

HTML

HTML

- HTML (*Hypertext Markup Language*) is a fundamental component of every website.
- HTML is a language, but it is not a programming language. It lacks concepts of variables, logic, functions, and the like.
- Rather, it is a *markup language*, using angle-bracket enclosed tags to semantically define the structure of a web page, causing the plain text inside of sets of tags to be interpreted by web browsers in different ways.

HTML

```
<html>  
  <head>  
    <title>  
      Hello, world  
    </title>  
  </head>  
  <body>  
    World, hello  
  </body>  
</html>
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HTML

- Notice how the markup allows us to convey extra information about the text we've written.
- There are over 100 HTML tags, and lots of great resources online to find them. We won't cover them all here.
- Another interesting way to learn about HTML tags is to view the source of a website you frequent by opening up your browser of choice's developer tools.

HTML

- **Common HTML tags**

- ``, ``

- Text between these tags will be rendered in **boldface** by the browser.

- `<i>`, `</i>`

- Text between these tags will be rendered in *italics* by the browser.

- `<u>`, `</u>`

- Text between these tags will be rendered underlined by the browser.

HTML

- **Common HTML tags**

- `<p>`, `</p>`

- Text between these tags will be rendered as a paragraph by the browser, with space above and below.

- `<hX>`, `</hX>`

- X = 1, 2, 3, 4, 5, or 6
- Text between these tags will be rendered as an X-level section header.

HTML

- **Common HTML tags**

- `, `

- Demarcate the beginning and end of an unordered (bulleted) list.

- `, `

- Demarcate the beginning and end of an ordered (numbered) list.

- `, `

- Demarcate list items with an ordered or unordered list.

HTML

- **Common HTML tags**

- `<table>`, `</table>`

- Demarcate the beginning and end of a table definition.

- `<tr>`, `</tr>`

- Demarcate the beginning and end of a row within a table.

- `<td>`, `</td>`

- Demarcate the beginning and end of a column within a row within a table.

HTML

- **Common HTML tags**

- `<form>, </form>`

- Demarcate the beginning and end of an HTML form.

- `<div>, </div>`

- Demarcate the beginning and end of an arbitrary HTML page division.

- `<input name=X type=Y />`

- Define a field within an HTML form. X is a unique identifier for that field, Y is what type of data it accepts.

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HTML

- **Common HTML tags**

- `, `

- Creates a hyperlink to web page X, with the text between the tags rendered and functional as the [link text](#).

- ``

- Another self-closing tag for displaying an image located at X, with possible additional *attributes* (such as specifying width and height).

- `<!DOCTYPE html>`

- Specific to HTML5, lets the browser know that's the standard you're using.

HTML

- **Common HTML tags**

- `<!--, -->`

- Demarcate the beginning and end of an HTML comment.

- Beyond the tags as explained here, each can also have multiple *attributes* that slightly modify the tag.

- For example, you can usually add an `id=X` attribute, to uniquely identify a tag within an overall page.

HTML

- It is important that the HTML you write be well-formed. Every tag you open should be closed (unless it is a self-closing tag), and tags should be closed in reverse order of when they were opened.
- Unlike C, your HTML will not necessarily fail with syntax errors if not well-formed, so it's up to you to be vigilant.
- Because it can be an arduous task to investigate this, be sure to use online HTML validators to help!