt;</code>	CSS

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## Adding New Elements to HTML

```
<script>document.createElement("myHero")</script>
```

```
<style>
```

```
myHero {  
  
  display: block;  
  
  background-color: #ddd;  
  
  padding: 50px;  
  
  font-size: 30px;  
  
}
```

```
</style>
```

## Here is a list of some common input restrictions (some are new in HTML5):

Attribute	Description
disabled	Specifies that an input field should be disabled
max	Specifies the maximum value for an input field
maxlength	Specifies the maximum number of character for an input field
min	Specifies the minimum value for an input field
pattern	Specifies a regular expression to check the input value against
readonly	Specifies that an input field is read only (cannot be changed)
required	Specifies that an input field is required (must be filled out)
size	Specifies the width (in characters) of an input field
step	Specifies the legal number intervals for an input field
value	Specifies the default value for an input field

## The autocomplete Attribute

The autocomplete attribute specifies whether a form or input field should have autocomplete on or off.

When autocomplete is on, the browser automatically complete values based on values that the user has entered before.

Tip: It is possible to have autocomplete "on" for the form, and "off" for specific input fields, or vice versa.

The autocomplete attribute works with <form> and the following <input> types: text, search, url, tel, email, password, datepickers, range, and color.

```
<form action="action_page.php" autocomplete="on">
```

```
E-mail: <input type="email" name="email" autocomplete="off">
```

## The novalidate Attribute

The novalidate attribute is a <form> attribute.

```
<form action="action_page.php" novalidate>
```

```
E-mail: <input type="email" name="user_email">
```

```
<input type="submit">
```

```
</form>
```

## The autofocus Attribute

When present, it specifies that an <input> element should automatically get focus when the page loads.

First name:<input type="text" name="fname" autofocus>

## The list Attribute / HTML5 <datalist> Element

The list attribute refers to a <datalist> element that contains pre-defined options for an <input> element.

<input list="browsers">

<datalist id="browsers">

<option value="Internet Explorer">

<option value="Firefox">

<option value="Chrome">

<option value="Opera">

<option value="Safari">

</datalist>

## The multiple Attribute

The multiple attribute works with the following input types: email, and file.

Select images: <input type="file" name="img" multiple>

## The required Attribute

it specifies that an input field must be filled out before submitting the form.

The required attribute works with the following input types: text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file.

Username: <input type="text" name="username" required>

## Step Attribute

The step attribute can be used together with the max and min attributes to create a range of legal values.

An input field with a specified legal number intervals:

```
<input type="number" name="points" step="3">
```

## HTML5 <keygen> Element

The purpose of the <keygen> element is to provide a secure way to authenticate users.

```
<form action="action_page.php">
```

```
  Username: <input type="text" name="user">
```

```
  Encryption: <keygen name="security">
```

```
  <input type="submit">
```

```
</form>
```

## HTML <optgroup> Tag

Group related options with <optgroup> tags:

```
<select>
```

```
  <optgroup label="Swedish Cars">
```

```
    <option value="volvo">Volvo</option>
```

```
    <option value="saab">Saab</option>
```

```
  </optgroup>
```

```
<optgroup label="German Cars">
```

```
  <option value="mercedes">Mercedes</option>
```

```
  <option value="audi">Audi</option>
```

```
</optgroup>
```

```
</select>
```

## HTML <legend> Tag

<legend>( **Tip:** The [<legend>](#) tag defines a caption for the <fieldset>( The <fieldset> tag draws a box around the related elements.

) element.

)

<form>

<fieldset>

<legend>Personalia:</legend>

Name: <input type="text" size="30"><br>

Email: <input type="text" size="30"><br>

Date of birth: <input type="text" size="10">

</fieldset>

</form>

## HTML <label> Tag

### Definition and Usage

The <label> tag defines a label for an <input> element.

The <label> element does not render as anything special for the user. However, it provides a usability improvement for mouse users, because if the user clicks on the text within the <label> element, it toggles the control.

The for attribute of the <label> tag should be equal to the id attribute of the related element to bind them together.

for      element\_id      Specifies which form element a label is bound to

form    form\_id          Specifies one or more forms the label belongs to

<label for="male">Male</label>

<input type="radio" name="gender" id="male" value="male"><br>

<label for="female">Female</label>

<input type="radio" name="gender" id="female" value="female"><br>

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## HTML5 offers new semantic elements to define different parts of a web page:

- `<article>`
- `<aside>`
- `<details>`
- `<figcaption>`
- `<figure>`
- `<footer>`
- `<header>`
- `<main>`
- `<mark>`
- `<nav>`
- `<section>`
- `<summary>`
- `<time>`

## New Form Elements

Tag	Description
<code>&lt;datalist&gt;</code>	Defines pre-defined options for input controls
<code>&lt;keygen&gt;</code>	Defines a key-pair generator field (for forms)
<code>&lt;output&gt;</code>	Defines the result of a calculation

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## New Input Types

New Input Types	New Input Attributes
<ul style="list-style-type: none"><li>• <code>color</code></li><li>• <code>date</code></li><li>• <code>datetime</code></li><li>• <code>datetime-local</code></li><li>• <code>email</code></li><li>• <code>month</code></li><li>• <code>number</code></li><li>• <code>range</code></li><li>• <code>search</code></li><li>• <code>tel</code></li><li>• <code>time</code></li><li>• <code>url</code></li></ul>	<ul style="list-style-type: none"><li>• <code>autocomplete</code></li><li>• <code>autofocus</code></li><li>• <code>for</code></li><li>• <code>formaction</code></li><li>• <code>formenctype</code></li><li>• <code>formmethod</code></li><li>• <code>formnovalidate</code></li><li>• <code>formtarget</code></li><li>• <code>height and width</code></li><li>• <code>list</code></li><li>• <code>min and max</code></li><li>• <code>multiple</code></li><li>• <code>pattern (regex)</code></li></ul>

- week
- placeholder
- required
- step

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## HTML5 Graphics

Tag	Description
<canvas>	Defines graphic drawing using JavaScript
<svg>	Defines graphic drawing using SVG

## New Media Elements

Tag	Description
<audio>	Defines sound or music content
<embed>	Defines containers for external applications (like plug-ins)
<source>	Defines sources for <video> and <audio>
<track>	Defines tracks for <video> and <audio>
<video>	Defines video or movie content