Caltech | Center for Technology & Management Education

Full Stack Java Developer

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TECHNOLOGY

HTML

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TECHNOLOGY

Advanced HTML

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Learning Objectives

By the end of this lesson, you will be able to:

- Understand how to use DOCTYPE to help the browser identify the document type
- Know how to add comments to code on the page
- Learn to use the ID and class attributes to distinguish one or more elements

Learning Objectives

By the end of this lesson, you will be able to:

- Understand how to provide information about websites
- Describe how to use escape characters
- Determine how to incorporate flash and videos into a website

A Day in the Life of a Full Stack Developer

You are hired as a full-stack developer in an organization and assigned to a web application development project. You have been given an existing project and asked to analyze the application.

While doing so, you come across multiple factors missing in the source code for you to understand, like the comments. Also, the experience could be improved using block and class elements.

To rectify the same, understand more about these elements in detail.

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DOCTYPES

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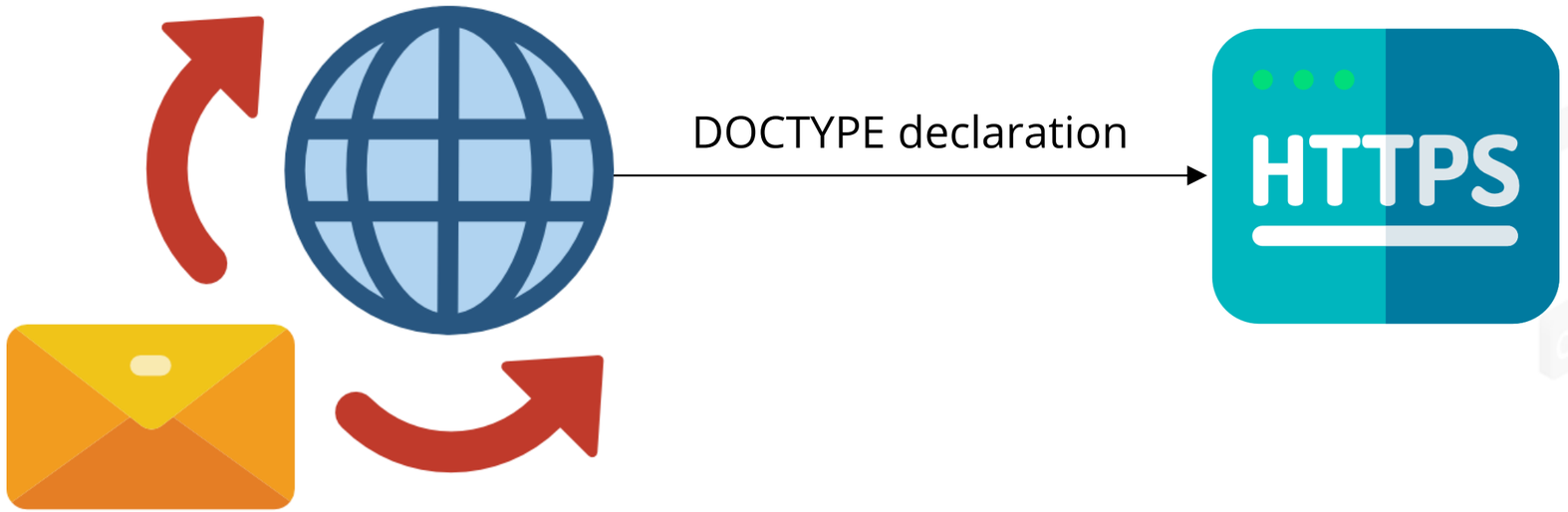
DOCTYPES

All HTML documents begin with a DOCTYPE declaration.



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DOCTYPES

All HTML documents begin with a DOCTYPE declaration.

It helps the browser render a web correctly.

It acts as the first thing in an HTML document.

It does not allow space before DOCTYPE.

