

HTML

HTML

1 Introduction

1. What is HTML?

2. Structure

(1) one row in the body `<p> </p>`

(2) `<body> </body>`

(3) `<div> </div>`

3. headings

4. Attributes

5. Displaying text

6. built-in style

7. line break elements: `
`

8. Unordered List

9. Ordered List

10. Images

11. Videos

12. Adding Comments

* How to create great html?

2 HTML Document Standards

1. Preparing for HTML

(1) Document Type Declaration

(2) Add HTML structure

(3) the Head

2. Linking: another `<a>`

(1) Linking to external website

(2) Open Link in Different Ways: target attribute

(3) Open internal pages

(4) Other forms as a Link

(5) Linking to Different Portions on the Same Page

3. Tables

1. elements

(1) in headings

(2) in body

(3) in foot

2. format

(1) span columns and rows: `rowspan` and `colspan`

4. Forms

1. What is forms?

2. How a Form Works -> HTTP protocol

3. How to create a form: `<form>`

(1) basic

(2) Text Input: `<input>` element

4. An example for burger ordering form

5. Validation of Forms

(1) Requiring an input

(2) `minlength` and `maxlength`

(3) Match a Pattern: `pattern` attribute

Semantic HTML

1. Header and Nav

2. Main and Footer

3. Article and Section

4. aside
5. figure and figcaption
6. audio

Extra Notes

1. terminology
 - (1) inline-level elements
 - (2) block-level elements
 - (3) element
2. concepts
 - (1) difference between `<section>` and `<div>`
 - (2) How does HTTP works

Resources

1 Introduction

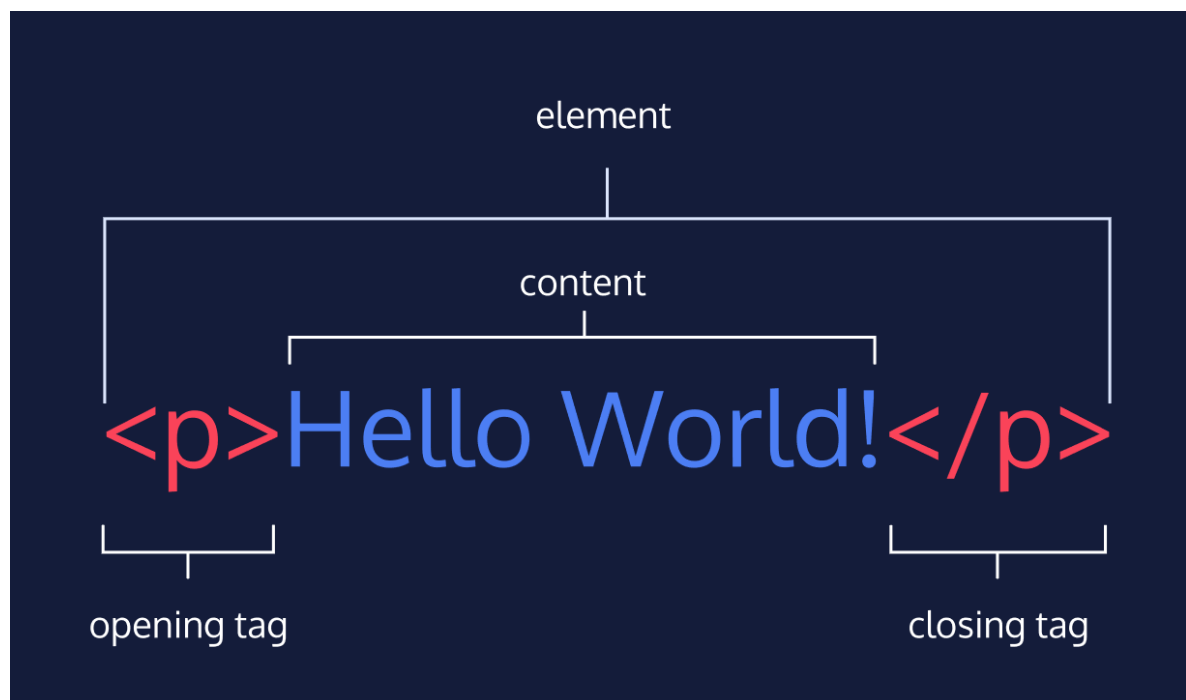
1. What is HTML?

It only provides structures, CSS provides style.

- It provides **structure** to the content appearing on a website, such as images, texts or videos.
- It stands for **HyperText Markup Language**

2. Structure

(1) one row in the body `<p> </p>`



(2) `<body> </body>`

The contents inside body is what displayed to screen.

(3) `<div> </div>`

`<div> </div>` is short for "division" or a container that divides the page into sections, which is great for **grouping elements** in HTML together.

