



# What is jQuery?

# What you can do with jQuery



*reveal interface elements*

## 1.1 What is jQuery?

# What you can do with jQuery

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*change content based on user actions*

## 1.1 What is jQuery?








# What you can do with jQuery



*toggle CSS classes to highlight an element*

## 1.1 What is jQuery?

# jQuery makes it easy to:

	<b>find</b>	elements in an HTML document
	<b>change</b>	HTML content
	<b>listen</b>	to what a user does and react accordingly
	<b>animate</b>	content on the page
	<b>talk</b>	over the network to fetch new content

## 1.1 What is jQuery?

# Changing content

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```

How can we modify the text of the `<h1>` element?



find it



change it

## 1.1 What is jQuery?

# Finding the proper HTML

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```



find it

How can we search  
through our html?



We need to understand how our browser  
organizes the HTML it receives.

## 1.1 What is jQuery?

# Document Object Model

A tree-like structure created by browsers so we can quickly find HTML Elements using JavaScript.

“DOM”

## 1.1 What is jQuery?



# Loading HTML into the DOM

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```



## 1.1 What is jQuery?

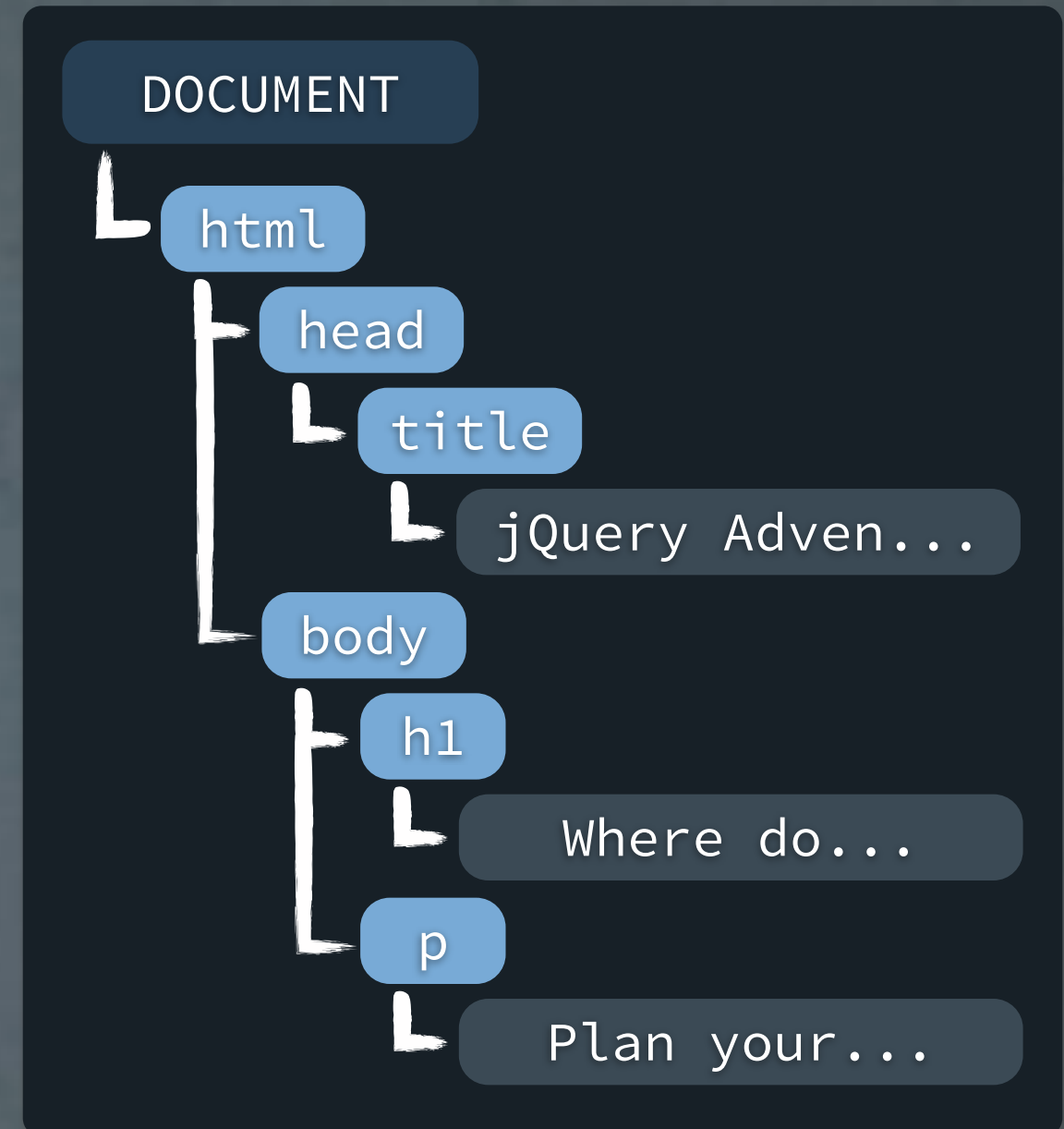
# What does that DOM structure look like?

