

Jit Team & 3LO 2019-2020

< HTML >

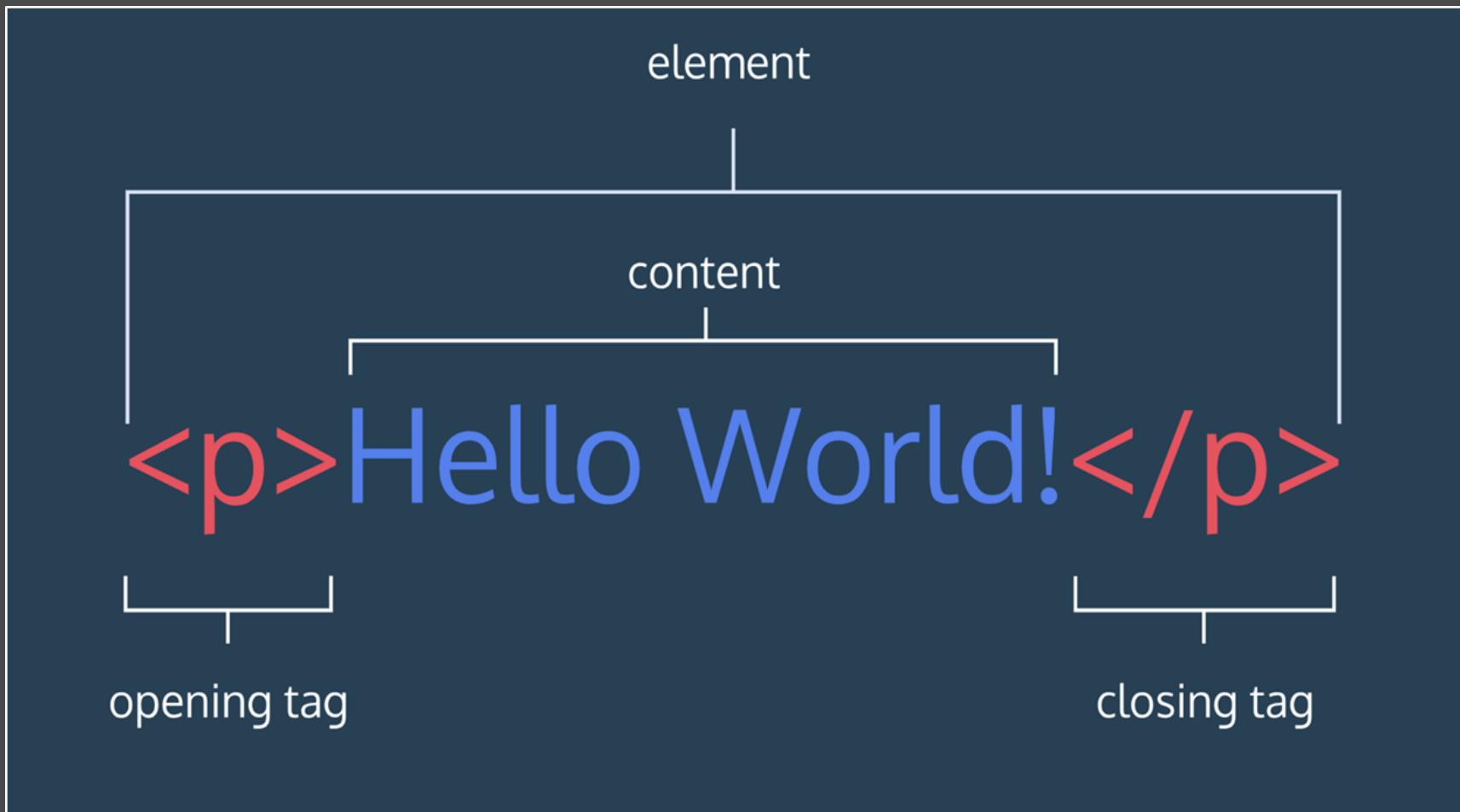
HTML

It's a markup language

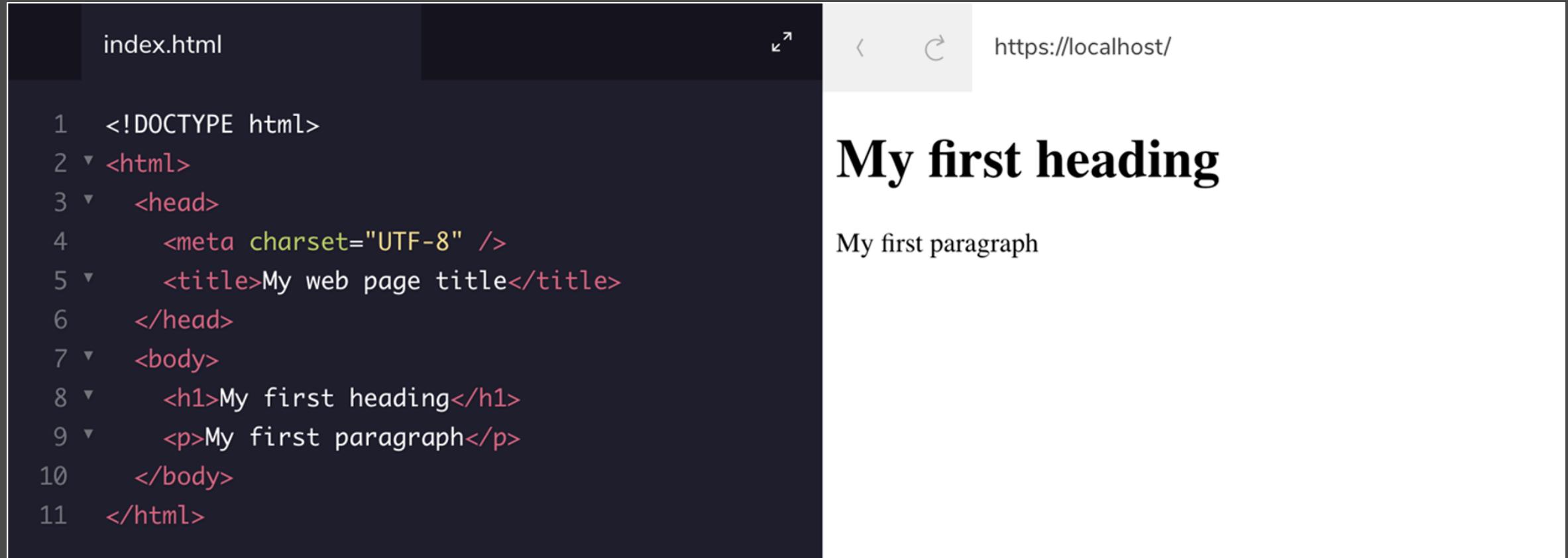
not programming language

Used to tell the browser how to structure web pages

HTML element structure



HTML element structure



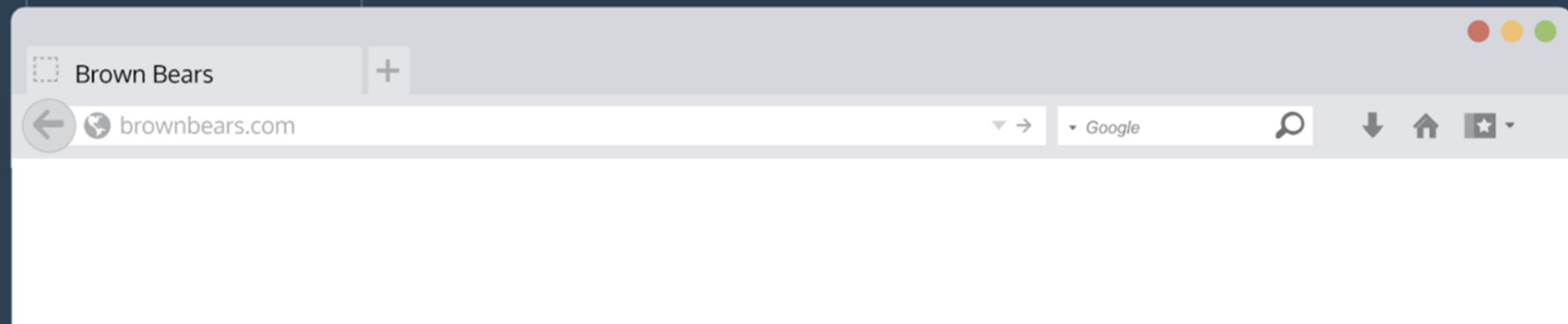
The image shows a screenshot of a web browser window. On the left, there is a code editor window titled "index.html" containing the following HTML code:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="UTF-8" />
5   <title>My web page title</title>
6 </head>
7 <body>
