

Hello CCI 🙌

My name is Giulio Ammendola

Commenting Code

Introduction to Javascript



When writing code, we add comments to easily describe the purpose of the code, algorithm, or program to other **humans**.



Commenting is the *art* of describing what your program is going to do in *high level* English statements.

It might be counterintuitive now, but with experience you'll find commenting is best done before actually writing the code for your program as a sort of to do list.



As artists, commenting is even more important as it can be used in a more poetic way, or even a signature of your work.



Commenting Code

Comments in HTML

```
<!-- This is a comment in HTML -->  
  
<p>This is a paragraph.</p>  
  
<h1>This is a title.</h1>  
  
✓ <!-- Or you can  
comment out a  
large number of  
lines.  
-->
```

+ ? /
command

Commenting Code



Comments in CSS

```
/* This is a single-line comment */
<p> {
    color: red;
}

/* This is
   a multi-line
   comment
*/
```

Documentation

<https://developer.mozilla.org/en-US/docs/Web/CSS/Comments#>

#

command

+

?

/

Commenting Code

Activity

```
body {  
    font-family: Helvetica, Arial, sans-serif;  
}  
  
h1 {  
    color: SeaGreen;  
}  
  
p, li {  
    font-size: 18px;  
}  
  
a {  
    text-decoration: none;  
}
```

*Recreate this CSS code
and add some comments
to explain what the code does.*

*Imagine you are explaining
the rationale behind
your design choices.*

JavaScript is a high-level, versatile, and dynamic programming language primarily used for web development.

It's a crucial tool for creating interactive and dynamic web pages that respond to user actions. Things that can not be done using only HTML and CSS.

It was created in 10 days  by Brendan Eich in 1995, and it's currently still the most used programming language in the world.

What do you want on
your website?

HTML

Structure and Content



What do you want on
your website?

How do you want it to
look like?

HTML

CSS

Structure and Content



Presentation



Introduction to Javascript

What is it?

What do you want on
your website?

HTML

Structure and Content



How do you want it to
look like?

CSS

Presentation



How should the user
interact with it?

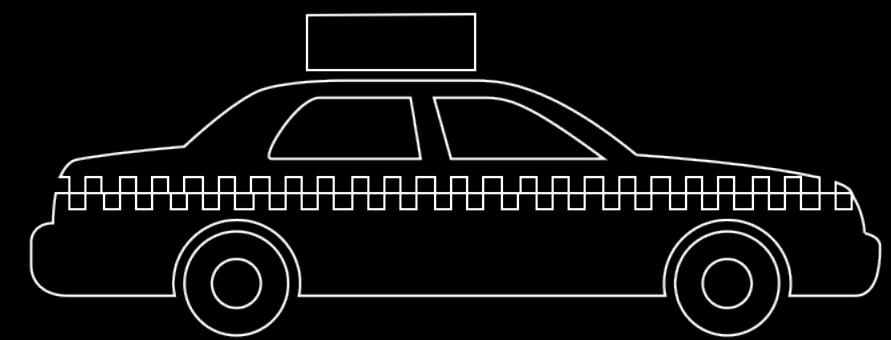
Javascript

Behaviours



Introduction to Javascript

What is it?



Structure and Content



Presentation

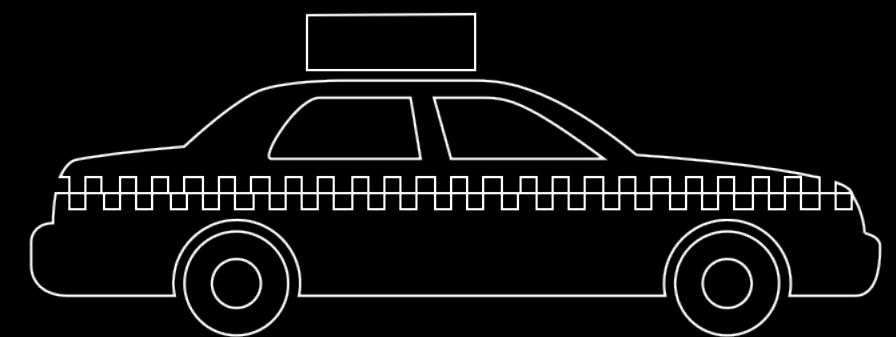


Behaviours



Introduction to Javascript

What is it?