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```



## The DOM



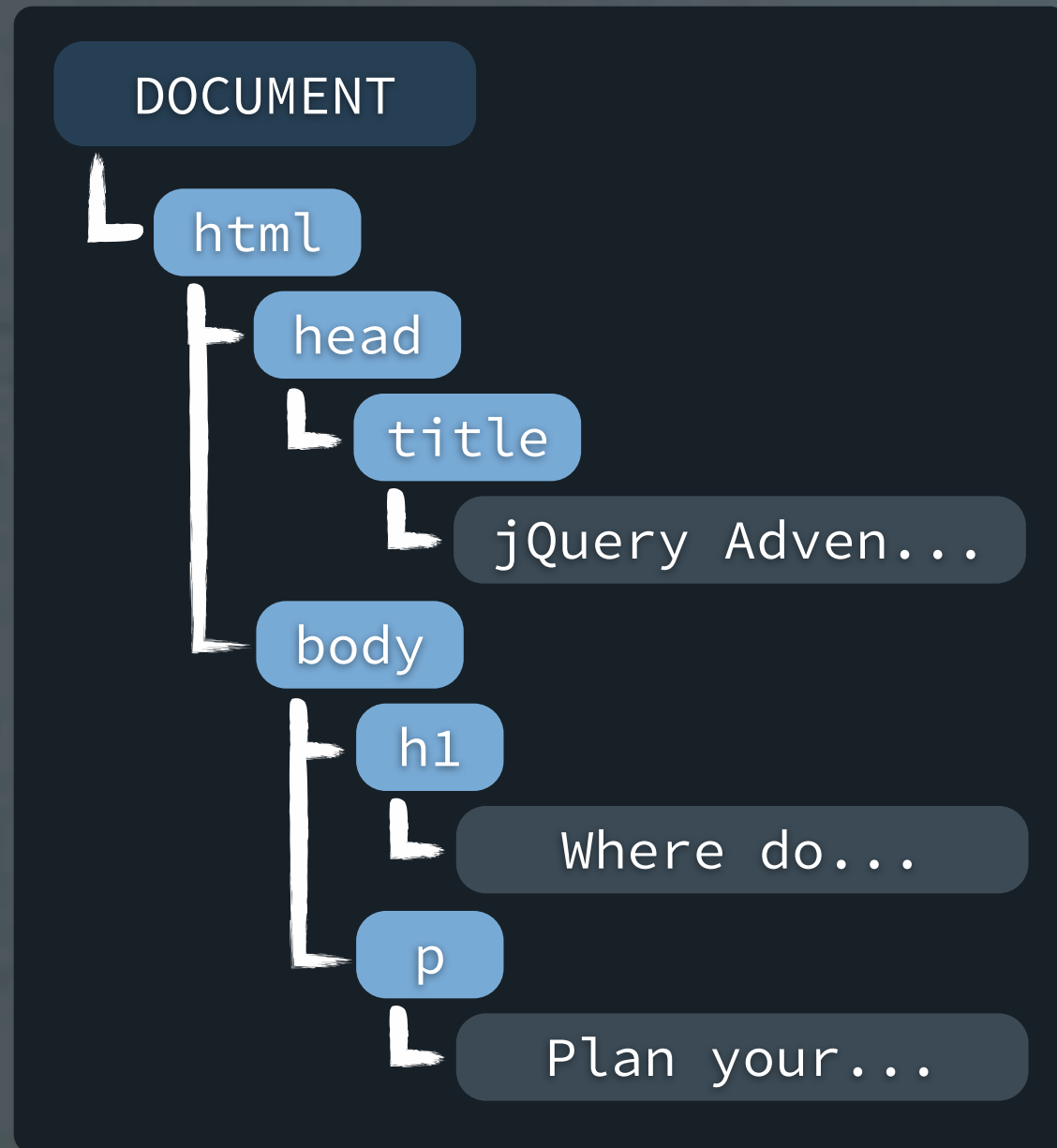
node types: element text

Inside the DOM, HTML elements become “nodes” which have relationships with one another.

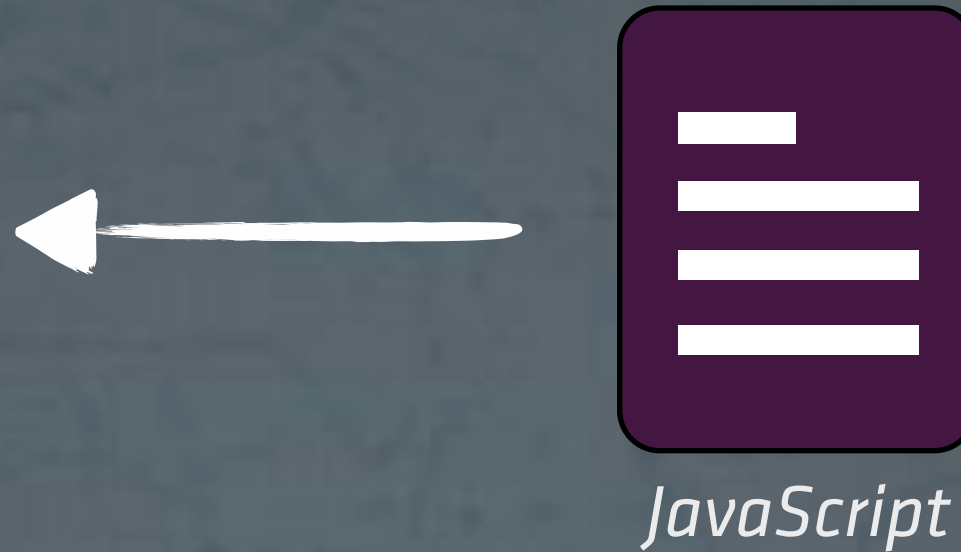
## 1.1 What is jQuery?

