CPE212

INTERNET BASED PROGRAMMING

Assist. Prof. Dr. Kürşat Mustafa KARAOĞLAN

Lecture 2:

Spring 2023

Course logistics in brief

Instructor	:	**Kürşat Mustafa Karaoğlan, PhD.,** kkaraoglan@karabuk.edu.tr
Course Lab. Assistant	:	**İdris Kahraman,** idriskahraman@karabuk.edu.tr
Time	:	Check out your system
Course Materials	:	• J. Niederst Robbins: Learning Web Design: A Beginner’s Guide to HTML, CSS, JavaScript, and Web Graphics (5th ed). • Nixon, Robin. Learning PHP, MySQL & JavaScript. " O'Reilly Media, Inc.", 2021. • N. C. Zakas: Professional Javascript for Web Developers (2nd ed). Wiley, 2009.
Office Hours	:	Friday 11:00 p.m.-12:00 p.m.

Course Main Plan

We will cover the following languages

- **HTML5/CSS**
- **JavaScript**
- **PHP**
- Related **PHP Framework Technologies**

- We will implement our applications with **PhpStorm IDE**. You can FREE use this application using your student e-mail.

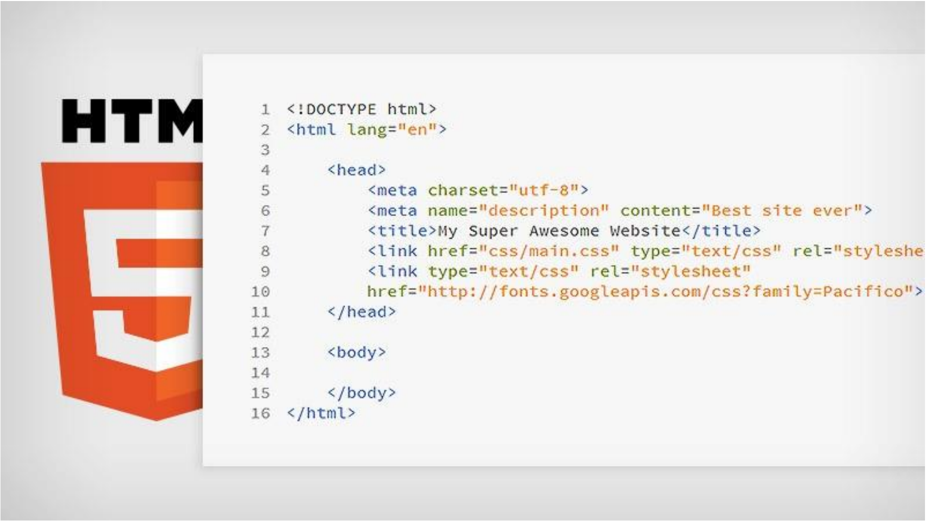
**** **Just a reminder. We will start practicing next week.**

Key learning today: Introduction to Client-Side Scripting Language HTML5 Technologies

Introduction to HTML5

Introduction to Internet Technology

- HTML stands for Hyper Text Markup Language. It is used to design web pages using a markup language. HTML is an abbreviation of Hypertext and Markup language. Hypertext defines the link between the web pages.
- The markup language is used to define the text document within the tag which defines the structure of web pages.
- HTML 5 is the fifth and current version of HTML.
- It has improved the markup available for documents and has introduced application programming interfaces (API) and Document Object Model (DOM).

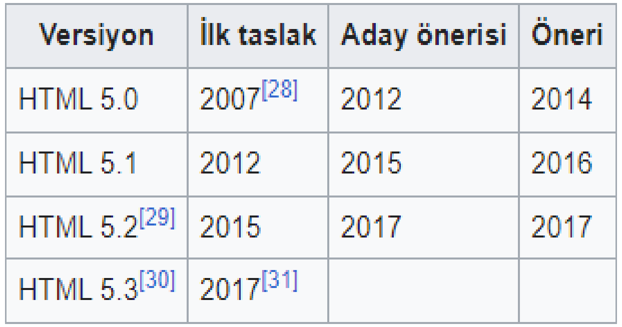


```
<!DOCTYPE html>
<html lang="en">

    <head>
        <meta charset="utf-8">
        <meta name="description" content="Best site ever">
        <title>My Super Awesome Website</title>
        <link href="css/main.css" type="text/css" rel="styleshe
        <link type="text/css" rel="stylesheet"
        href="http://fonts.googleapis.com/css?family=Pacifico">
    </head>

    <body>

    </body>
</html>
```

Link: https://www.geeksforgeeks.org/html5-introduction/

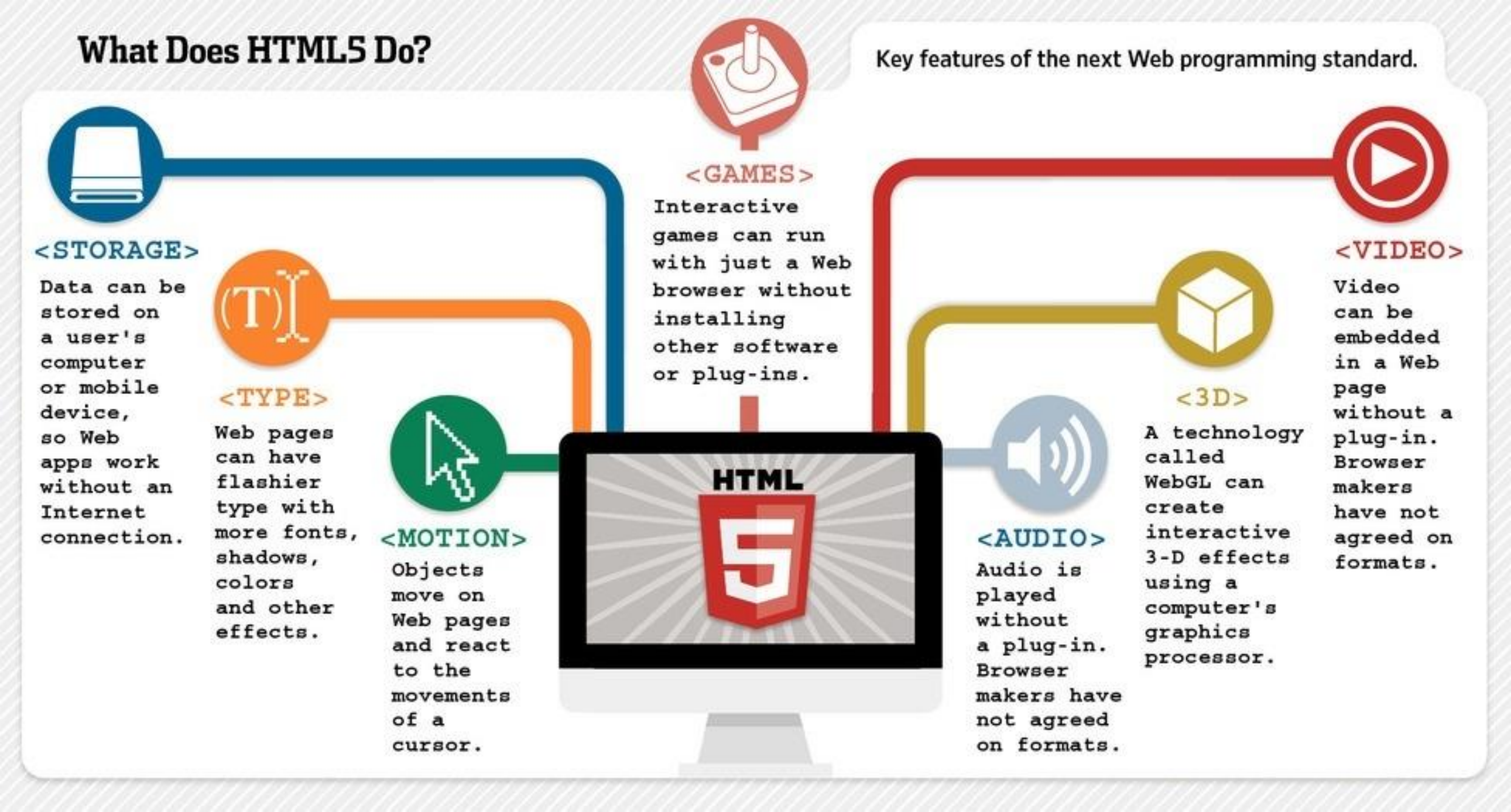
Key features of HTML 5

- It has introduced new multimedia features which supports both **audio and video controls** by using <audio> and <video> tags.
- There are new graphics elements including vector **graphics and tags**.
- Enrich semantic content by including <header> <footer>, <article>, <section> and <figure> are added.
- Drag and Drop- The user can grab an object and drag it further dropping it to a new location.
- Geo-location services- It helps to locate the **geographical location** of a client.
- Web storage facility which provides web application methods to store data on the web browser.
- Uses **SQL database** to store **data offline**.
- Allows drawing various shapes like triangle, rectangle, circle, etc.
- Capable of handling incorrect syntax.
- Easy DOCTYPE declaration i.e., **<!doctype html>**
- Easy character encoding i.e., <meta charset=”UTF-8”>



Versiyon	İlk taslak	Aday önerisi	Öneri
HTML 5.0	2007[28]	2012	2014
HTML 5.1	2012	2015	2016
HTML 5.2[29]	2015	2017	2017
HTML 5.3[30]	2017[31]		

Key features of HTML 5



What Does HTML5 Do?

Key features of the next Web programming standard.

<STORAGE> Data can be stored on a user's computer or mobile device, so Web apps work without an Internet connection.

<TYPE> Web pages can have flashier type with more fonts, shadows, colors and other effects.

<MOTION> Objects move on Web pages and react to the movements of a cursor.

<GAMES> Interactive games can run with just a Web browser without installing other software or plug-ins.

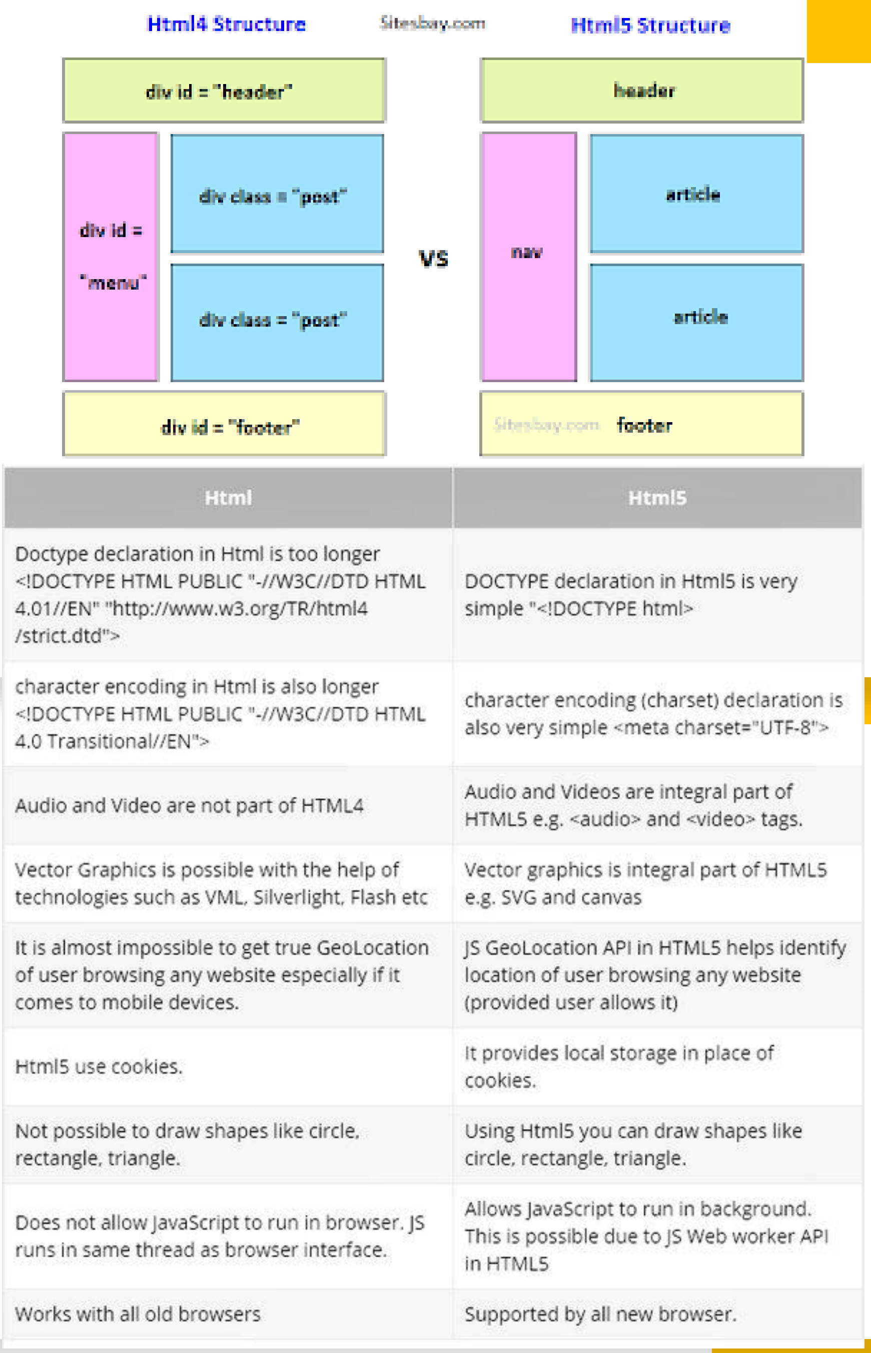
<AUDIO> Audio is played without a plug-in. Browser makers have not agreed on formats.

<3D> A technology called WebGL can create interactive 3-D effects using a computer's graphics processor.

<VIDEO> Video can be embedded in a Web page without a plug-in. Browser makers have not agreed on formats.