Structure and Content



Presentation

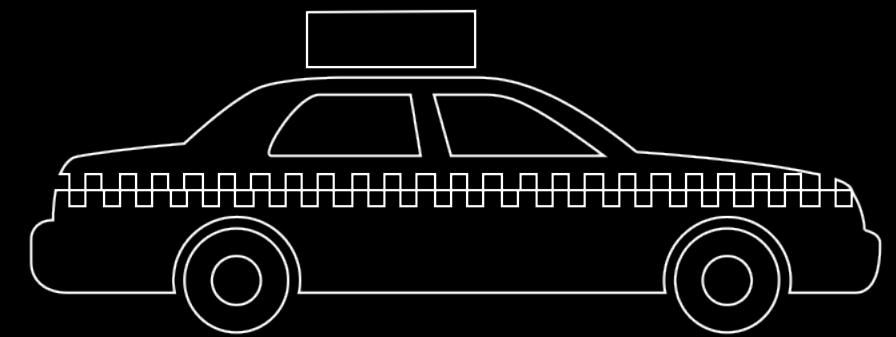


Behaviours



Introduction to Javascript

What is it?



Structure and Content



Presentation

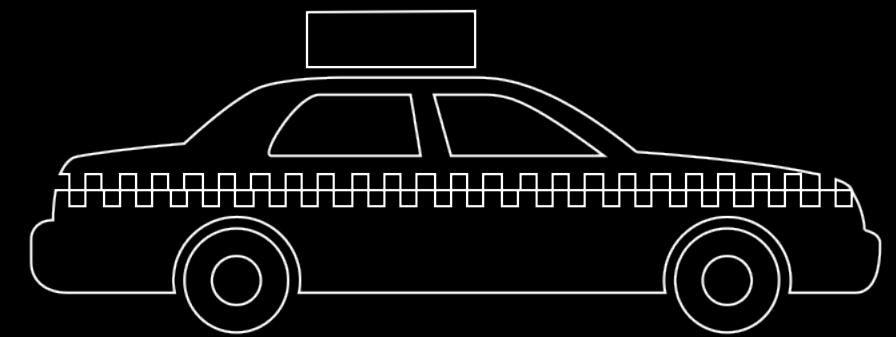


Behaviours



Introduction to Javascript

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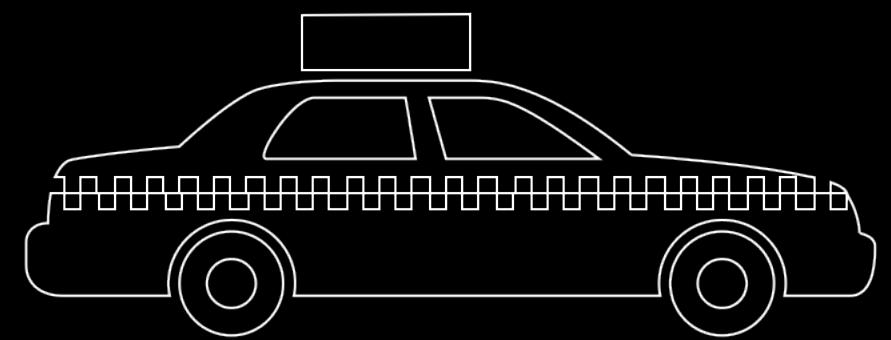


Behaviours



Introduction to Javascript

What is it?



Structure and Content



Presentation

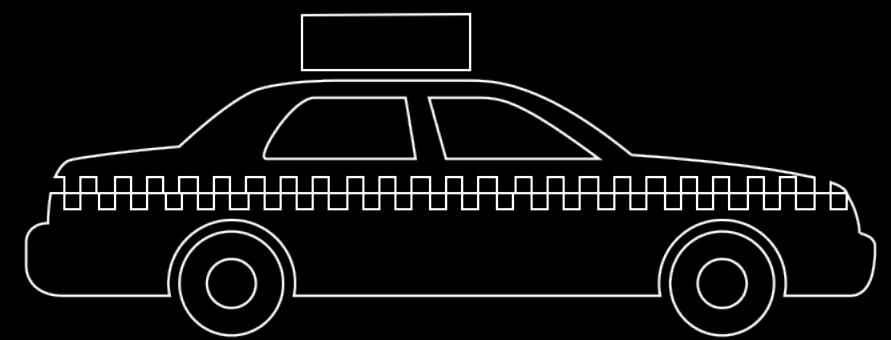


Behaviours



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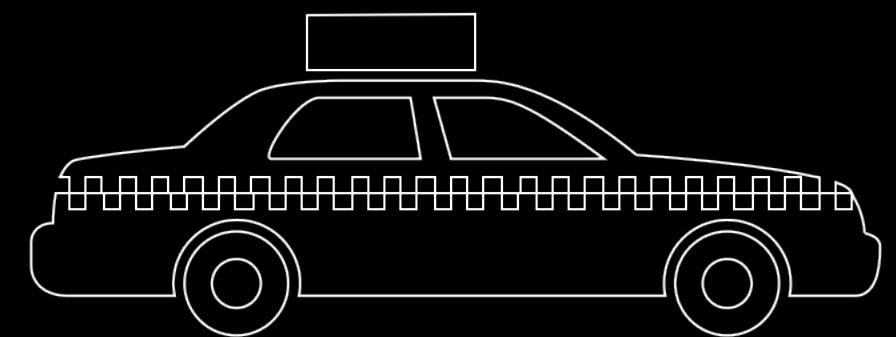


Behaviours



Introduction to Javascript

What is it?



