



Session: Markup with Metadata

Markup with Metadata

- The metadata means information about data.
- This metadata HTML provides information about HTML Document or in simple words, it provides important information about a document.
- These tags are basically used to add name/value pairs to describe properties of HTML documents, such as expiry date, author name, list of keywords, document author, scripts and links etc.
- You can add metadata to your web pages by placing `<meta>` tags inside the header of the document which is represented by **`<head>`** and **`</head>`** tags.



Markup with Metadata

Types of Metadata:

1. Meta Tags
 - a. Author name
 - b. Document Description
 - c. Keywords
 - d. Document Revised date
 - e. Document Refreshing
 - f. Charset and viewports
2. Script tag
3. Noscript tag
4. Links Tag



Meta Tags

- The **<meta>** tag is used to provide such additional information.
- This tag is an empty element and so does not have a closing tag but it carries information within its attributes.
- You can include one or more meta tags in your document based on what information you want to keep in your document .
- In general, meta tags do not impact physical appearance of the document so from appearance point of view, it does not matter if you include them or not.
- You can add metadata to your web pages by placing **<meta>** tags inside the header of the document which is represented by **<head>** and **</head>**
- Metadata will not be displayed on the page, but is machine parsable.
- Metadata is used by browsers (how to display content or reload page), search engines (keywords), and other web services.



Meta Tags

Syntax: <meta attribute-name="value">

Attributes:

Attribute	Value	Description
charset	<i>character_set</i>	Specifies the character encoding for the HTML document
content	<i>text</i>	Specifies the value associated with the http-equiv or name attribute
http-equiv	content-security-policy content-type default-style refresh	Provides an HTTP header for the information/value of the content attribute
name	application-name author description generator keywords viewport	Specifies a name for the metadata



Meta Tags

A) Setting Author Name in Meta Tag:

The name of the author can be set on a web page through an HTML document using a meta tag.

Snippet:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
      <meta name = "author" content = "Sai Vardhan" />
    <!-- meta tag ends -->
    <title>Meta Tags Example</title>
  </head>

  <body>
    <p>Setting Author Name Example!</p>
  </body>
</html>
```



Meta Tags

B) Document Description with Meta Tag:

You can use <meta> tag to give a short description about the document. This again can be used by various search engines while indexing your webpage for searching purpose.

Snippet:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta name = "description" content = "Learning about Meta Tags."/>
    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Setting Description Example</p>
  </body>
</html>
```



Meta Tags

C) Specifying Keywords with Meta Tag:

You can use <meta> tag to specify important keywords related to the document and later these keywords are used by the search engines while indexing your webpage for searching purpose.

Snippet:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Setting Keywords Example</p>
  </body>
</html>
```



Meta Tags

D) Document Revision Date with Meta Tag:

You can use `<meta>` tag to give information about when last time the document was updated. This information can be used by various web browsers while refreshing your webpage.

Snippet:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta name = "revised" content = "Codegnan, 18/03/2024" />
    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Setting Revised Date Example</p>
  </body>
</html>
```



Meta Tags

E) Document Refreshing with Meta Tag:

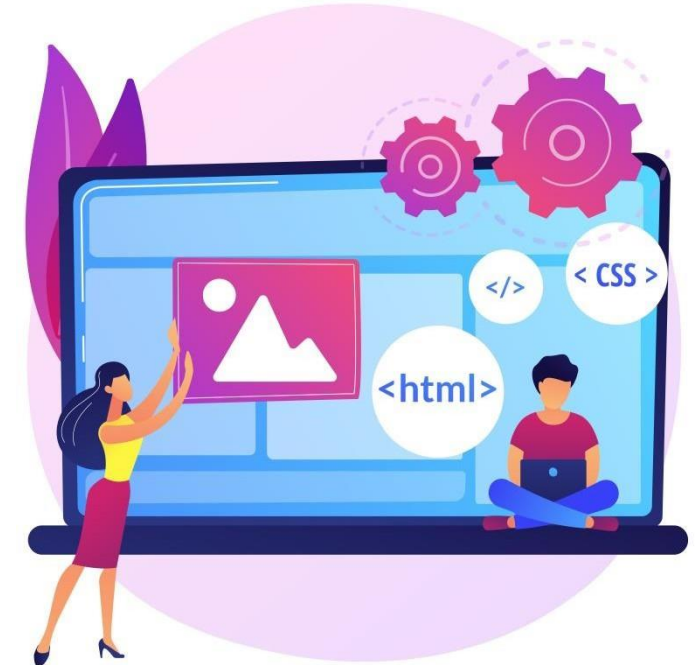
A <meta> tag can be used to specify a duration after which your web page will keep refreshing automatically.

Snippet: If you want your page keep refreshing after every 5 seconds then use the following syntax

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta http-equiv = "refresh" content = "5" />
    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Document Refreshing Example</p>
  </body>
</html>
```

EXAMPLE:



Meta Tags

F) Specify Character Set with Meta Tag:

You can use <meta> tag to specify character set used within the webpage.

Snippet: By default, Web servers and Web browsers use ISO-8859-1 (Latin1) encoding to process Web pages. Following is an example to set UTF-8 encoding –

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta charset="UTF-8">
    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Setting Character set Example</p>
  </body>
</html>
```



Meta Tags

G) Setting the Viewport with Meta Tag:

The viewport is the user's visible area of a web page. It varies with the device - it will be smaller on a mobile phone than on a computer screen.

Snippet: You should include the following <meta> element in all your web pages:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Setting Character set Example</p>
  </body>
</html>
```



Meta Tags

G) Setting the Viewport with Meta Tag:

You should include the following `<meta>` element in all your web pages:

Syntax: `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

- This gives the browser instructions on how to control the page's dimensions and scaling.
- The `width=device-width` part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).
- The `initial-scale=1.0` part sets the initial zoom level when the page is first loaded by the browser.



Meta Tags

G) Setting the Viewport with Meta Tag:

Here is an example of a web page *without* the viewport meta tag, and the same web page *with* the viewport meta tag:



Without the viewport meta tag



With the viewport meta tag



Meta Tags

G) All Meta Tags:

As Mentioned Earlier we can add one or more meta tags in your document

Snippet:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- meta tag starts -->
    <title>Meta Tags Example</title>
    <meta charset="UTF-8">
    <meta name="description" content="Learning about Meta Tags.">
    <meta name="keywords" content="HTML, Meta Tags, Metadata">
    <meta name="author" content="Sai Vardhan">
    <meta name = "revised" content = "Codegnan, 3/7/2019" />
    <meta http-equiv = "refresh" content = "5" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <!-- meta tag ends -->

  </head>
  <body>
    <p>Hello World! Setting Character set Example</p>
  </body>
</html>
```



Questions??

Every engineer has a tendency to tinker on a problem, lets answer few of them.

