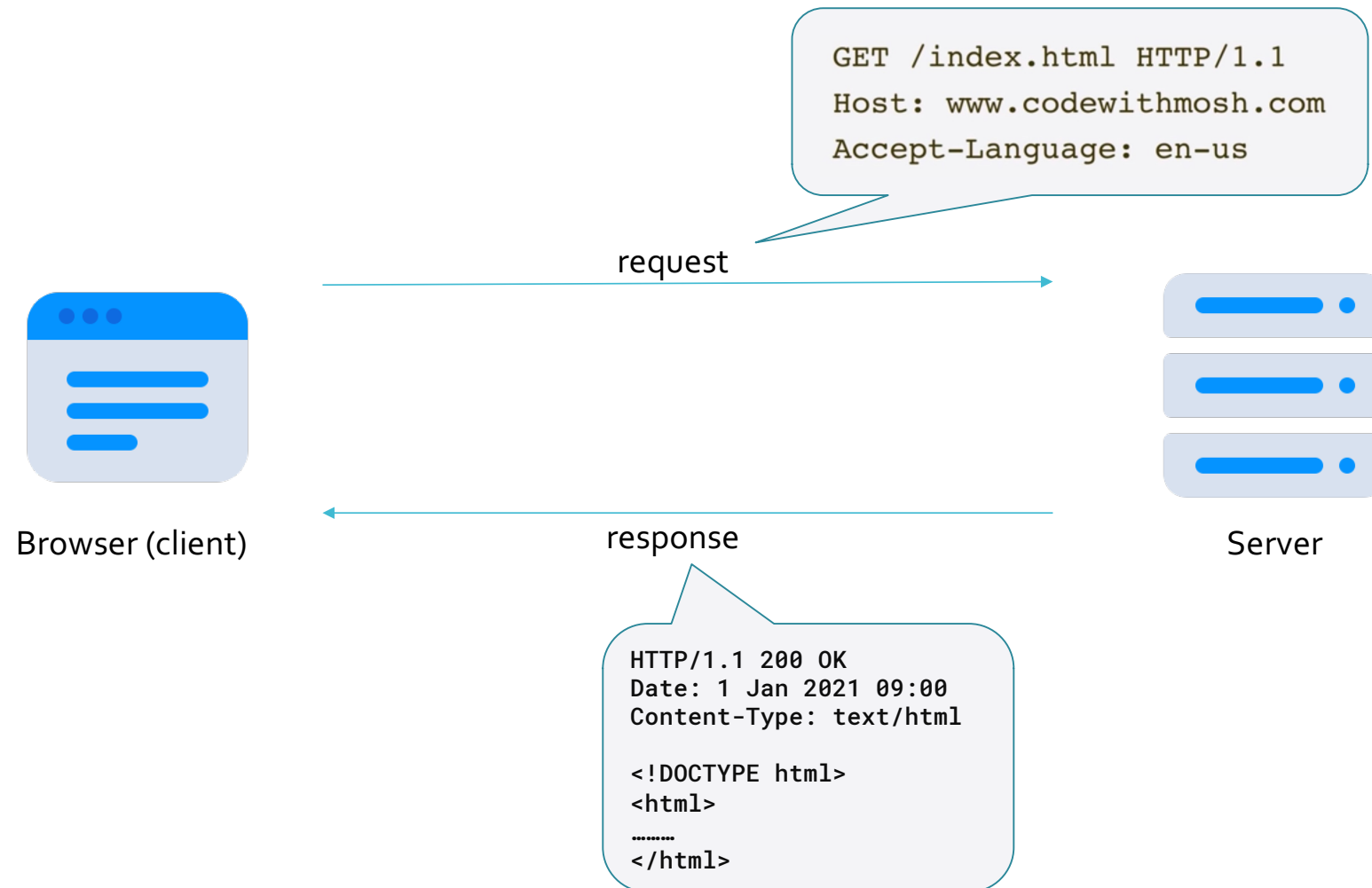


Before starting the new lesson, tell me how does a web application works?



HyperText Markup Language

I4 GIC

By Thavorac



Introduction to HTML

What is HTML?

HTML stands for **HyperText Markup Language**. It is the **most basic** building block of the web.

What does HTML used for?

HTML defines the **meaning** and **structure** of web content.

HTML History

HTML was created by Sir Tim Berners-Lee in late 1991 but was not released officially, published in 1995 as HTML 2.0. HTML 4.01 was published in late 1999 and was a major version of HTML.