Structure and Content



Presentation

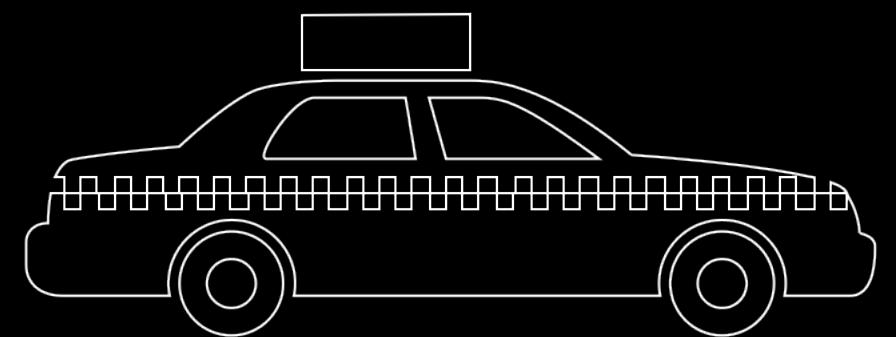


Behaviours



Introduction to Javascript

What is it?



Structure and Content



Presentation



Behaviours



Similarly to HTML and CSS, there are many different ways you can start using Javascript in your project or website.

Let's try a simple alert example in the console, inline, using the script tag and as a separate file

Inline

```
<!DOCTYPE html>
<html>
<head>
|   <title>Inline Alert</title>
</head>
<body>
|   <button onclick="alert('This is an inline alert!')">Click me for an alert</button>
</body>
</html>
```

Console: *alert('Your alert')*

Script tag

```
<!DOCTYPE html>
<html>
<head>
    <title>Internal Alert</title>
    <script>
        function displayAlert() {
            alert('This is an internal alert!');
        }
    </script>
</head>
<body>
    <button onclick="displayAlert()">Click me for an alert</button>
</body>
</html>
```

Separate file

```
<!-- Separate file -->
<!DOCTYPE html>
<html>
  <head>
    <title>External Alert</title>
    <script src="script.js"></script>
  </head>
  <body>
    <button onclick="displayAlert()">Click me for an alert</button>
  </body>
</html>
```

Script.js

```
function displayAlert() {
  alert('This is an external file alert!');
}
```

Separate file

```
<!-- Separate file -->
<!DOCTYPE html>
<html>
  <head>
    <title>External Alert</title>
    <script src="script.js"></script>
  </head>
  <body>
    <button onclick="displayAlert()">Click me for an alert</button>
  </body>
</html>
```