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Comments in HTML

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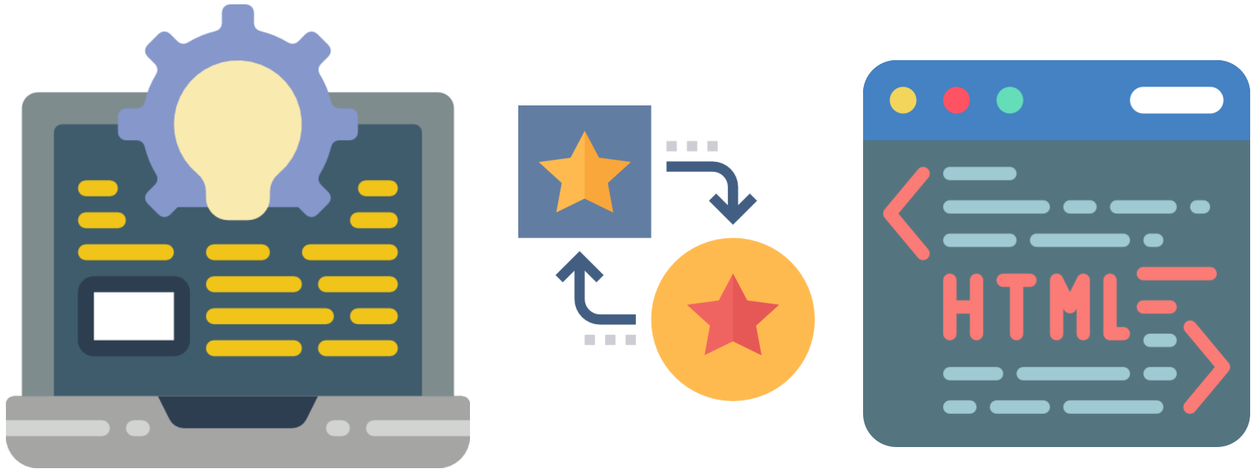
Comments in HTML

To create comments in HTML, add the text between the special characters.



Comments make code more meaningful and easier to understand.

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Comments in HTML

Comments are not visible to users in the browser window.

Comments can be seen in the source code of the web page.

```
<!-- start of introduction -->
<h1>John's Coffee Shop</h1>
<h2>The fresh brew</h2>
<!-- end of introduction -->

<!-- start of main text -->
<p>At our coffee shop you will get authentic
Indonesian coffee. </p>
<p>We are well known for our cold and hot
varieties of various coffees. </p>
<!-- end of main text -->
```

Comments indicate the start and end sections of the web page.

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ID Attributes

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ID Attributes

Every HTML page carries an ID attribute.

- An ID attribute should be unique.
- An ID attribute will have value starting with a letter or an underscore.

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ID Attributes

Example:

```
<p>Learn to invest wisely</p>
<p id="quote">Search the candle rather than
cursing the darkness</p>
<p>Success comes to those who are too busy
looking for it</p>
```


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Class Attributes

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Class Attributes

In HTML, class attributes are used to apply a specific style or behavior to multiple elements on a web page, distinguishing them from other elements.

Class attribute

Its value describes the class it belongs to.

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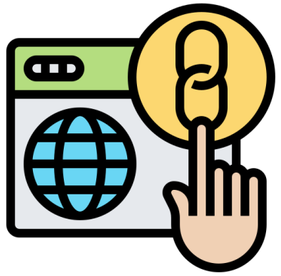
Class Attributes



Distinguish

To distinguish between the links that refer to other web pages

02

Highlight

To highlight paragraphs in the text

01

Point

To point to some external sites

03

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Class Attributes

The class attribute for any element can share the same value.

```
<p class="important"> For five years running, Mr. John has been
elected president of the Association and hosts all exhibitions.
</p>
```