HTML4 vs HTML5

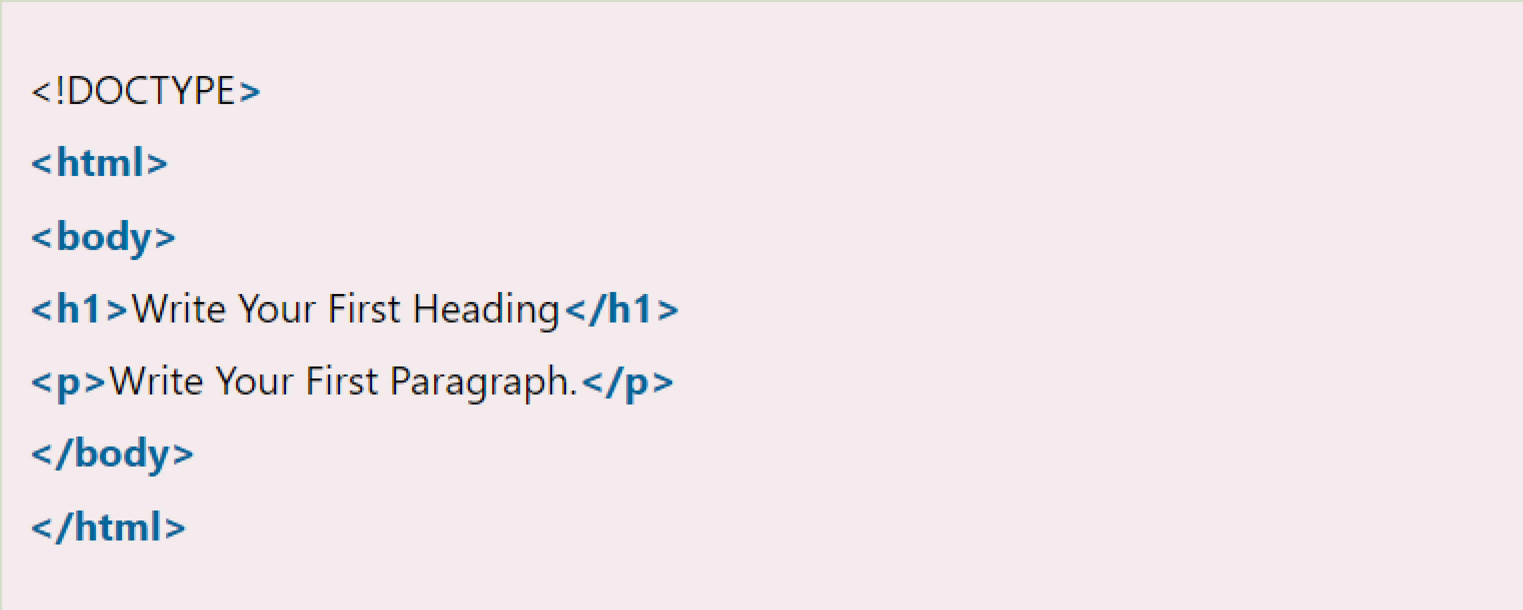
- HTML5 is the fifth version of HTML. This version was released in 2014.
- HTML5 comes with new and advanced features. It allows developers to build animations and simple to complex applications that run on the browser.
- HTML5 can help developers build web apps, which are developed for Entertainment, Online streaming, Video players, Audio players, etc.
- In the previous versions, for video playback and drag-and-drop features, users had to depend on third-party browser plug-ins, like Adobe Flash.
- However, HTML5 offers all these features to the users along with many other new features and HTML attributes for building attractive websites. Almost all web browsers, including Google Chrome, Safari, Mozilla Firefox Microsoft Edge, and mobile browsers, such as Android and iOS support most of the HTML5 features.



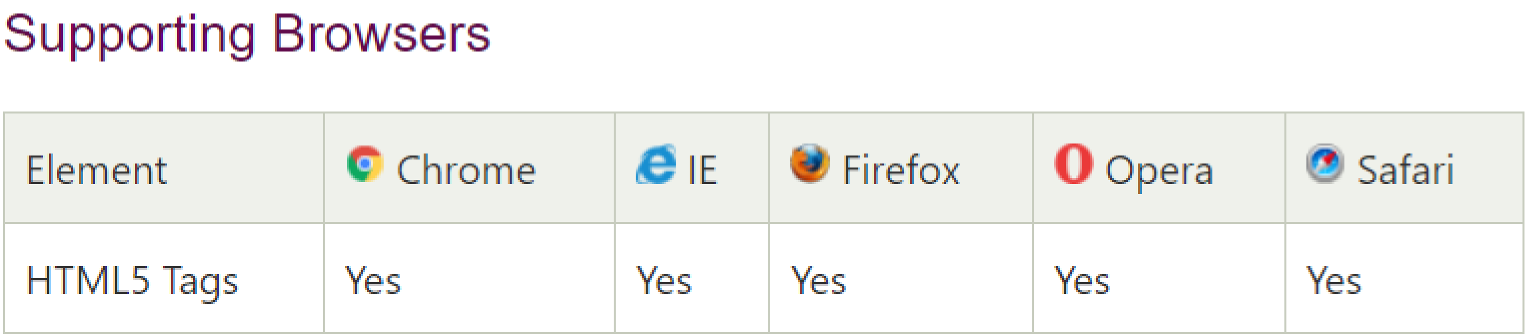
Html	Html5
Doctype declaration in Html is too longer <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4 /strict.dtd">	DOCTYPE declaration in Html5 is very simple "<!DOCTYPE html>
character encoding in Html is also longer <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">	character encoding (charset) declaration is also very simple <meta charset="UTF-8">
Audio and Video are not part of HTML4	Audio and Videos are integral part of HTML5 e.g. <audio> and <video> tags.
Vector Graphics is possible with the help of technologies such as VML, Silverlight, Flash etc	Vector graphics is integral part of HTML5 e.g. SVG and canvas
It is almost impossible to get true GeoLocation of user browsing any website especially if it comes to mobile devices.	JS GeoLocation API in HTML5 helps identify location of user browsing any website (provided user allows it)
Html5 use cookies.	It provides local storage in place of cookies.
Not possible to draw shapes like circle, rectangle, triangle.	Using Html5 you can draw shapes like circle, rectangle, triangle.
Does not allow JavaScript to run in browser. JS runs in same thread as browser interface.	Allows JavaScript to run in background. This is possible due to JS Web worker API in HTML5
Works with all old browsers	Supported by all new browser.

*https://www.naukri.com/learning/articles/difference-between-html4-and-html5/

HTML5 Example



```
<!DOCTYPE>
<html>
<body>
<h1>Write Your First Heading</h1>
<p>Write Your First Paragraph.</p>
</body>
</html>
```



Supporting Browsers

Element	Chrome	IE	Firefox	Opera	Safari
HTML5 Tags	Yes	Yes	Yes	Yes	Yes

*https://www.javatpoint.com/html5-user-manual

HTML Coding Convention

- ***You should follow some convention while using HTML:***
  - **Use a Consistent CSS:** A user must use consistent style while writing HTML. It makes the code simpler and more understandable for people. Your code must be small, clean and well-formed.
  - **Use Correct Document Type** : <!DOCTYPE html>

    *You can also use <!DOCTYPE html> to maintain your lower-case practice.
  - **Use Lower Case Element Names:** HTML5 facilitates you to use upper case and lower-case letters in element name.

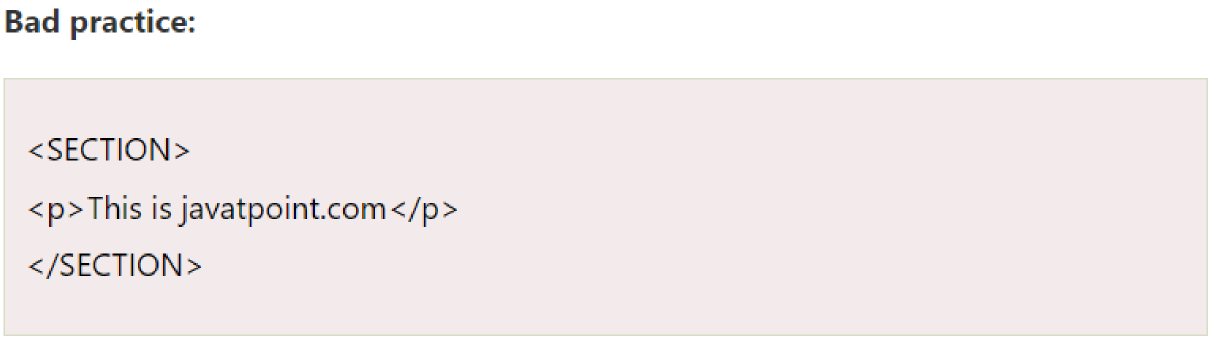
    *But it is good practice to use only lower case.

Because:

- ➢ Mixing lower case and upper-case letters in elements is not a good idea.
- ➢ Lowercase looks neat and clean.
- ➢ Lower case is easy to write.
- ➢ Developers mainly use lower case letters.

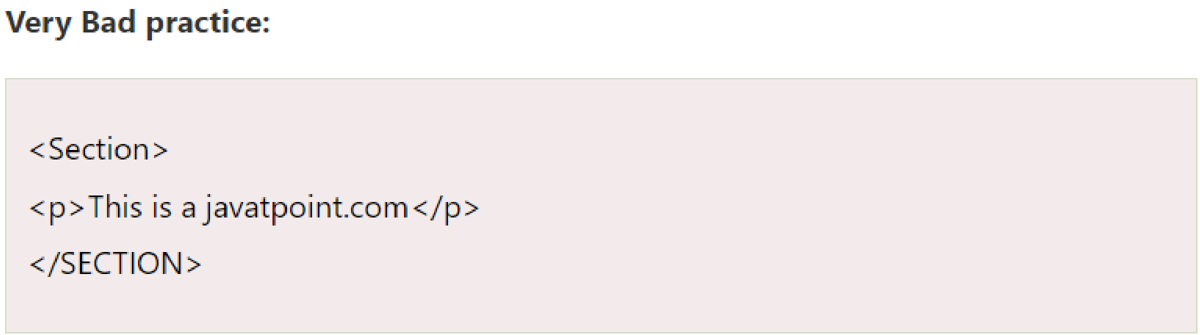
*https://www.javatpoint.com/html5-user-manual

Coding Recommendations



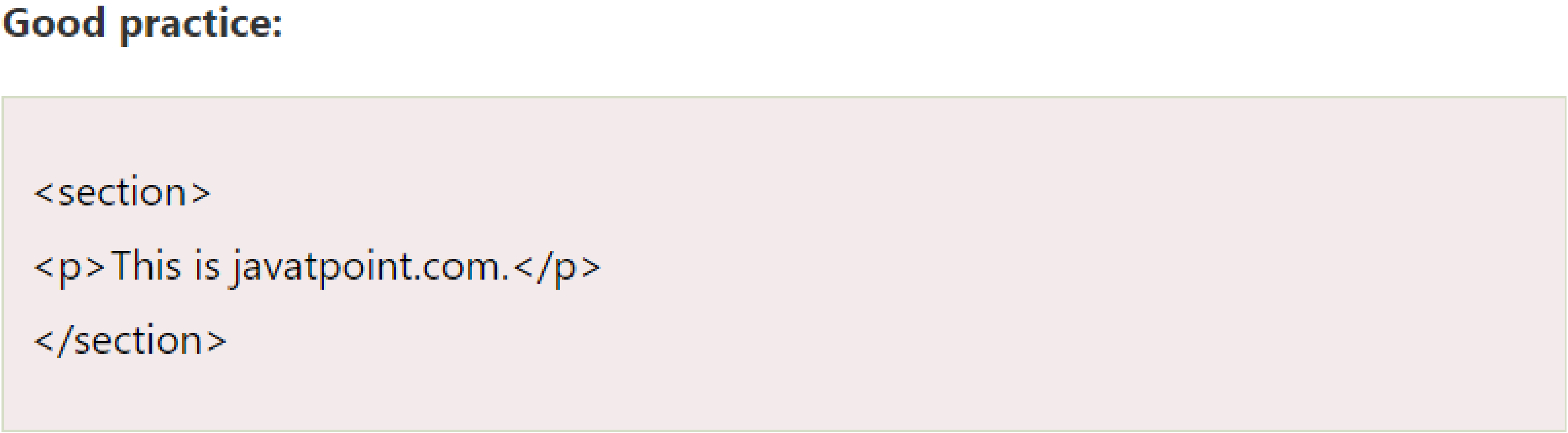
Bad practice:

```
<SECTION>
<p>This is javatpoint.com</p>
</SECTION>
```



Very Bad practice:

```
<Section>
<p>This is a javatpoint.com</p>
</SECTION>
```



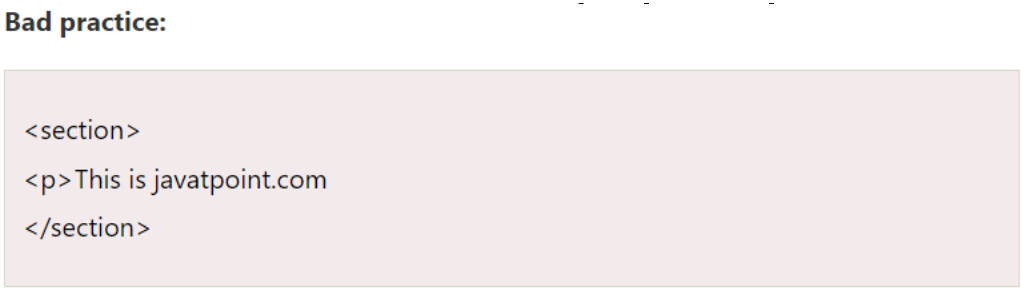
Good practice:

```
<section>
<p>This is javatpoint.com.</p>
</section>
```

*https://www.javatpoint.com/html5-user-manual

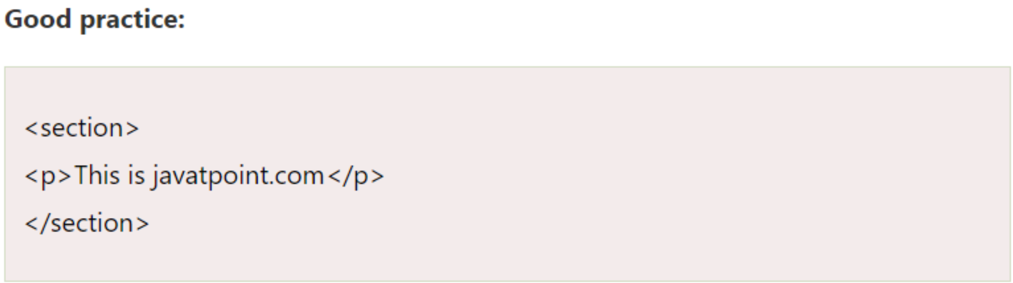
HTML Coding Convention

- *You should follow some convention while using HTML:*
  - **Close all HTML Elements:** In HTML5, it is not required to close all HTML tags.