Script.js

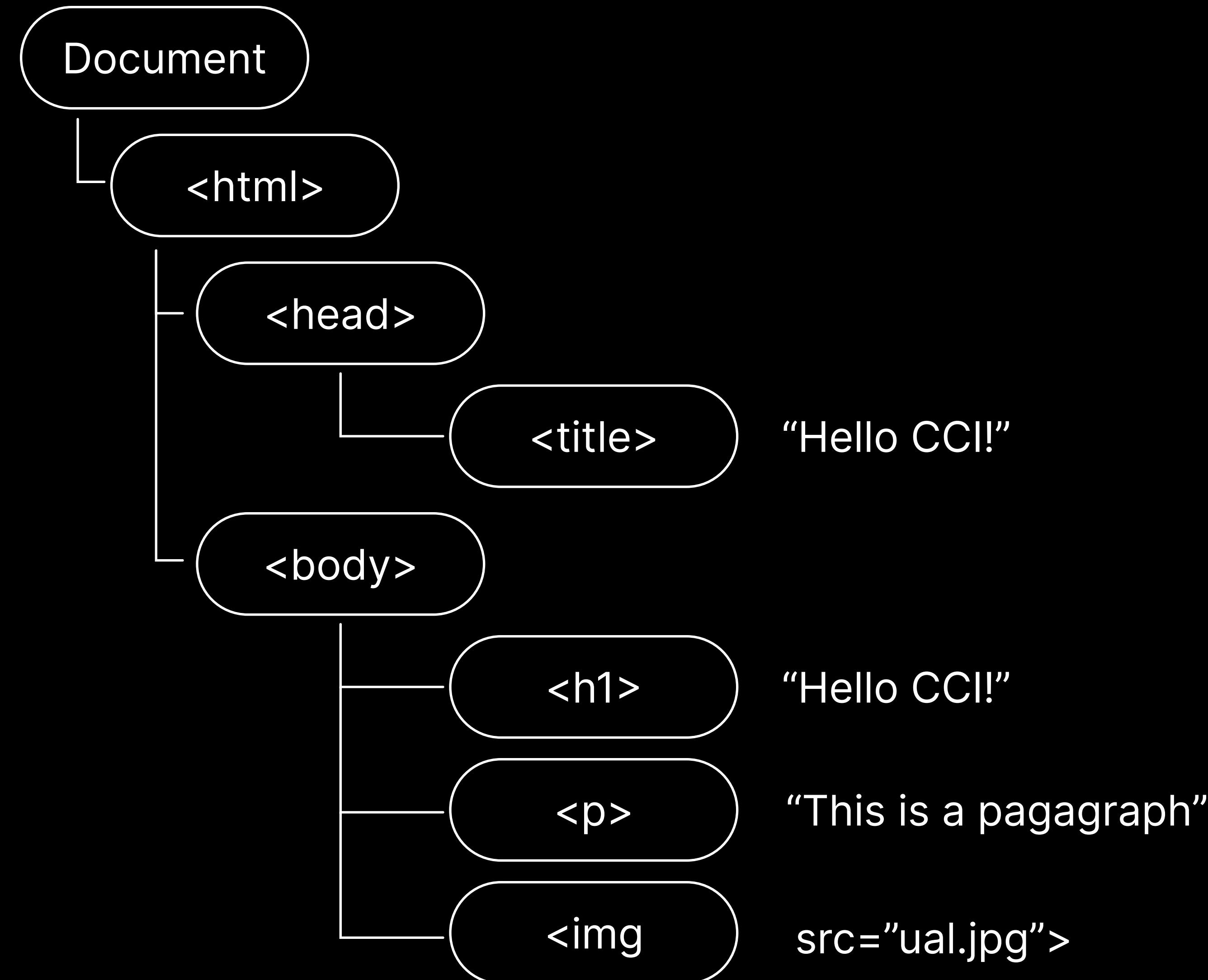
```
function displayAlert() {
  alert('This is an external file alert!');
}
```

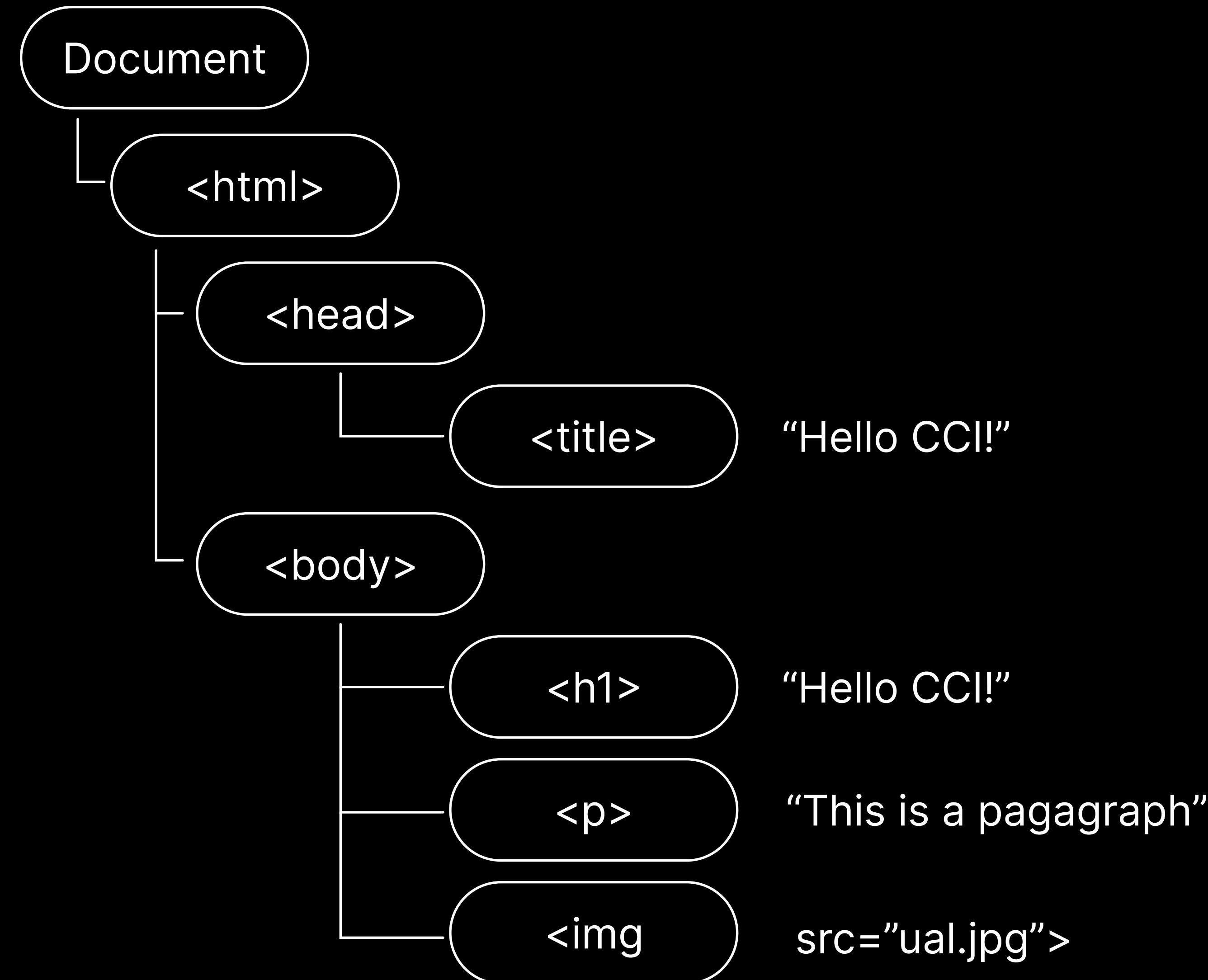
JavaScript interacts with the Document Object Model (DOM), a representation of the web page's structure and content.