8   <h1>My first heading</h1>
9   <p>My first paragraph</p>
10 </body>
11 </html>
```

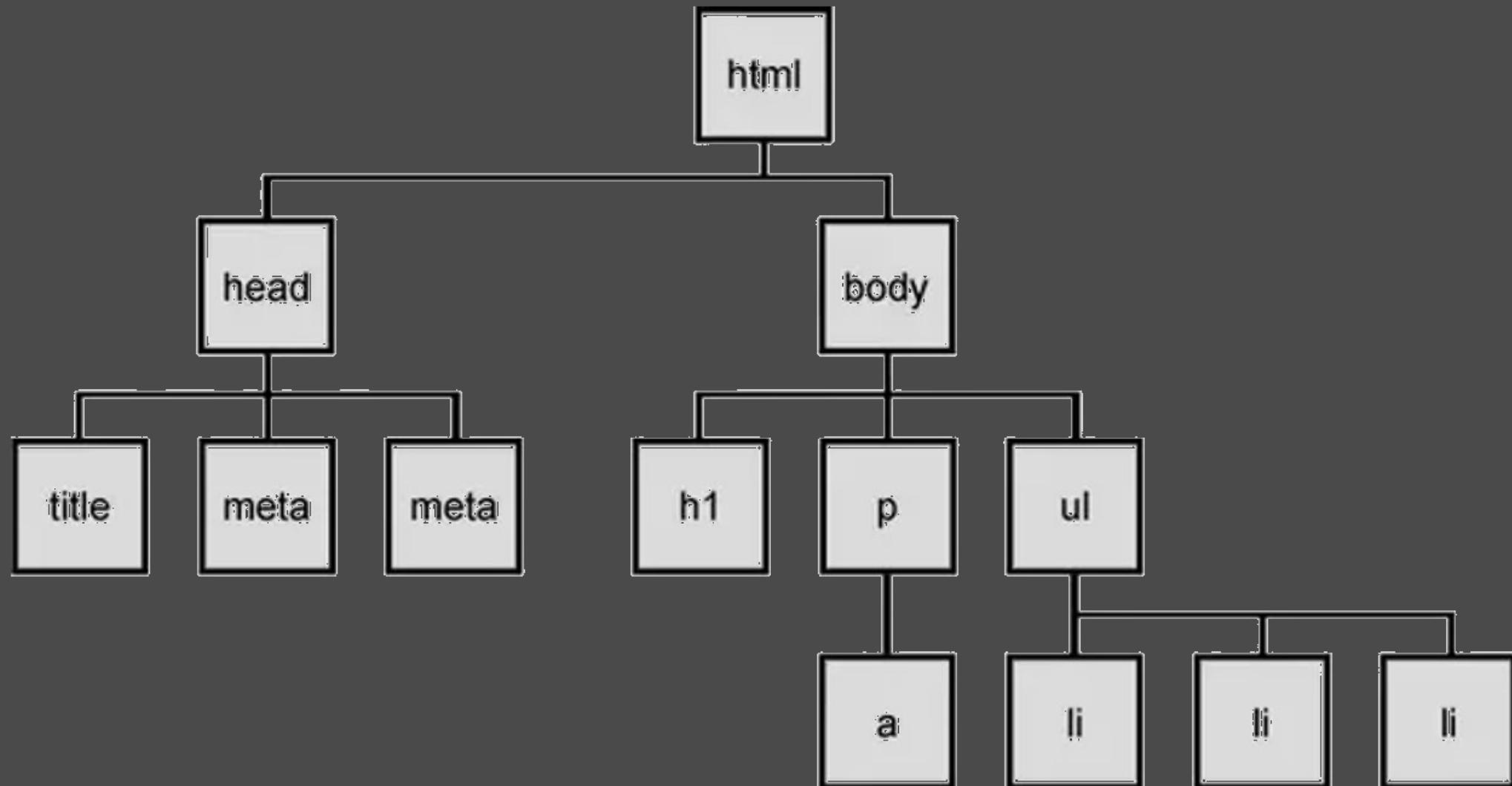
On the right, the browser's address bar shows the URL "https://localhost/" and the rendered content of the page. The page displays the text "My first heading" in a large, bold, black font, followed by the text "My first paragraph" in a smaller, regular black font.

HTML element structure

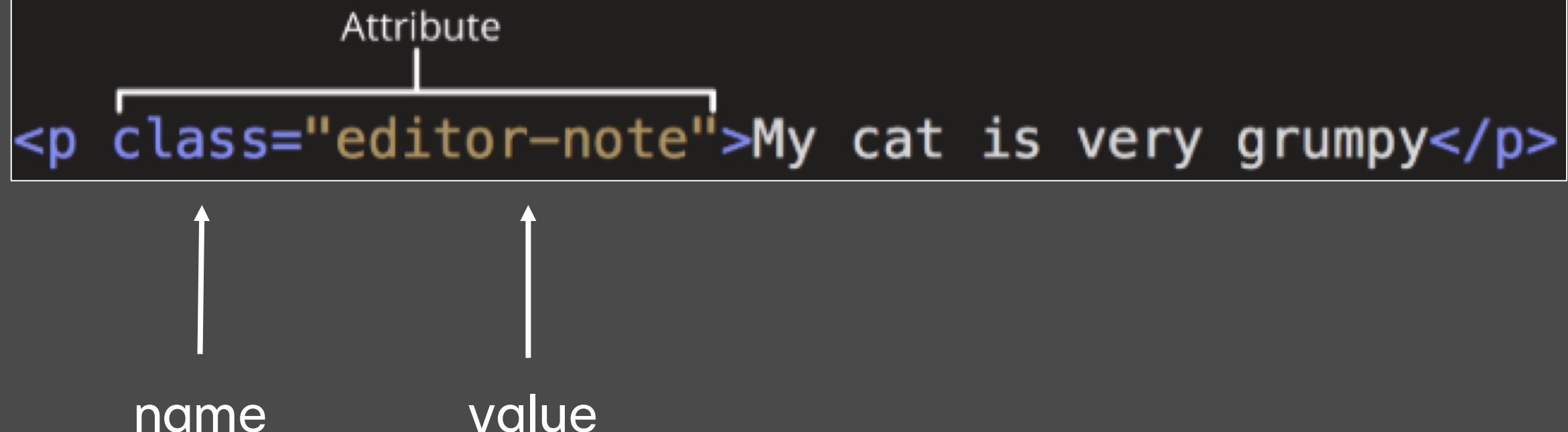
Site Title



Document Object Model DOM



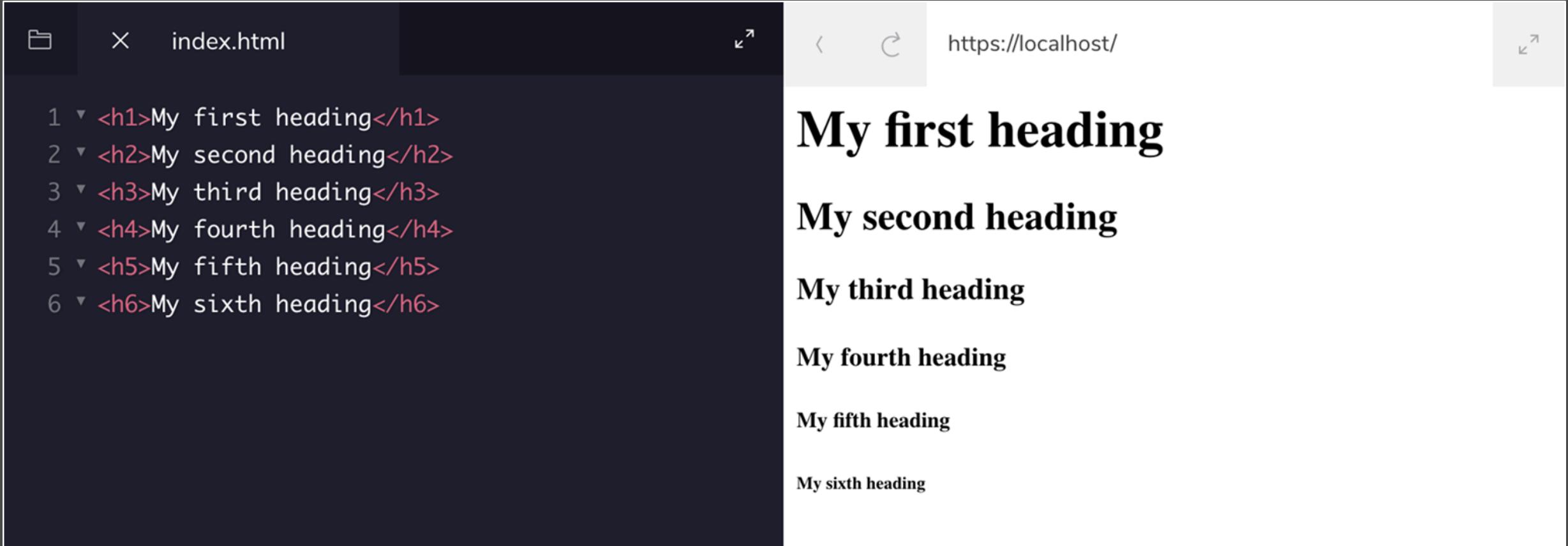
HTML element attributes



HTML data attributes