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Block and Inline Elements

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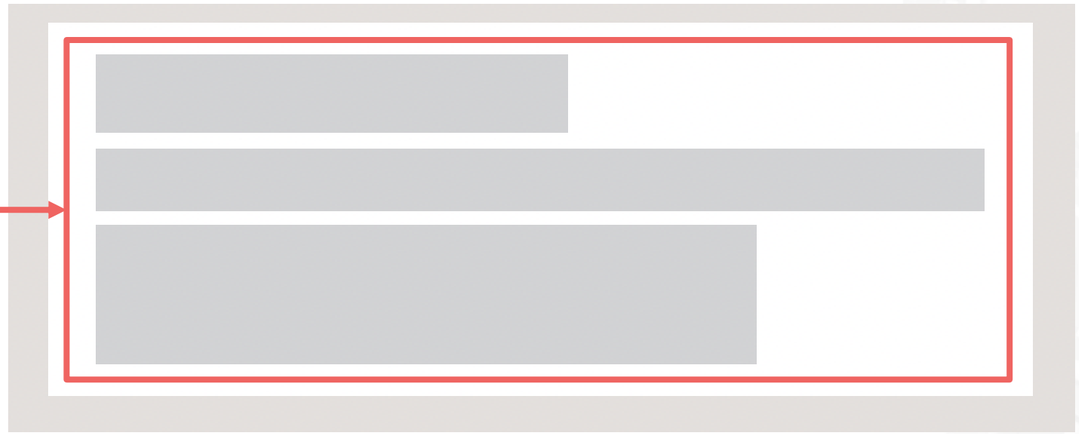
Block Elements

HTML elements can appear to start on a new line in the browser window.

These are known as block-level elements in a web page.



Few examples of block elements are <h1>, <p>, <ul>, and <li>.

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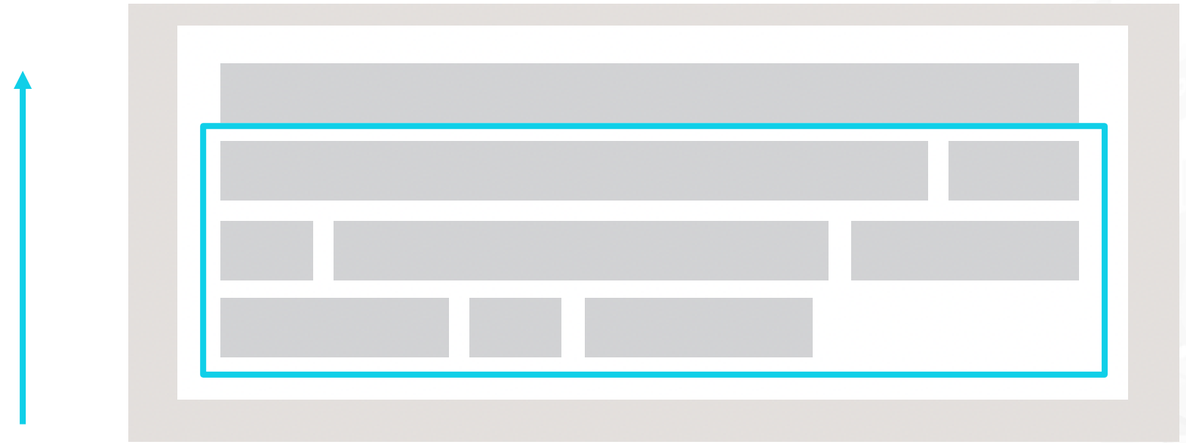
Block Elements

HTML elements can appear to continue in the same line as their neighboring elements.

These are known as inline elements in a web page.



A few examples of inline elements include <a>, <b>, , and <img>.

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GroupText and Elements

 element is used to group a set of elements as a single block-level box.