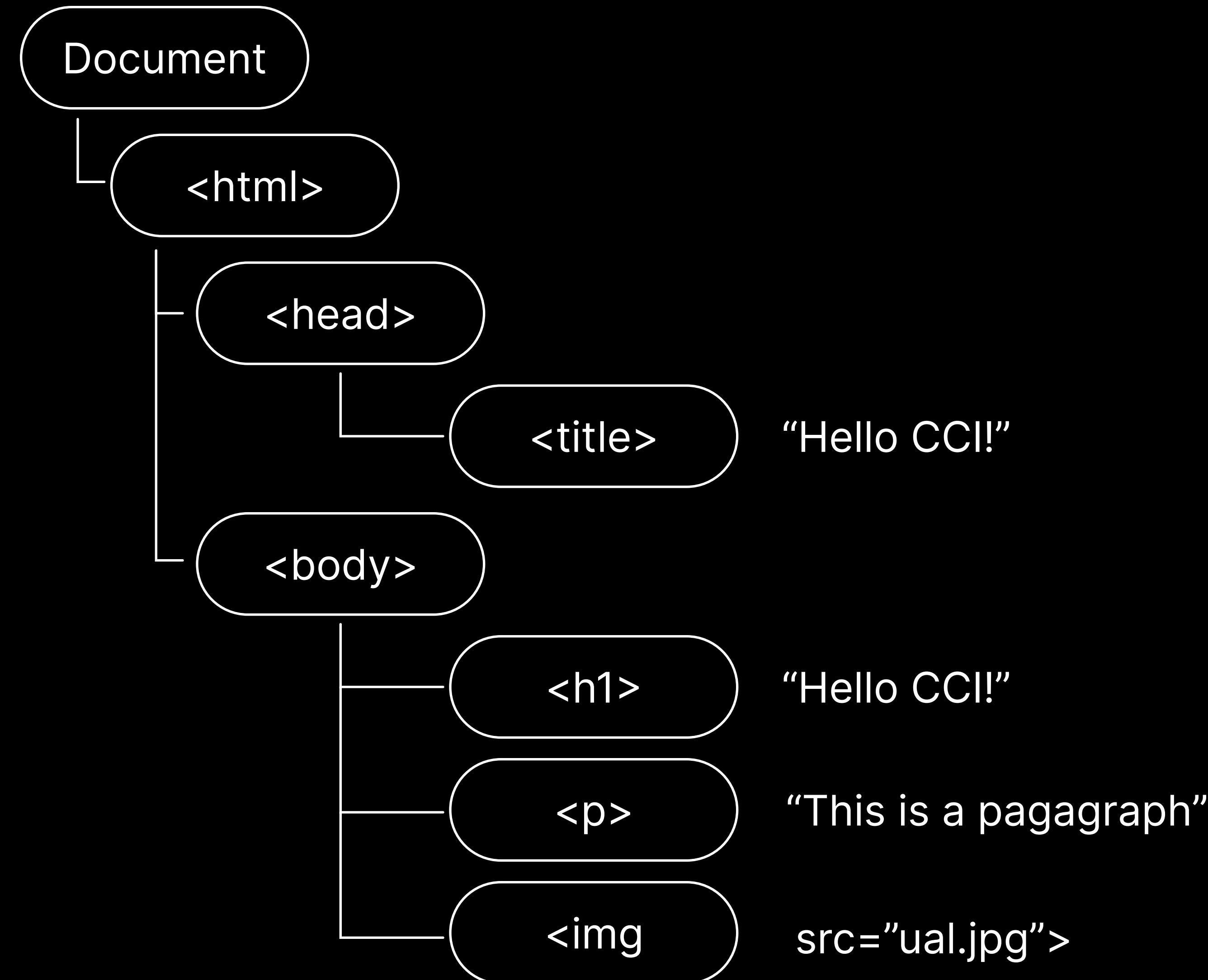
By manipulating the DOM, JavaScript can change text, styles, and even the structure of a web page in real-time, providing a fun and interactive user experience.