HTML 5 can be said for an extended version of HTML 4.01, which was published in the year 2012.

HTML Structure

HEAD

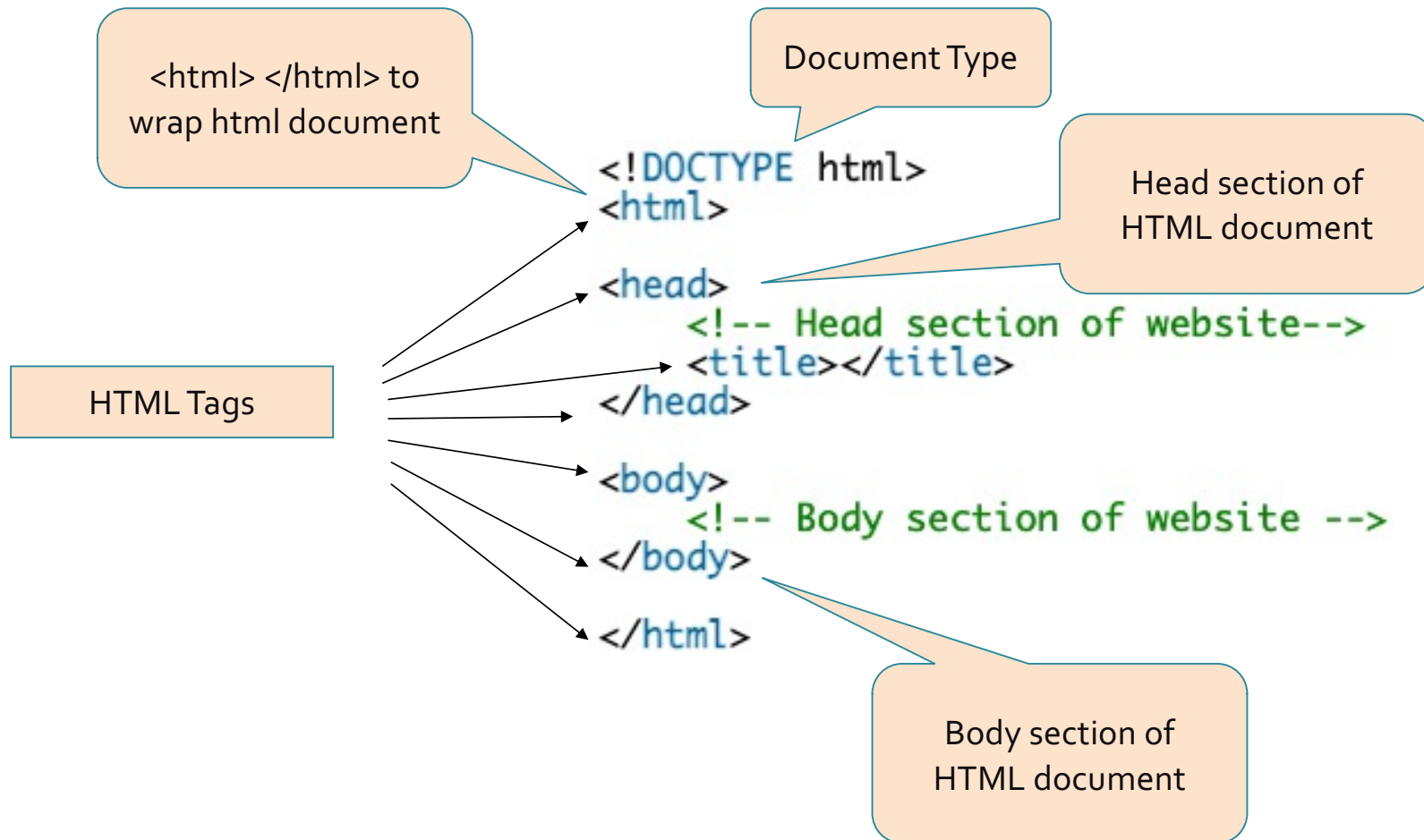
Contain meta data of the
HTML document

Body

Contain the HTML
document structure

FOOTER

Contain additional
information such as copy
right, address ..



What is HTML Tags?

A tag is a command in a web page that tells the browser to do something. Tags are inclosed in less than (<) and greater than (>) signs.

Example:

<tag-a> </tag-a> or even this
<tag-b /> Singleton tags

You can nest html tags together to have combined characteristic.

```
<b><u><em>Check this out!</em></u></b>
```

What is HTML Attributes?

