



level

JavaScript DOM

# Fact #1

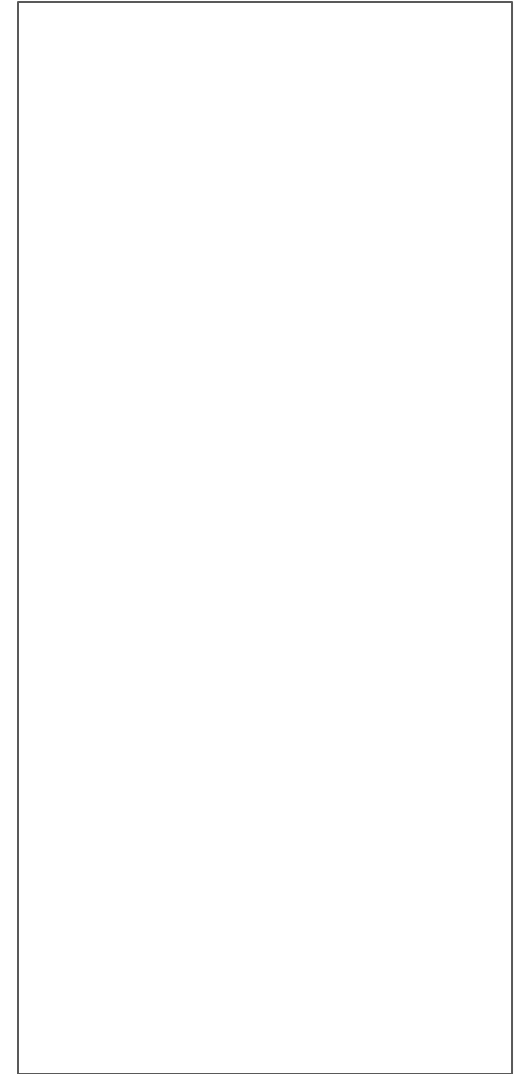
“

Firstly you will hate me. Then you will depend on me. Finally You will really love me.

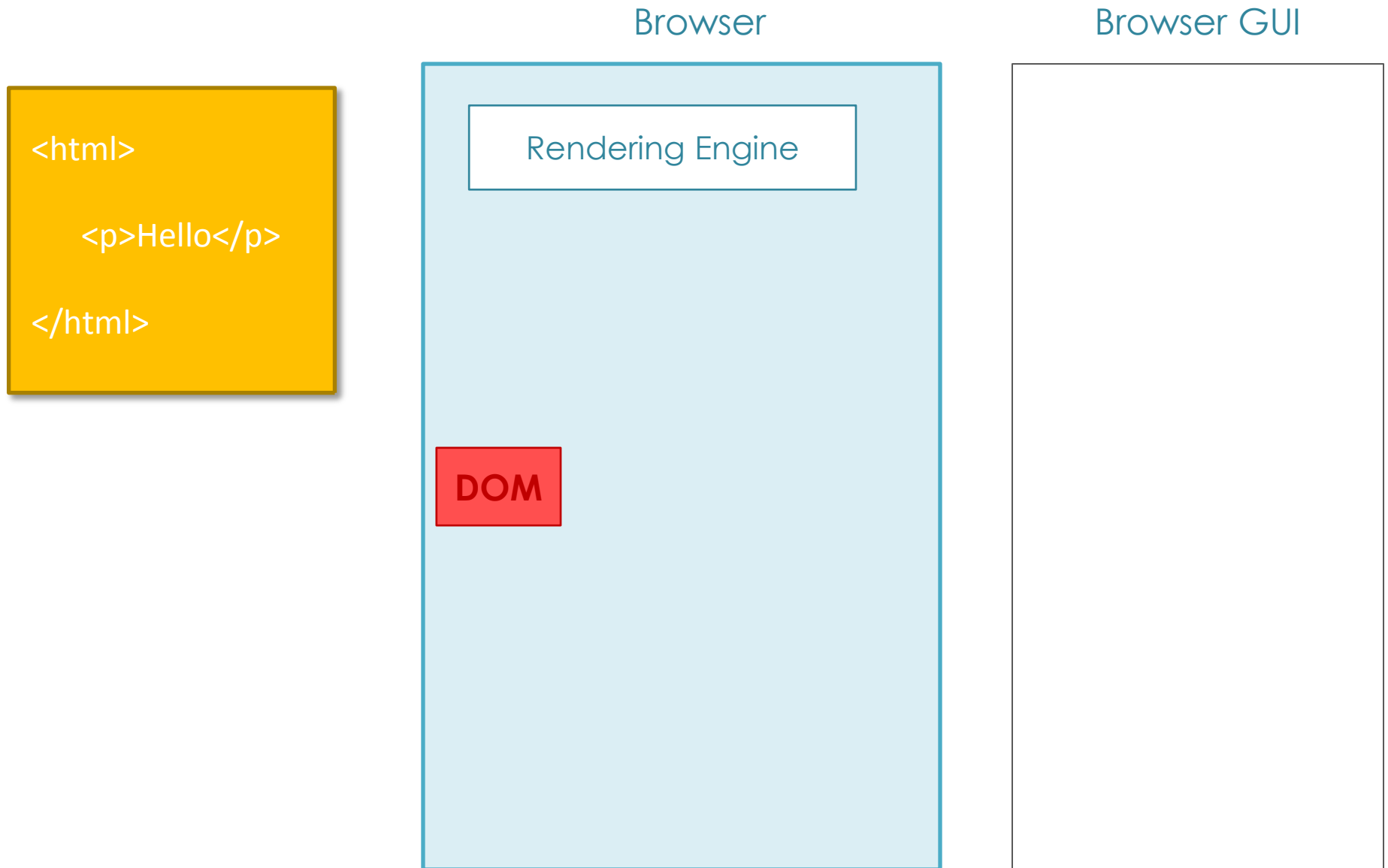
”