JavaScript interacts with the Document Object Model (DOM), a representation of the web page's structure and content.

By manipulating the DOM, JavaScript can change **text**, **styles**, and even the **structure** of a web page in real-time, providing a fun and interactive user experience.







Use some of the methods we just played with to create your first little Javascript program.

Check the docs if you need more inspiration!

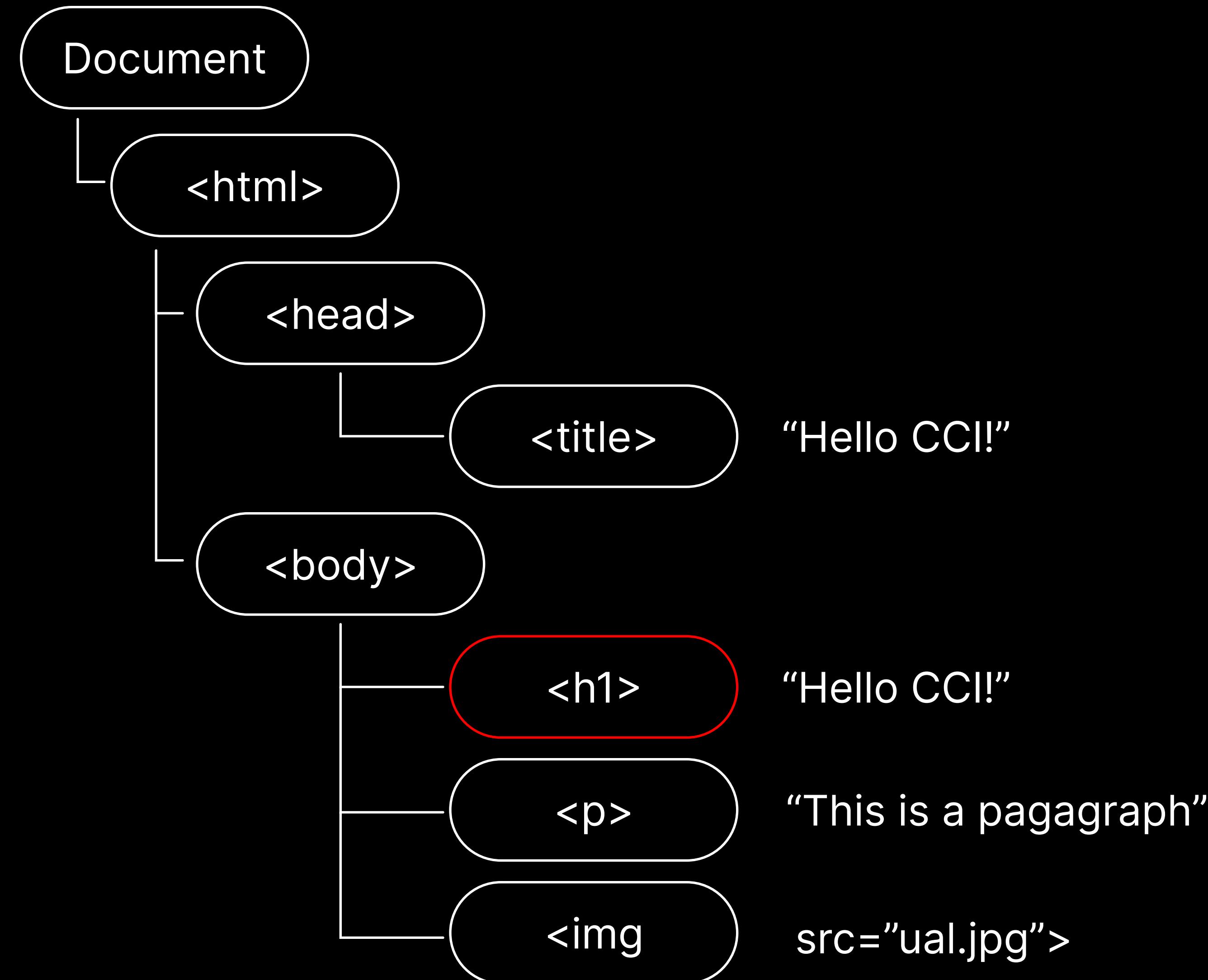
https://www.w3schools.com/js/js_intro.asp