An attribute is an information which describe the extra bit of information of a tag.

```
<body>
  <p align = "left">This is left aligned</p>
  <p align = "center">This is center aligned</p>
  <p align = "right">This is right aligned</p>
</body>
```

The core attributes:

- Id
- Title
- Class
- Style

With different tags, you can create a rather pretty and functional page

Common Tags for Blogs

```
<h?> heading </h?>
<p> paragraph </p>
<b> bold </b>
<i> italic </i>
<a href="url"> link name </a>
<div> ... </div>

<ul> <li> list </li> </ul>
<br>
<span style="color:red"> red
</span>
```

Text Formatting

```
<h?> ... </h?>
<b> ... </b>
<i> ... </i>
<u> ... </u>
<strike> ... </strike>
<sup> ... </sup>
<sub> ... </sub>
<small> ... </small>
<tt> ... </tt>
<pre> ... </pre>
<blockquote> ... </blockquote>
<strong> ... </strong>
<em> ... </em>
<font> ... </font>
```

Heading (h1 for largest to h6 for smallest)

Paragraph of Text

Make text between tags **bold**

Make text between tags *italic*

Create a link to another page or website

Divide up page content into sections, and applying styles

Show an image

Unordered, bullet-point list

Line Break (force a new line)

Use CSS style to change text colour

Heading (?= 1 for largest to 6 for smallest, eg h1)

Bold Text

Italic Text

Underline Text

Strikeout

Superscript – Smaller text placed below normal text

Subscript – Smaller text placed below normal text

Small – Fineprint size text

Typewriter Text

Pre-formatted Text

Text Block Quote

Strong – Shown as Bold in most browsers

Emphasis – Shown as Italics in most browsers

Font tag obsolete, use [CSS](#). (*)

With different tags, you can create a rather pretty and functional page

Section Divisions

```
<div> ... </div>
<span> ... </span>
<p> ... </p>
<br>
<hr>
<hr> Tag Attributes:
  size="?"
  width="?"
  width="??%"
  color="#??????"
  align="?"
  noshade
<nobr> ... </nobr>
```

Division or Section of Page Content
Section of text within other content
Paragraph of Text
Line Break
Basic Horizontal Line

Line Thickness in pixels
Line Width in pixels
Line Width as a percentage
Line **Colour** (*)
Horizontal Alignment: **left**, **center**, **right** (*)
No 3D cut-out
Line Break

Images

```

<img> Tag Attributes:
  src="url"
  alt="text"
  align="?"
  width="??"
  height="???"
  border="???"
  vspace="???"
  hspace="???"
```

Basic Image

URL or filename of image (required!)
Alternate Text (required!)
Image alignment within surrounding text (*)
Image width (in pixels or %)
Image height (in pixels or %)
Border thickness (in pixels) (*)
Space above and below image (in pixels) (*)
Space on either side of image (in pixels) (*)

With different tags, you can create a rather pretty and functional page

Linking Tags

```
<a href="url"> link text </a>
```

<a> Tag Attributes:

```
href="url"  
name="??"  
target="?"  
href="url#bookmark"  
href="mailto:email"
```

Basic Link

Location (url) of page to link to.

Name of link (name of anchor, or name of bookmark)

Link target location: `_self`, `_blank`, `_top`, `_parent`.

Link to a bookmark (defined with `name` attribute).

Link which initiates an email (dependant on user's email client).

Lists

```
<ol> ... </ol>
```

```
<ul> ... </ul>
```

```
<li> ... </li>
```

```
<ol type="?">
```

```
<ol start="??">
```

```
<ul type="?">
```

```
<li value="??">
```

```
<li type="??">
```

```
<dl> ... </dl>
```

```
<dt> ... </dt>
```

```
<dd> ... </dd>
```

Ordered List

Un-ordered List

List Item (within ordered or unordered)

Ordered list type: `A`, `a`, `I`, `i`, `1`

Ordered list starting value

Unordered list bullet type: `disc`, `circle`, `square`

List Item Value (changes current and subsequent items)

List Item Type (changes only current item)

Definition List

Term or phrase being defined

Detailed Definition of term

With different tags, you can create a rather pretty and functional page

Tables

```
<table> ... </table>
```

<table> Tag Attributes:

```
border="?"  
bordercolor="#??????"  
cellspacing="?"  
cellpadding="?"  
align="??"  
bgcolor="#??????"  
width="??"  
height="??"
```

```
<tr> ... </tr>
```

```
<th> ... </th>
```

```
<td> ... </td>
```

