DOM (DOCUMENT OBJECT MODEL)

" The DOM (Document Object Model) is an API that represents and interacts with any HTML or XML document. The DOM is a document model loaded in the browser and representing the document as a node tree, where each node represents part of the document (e.g. an element, text string, or comment). " - MDN Docs

" The Document Object Model represents the HTML on our page, as a hierarchy of objects "

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" With the DOM, we can interact with our HTML via these objects "

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The DOM allows us to make our pages more dynamic (it responds in real-time without page loads)

Let's break down this phrase

" Document Object Model "

and examine it more closely

D

DOCUMENT

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The document just refers to our webpage

o

OBJECT

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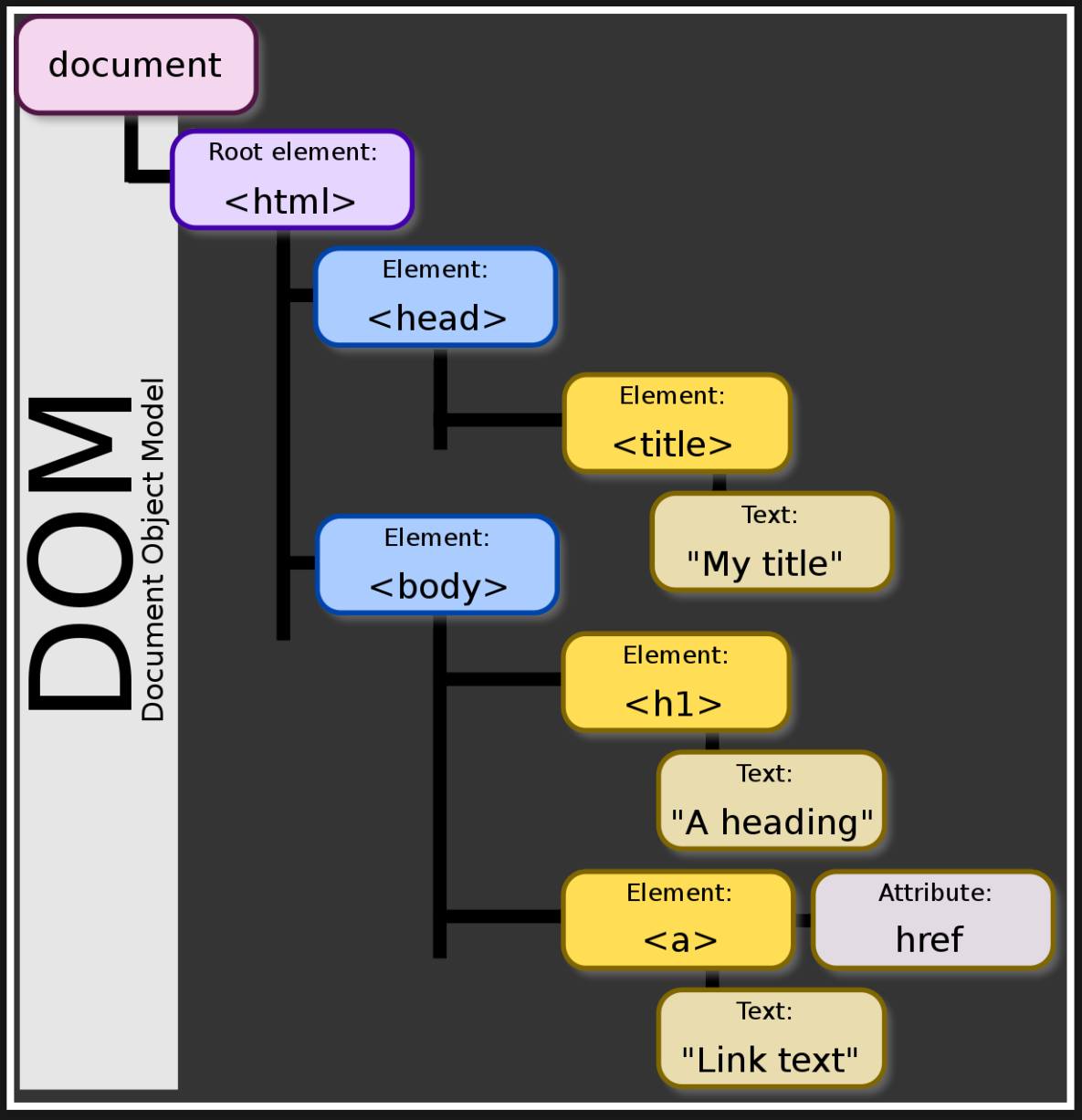
- the is an object
- ...in short *all* HTML tags are an object

M

MODEL

MODEL

The model refers to the relationship between all the HTML elements on our page


document
Root element:
<html>
Element:
<head>
Element:
<title>
Text:
"My title"
Element:
<body>
Element:
<h1>
Text:
"A heading"
Element:
<a>
Attribute:
href
Text:
"Link text"
DOM
Document Object Model

Communication betweem our

- DOM Methods
- DOM Events
- DOM Properties

DOM METHODS

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There are many methods to choose from, but we will focus on only a few

Methods to create new HTML objects

- document.createElement()
- *element*.appendChild()

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- document.createElement()
- *element*.appendChild()

Methods to remove objects from the DOM

- *element*.remove()

Methods to get objects from the DOM

- document.querySelector()
- document.querySelectorAll()

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- document.querySelector()
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Methods to change objects

- *element*.setAttribute()
- *element*.removeAttribute()
- *element*.style()

DOM EVENTS

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For example, we can use a "mouse" event to notify us if the user clicked on a button

Further reading:

MDN Event Reference

DOM PROPERTIES

The DOM also gives our objects properties (values) which we can read or set. For example:

- *element*.clientHeight
- *element*.clientWidth
- *element*.innerText

For example, if we want to know the dimensions of the tag
<body></body>

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```
1 const height = document.body.clientHeight;
```

LAST THOUGHTS ABOUT THE DOM

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- We can think of the DOM as a bridge between our HMTL and our JavaScript
- It is a collection of objects
- These objects are a representation of the HTML tags (HTML elements) on our page
- Each HTML tag is an object in the DOM
- DOM also represents the hierarchy (parent child relationships) between those objects

Now go build something!