Bad practice:

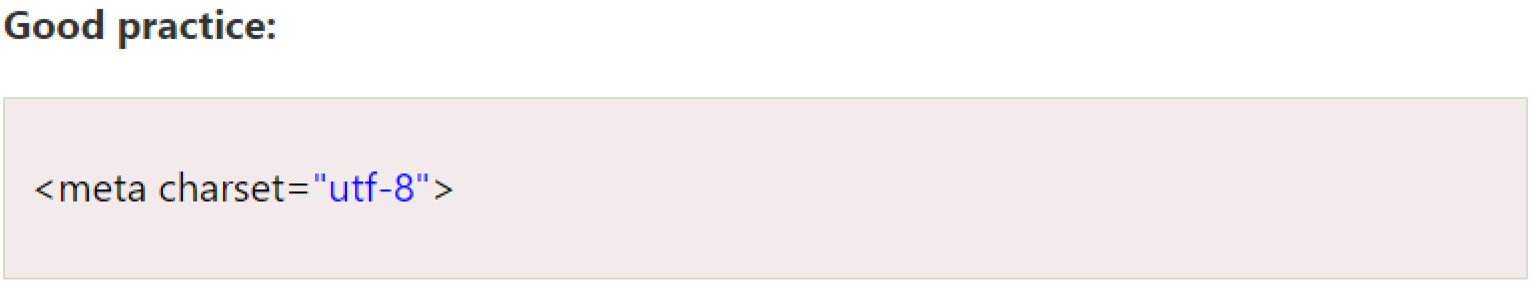
```
<section>
<p>This is javatpoint.com
</section>
```



Good practice:

```
<section>
<p>This is javatpoint.com</p>
</section>
```

  - **Close empty HTML Elements**



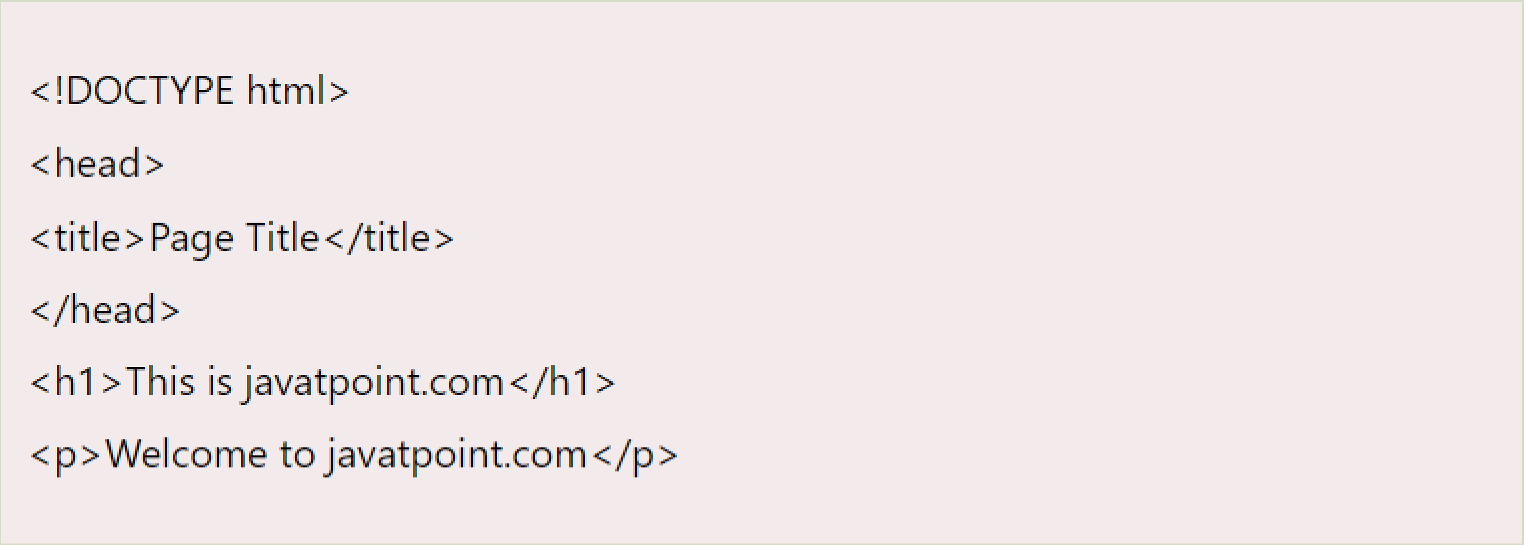
Good practice:

```
<meta charset="utf-8">
```

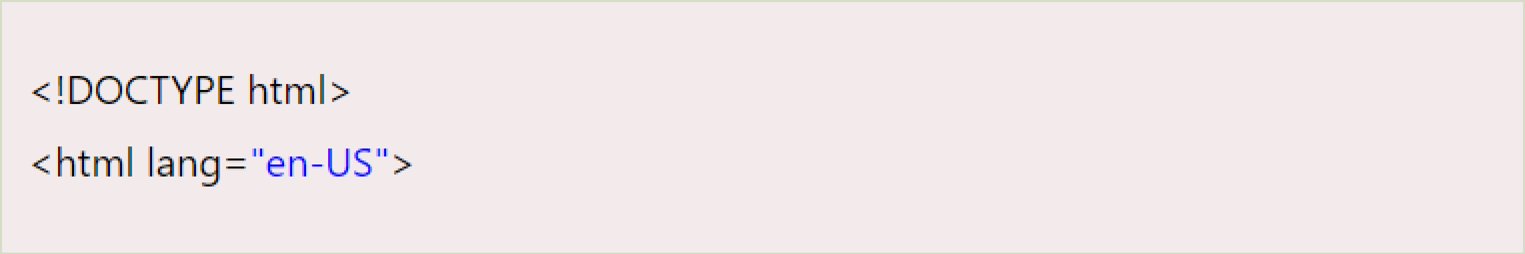
*https://www.javatpoint.com/html5-user-manual

HTML Coding Convention

- *You should follow some convention while using HTML:*
  - **Don't Omit <html> and <body>:** HTML5 facilitates you to omit and tag. You can exclude both tags and the program will work well enough.



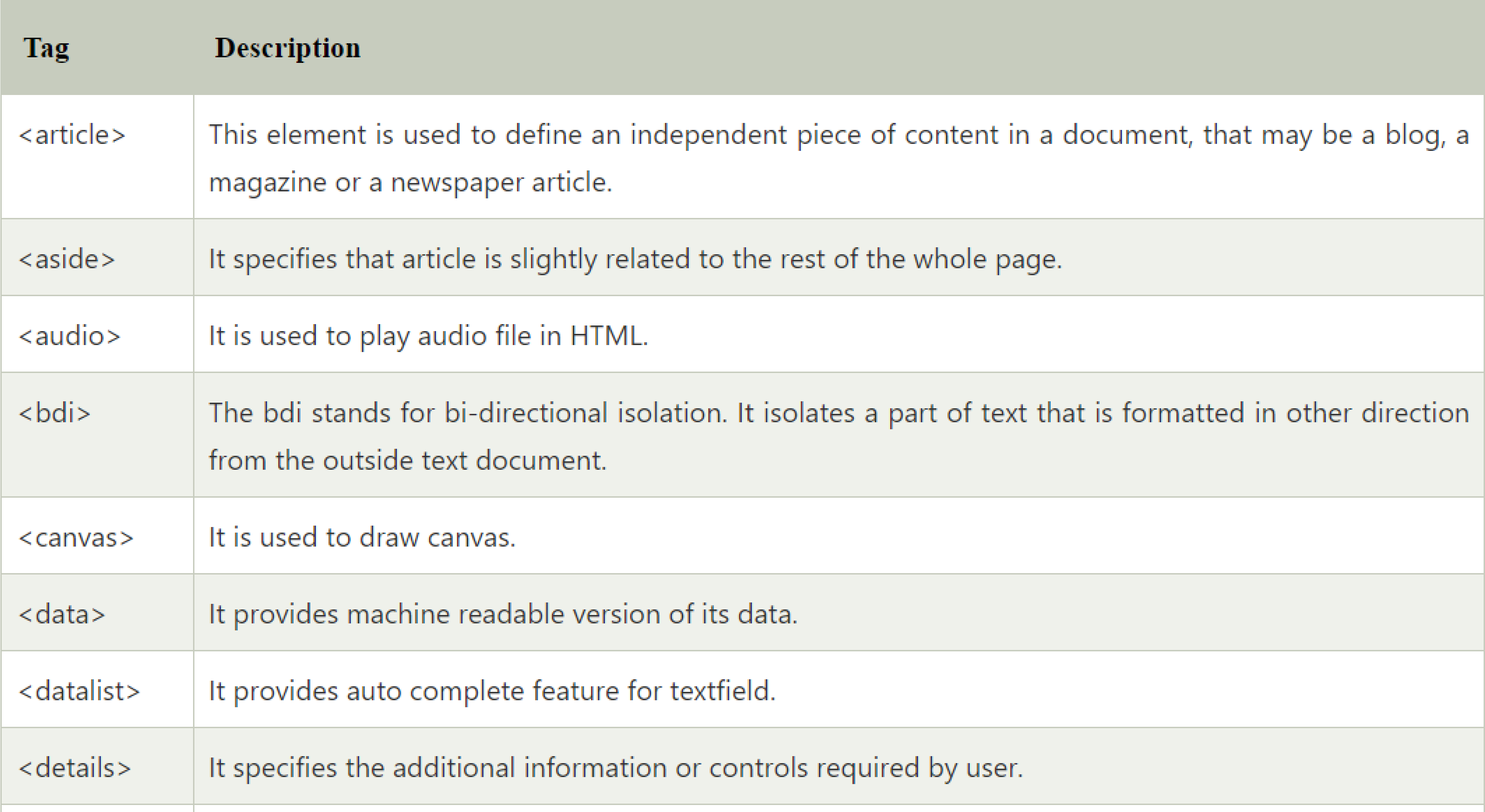
```
<!DOCTYPE html>
<head>
<title>Page Title</title>
</head>
<h1>This is javatpoint.com</h1>
<p>Welcome to javatpoint.com</p>
```



```
<!DOCTYPE html>
<html lang="en-US">
```

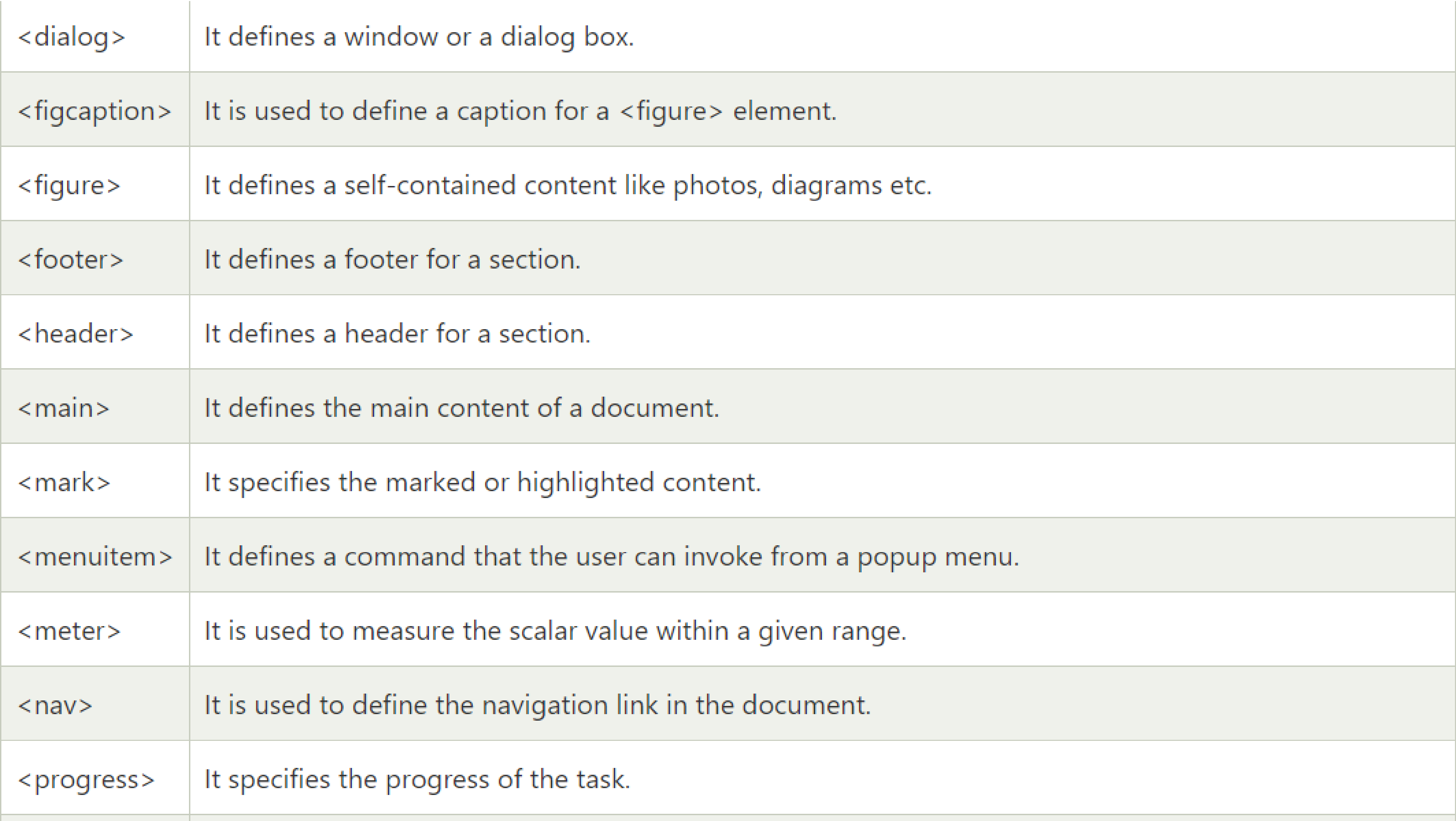
*https://www.javatpoint.com/html5-user-manual

HTML TAGS (1)



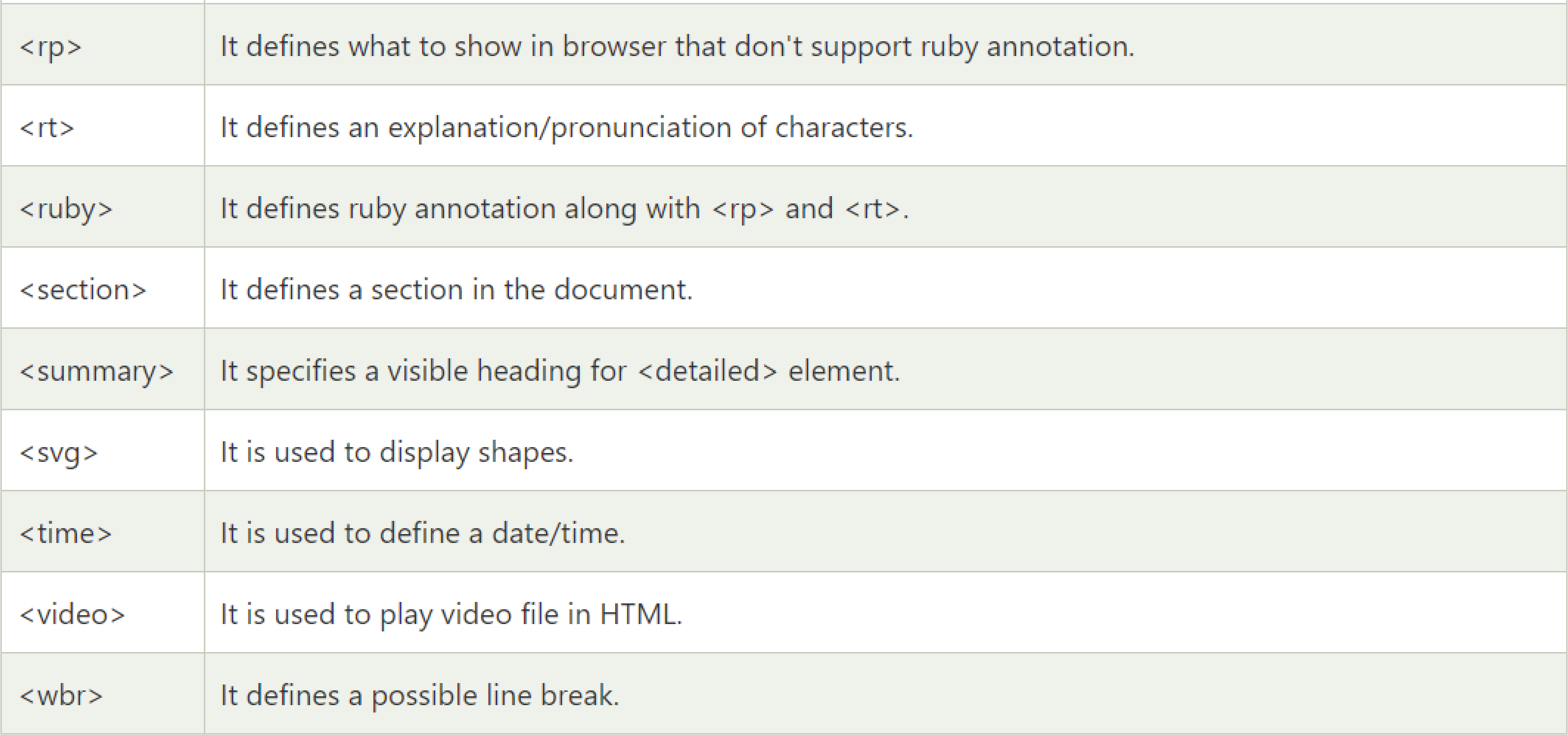
Tag	Description
<article>	This element is used to define an independent piece of content in a document, that may be a blog, a magazine or a newspaper article.
<aside>	It specifies that article is slightly related to the rest of the whole page.
<audio>	It is used to play audio file in HTML.
<bdi>	The bdi stands for bi-directional isolation. It isolates a part of text that is formatted in other direction from the outside text document.
<canvas>	It is used to draw canvas.
<data>	It provides machine readable version of its data.
<datalist>	It provides auto complete feature for textfield.
<details>	It specifies the additional information or controls required by user.