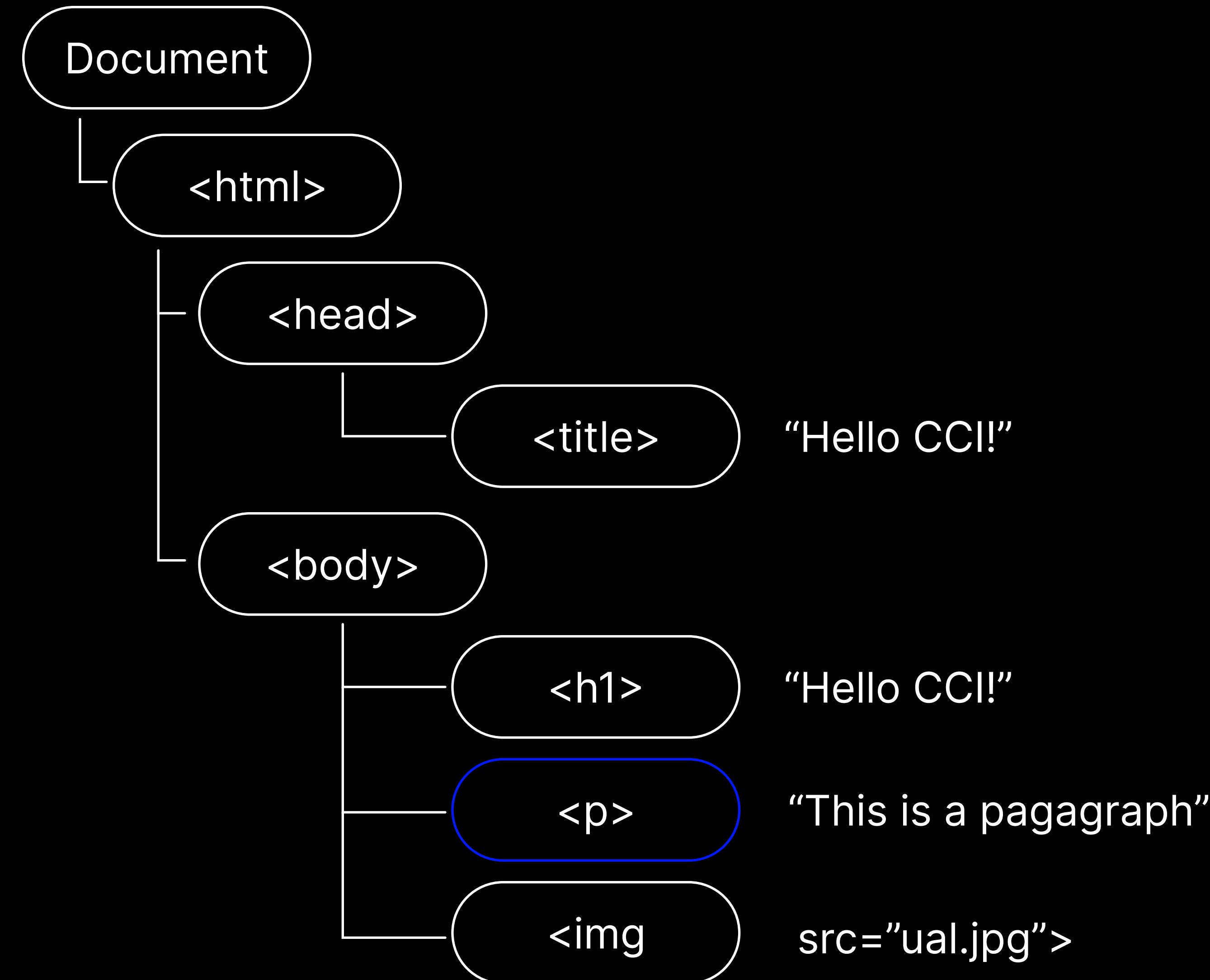
<https://developer.mozilla.org/en-US/docs/Web/API/Document/getElementById>

Js frameworks are JavaScript programming libraries that have pre-written code to use for standard programming functions and tasks.

Think of it as real libraries, where you go and use other people books (or functions in our case) to make your work better, faster, smarter...