# How do we search through the DOM?

## The DOM



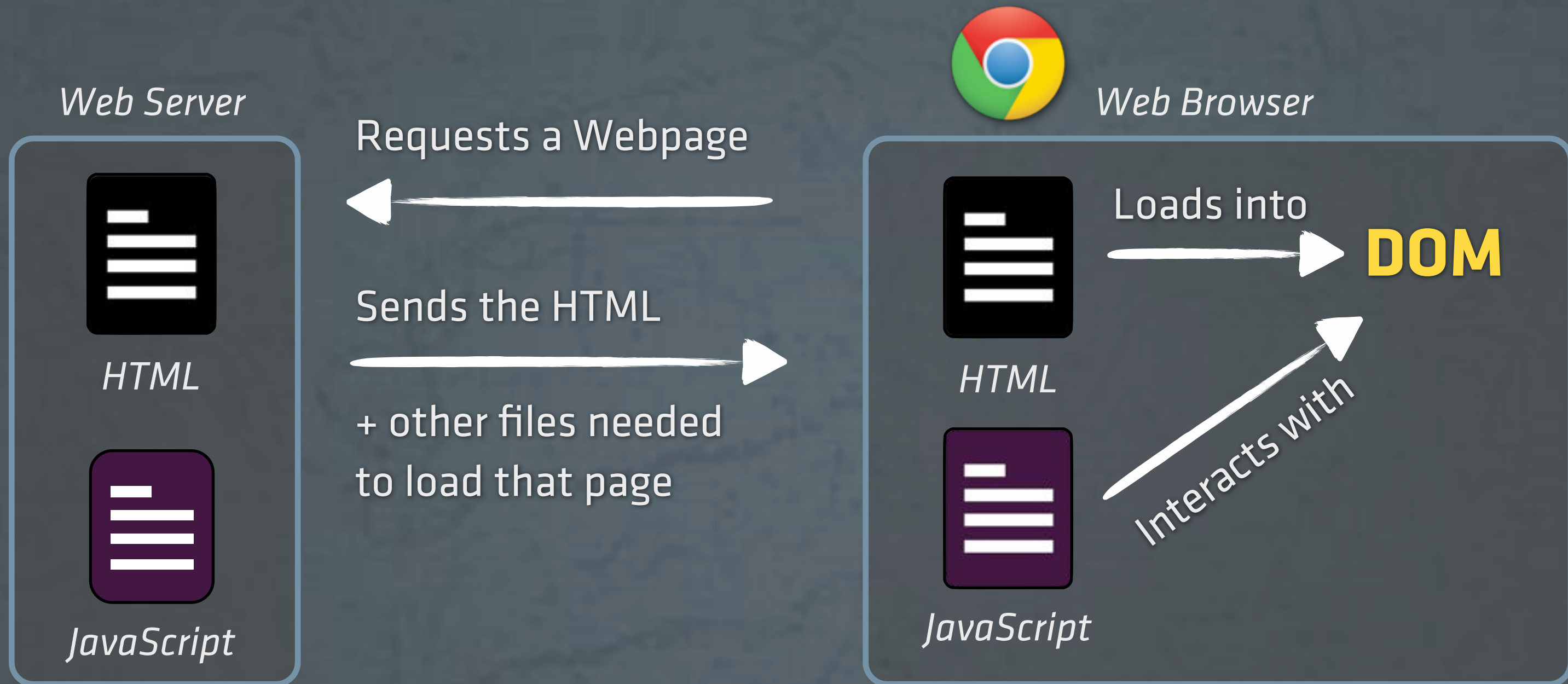
node types: **element** text



*JavaScript gives developers a language to interact with the DOM.*

## 1.1 What is jQuery?

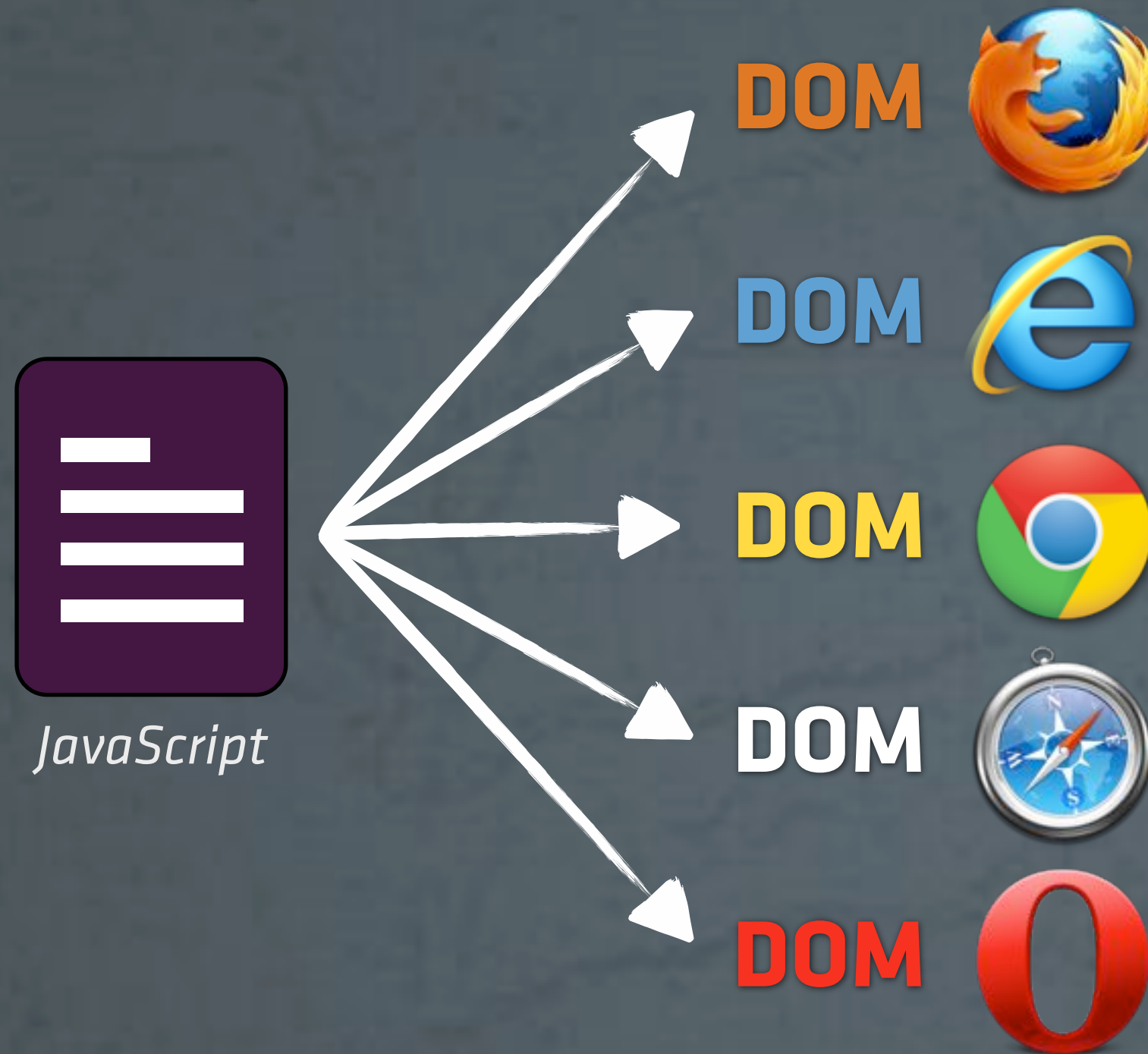
# How do we find things using the DOM?



## 1.1 What is jQuery?



Of course, there's a catch



*each browser has a slightly different DOM interface*


## 1.1 What is jQuery?

# jQuery to the rescue!



JavaScript



 **jQuery**



**DOM**



**DOM**



**DOM**



**DOM**



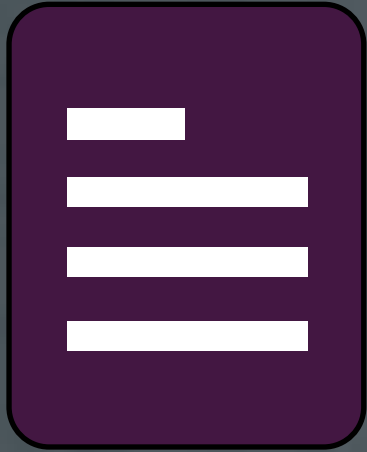
**DOM**



If our JavaScript uses jQuery to interact with the DOM then it will work on most modern browsers.

## 1.1 What is jQuery?

# Basic jQuery usage



*JavaScript*

*this is the jQuery function*

```
jQuery(<code>);
```

## 1.1 What is jQuery?

# How jQuery Accesses The DOM



*JavaScript*

```
jQuery(document);
```

*The DOM*



But how can we search through the DOM?


## 1.1 What is jQuery?



# We need to use CSS selectors

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```



## CSS selectors

```
h1 { font-size: 3em; }
```

```
p { color: blue; }
```

## 1.1 What is jQuery?

# Using the jQuery function to find nodes

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```

## jQuery selectors

jQuery("h1");

jQuery("p");

=

\$("h1");

\$("p");

*short & sweet  
syntax*

## 1.1 What is jQuery?

# Changing the content of an element

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```

How can we modify the text of the `<h1>` element?