HTML TAGS (2)



<dialog>	It defines a window or a dialog box.
<figcaption>	It is used to define a caption for a <figure> element.
<figure>	It defines a self-contained content like photos, diagrams etc.
<footer>	It defines a footer for a section.
<header>	It defines a header for a section.
<main>	It defines the main content of a document.
<mark>	It specifies the marked or highlighted content.
<menuitem>	It defines a command that the user can invoke from a popup menu.
<meter>	It is used to measure the scalar value within a given range.
<nav>	It is used to define the navigation link in the document.
<progress>	It specifies the progress of the task.

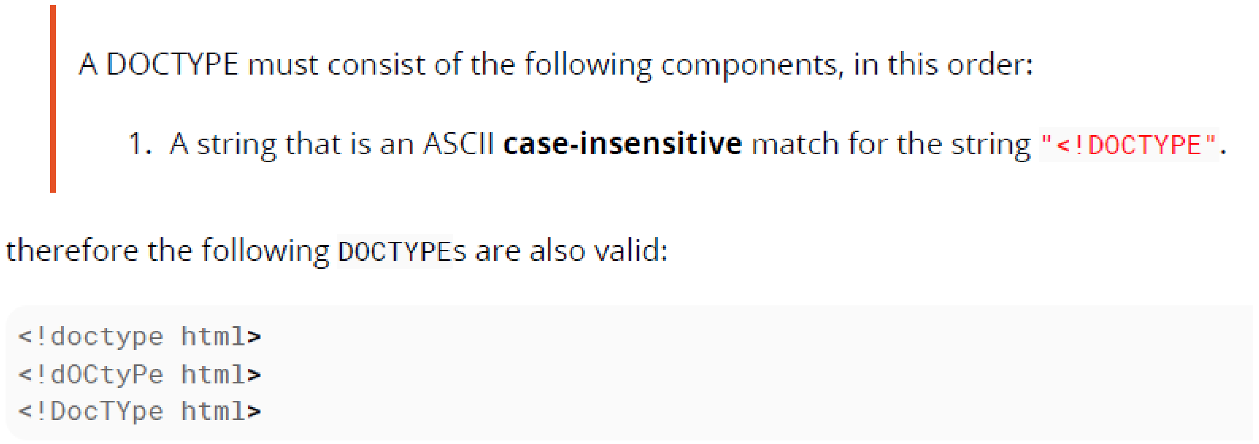
HTML TAGS (3)



<rp>	It defines what to show in browser that don't support ruby annotation.
<rt>	It defines an explanation/pronunciation of characters.
<ruby>	It defines ruby annotation along with <rp> and <rt>.
<section>	It defines a section in the document.
<summary>	It specifies a visible heading for <detailed> element.
<svg>	It is used to display shapes.
<time>	It is used to define a date/time.
<video>	It is used to play video file in HTML.
<wbr>	It defines a possible line break.

HTML <!DOCTYPE> tag

- On the HTML document you have often seen that there is a <!DOCTYPE html> declaration before the <html> tag. HTML <!DOCTYPE> tag is used to inform the browser about the version of HTML used in the document. It is called as the document type declaration (DTD).
- Technically <!DOCTYPE > is not a tag/element, it just an instruction to the browser about the document type. It is a null element which does not contain the closing tag, and must not include any content within it.
- Actually, there are many type of HTML e.g. HTML 4.01 Strict, HTML 4.01 Transitional, HTML 4.01 Frameset, XHTML 1.0 Strict, XHTML 1.0 Transitional, XHTML 1.0 Frameset, XHTML 1.1 etc.
- The <!DOCTYPE> declaration refers Document Type Declaration (DTD) in HTML 4.01; because HTML 4.01 was based on SGML. But HTML 5 is not **SGML based** language.

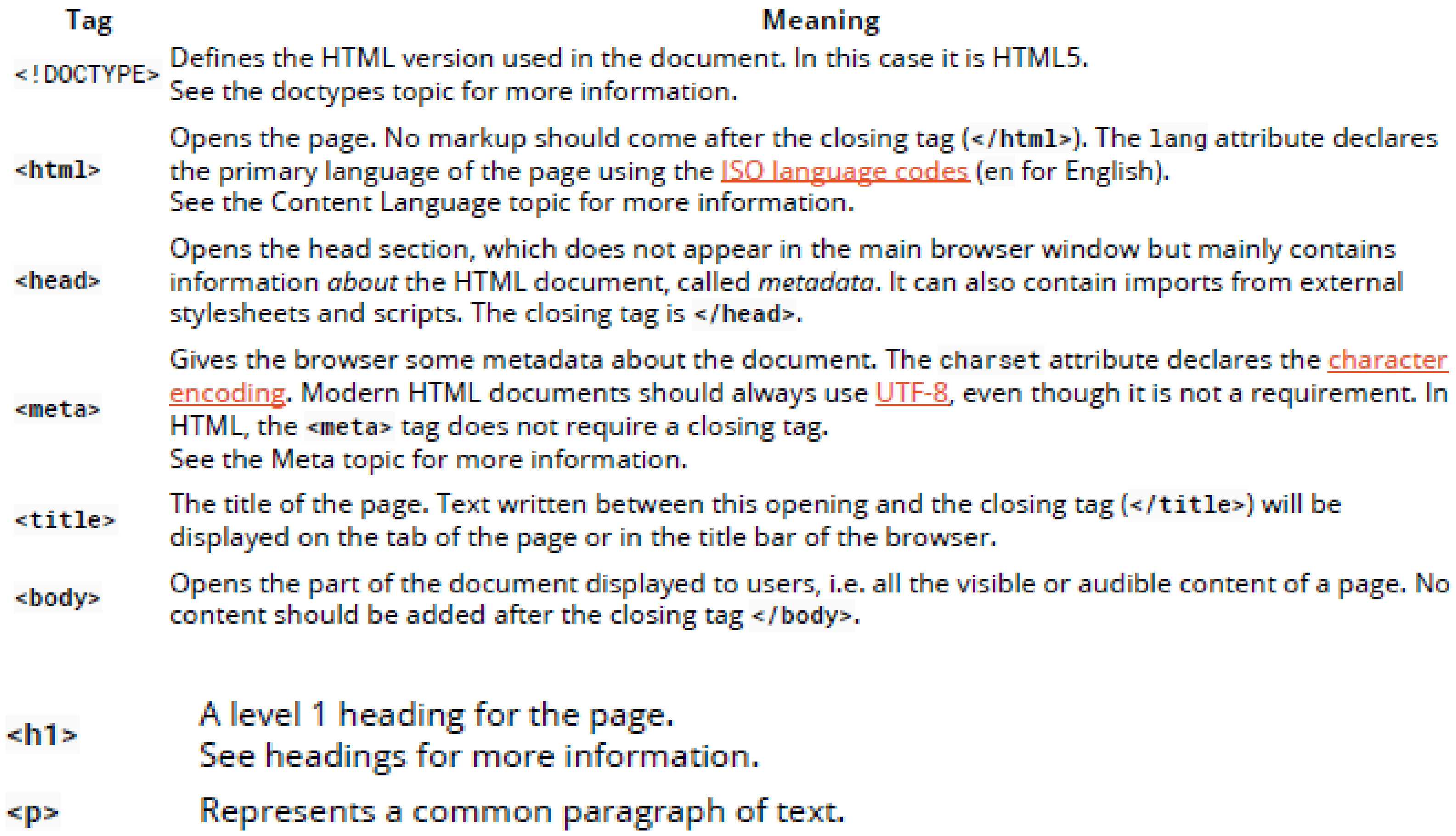


> A DOCTYPE must consist of the following components, in this order:
>
> 1. A string that is an ASCII **case-insensitive** match for the string `"<!DOCTYPE"`.

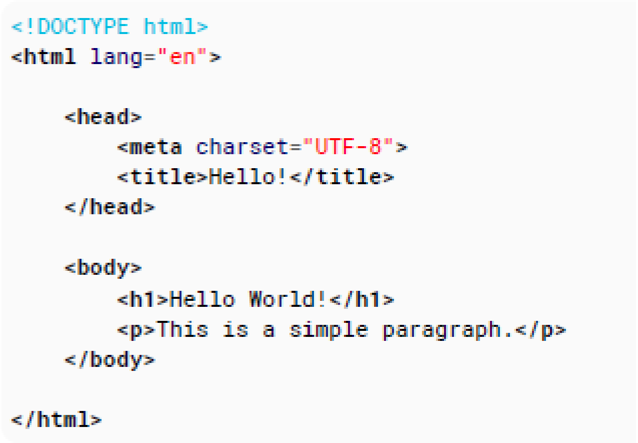
therefore the following `DOCTYPE`s are also valid:

```
<!doctype html>
<!dOCtyPe html>
<!DocTYpe html>
```

Creating a simple page

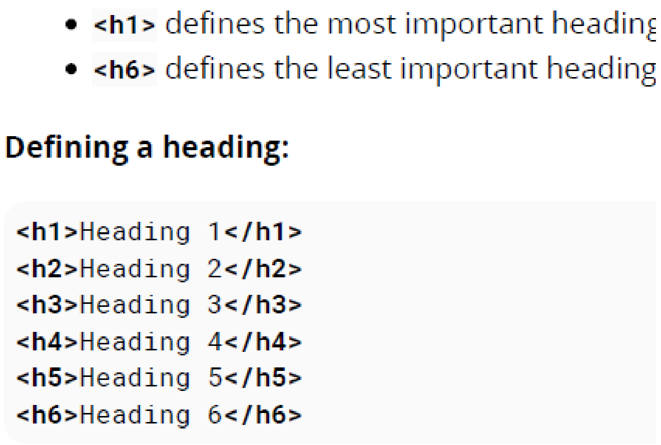


Tag	Meaning
`<!DOCTYPE>`	Defines the HTML version used in the document. In this case it is HTML5. See the doctypes topic for more information.
`<html>`	Opens the page. No markup should come after the closing tag (`</html>`). The `lang` attribute declares the primary language of the page using the ISO language codes (en for English). See the Content Language topic for more information.
`<head>`	Opens the head section, which does not appear in the main browser window but mainly contains information *about* the HTML document, called *metadata*. It can also contain imports from external stylesheets and scripts. The closing tag is `</head>`.
`<meta>`	Gives the browser some metadata about the document. The `charset` attribute declares the character encoding. Modern HTML documents should always use UTF-8, even though it is not a requirement. In HTML, the `<meta>` tag does not require a closing tag. See the Meta topic for more information.
`<title>`	The title of the page. Text written between this opening and the closing tag (`</title>`) will be displayed on the tab of the page or in the title bar of the browser.
`<body>`	Opens the part of the document displayed to users, i.e. all the visible or audible content of a page. No content should be added after the closing tag `</body>`.
`<h1>`	A level 1 heading for the page. See headings for more information.
`<p>`	Represents a common paragraph of text.



```html
<!DOCTYPE html>
<html lang="en">

    <head>
        <meta charset="UTF-8">
        <title>Hello!</title>
    </head>

    <body>
        <h1>Hello World!</h1>
        <p>This is a simple paragraph.</p>
    </body>

</html>
```

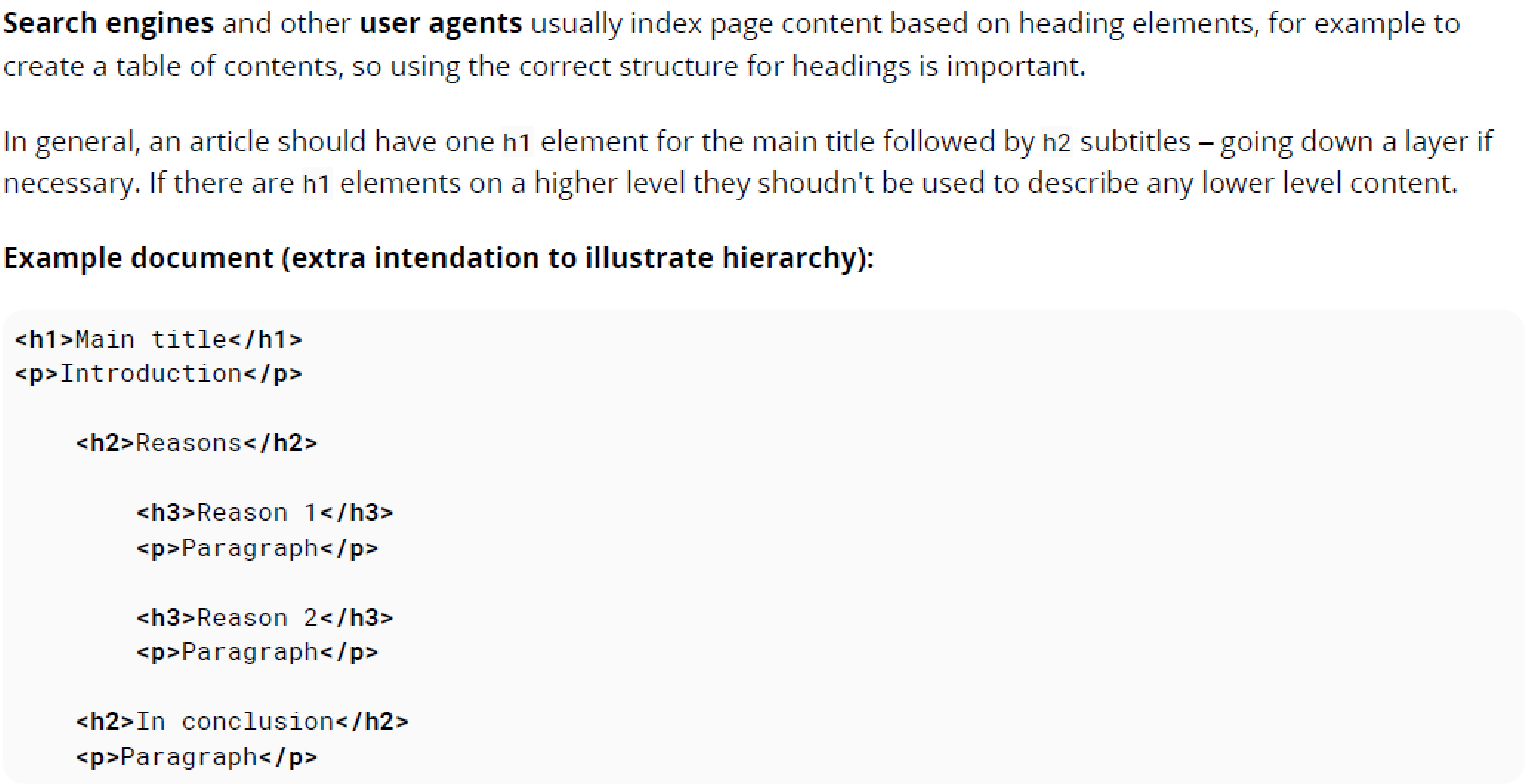
Using Headings



- `<h1>` defines the most important heading
- `<h6>` defines the least important heading