```
<p data-animal="cat">My cat is very grumpy</p>
```

HTML headings

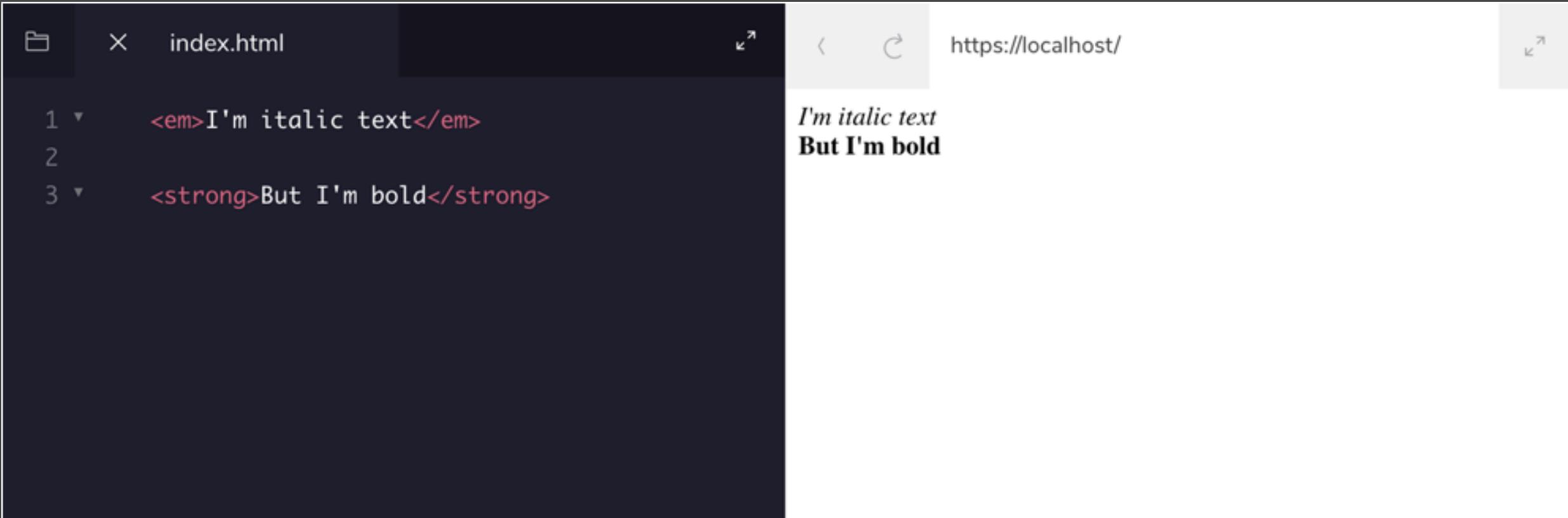


A screenshot of a web browser window. The address bar shows the URL `https://localhost/`. The main content area displays a series of headings from `<h1>` to `<h6>`, each followed by the text "My [heading level] heading". The browser interface includes a file icon, a close button, and a refresh button.