Uses of element are:

Makes the site's header

Gets reviews from users

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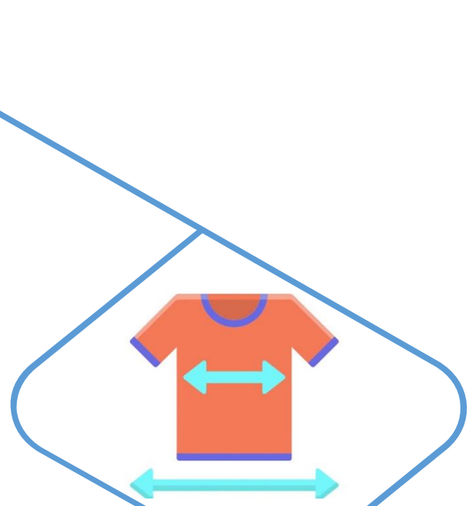
GroupText and Elements

In a browser, the contents inside the element are displayed on a new line.

A CSS style specifies the amount of space an element should occupy on the screen.



The CSS style changes the appearance of all the elements.

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GroupText and Elements

Example:

```
<div id="header">
<img src="images/logo.gif" alt="John
Watson" />
<ul>
<li><a href="index.html">Dashboard</a></li>
<li><a href="profile.html">Profile</a></li>
<li><a
href="portfolio.html">Portfolio</a></li>
<li><a href="contact.html">Contact
Us</a></li>
</ul>
</div>
<!-- end of header -->
```

Output

John Watson

- Dashboard
- Profile
- Portfolio
- Contact Us

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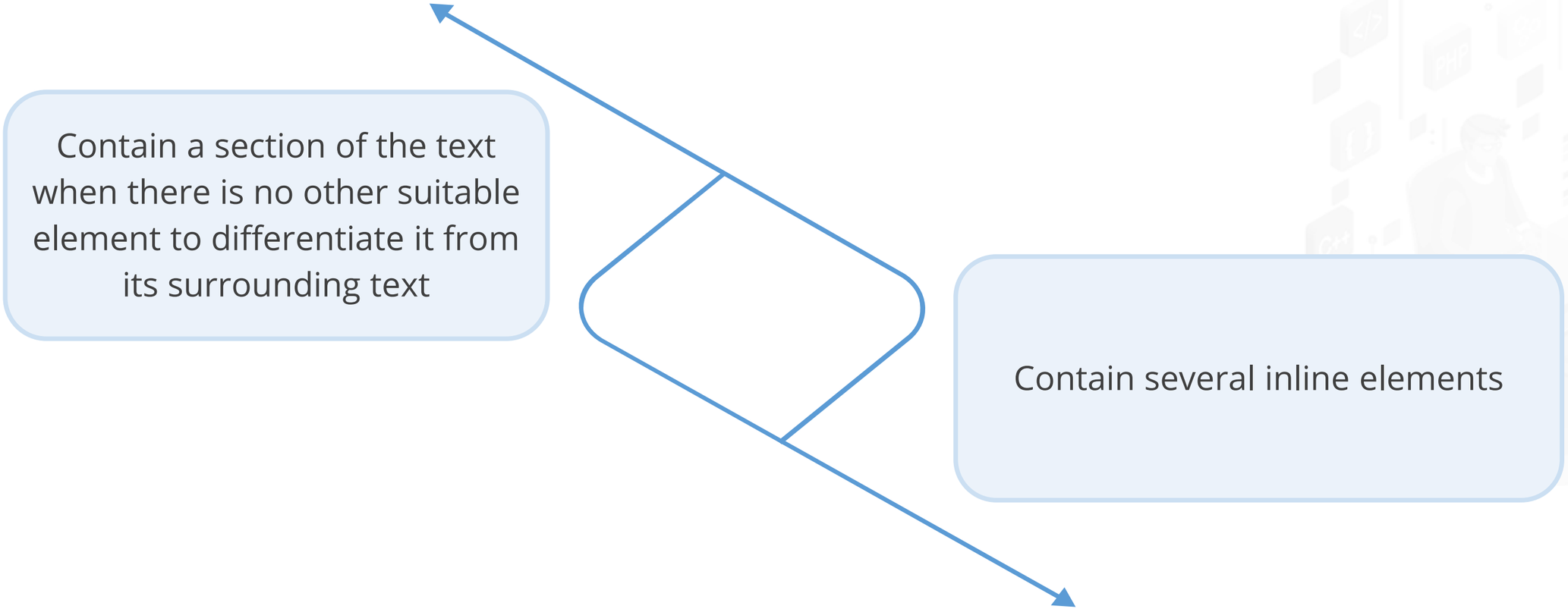
GroupText and Elements

The element is used as an inline equivalent of the element.