Defining a heading:

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```



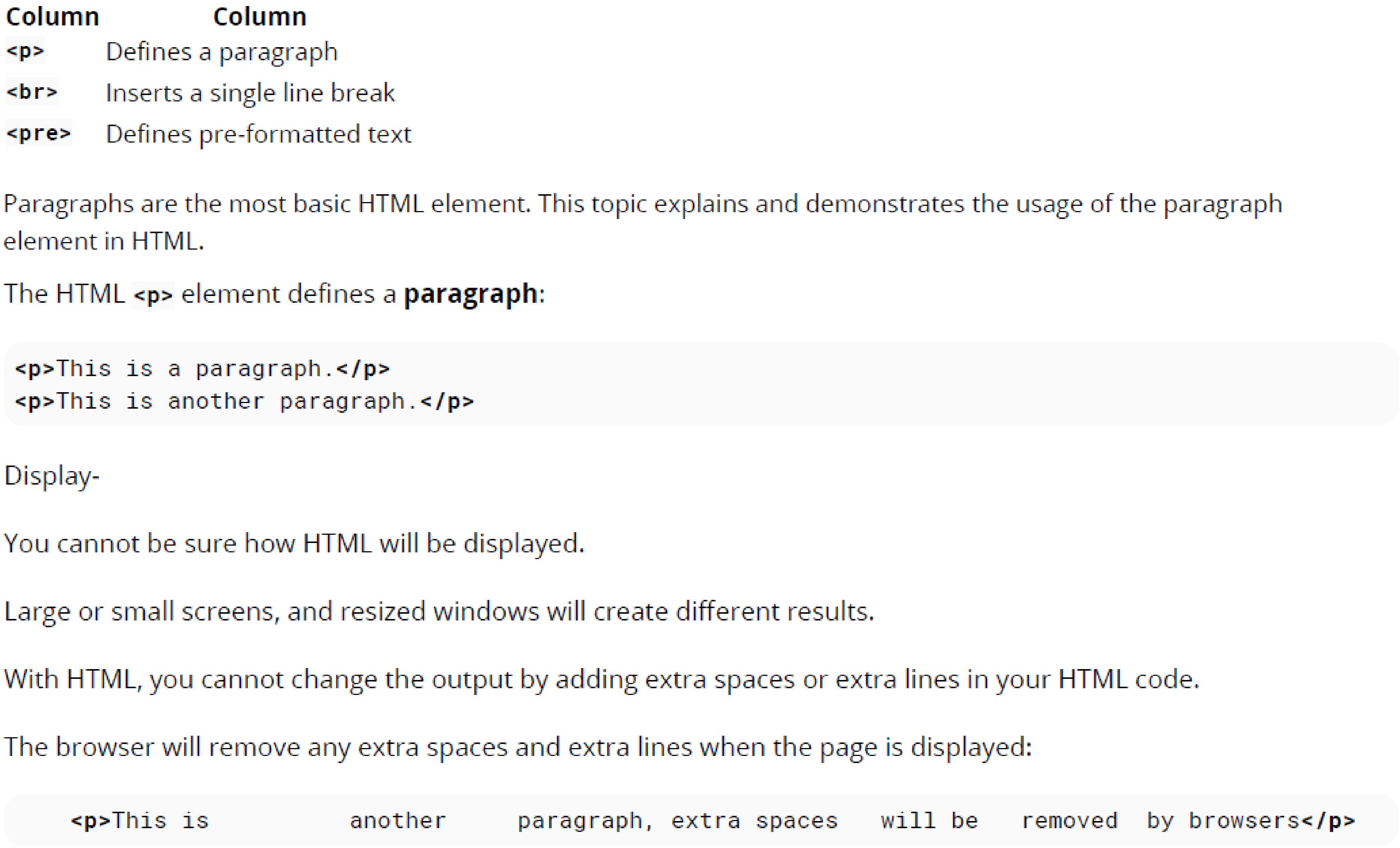
Search engines and other **user agents** usually index page content based on heading elements, for example to create a table of contents, so using the correct structure for headings is important.

In general, an article should have one `h1` element for the main title followed by `h2` subtitles – going down a layer if necessary. If there are `h1` elements on a higher level they shoudn't be used to describe any lower level content.

Example document (extra intendation to illustrate hierarchy):

```
<h1>Main title</h1>
<p>Introduction</p>

    <h2>Reasons</h2>

        <h3>Reason 1</h3>
        <p>Paragraph</p>

        <h3>Reason 2</h3>
        <p>Paragraph</p>

    <h2>In conclusion</h2>
    <p>Paragraph</p>
```

HTML Paragraphs



Column	Column
`<p>`	Defines a paragraph
`<br>`	Inserts a single line break
`<pre>`	Defines pre-formatted text

Paragraphs are the most basic HTML element. This topic explains and demonstrates the usage of the paragraph element in HTML.

The HTML `<p>` element defines a **paragraph**:

```
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
```

Display-

You cannot be sure how HTML will be displayed.

Large or small screens, and resized windows will create different results.

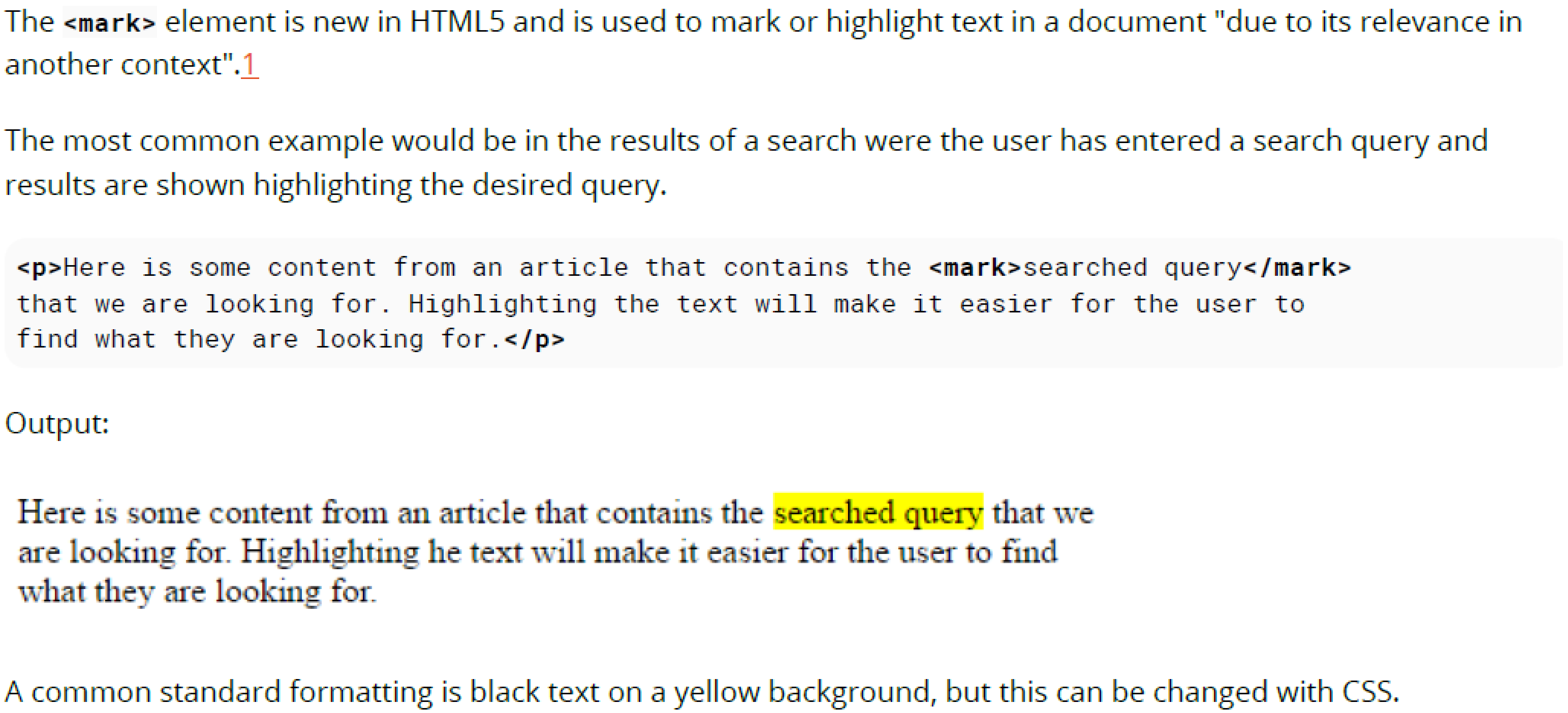
With HTML, you cannot change the output by adding extra spaces or extra lines in your HTML code.

The browser will remove any extra spaces and extra lines when the page is displayed:

```
    <p>This is          another     paragraph, extra spaces   will be   removed  by browsers</p>
```

Text Formatting (Highlighting)

While most HTML tags are used to create elements, HTML also provides in-text formatting tags to apply specific text-related styles to portions of text. This topic includes examples of HTML text formatting such as highlighting, bolding, underlining, subscript, and stricken text.



The `<mark>` element is new in HTML5 and is used to mark or highlight text in a document "due to its relevance in another context".[1]

The most common example would be in the results of a search were the user has entered a search query and results are shown highlighting the desired query.

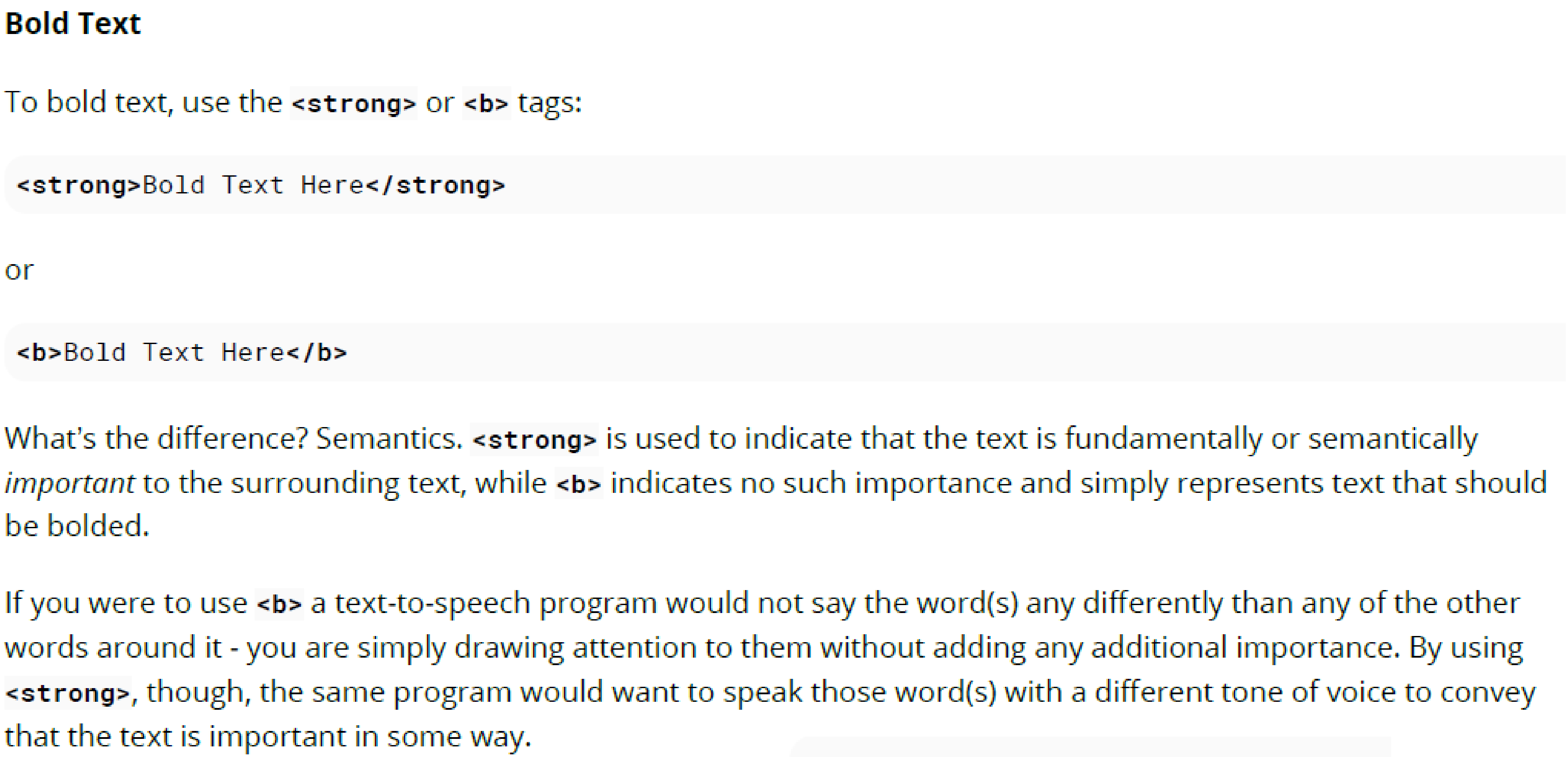
```
<p>Here is some content from an article that contains the <mark>searched query</mark>
that we are looking for. Highlighting the text will make it easier for the user to
find what they are looking for.</p>
```

Output:

Here is some content from an article that contains the searched query that we are looking for. Highlighting he text will make it easier for the user to find what they are looking for.

A common standard formatting is black text on a yellow background, but this can be changed with CSS.