```
1 ▼ <h1>My first heading</h1>
2 ▼ <h2>My second heading</h2>
3 ▼ <h3>My third heading</h3>
4 ▼ <h4>My fourth heading</h4>
5 ▼ <h5>My fifth heading</h5>
6 ▼ <h6>My sixth heading</h6>
```

My first heading
My second heading
My third heading
My fourth heading
My fifth heading
My sixth heading

HTML text formatting

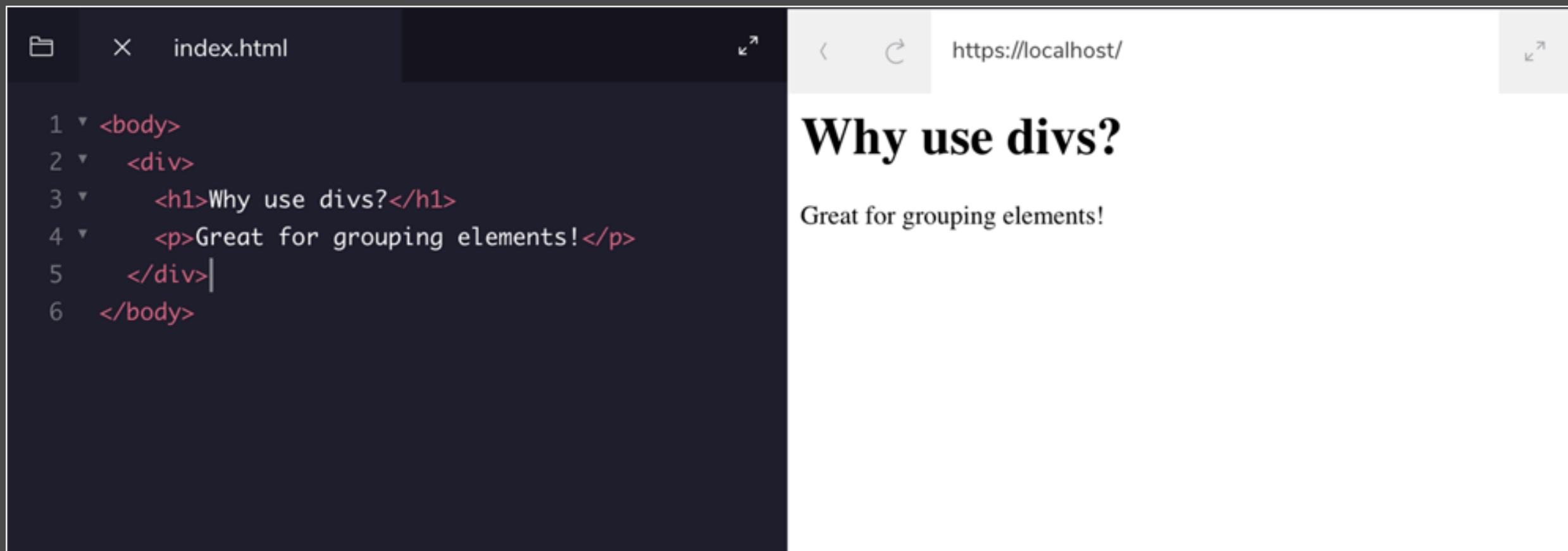


A screenshot of a browser window showing the output of an HTML file. The browser interface includes a tab bar with 'index.html', a toolbar with icons for back, forward, and refresh, and a URL bar with 'https://localhost/'. The main content area displays two lines of text: the first line is italicized ('I'm italic text') and the second line is bold ('But I'm bold').

```
index.html
<em>I'm italic text</em>
<strong>But I'm bold</strong>
```

I'm italic text
But I'm bold

HTML divs

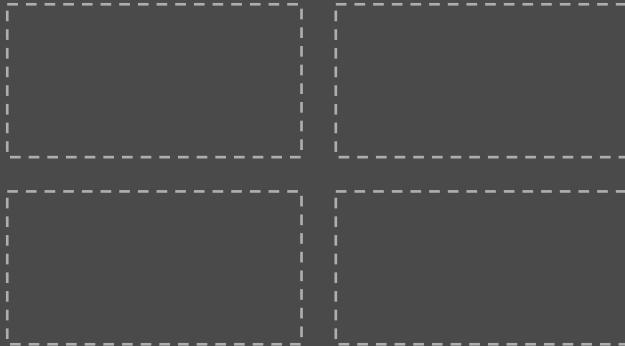


A screenshot of a web browser window. The address bar shows the URL `https://localhost/`. The main content area displays the text "Why use divs?" in a large, bold, black font, followed by the subtitle "Great for grouping elements!" in a smaller, regular black font. To the left of the browser window, there is a dark sidebar or code editor containing the HTML code for the page. The code is as follows:

```
1 <body>
2   <div>
3     <h1>Why use divs?</h1>
4     <p>Great for grouping elements!</p>
5   </div>
6 </body>
```

Behaviour of HTML elements

Display: **inline**



Display: **block**



Display: **inline-block**



Block <div>

- Takes up 100% of horizontal space – width of the browser
- Paragraphs, lists, navigation menus, footers etc.

Inline

- Takes up as much horizontal space as necessary
- surrounds only small parts of the document's content, not entire paragraphs; they would normally appear inside a paragraph of text
- <a> (hyperlink), emphasis elements (,)

HTML comments

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

HTML unordered list

A screenshot of a web browser window. On the left, a dark sidebar shows the file structure with 'index.html' selected. The main content area displays the following HTML code:

```
1 <ul>
2   <li>Limes</li>
3   <li>Tortillas</li>
4   <li>Chicken</li>
5 </ul>
```

The browser's address bar shows the URL `https://localhost/`. To the right of the address bar, the rendered output of the list is displayed:

- Limes
- Tortillas
- Chicken

HTML ordered list

The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the following HTML code:

```
1 <ol>
2   <li>Preheat the oven to 350 degrees.</li>
3   <li>Mix whole wheat flour, baking soda, and salt.</li>
4   <li>Cream the butter, sugar in separate bowl.
</li>
5   <li>Add eggs and vanilla extract to bowl.</li>
6 </ol>
```

The browser window shows the rendered output of the code:

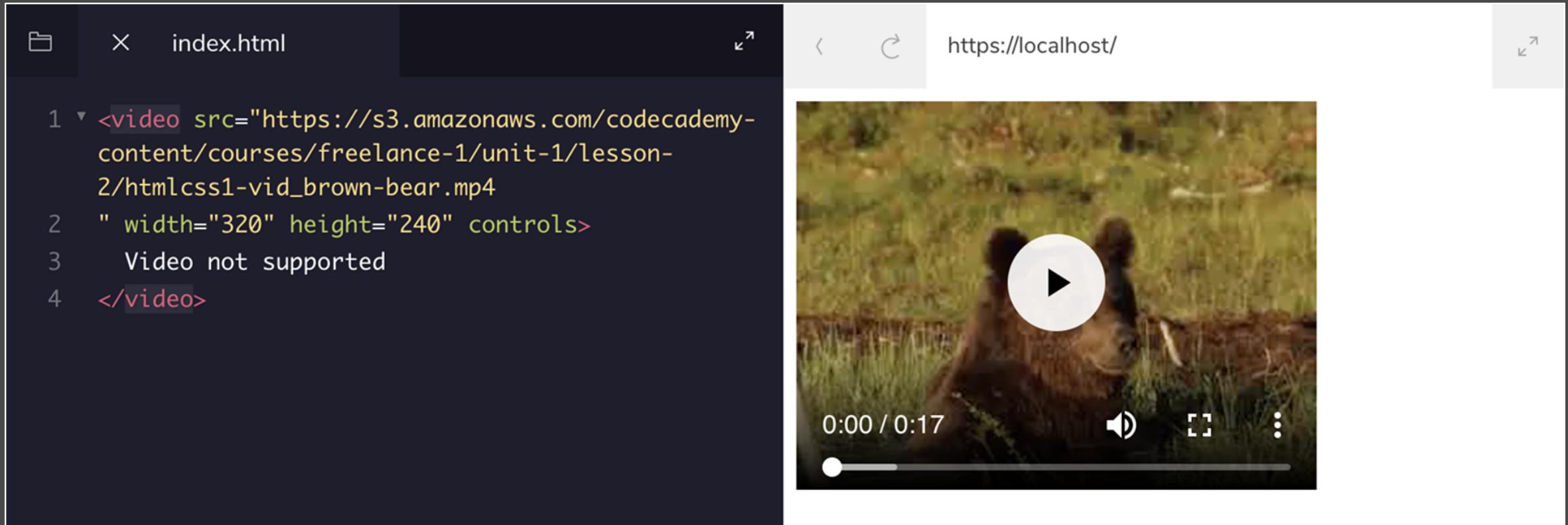
1. Preheat the oven to 350 degrees.
2. Mix whole wheat flour, baking soda, and salt.
3. Cream the butter, sugar in separate bowl.
4. Add eggs and vanilla extract to bowl.

HTML images