It is used to either:



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GroupText and Elements

 - Example:

```
<p>John watson won the chess match and was given the prize < span class =
‘prize’ <span class="prize"> Chess Player of the Year </span> in Australia in
2020. </p>
```

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Information About Web Pages

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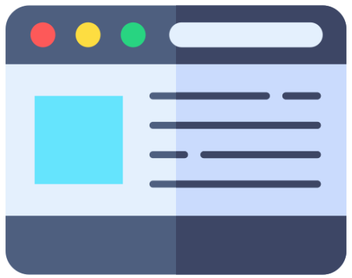
Information About Web Pages

The <meta> element is created inside the <head> element.

It is used to:



Provide information about the web page

Tell search engines about the page

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Information About Web Pages

The <meta> element has no closing tag.

The most common attributes used are:

Name

The value for the name attribute is the property to be set.

Content

The value of the content attribute is the value of the property.

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Information About Web Pages

Defined values for this attribute that are commonly used:

Description

- Describes the page
- Search engines use this description to know what the page is about
- Characters: 155

Keywords

- A list of commas separate searchable words that a user searches to find the page

Robots

- Add the web page to the search engines
- noindex: Avoids the web page being searched
- nofollow: Adds a web page in the results

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Information About Web Pages

Each one has a different purpose:

Author

Defines who the author of the web page is

Pragma

Prevents the browser from caching the web page and storing it locally to save subsequent visits

Expires

Indicates when the page should expire, which means it can no longer be cached

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Information About Web Pages

<meta> - Example:

```
<!DOCTYPE html>
<html><head>
<title>Information About Your Pages</title>
<meta name="description"
content="Some content for your web page" />
<meta name="keywords"
content="code, html, tutorials" />
<meta name="robots"
content="nofollow" />
<meta http-equiv="author"
content="John Watson" />
<meta http-equiv="pragma"
content="no-cache" />
<meta http-equiv="expires"
content="Fri, 04 Apr 2021 23:59:59 IST" />
</head>
<body> </body> </html>
```

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Escape Characters

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Escape Characters

To write a left-angled bracket, use either <

<	Less-than sign	<	<
>	Greater-than sign	>	&
&	Ampersand	&	&
“	Quotation mark	"	"
€	Euro sign	€	€
©	Copyright symbol	©	©
®	Registered trademark	®	®
™	Trademark	™	™

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Escape Characters

To write a left-angled bracket, use either <

×	Multiplication sign	×	×
÷	Division sign	÷	÷
‘	Left single quote	‘	‘
’	Right single quote	’	’
“	Left double quotes	“	“
”	Right double quotes	”	&#8221

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Flash and Video

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Flash and Video

JavaScript is used to use Flash on a web page.

SWFObject, which is an animation object, is used to see how flash works.

```
<!DOCTYPE html>
<html>
<head>
<title>Flash Movie Demo</title>
<script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs
/
swfobject/2.2/swfobject.js"></script>
<script type="text/javascript">
swfobject.embedSWF("flash/bird.swf",
"bird", "400", "300", "8.0.0");</script>
</head>
<body>
<div id="bird"><p>An animation Example
with Flash</p></div>
</body>
</html>
```

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Flash and Video

The <video> element attributes allow controlling video playback.

src

It specifies the video path.

Poster

It specifies the image to show while the video is still downloading.

Width and height

It specifies the size of the video player in pixels.