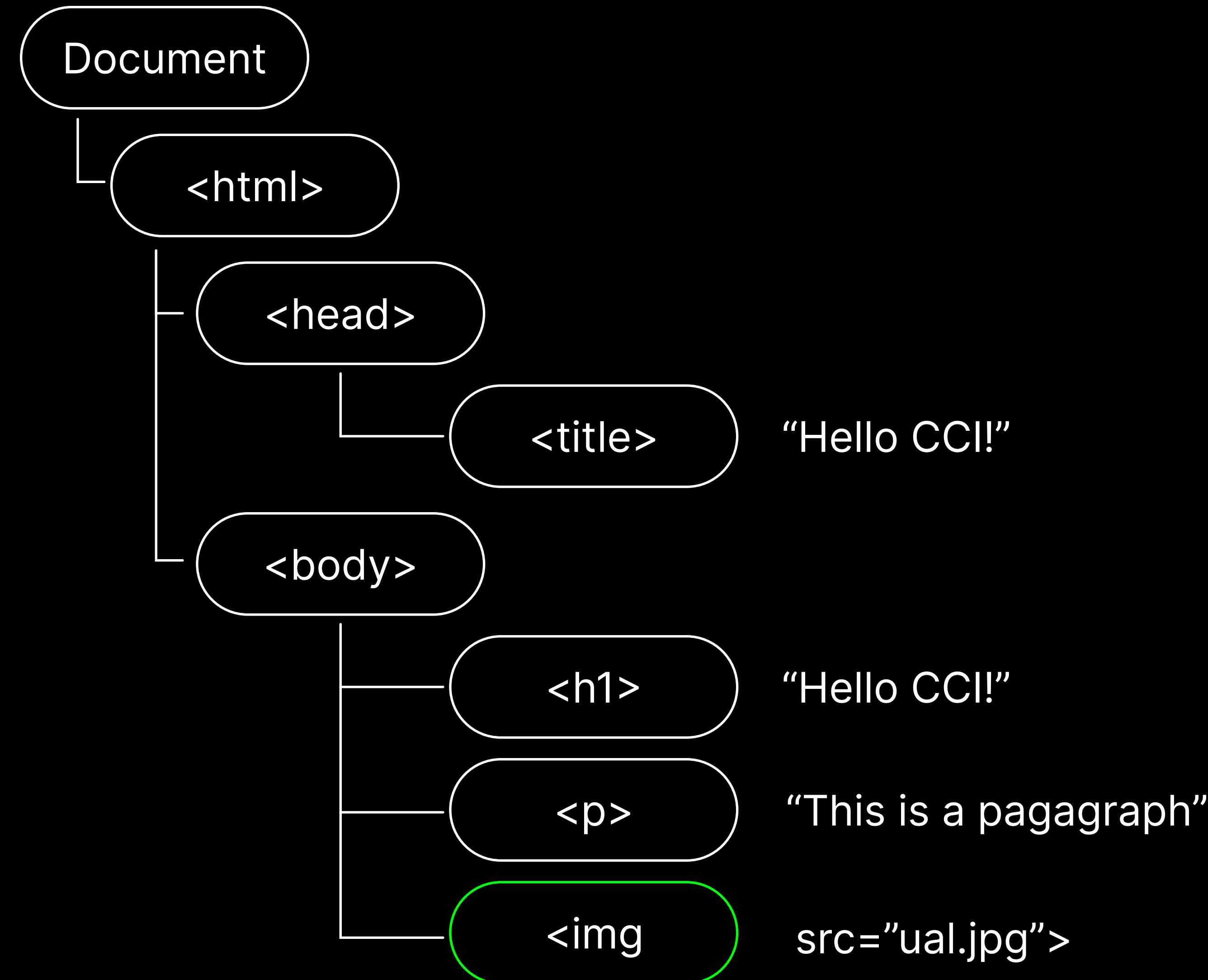
[React Js, Angular, Vue.js, jQuery, Node.js, **P5.js**]





Introduction to Javascript

The DOM Image



```
<!DOCTYPE html>
<html>
  <head>
    <title>Change Title Example</title>
  </head>
  <body>
    <h1 id="title">Original Title</h1>

    <button onclick="document.getElementById('title').textContent = 'New Title'">Change Title</button>
  </body>
</html>
```

Console: `document.getElementById('title')`

Introduction to Javascript

The DOM

Paragraph Hover

```
<!-- Text Hover Example -->

<!DOCTYPE html>
<html>

<body>
  <h1>Text Hover Example</h1>

  <p id="paragraph">Mouse over me</p>

  <script>
    document.getElementById("paragraph").onmouseover = function () { mouseOver() };

    document.getElementById("paragraph").onmouseout = function () { mouseOut() };

    function mouseOver() {
      document.getElementById("paragraph").style.color = "red";
    }

    function mouseOut() {
      document.getElementById("paragraph").style.color = "black";
    }
  </script>

</body>

</html>
```

Console: `document.getElementById('paragraph')`

```
<!-- Light example -->
<!DOCTYPE html>

<html>
  <head>
    <title>Light Example</title>
  </head>
  <body>

    <h2>What Can JavaScript Do?</h2>

    <p>JavaScript can change HTML attribute values.</p>

    <p>In this case JavaScript changes the value of the src (source) attribute of an image.</p>

    <button onclick="document.getElementById('myImage').src='img/pic_bulbon.gif'">Turn on the light</button>

    <button onclick="document.getElementById('myImage').src='img/pic_bulboff.gif'">Turn off the light</button>

  </body>

</html>
```

Console: `document.getElementById('myImage')`