find it



change it

## 1.1 What is jQuery?

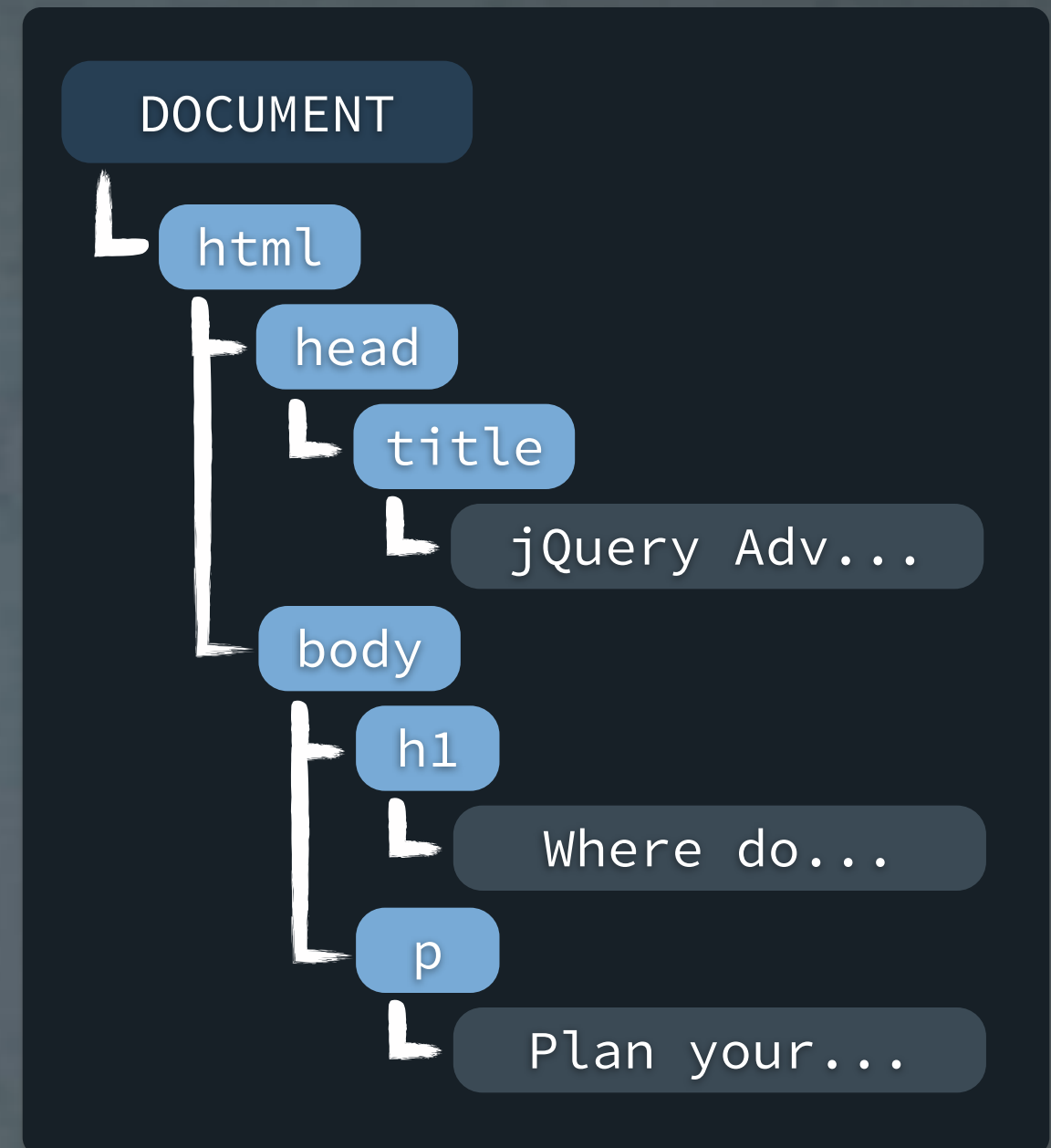
# Selecting by HTML element name

## HTML document

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Adventures</title>
</head>
<body>
  <h1>Where do you want to go?</h1>
  <p>Plan your next adventure.</p>
</body>
</html>
```



## DOM representation of the document



## 1.1 What is jQuery?

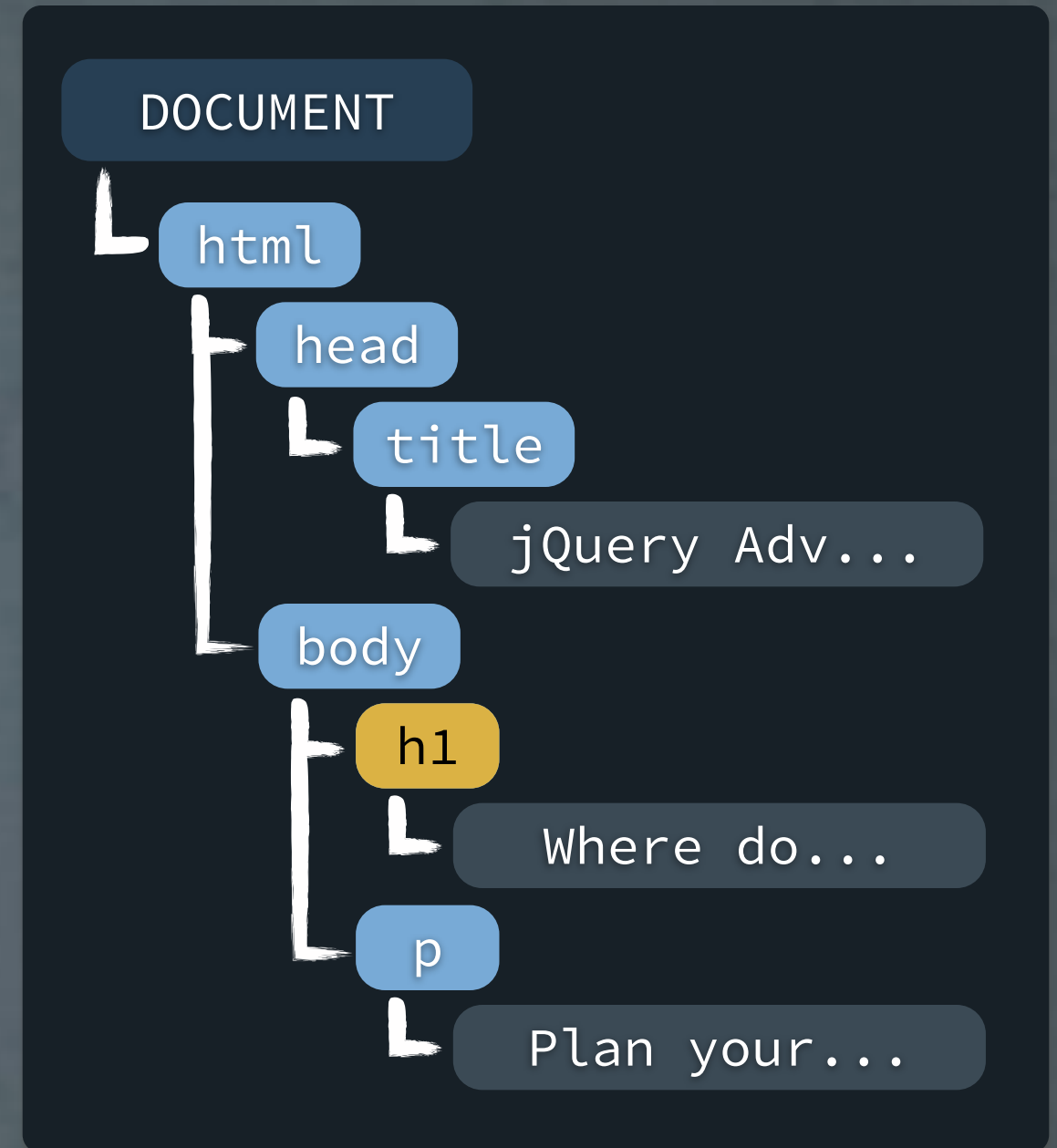


# Selecting by HTML element name