<td> Tag Attributes:

```
colspan="?"  
rowspan="?"  
width="??"  
height="??"  
bgcolor="#??????"  
align="??"  
valign="??"  
nowrap
```

Define a Table

Thickness of outside border

Border [Colour](#)

Space between cells (pixels)

Space between cell wall and content

Horizontal Alignment: **left, center, right** (*)

Background Colour (*)

Table Width (pixels or %) (*)

Table Height (pixels or %) (*)

Table Row within table

Header Cell within table row

Table Cell within table row

Number of columns the cell spans across (cell merge)

Number of row a cell spans across (cell merge)

Cell Width (pixels or %) (*)

Cell Height (pixels or %) (*)

Background Colour (*)

Horizontal Alignment: **left, center, right** (*)

Vertical Alignment: **top, middle, bottom** (*)

Force no line breaks in a particular cell

With different tags, you can create a rather pretty and functional page

Frames

```
<frameset> ... </frameset>
<frameset> Tag Attributes:
  rows="??,??, ..."
  cols="??,??, ..."
  noresize="noresize"
<frame> ... </frame>
<frame> Tag Attributes:
  src="url"
  name="****"
  marginwidth="?"
  marginheight="?"
  noresize="noresize"
  scrolling="****"
  frameborder="?"
  bordercolor="#??????"
<noframes> ... </noframes>
```

Define the set of Frames

Define row sizes & number of rows (size in pixels or %)

Define column sizes & number of columns (size in pixels or %)

User cannot resize any frames in frameset

Define a frame within the frameset

Location of HTML File for a frame

Unique name of frame window

Horizontal margin spacing inside frame (pixels)

Vertical margin spacing inside frame (pixels)

Declare all frameset sizes as fixed

Can the user scroll inside the frame: **yes, no, auto**

Frame Border: (1=yes, 2=no)

Border Colour ([?!](#))

Unframed content (for browsers not supporting frames)

With different tags, you can create a rather pretty and functional page

Forms

```
<form> ... </form>
<form> Tag Attributes:
  action="url"
  method="***"
  enctype="***"
<input> ... </input>
<input> Tag Attributes:
  type="***"
  name="***"
  value="***"
  size="***"
  maxlength="?"
  checked
<select> ... </select>
<select> Tag Attributes:
  name="***"
  size="?"
  multiple
<option> ... </option>
<option> Tag Attributes:
  value="***"
  selected
<textarea> ... </textarea>
<textarea> Tag Attributes:
  name="***"
  rows="?"
  cols="?"
  wrap="***"
```

Form input group declaration

URL of Form Script

Method of Form: `get`, `post`

For File Upload: `enctype="multipart/form-data"`

Input field within form

Input Field Type: `text`, `password`, `checkbox`, `submit` etc.

Form Field Name (for form processing script)

Value of Input Field

Field Size

Maximum Length of Input Field Data

Mark selected field in radio button group or checkbox

Select options from drop down list

Drop Down Combo-Box Name (for form processing script)

Number of selectable options

Allow multiple selections

Option (item) within drop down list

Option Value

Set option as default selected option

Large area for text input

Text Area Name (for form processing script)

Number of rows of text shown

Number of columns (characters per rows)

Word Wrapping: `off`, `hard`, `soft`

With different tags, you can create a rather pretty and functional page

Special Characters

```
&lt;
&gt;
&amp;
&quot;
&copy;
&trade;
&nbsp;
&#??;
```

< – Less-Than Symbol
> – Greater-Than Symbol
& – Ampersand, or 'and' sign
" – Quotation Mark
© – Copyright Symbol
™ – Trademark Symbol
– A space (non-breaking space)
ISO 8859-1 character – replace ?? with the [iso code](#)

Miscellaneous Tags

```
<!-- ... -->
<!DOCTYPE html ... >
<meta> ... </meta>
<meta> Tag Attributes:
  name="*"
  http-equiv="*"
  content="*"
<link>
<link> Tag Attributes:
  rel="*"
  http="url"
  type="*"
  title="*"
```

Comment within HTML source code
Document Type Definition ([wiki](#))
META information tag

Meta name: **description, keywords, author**
HTTP Equivalent Info: **title, etc.**
Information content
LINK content relationship tag

Type of forward relationship
Location (URL) of object or file being linked
Type of object or file, eg: **text/css**
Link title (optional)