```
1 
2
```

The image shows a brown bear's head and shoulders, looking slightly to the right. It has dark brown fur with lighter patches around its eyes and nose.

HTML videos

A screenshot of a web browser window. On the left, the code editor shows the HTML file 'index.html' with the following content:

```
1 <video src="https://s3.amazonaws.com/codecademy-content/courses/freelance-1/unit-1/lesson-2/htmlcss1-vid_brown-bear.mp4"
2 " width="320" height="240" controls>
3 Video not supported
4 </video>
```

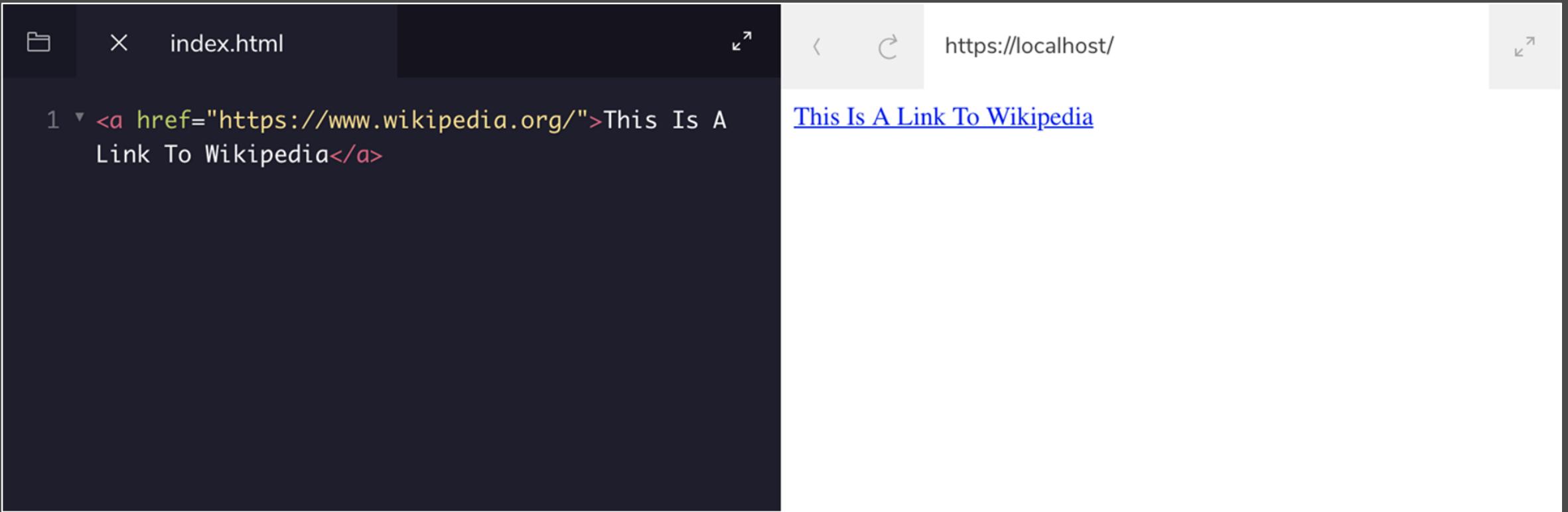
The browser's address bar shows the URL 'https://localhost/'. The main content area displays a video player. The video frame shows a brown bear in a grassy field. A large white play button is centered over the video. Below the video frame, the status bar shows '0:00 / 0:17'. To the right of the status bar are three icons: a speaker icon (volume control), a full-screen icon, and a more options icon (three dots).

index.html

https://localhost/

```
1 <video src="https://s3.amazonaws.com/codecademy-content/courses/freelance-1/unit-1/lesson-2/htmlcss1-vid_brown-bear.mp4"
2 " width="320" height="240" controls>
3 Video not supported
4 </video>
```

HTML linking to external page



The screenshot shows a browser window with the address bar displaying "https://localhost/". The main content area shows the text "This Is A Link To Wikipedia" in blue, underlined font, which is a hyperlink. To the left of the browser window, a code editor shows the HTML code for this page:

```
1 <a href="https://www.wikipedia.org/">This Is A  
Link To Wikipedia</a>
```

HTML linking to relative page

The screenshot shows a browser window with two tabs: 'index.html' and 'aboutme.html'. The 'index.html' tab is active, displaying the code:

```
1 <a href="./contact.html">Contact</a>
```

. The 'aboutme.html' tab is visible in the background. The browser address bar shows <https://localhost/>. On the right, the browser displays the word 'Contact' in blue, indicating it is a hyperlink. A callout box points from the word 'Contact' to the file structure below, which is displayed in a dark gray box:

```
project-folder/
|--- about.html
|--- contact.html
|--- index.html
```

HTML linking to the same page

The screenshot shows a browser window with the URL `https://localhost/`. On the left, the code editor displays the HTML file `index.html` containing the following code:

```
1 <ol>
2   <li><a href="#top">Top</a></li>
3   <li><a href="#bottom">Bottom</a></li>
4 </ol>
5
6 <p id="top">This is the top of the page!</p>
7 <h1 id="bottom">This is the bottom! </h1>
```

The browser output on the right shows the rendered page. It contains two numbered links: "1. [Top](#)" and "2. [Bottom](#)". Below these links, the text "This is the top of the page!" is displayed. At the bottom of the page, the text "This is the bottom!" is displayed in a large, bold font.

HTML tables

- <table>
- <tr> row <td> cell (data)
- <th> header
- <tbody> <thead> <tfoot>
- colspan rowspan attributes

HTML tables

The screenshot shows a code editor interface with two tabs: "index.html" and "style.css". The "index.html" tab contains the following HTML code:

```
1 <table>
2   <thead>
3     <tr>
4       <th>Quarter</th>
5       <th>Revenue</th>
6     </tr>
7   </thead>
8   <tbody>
9     <tr>
10    <th>Q1</th>
11    <td>$10M</td>
12  </tr>
13  <tr>
14    <th>Q2</th>
15    <td>$12M</td>
16  </tr>
17 </tbody>
18 <tfoot>
19 <tr>
20   <th>Total</th>
21   <td>$22M</td>
22 </tr>
23 </tfoot>
24 </table>
```

The "style.css" tab is currently empty.

To the right of the code editor is a browser window displaying the rendered HTML. The title bar of the browser says "https://localhost/". The content of the browser shows a table with the following data:

Quarter	Revenue
Q1	\$10M
Q2	\$12M
Total	\$22M

HTML form elements

- <form> action, method (attributes)
- <label>
- <input> type, name, value (attributes)
- <select>, <option>
- <textarea>
- <fieldset>, <legend>

Personal information:

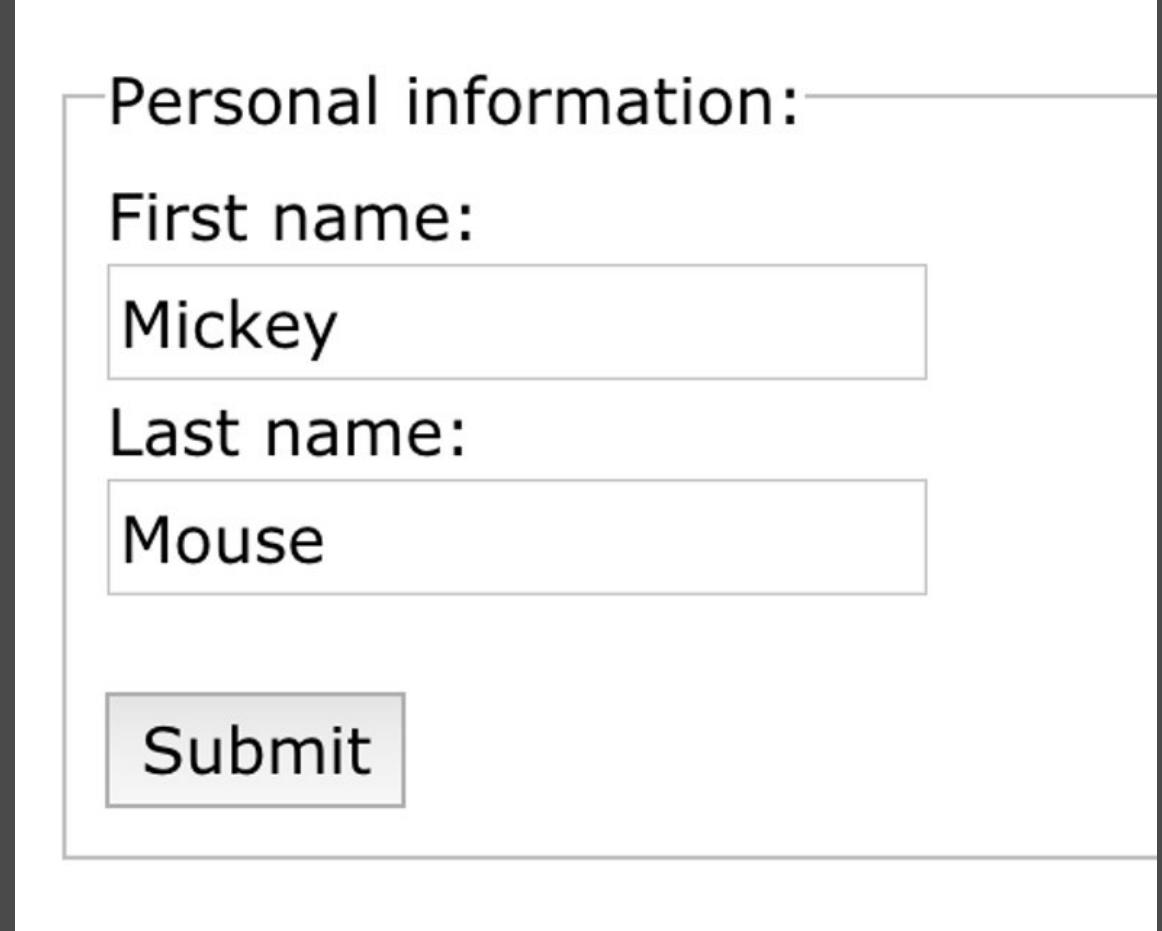
First name:

Mickey

Last name:

Mouse

Submit

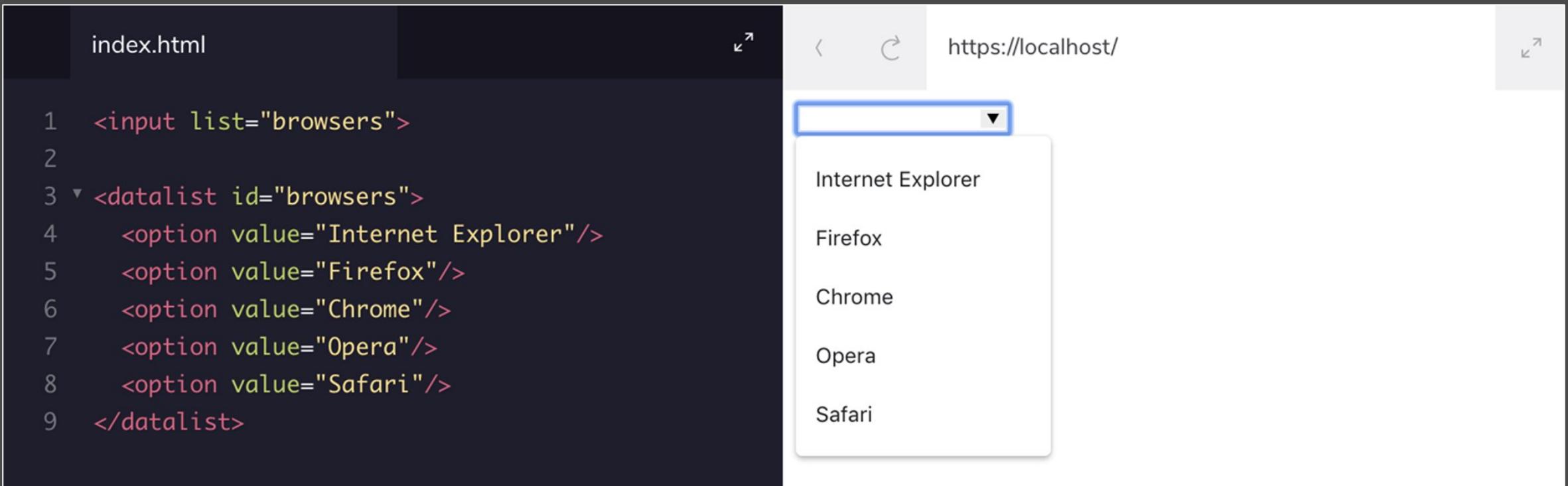


HTML form input attributes: name

- Each input field must have a name attribute to be submitted.
- If the name attribute is omitted, the data of that input field will not be sent at all.

```
1 <input type="text"  
2 name="lastname"  
3 value="Mouse"/>
```

HTML form input attributes: list



The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the following HTML code:

```
index.html
1 <input list="browsers">
2
3 <datalist id="browsers">
4   <option value="Internet Explorer"/>
5   <option value="Firefox"/>
6   <option value="Chrome"/>
7   <option value="Opera"/>
8   <option value="Safari"/>
9 </datalist>
```

The browser window shows the URL <https://localhost/>. A dropdown menu is open over the input field, listing the following options:

- Internet Explorer
- Firefox
- Chrome
- Opera
- Safari

HTML form input types

- <input type = “text” />
- <input type = “email”/>
- <input type = “radio” />
- <input type = “checkbox” />
- <input type = “button” />
- <input type = “password” />
- <input type = “submit” />
- ...

The image shows a web page with a form. At the top, there are two text input fields: 'First name:' containing 'Mickey' and 'Last name:' containing 'Mouse'. To the right of these is a vertical stack of three radio buttons: 'Male' (selected), 'Female', and 'Other'. Below this is a horizontal row with a 'Click Me!' button on the left and two checkboxes on the right, each followed by a label: 'I have a bike' and 'I have a car'. At the bottom of the form is a large 'Submit' button.

First name:
Mickey

Last name:
Mouse

Male
Female
Other

Click Me!

Submit

I have a bike
I have a car

HTML form input attributes

- **value** – sets display value of the input field
- **disabled** – disables element
- **size** – defines the size (in characters) of the input field
- **maxlength** – defines maximum character count for the input field
- **placeholder** – displays example value
- **required** – specifies that an input field must be filled out before submitting

HTML form attributes: **action**

- specifies the URL of a file that will process the input control when the form is submitted
- overrides the action attribute of the <form> element
- is used with type="submit" and type="image"

HTML form attributes: method

GET

- The default method when submitting form data
- Visible in the page address field
- Appends form-data into the URL in name/value pairs

POST

- If the form data contains sensitive or personal information
- Does not display the submitted form data in the page address field.