HTML Paragraphs (Bold, Italic, and Underline)



Bold Text

To bold text, use the `<strong>` or `<b>` tags:

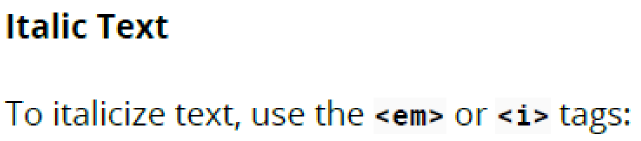
```
<strong>Bold Text Here</strong>
```

or

```
<b>Bold Text Here</b>
```

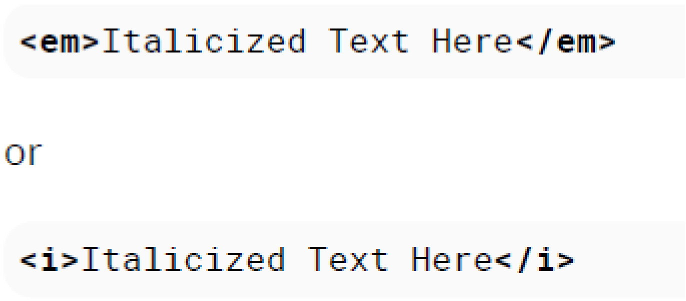
What's the difference? Semantics. `<strong>` is used to indicate that the text is fundamentally or semantically *important* to the surrounding text, while `<b>` indicates no such importance and simply represents text that should be bolded.

If you were to use `<b>` a text-to-speech program would not say the word(s) any differently than any of the other words around it - you are simply drawing attention to them without adding any additional importance. By using `<strong>`, though, the same program would want to speak those word(s) with a different tone of voice to convey that the text is important in some way.



Italic Text

To italicize text, use the `<em>` or `<i>` tags:

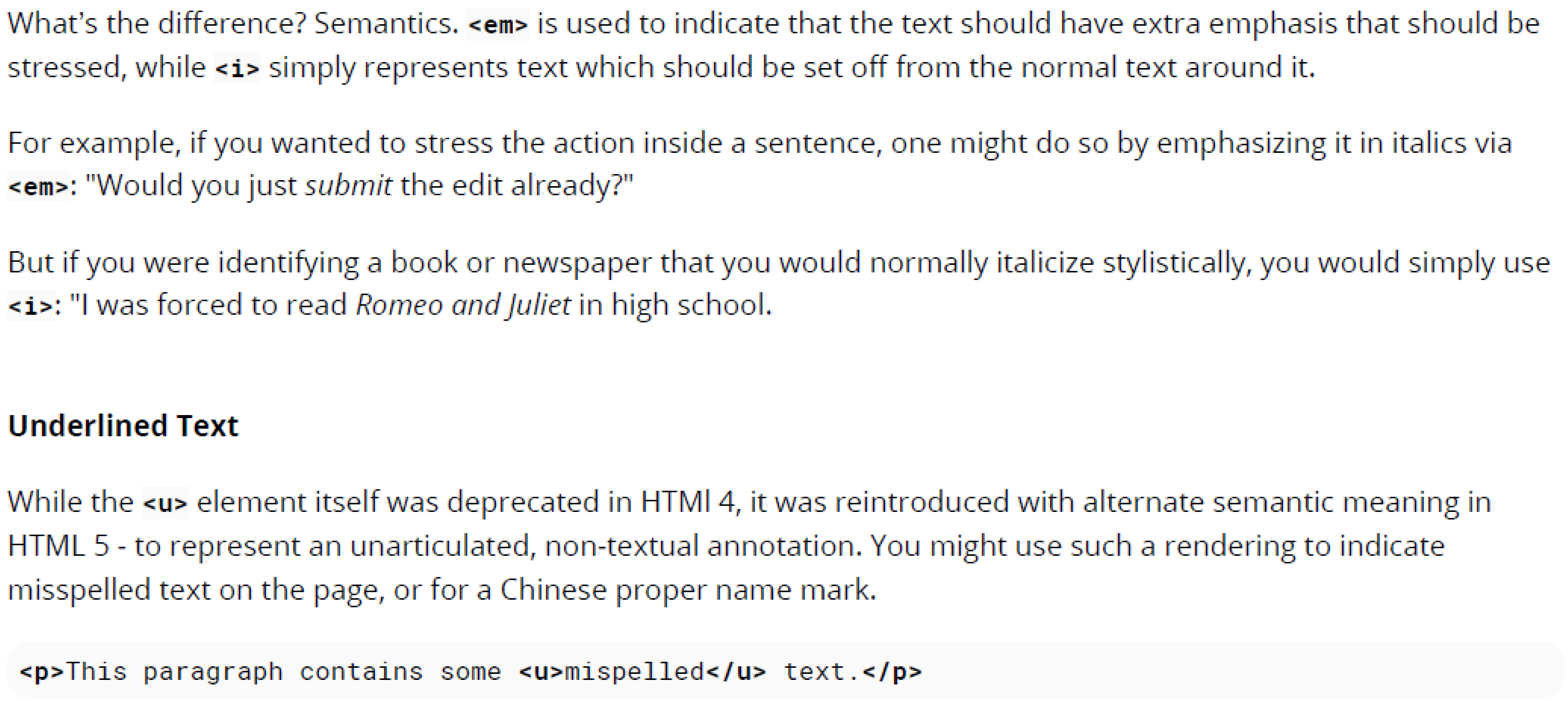


```
<em>Italicized Text Here</em>
```

or

```
<i>Italicized Text Here</i>
```

HTML Paragraphs (Bold, Italic, and Underline)



What's the difference? Semantics. `<em>` is used to indicate that the text should have extra emphasis that should be stressed, while `<i>` simply represents text which should be set off from the normal text around it.

For example, if you wanted to stress the action inside a sentence, one might do so by emphasizing it in italics via `<em>`: "Would you just *submit* the edit already?"

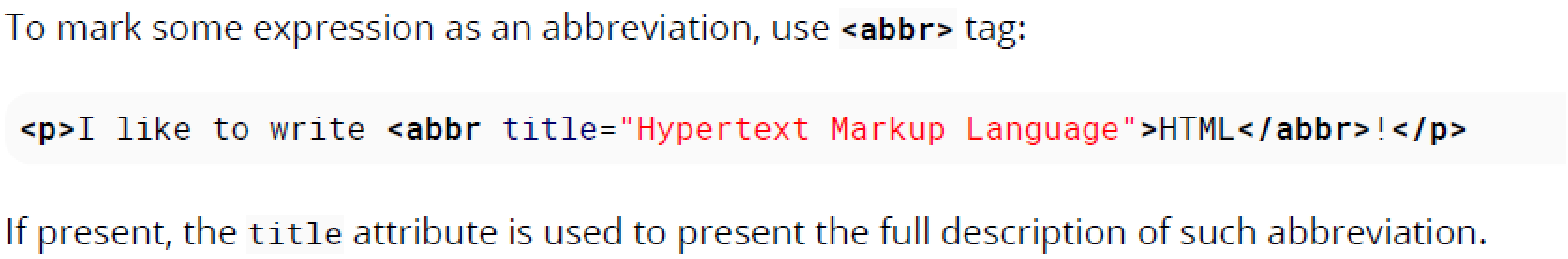
But if you were identifying a book or newspaper that you would normally italicize stylistically, you would simply use `<i>`: "I was forced to read *Romeo and Juliet* in high school.

Underlined Text

While the `<u>` element itself was deprecated in HTMl 4, it was reintroduced with alternate semantic meaning in HTML 5 - to represent an unarticulated, non-textual annotation. You might use such a rendering to indicate misspelled text on the page, or for a Chinese proper name mark.

```
<p>This paragraph contains some <u>mispelled</u> text.</p>
```

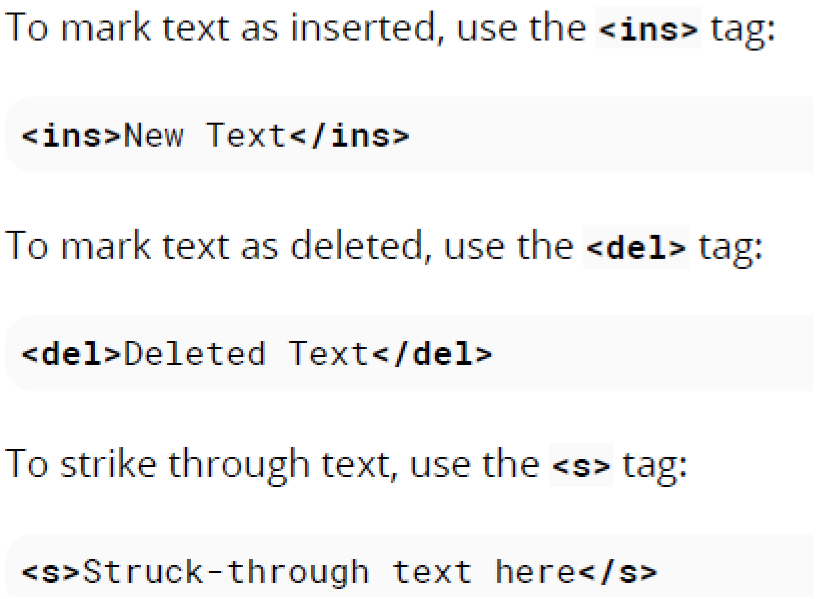
HTML Paragraphs
(Abbreviation, Inserted, Deleted, or Stricken, Superscript and Subscript)



To mark some expression as an abbreviation, use `<abbr>` tag:

```
<p>I like to write <abbr title="Hypertext Markup Language">HTML</abbr>!</p>
```

If present, the `title` attribute is used to present the full description of such abbreviation.



To mark text as inserted, use the `<ins>` tag:

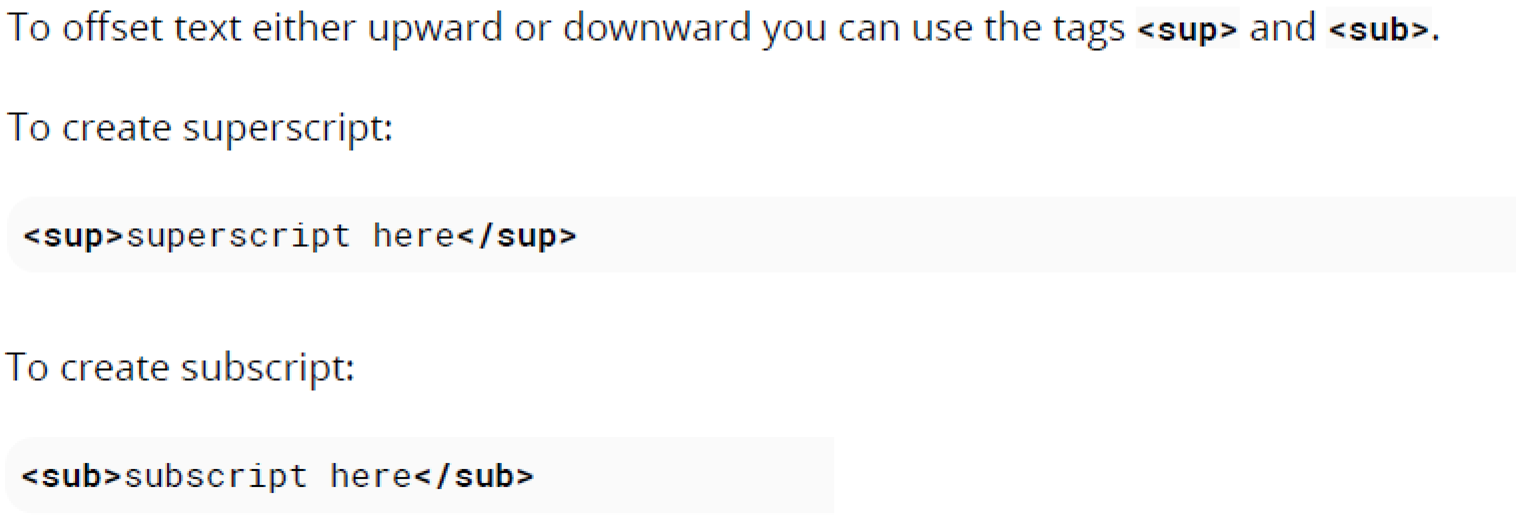
```
<ins>New Text</ins>
```

To mark text as deleted, use the `<del>` tag:

```
<del>Deleted Text</del>
```

To strike through text, use the `<s>` tag:

```
<s>Struck-through text here</s>
```



To offset text either upward or downward you can use the tags `<sup>` and `<sub>`.

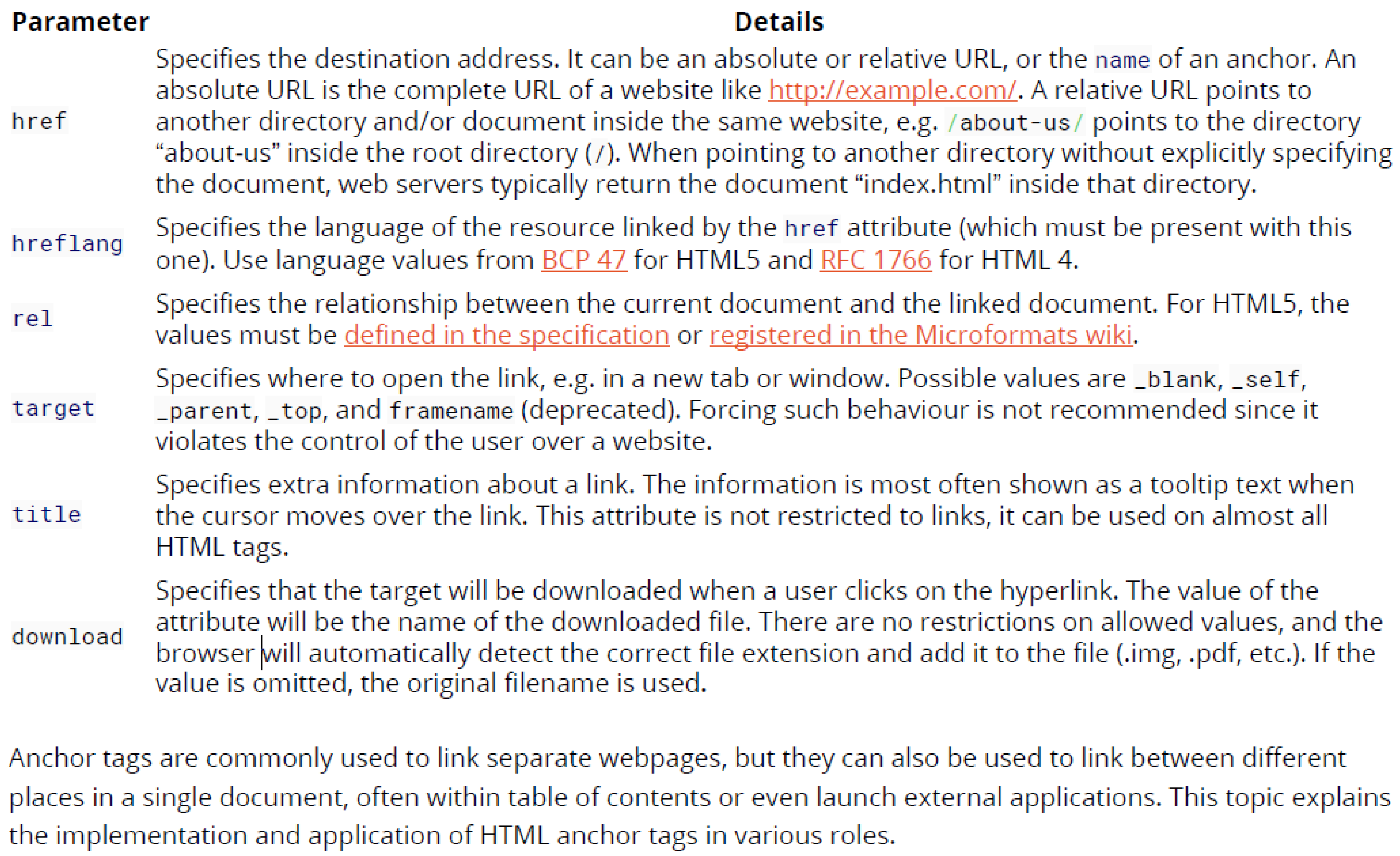
To create superscript:

```
<sup>superscript here</sup>
```