```
$("#h1");
```



DOM representation of the document



## 1.1 What is jQuery?

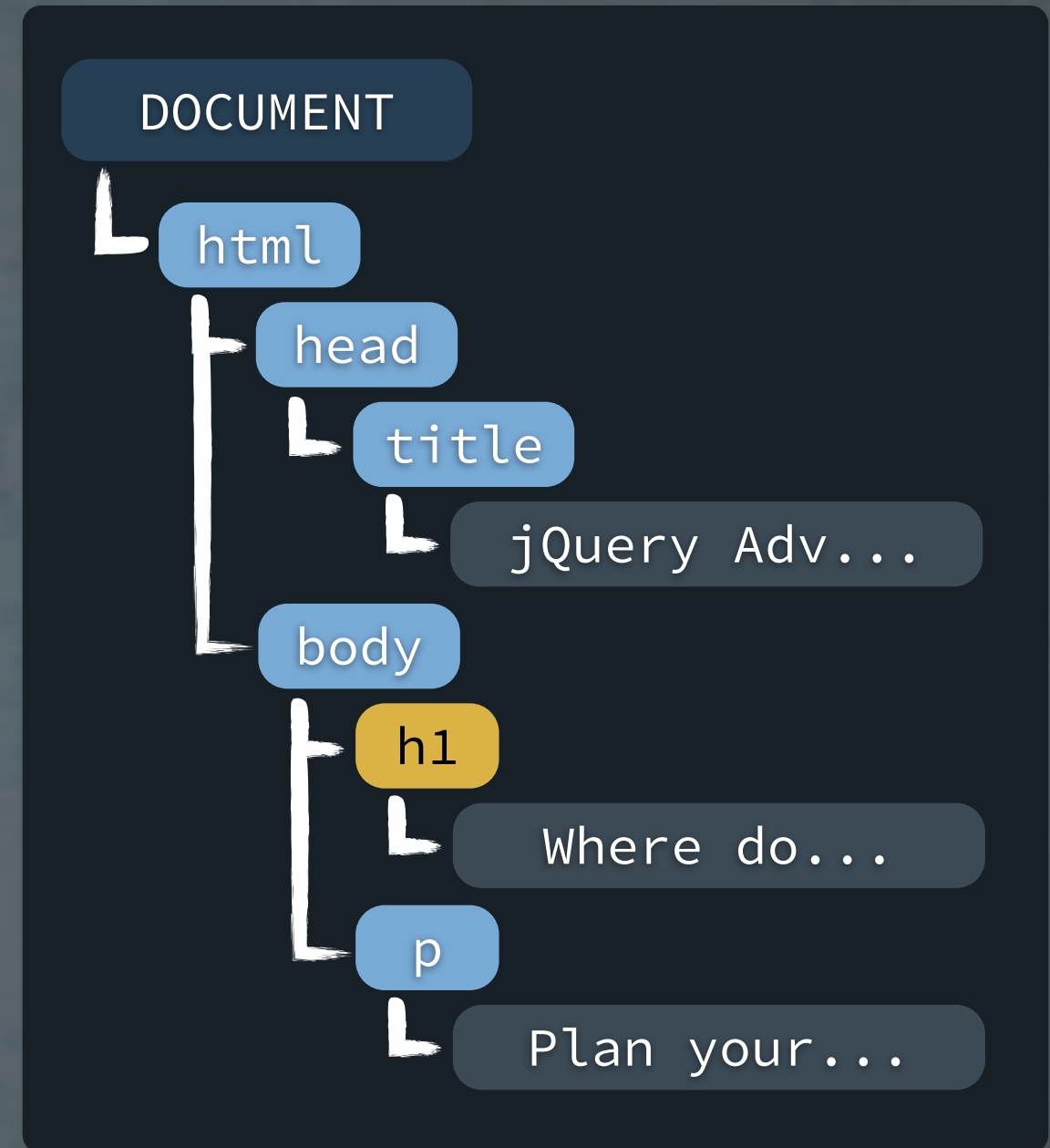
# Fetching an element's text

*text()* is a method offered by jQuery