- can contain any contents

3. headings

```
<body>
  <h1>The Brown Bear</h1>
  <h2>About Brown Bears</h2>
  <h3>Species</h3>
  <h3>Features</h3>
  <h2>Habitat</h2>
  <h3>Countries with Large Brown Bear Populations</h3>
  <h3>Countries with Small Brown Bear Populations</h3>
  <h2>Media</h2>
</body>
```

The Brown Bear

About Brown Bears

Species

Features

Habitat

Countries with Large Brown Bear Populations

Countries with Small Brown Bear Populations

Media

Smallest tag: h6

4. Attributes

Help identify content on the page.

```
<div id="intro">
  <h1>Introduction</h1>
</div>
```

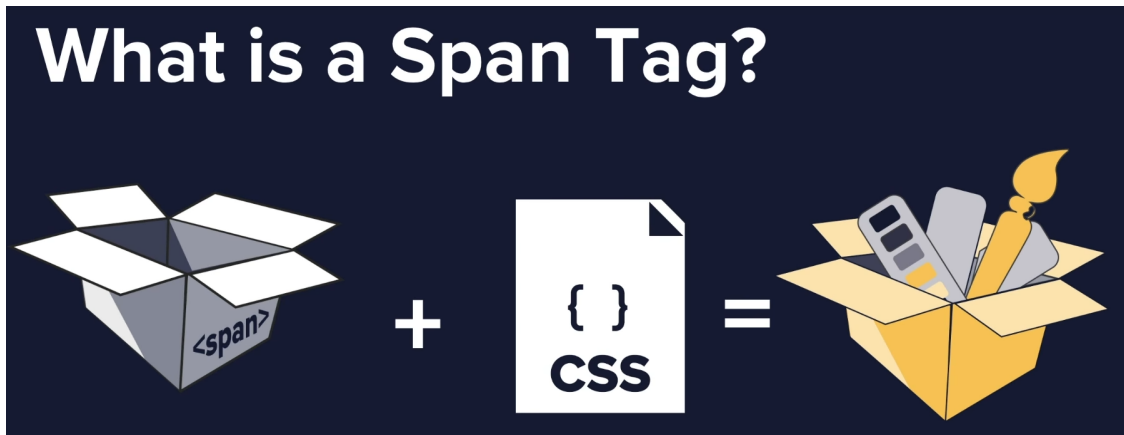
5. Displaying text

<p>:

- stand for **paragraph**;
- contain short pieces of text
- not inline, only used for displaying text

``:

- separate small pieces of content
- helpful in CSS so that I can **style** one part of a paragraph differently than the rest



- Inline elements

6. built-in style

- ``: *italic*
- ``: **bold**

7. line break elements: `
`

It is special because it only composed of a **starting tag**.

```
<p>The Nile River is the longest river <br> in the world, measuring over 6,850  
<br> kilometers long (approximately 4,260 <br> miles).</p>
```

which will look like this:

The Nile River is the longest river
in the world, measuring over 6,850
kilometers long (approximately 4,260
miles).

8. Unordered List

- To create a list, use `` tag
- Add elements with `` tag

```
<ul>  
  <li>Limes</li>  
  <li>Tortillas</li>  
  <li>Chicken</li>  
</ul>
```

9. Ordered List

Use ``, and everything else is just like the unordered list.

10. Images

1. Use ``, a **self closing tag**.
2. The tag has a required attribute called `src` -- be set to the image's source.

```

```

3. `<alt>` attribute is used to describe what the image is.

```

```

11. Videos

1. Use the `<video>` tag and `src` attribute
2. **Unlike ``, it requires an opening and a closing tag.**
3. `controls` attributes instructs the browser to include basic video controls: pause, play and skip.

```
<video src="myvideo.mp4" width="320" height="240" controls>
  <!--Only display "video not supported" when the browser is unable to load the
video.-->
  <p>This will be shown in the browser.</p>
  video not supported
</video>
```

12. Adding Comments

```
<!-- This is a comment that the browser will not display. -->
```

* How to create great html?

- **Accessibility:** the practice to make the website **usable** for as many users as possible
 - eg: Visually impaired users may not see the contents, so we should develop the function to help them read.
 - **solution:** `<alt>`
- **Structure:** A structured content is helpful for readability and maintenance to html.
 - A heading is a heading, and the content is the content.
 - indentation
 - Use semantically meaningful tags and avoid using meaningless tags like `<div>`

2 HTML Document Standards

1. Preparing for HTML

(1) Document Type Declaration

We need to declare what type of document it is to the web browser, which is called a *document type declaration*. The following lines tell the browser this is *HTML5* version:

```
<!DOCTYPE html>
```

(2) Add HTML structure

Use `<html>` tag. Anything between the opening `<html>` and closing `</html>` tags will be interpreted as HTML code.

```
<!DOCTYPE html>  
<html>  
  
</html>
```

(3) the Head

The head element contains *metadata* of a webpage, which is **NOT** displayed directly on the web page. It is before `<body>` tag, which is directly the contents we can see on the webpage.

```
<head>  
</head>
```

1. Contain the title of the page, using `