```
https://example.com/contact?firstname=Mickey&lastname=Mouse
```

Responsive Web Design



Viewport

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

Without the viewport meta tag:



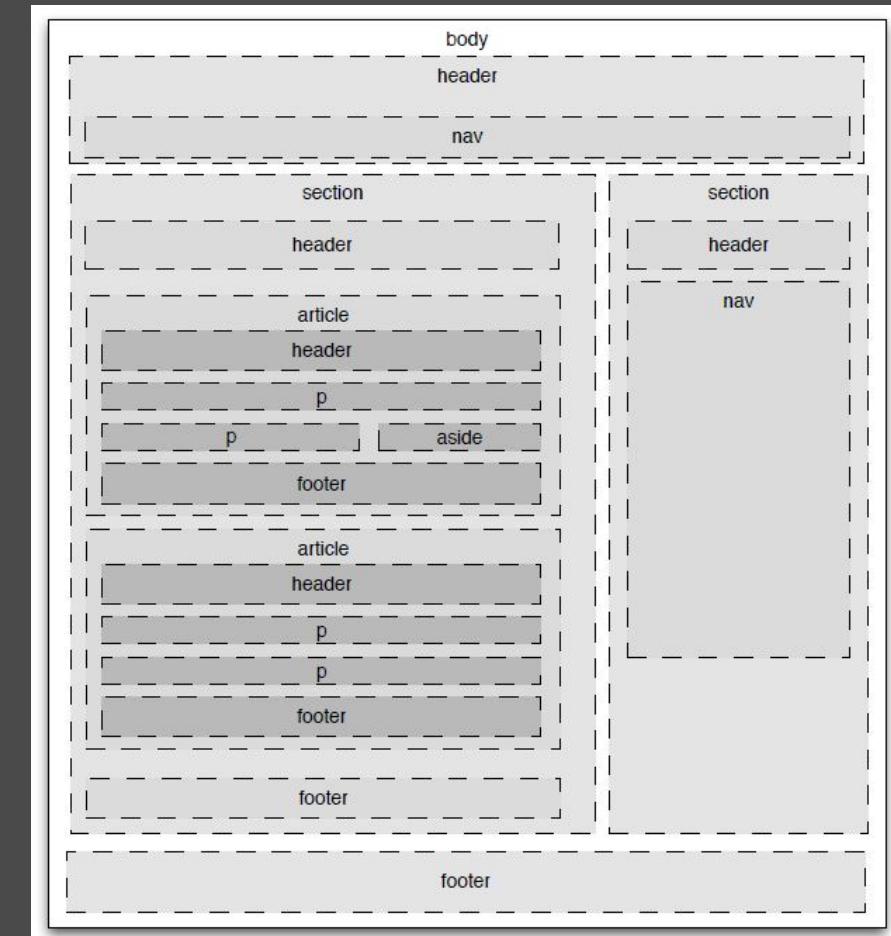
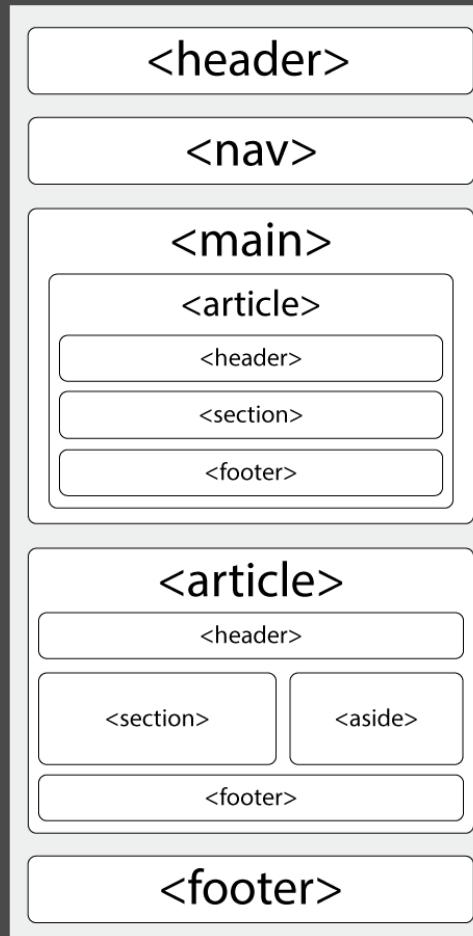
With the viewport meta tag:



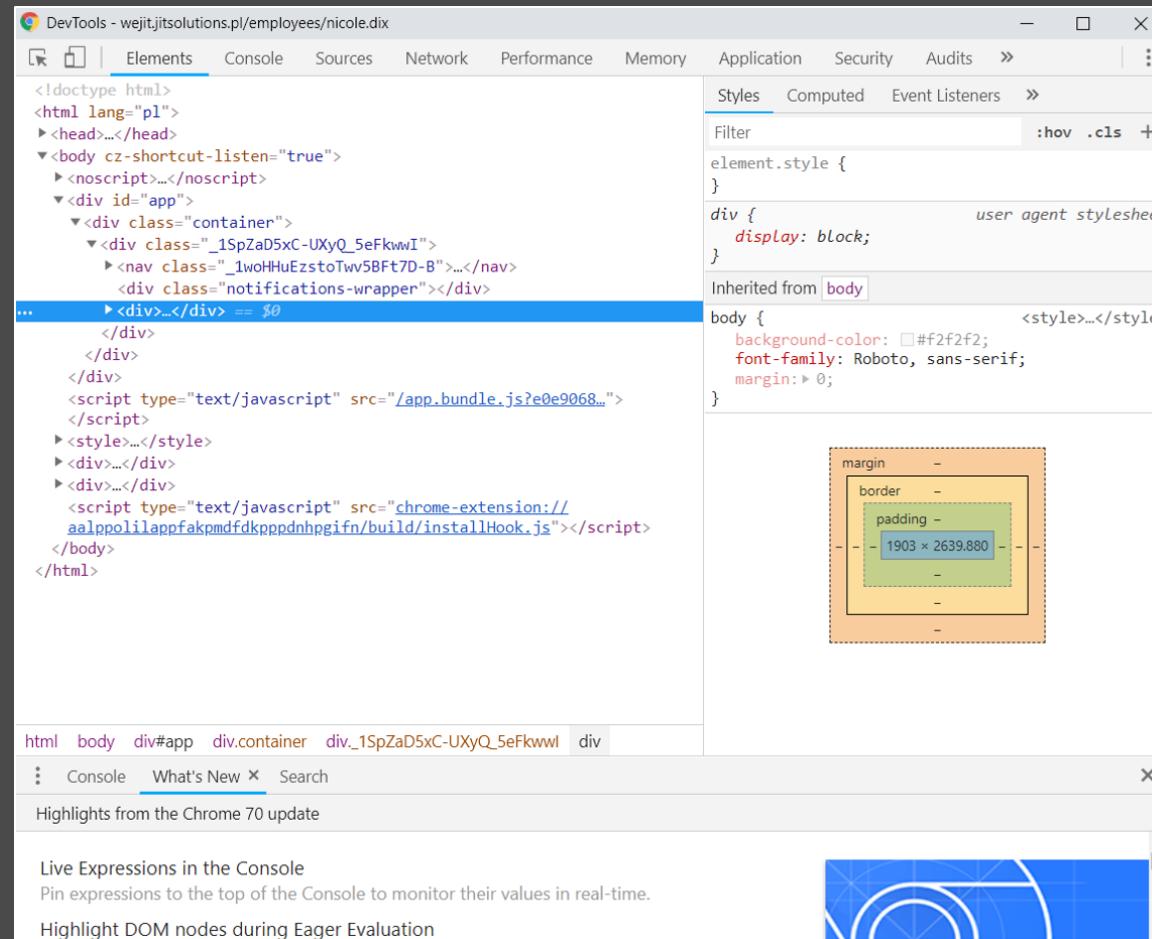
HTML 5 APIs

- Fetch
- Drag and Drop
- Local Storage
- Application Cache
- Web Workers
- History
- And many more...

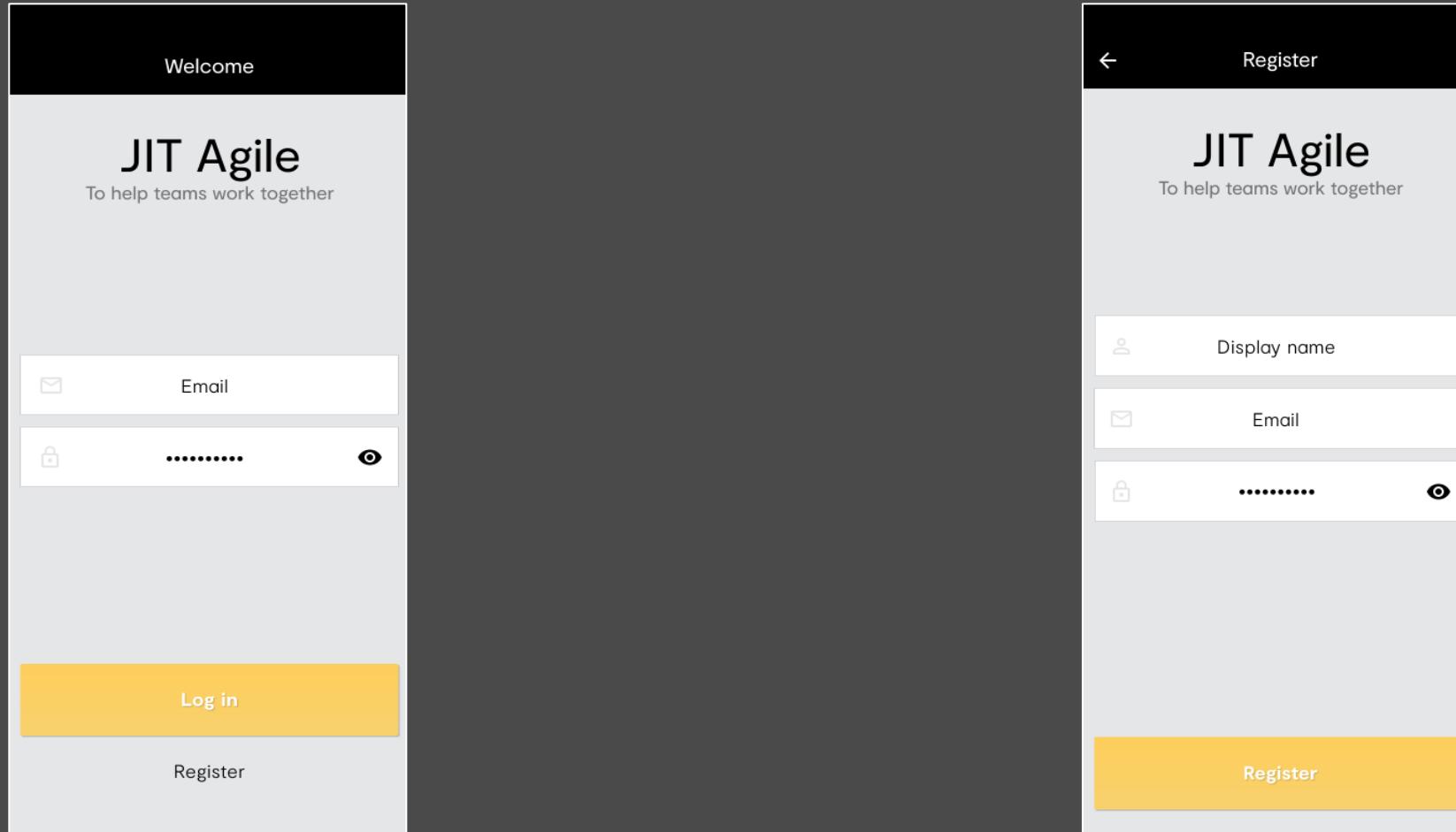
HTML 5 semantic elements



Debugging

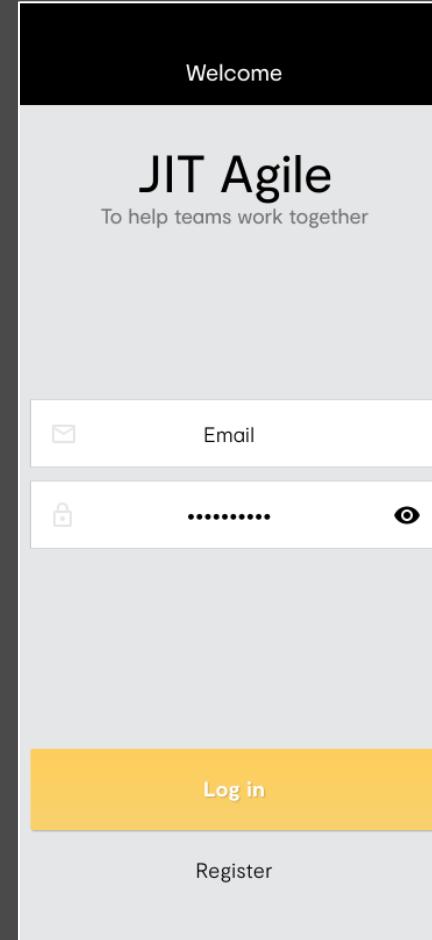


Jit Agile



Exercise #1

1. Create header that consists of three headings all on separate lines