To create subscript:

```
<sub>subscript here</sub>
```

HTML Paragraphs (Anchors and Hyperlinks)



Parameter	Details
`href`	Specifies the destination address. It can be an absolute or relative URL, or the `name` of an anchor. An absolute URL is the complete URL of a website like http://example.com/. A relative URL points to another directory and/or document inside the same website, e.g. `/about-us/` points to the directory "about-us" inside the root directory (`/`). When pointing to another directory without explicitly specifying the document, web servers typically return the document "index.html" inside that directory.
`hreflang`	Specifies the language of the resource linked by the `href` attribute (which must be present with this one). Use language values from BCP 47 for HTML5 and RFC 1766 for HTML 4.
`rel`	Specifies the relationship between the current document and the linked document. For HTML5, the values must be defined in the specification or registered in the Microformats wiki.
`target`	Specifies where to open the link, e.g. in a new tab or window. Possible values are `_blank`, `_self`, `_parent`, `_top`, and `framename` (deprecated). Forcing such behaviour is not recommended since it violates the control of the user over a website.
`title`	Specifies extra information about a link. The information is most often shown as a tooltip text when the cursor moves over the link. This attribute is not restricted to links, it can be used on almost all HTML tags.
`download`	Specifies that the target will be downloaded when a user clicks on the hyperlink. The value of the attribute will be the name of the downloaded file. There are no restrictions on allowed values, and the browser will automatically detect the correct file extension and add it to the file (.img, .pdf, etc.). If the value is omitted, the original filename is used.

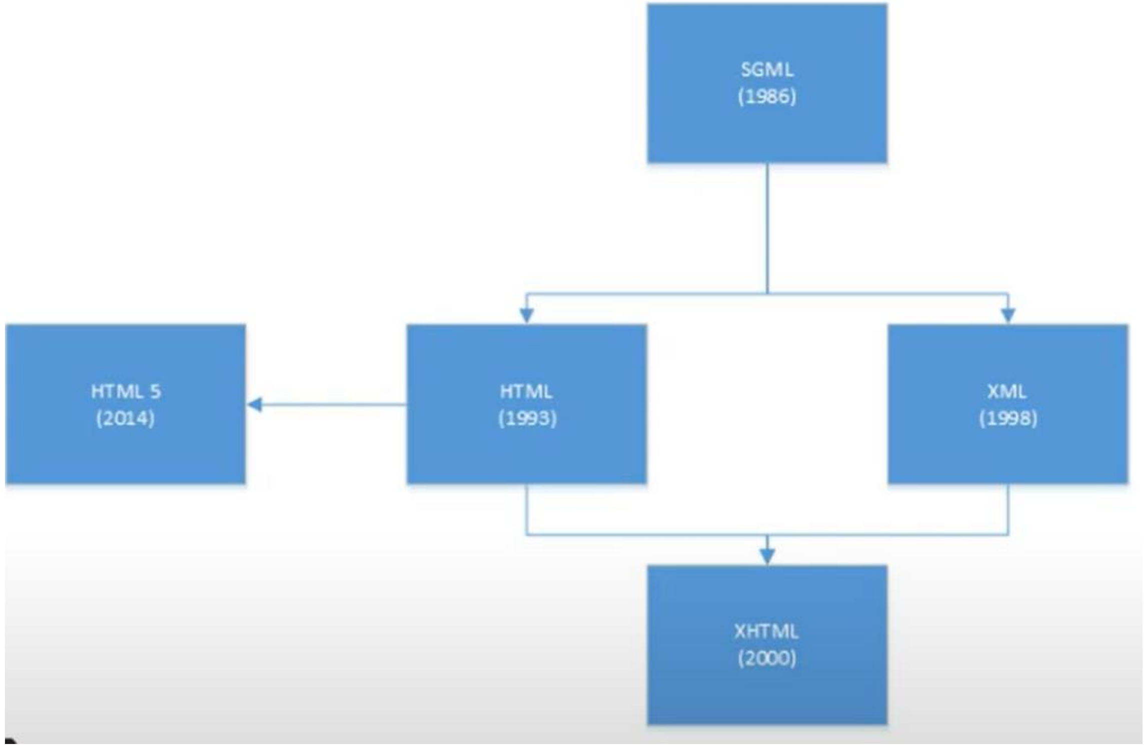
Anchor tags are commonly used to link separate webpages, but they can also be used to link between different places in a single document, often within table of contents or even launch external applications. This topic explains the implementation and application of HTML anchor tags in various roles.

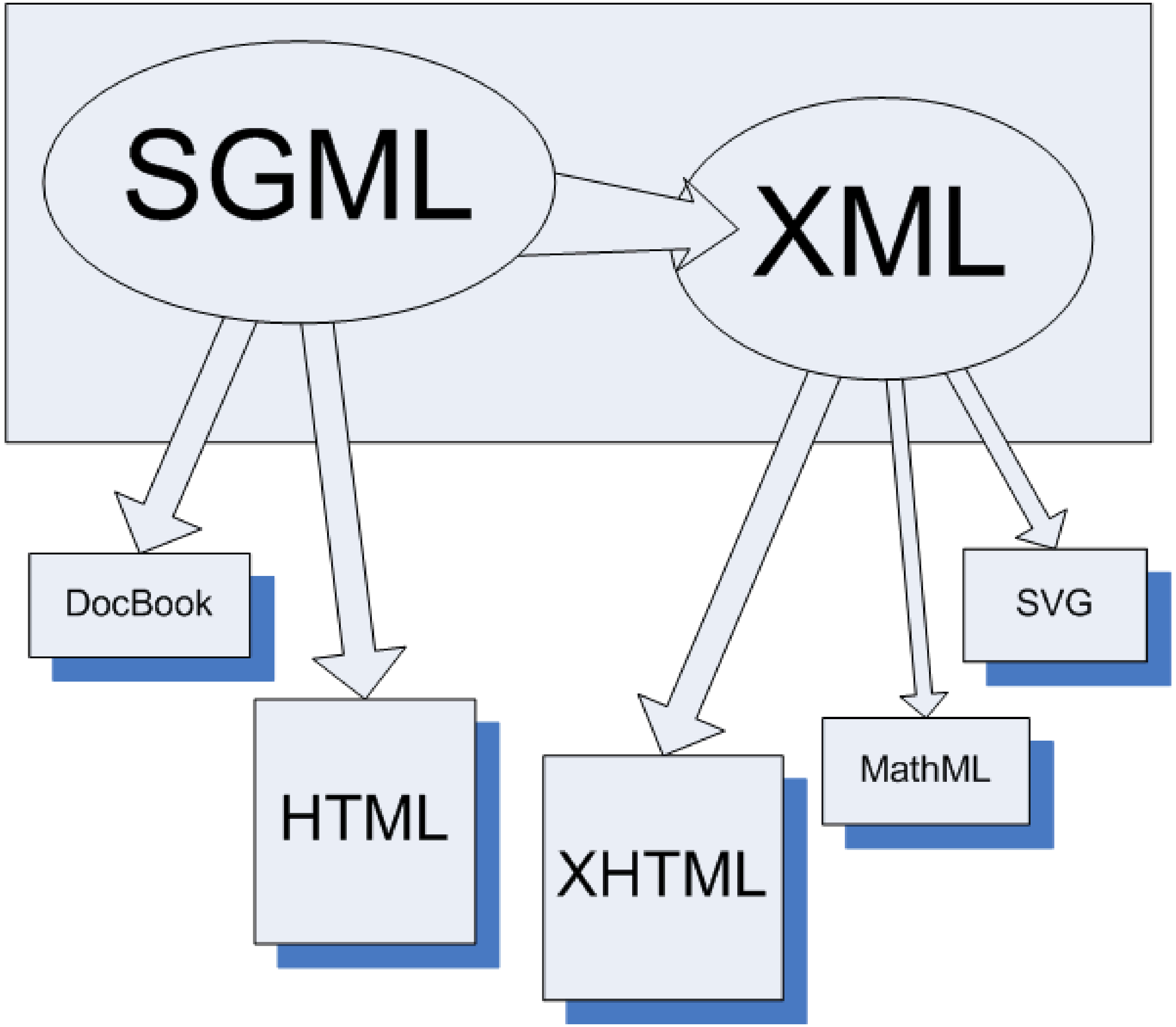
HW1

- 1. Link to another site, an anchor, a page on the same site.
- 2. Link that dials a number, runs JavaScript, runs email client
- 3. Open the link in a new tab/window

- Try the tasks **above**. JavaScript is new to you, so please do your research ☺.

SGML (Standard Generalized Markup Languag) based languages and HTML 5



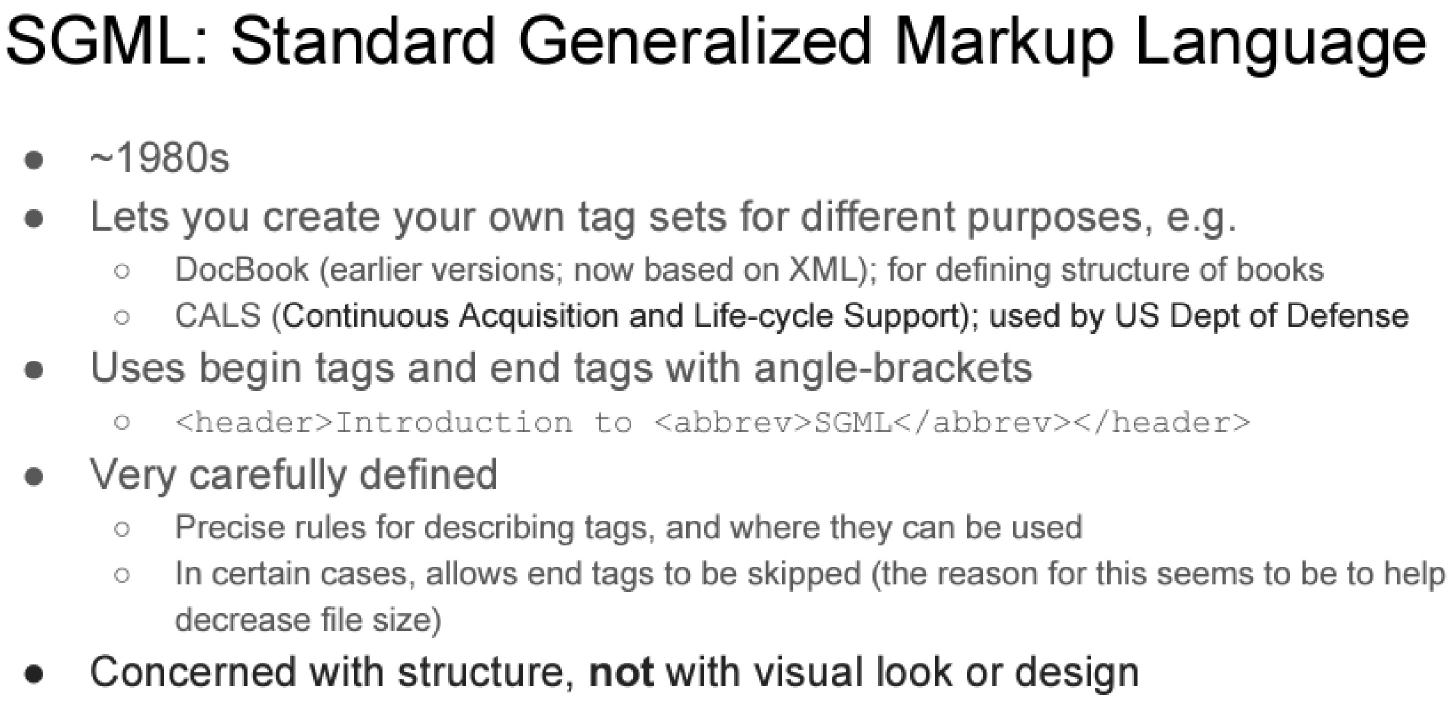


Markup languages -- we’ll cover a few

- Markup languages are one way to give structure to text files
  - SGML
  - HTML
  - XML
  - HTML 5
  - Human-oriented markup
    - WikiWikiWeb markup
    - markdown
    - ReStructured Text (RST)

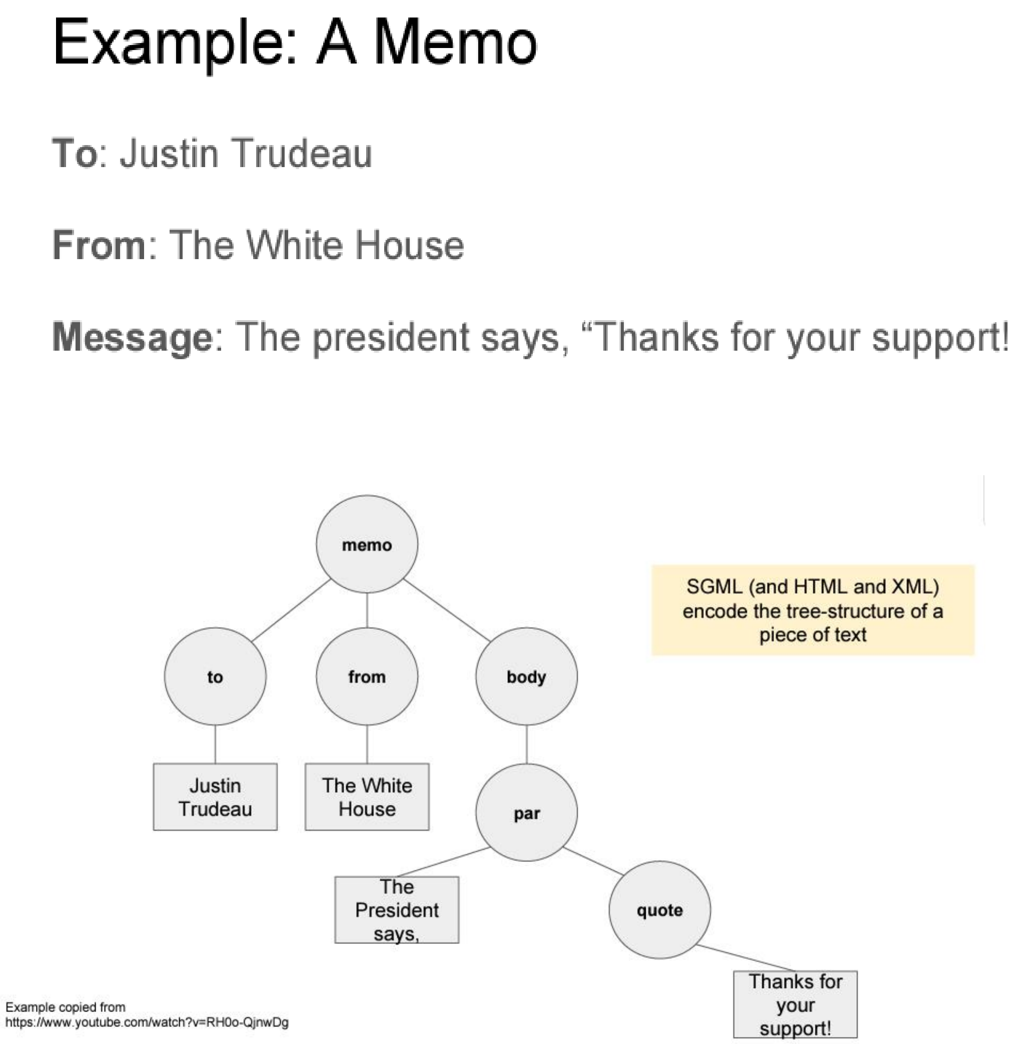
https://www2.cs.sfu.ca/CourseCentral/165/tjd/_downloads/markupLanguages.pdf

SGML: Standard Generalized Markup Language



SGML: Standard Generalized Markup Language

- ~1980s
- Lets you create your own tag sets for different purposes, e.g.
  - DocBook (earlier versions; now based on XML); for defining structure of books
  - CALS (Continuous Acquisition and Life-cycle Support); used by US Dept of Defense
- Uses begin tags and end tags with angle-brackets
  - `<header>Introduction to <abbrev>SGML</abbrev></header>`
- Very carefully defined
  - Precise rules for describing tags, and where they can be used
  - In certain cases, allows end tags to be skipped (the reason for this seems to be to help decrease file size)
- Concerned with structure, **not** with visual look or design



Example: A Memo

To: Justin Trudeau

From: The White House

Message: The president says, “Thanks for your support!