```
$("#h1").text();
```

"Where do you want to go"


## DOM representation of the document



## 1.1 What is jQuery?

# Modifying an element's text

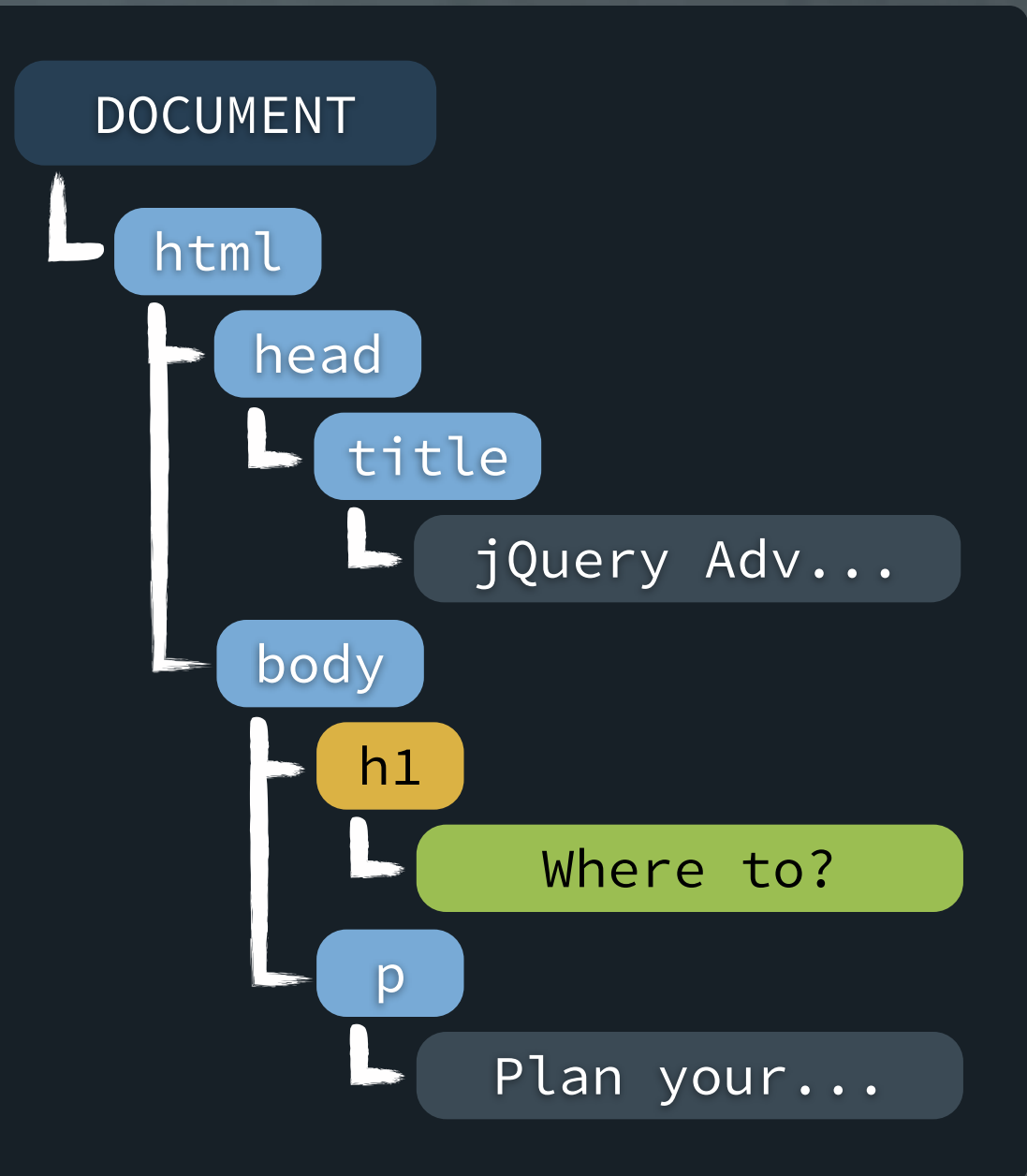
*text() also allows to modify the text node*