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Flash and Video

The <video> element attributes allow controlling video playback.

Controls

It indicates that the browser should supply its powers to support playback.

Autoplay

It specifies which file should be played automatically.

Loop

It indicates that the video should automatically start to play again once it is finished.

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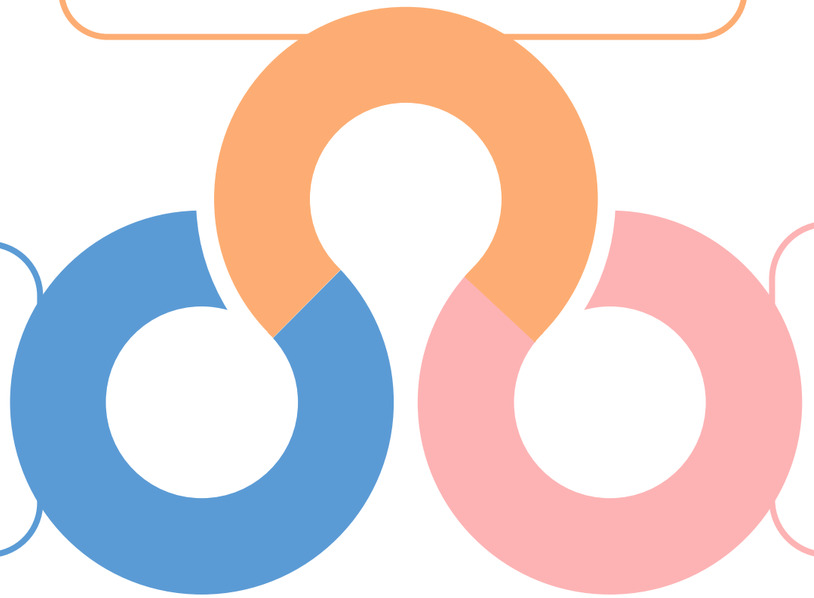
Flash and Video

Preload attribute indicates to the browser what to do when the page loads.

Auto: The browser should download the video when the page loads.



Note: The browser should not load the video until the user presses play.

Metadata: The browser should collect information.

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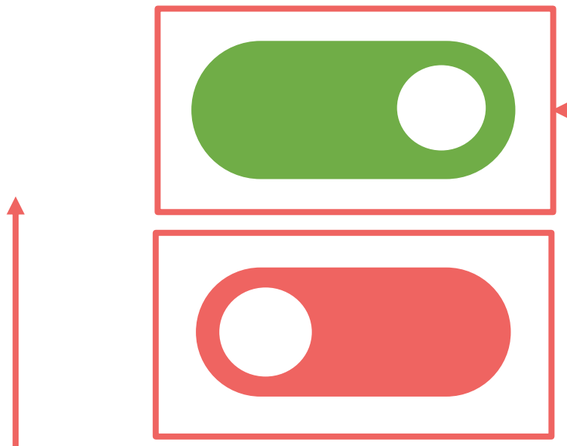
Flash and Video

In HTML5, values are not supplied to all attributes.



If the attribute is present, it remains on.

If an attribute is omitted, it remains off.

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Flash and Video

Video attributes – Example:

```
<!DOCTYPE html>
<html>
<head>
<title>Adding HTML5 Video</title>
</head>
<body>
<video src="video/puppy.mp4"
poster="images/puppy.jpg"
width="400" height="300"
preload
controls
loop>
<p>A video of a puppy playing in the snow</p>
</video>
</body>
</html>
```


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Key Takeaways

- All HTML documents begin with a DOCTYPE declaration.
- Comments are not visible to users in the browser window.
- In HTML, class attributes are used to apply a specific style or behavior to multiple elements on a web page, distinguishing them from other elements.
- The element is used to group a set of elements as a single block-level box.
- The element is used as an inline equivalent of the element.
- The <video> element attributes allow controlling video playback.

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Thank You

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