2. Create two inputs for email and password
3. Embed images for email and password input fields
4. Create "Log in" button
5. Create "Register" anchor link to register.html file

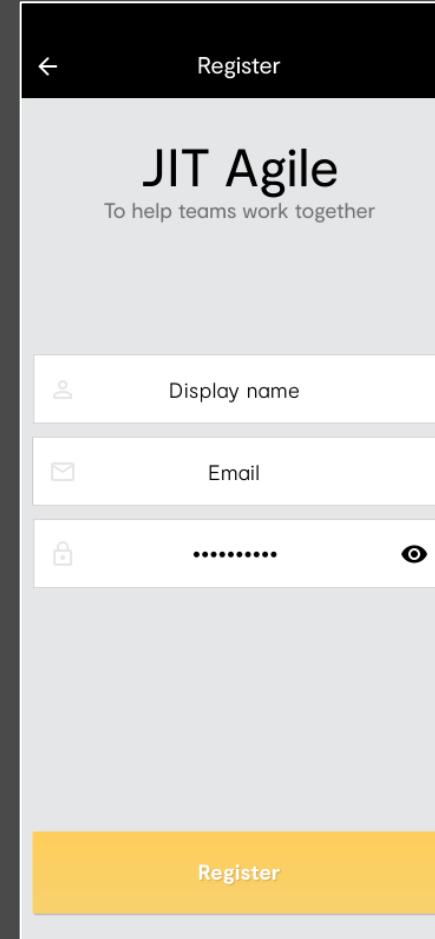


Resources: <http://bit.do/3lo-html-res>

Exercise #2

1. Create a heading and anchor link with arrow icon that links to log in page, on the same line
2. Create two headings on separate lines
3. Create three inputs for username, email and password
4. Embed images for username, email and password input fields
5. Create "Register" button

Resources: <http://bit.do/3lo-html-res>



W3schools html references and more...

<https://www.w3schools.com/html>