-- JavaScript

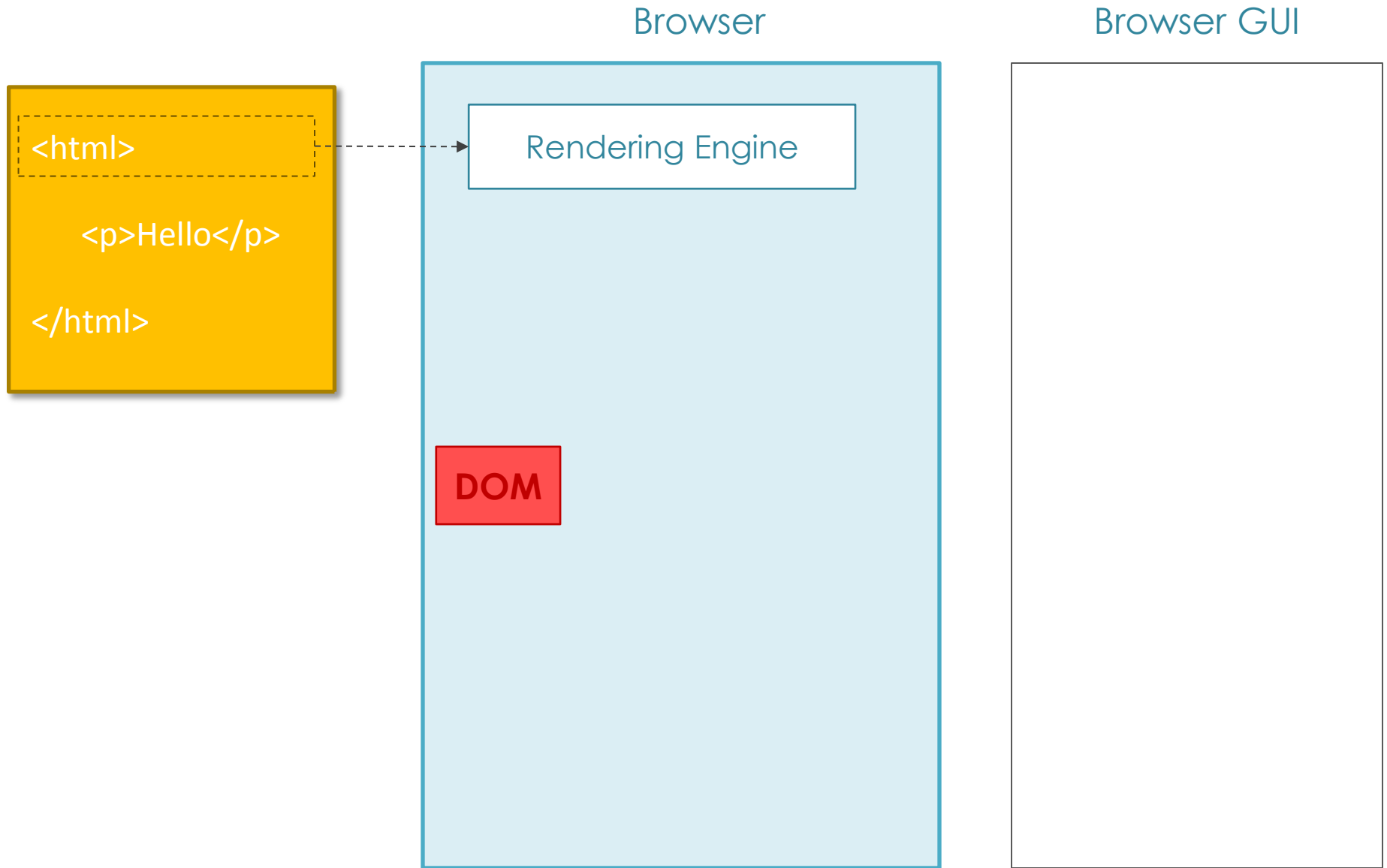
```
<html>  
  <p>Hello</p>  
</html>
```