SGML (and HTML and XML) encode the tree-structure of a piece of text

Example copied from https://www.youtube.com/watch?v=RH0o-QjnwDg

https://www2.cs.sfu.ca/CourseCentral/165/tjd/_downloads/markupLanguages.pdf

XML & HTML

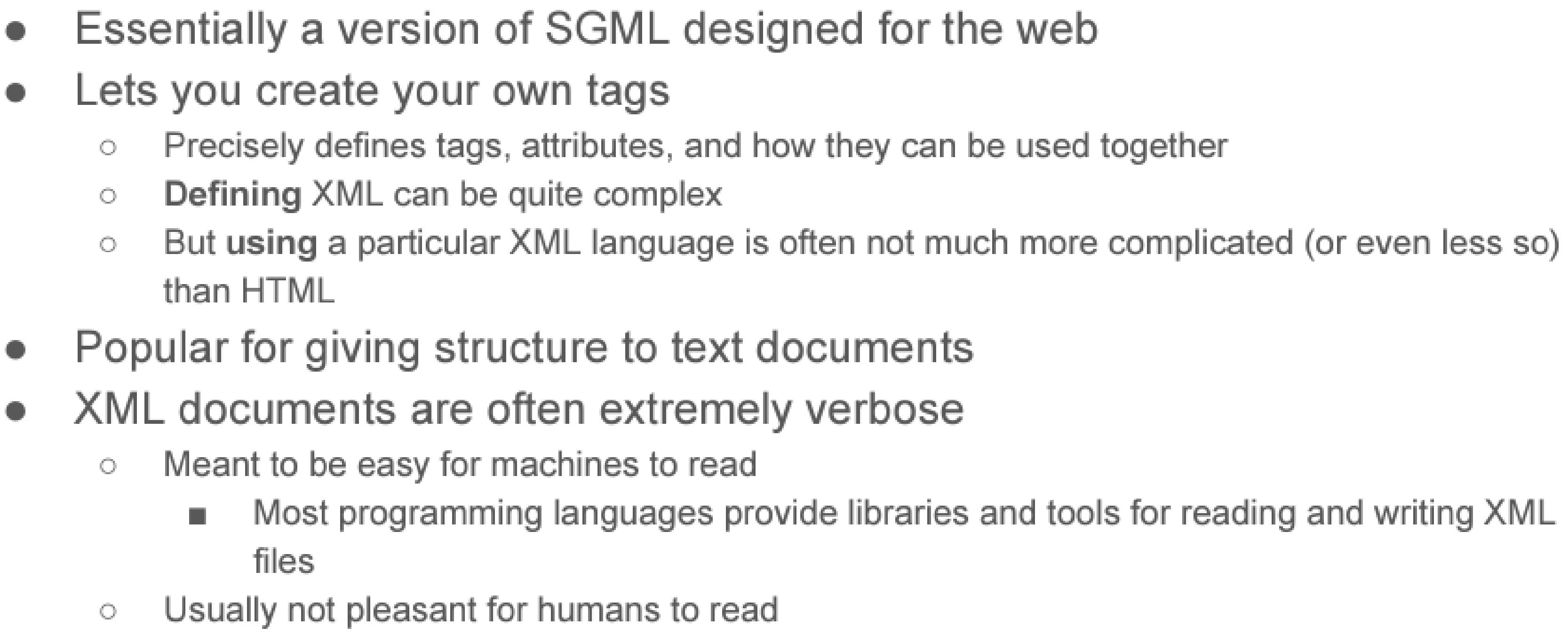
- XML was designed to describe data and to focus on what data is.

- HTML was designed to display data and to focus on how data looks. Before XML there was HTML.

- What is XML:
  - ❖Designed to describe data, not display it
  - ❖Tags are not predefined like HTML
  - ❖W3C Standard
  - ❖XML doesn’t do anything, not “programming” per se
  - ❖HTML is all about “looks” where as XML is all about “brains”

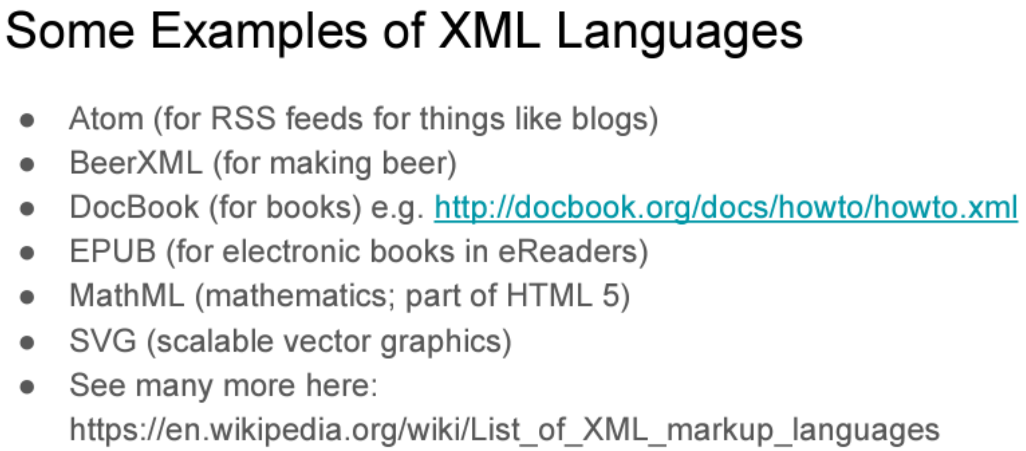
*https://www.albany.edu/~mwolfe/ist538/unit1/XML_unit1.pptx

XML



- Essentially a version of SGML designed for the web
- Lets you create your own tags
  - Precisely defines tags, attributes, and how they can be used together
  - **Defining** XML can be quite complex
  - But **using** a particular XML language is often not much more complicated (or even less so) than HTML
- Popular for giving structure to text documents
- XML documents are often extremely verbose
  - Meant to be easy for machines to read
    - Most programming languages provide libraries and tools for reading and writing XML files
  - Usually not pleasant for humans to read

XML is like a *mixture* of MS Word, DB, and HTML

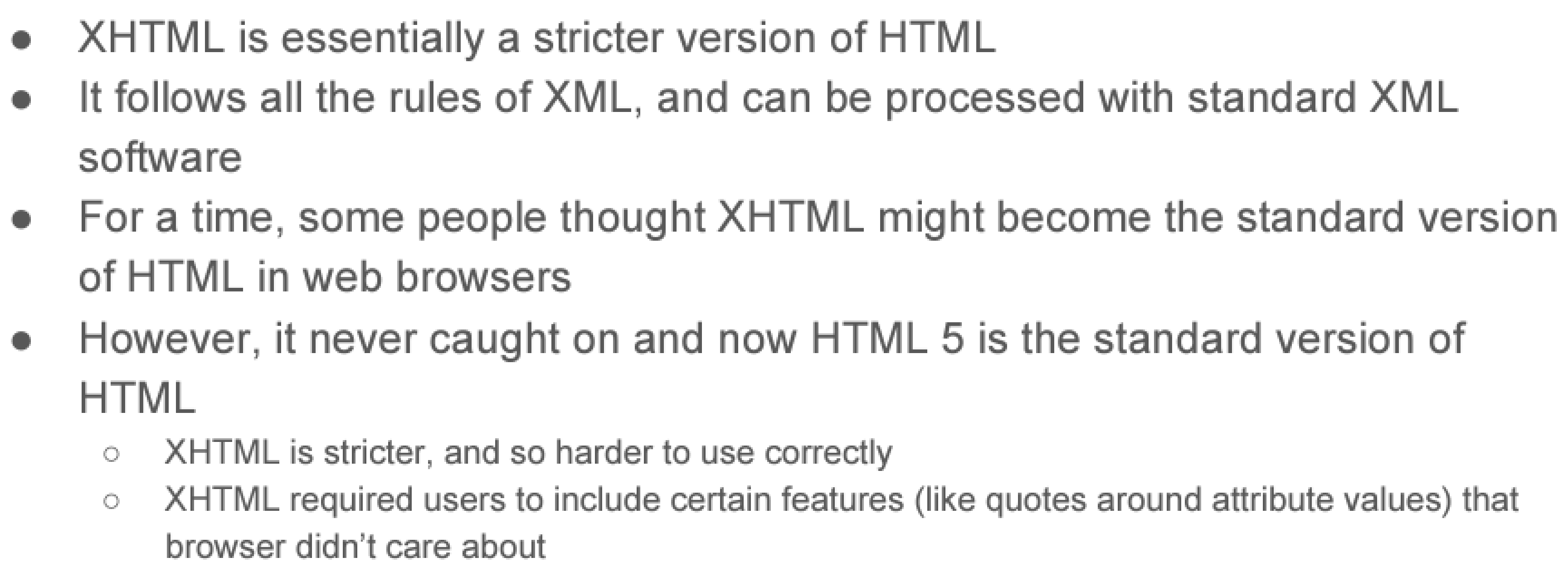


Some Examples of XML Languages

- Atom (for RSS feeds for things like blogs)
- BeerXML (for making beer)
- DocBook (for books) e.g. http://docbook.org/docs/howto/howto.xml
- EPUB (for electronic books in eReaders)
- MathML (mathematics; part of HTML 5)
- SVG (scalable vector graphics)
- See many more here: https://en.wikipedia.org/wiki/List_of_XML_markup_languages

https://www2.cs.sfu.ca/CourseCentral/165/tjd/_downloads/markupLanguages.pdf

XHTML: HTML in XML

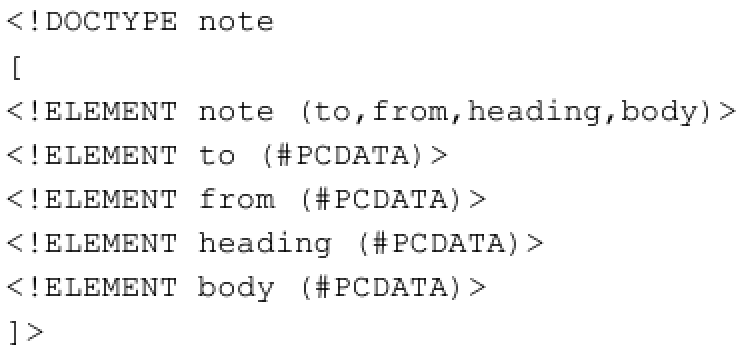


- XHTML is essentially a stricter version of HTML
- It follows all the rules of XML, and can be processed with standard XML software
- For a time, some people thought XHTML might become the standard version of HTML in web browsers
- However, it never caught on and now HTML 5 is the standard version of HTML
    - XHTML is stricter, and so harder to use correctly
    - XHTML required users to include certain features (like quotes around attribute values) that browser didn’t care about

https://www2.cs.sfu.ca/CourseCentral/165/tjd/_downloads/markupLanguages.pdf

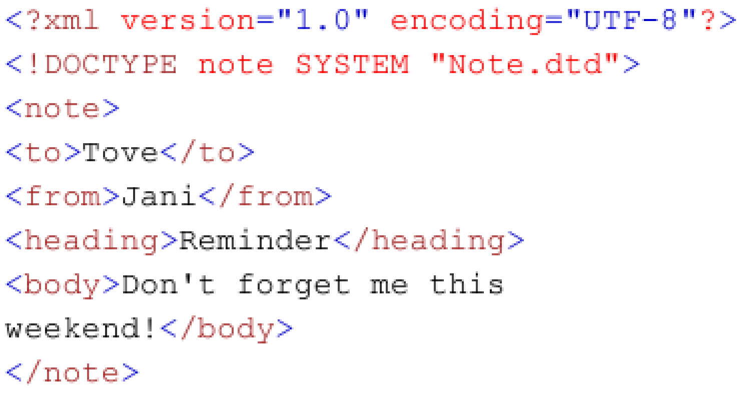
DTDs

DTDs: Document Type Definitions



```
<!DOCTYPE note
[
<!ELEMENT note (to,from,heading,body)>
<!ELEMENT to (#PCDATA)>
<!ELEMENT from (#PCDATA)>
<!ELEMENT heading (#PCDATA)>
<!ELEMENT body (#PCDATA)>
]>
```

This is an example of an XML DTD (document type definition).
It gives the precise definitions of the tags for a simple XML tag language.



```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE note SYSTEM "Note.dtd">
<note>
<to>Tove</to>
<from>Jani</from>
<heading>Reminder</heading>
<body>Don't forget me this
weekend!</body>
</note>
```

Example from https://www.w3schools.com/xml/xml_dtd.asp

Hypertext & HTML

- Hypertext Markup Language (HTML) is the language for specifying the content of Web pages

- hypertext refers to the fact that Web pages are more than just text
    - ➢can contain multimedia, provide links for jumping within & beyond

- markup refers to the fact that it works by augmenting text with special symbols (tags) that identify structure and content type

References

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3. https://cgi.csc.liv.ac.uk/~ullrich/COMP519/notes/
4. Nixon, Robin. *Learning PHP, MySQL & JavaScript*. " O'Reilly Media, Inc.", 2021.
5. Zakas, Nicholas C. *Professional JavaScript for web developers*. John Wiley & Sons, 2009.
6. HTML5 Professional Book (Link)