```
$("#h1").text("Where to?");
```

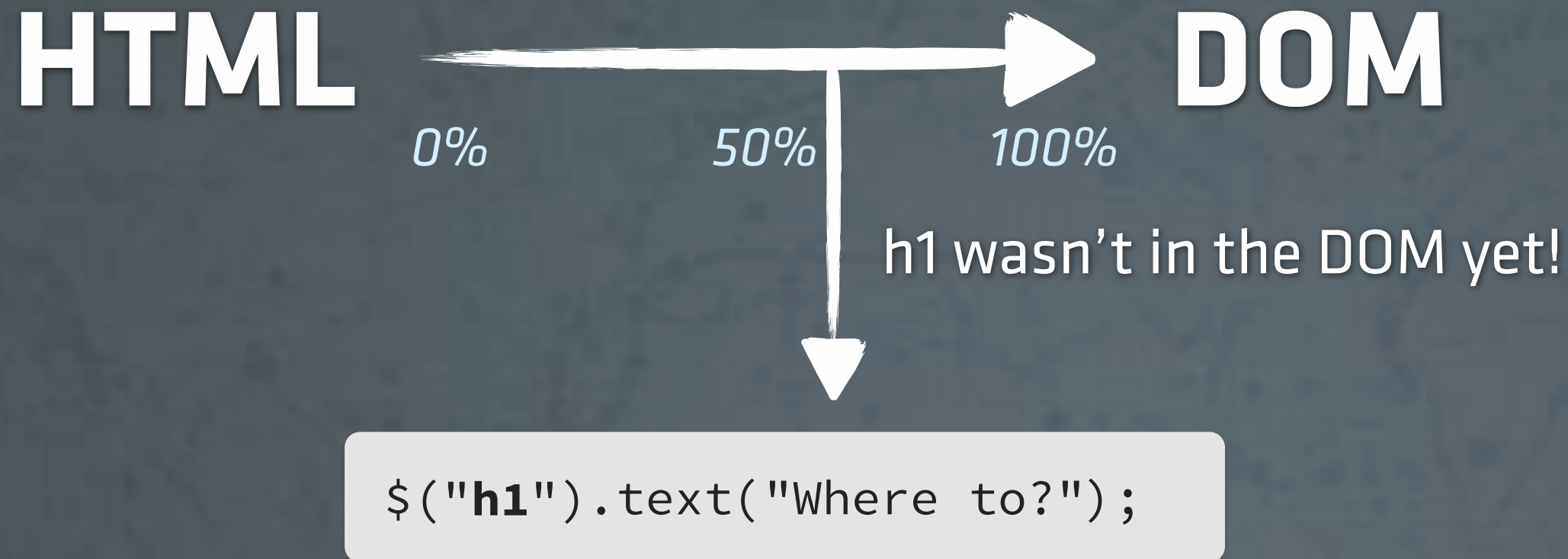


## DOM representation of the document



## 1.1 What is jQuery?

# JavaScript may execute before the DOM loads

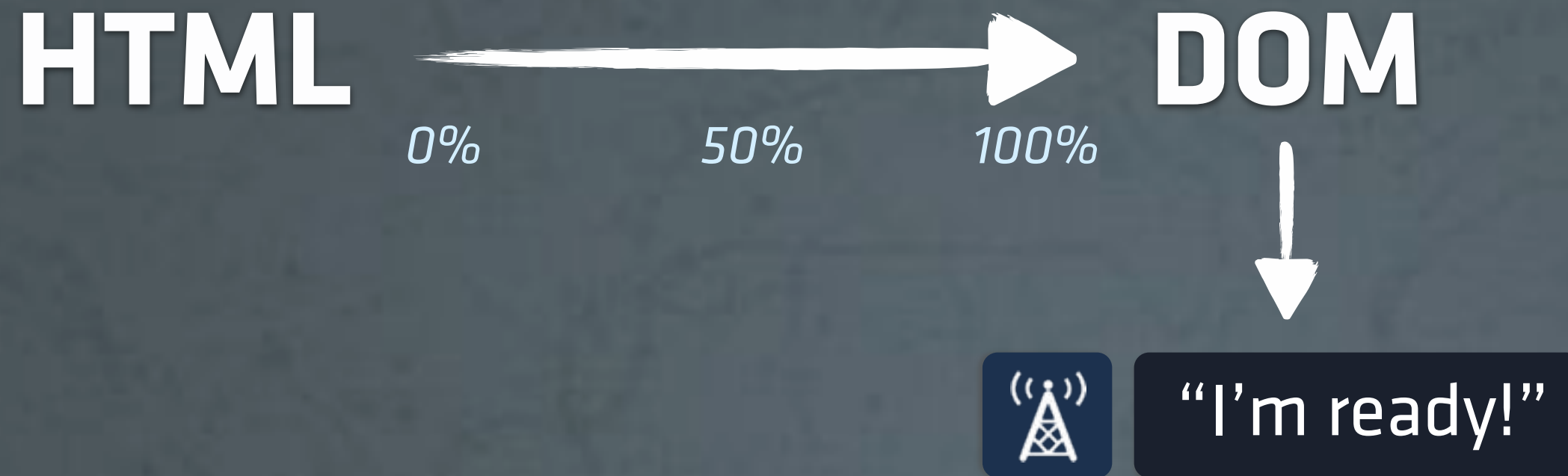


We need to make sure the DOM has finished loading the HTML content before we can reliably use jQuery.

## 1.1 What is jQuery?



# The DOM ready event



How can we listen for this signal?

 Listen for "I'm ready" then run `<code>`

## 1.1 What is jQuery?

# Listening for document ready



```
jQuery(document).ready(function() {  
    <code>  
});
```

DOM



“I’m ready!”

Will only run this code once the DOM is “ready”

## 1.1 What is jQuery?

# Our completed code



```
jQuery(document).ready(function() {  
    $("h1").text("Where to?");  
});
```

## 1.1 What is jQuery?