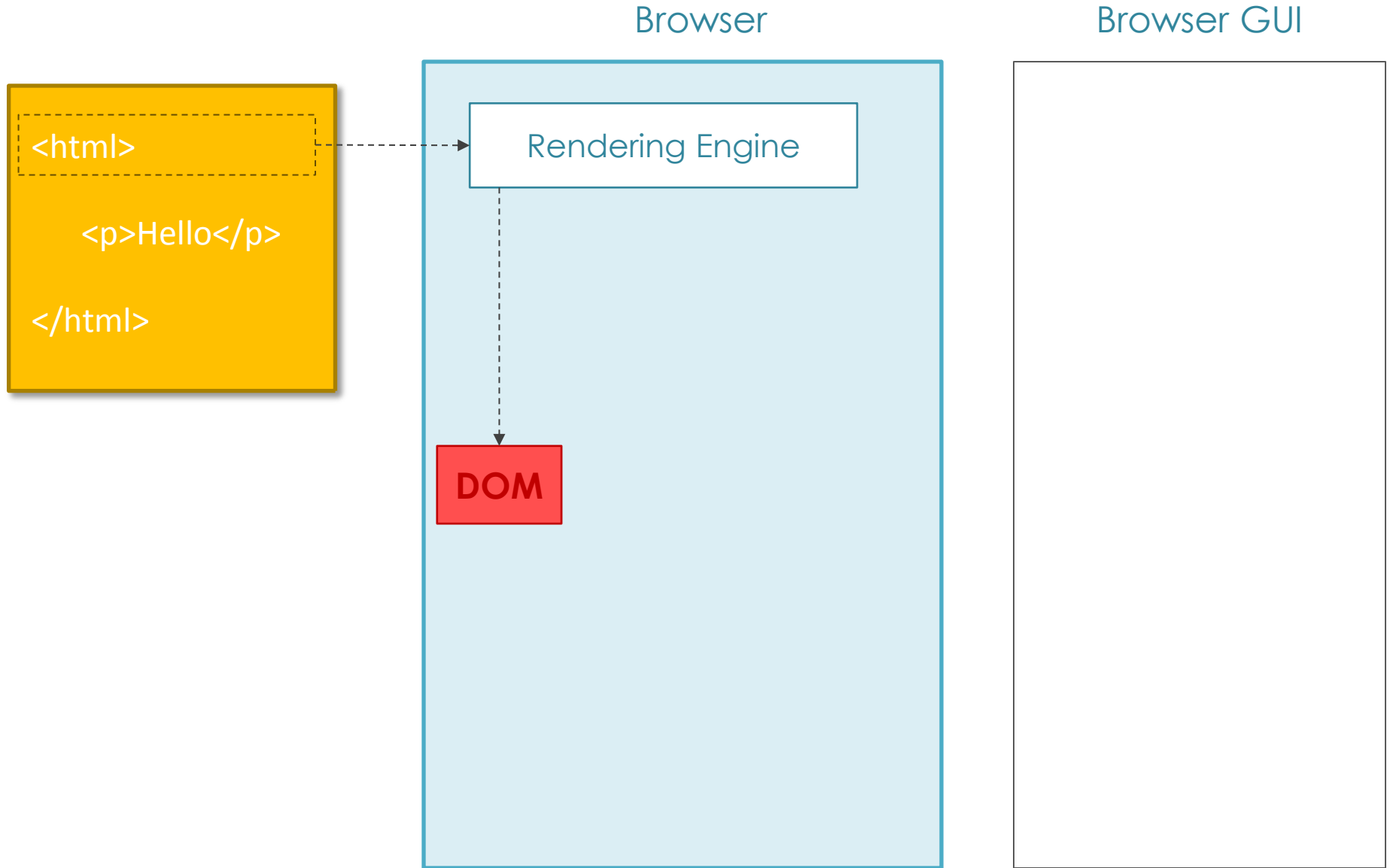
# DOM



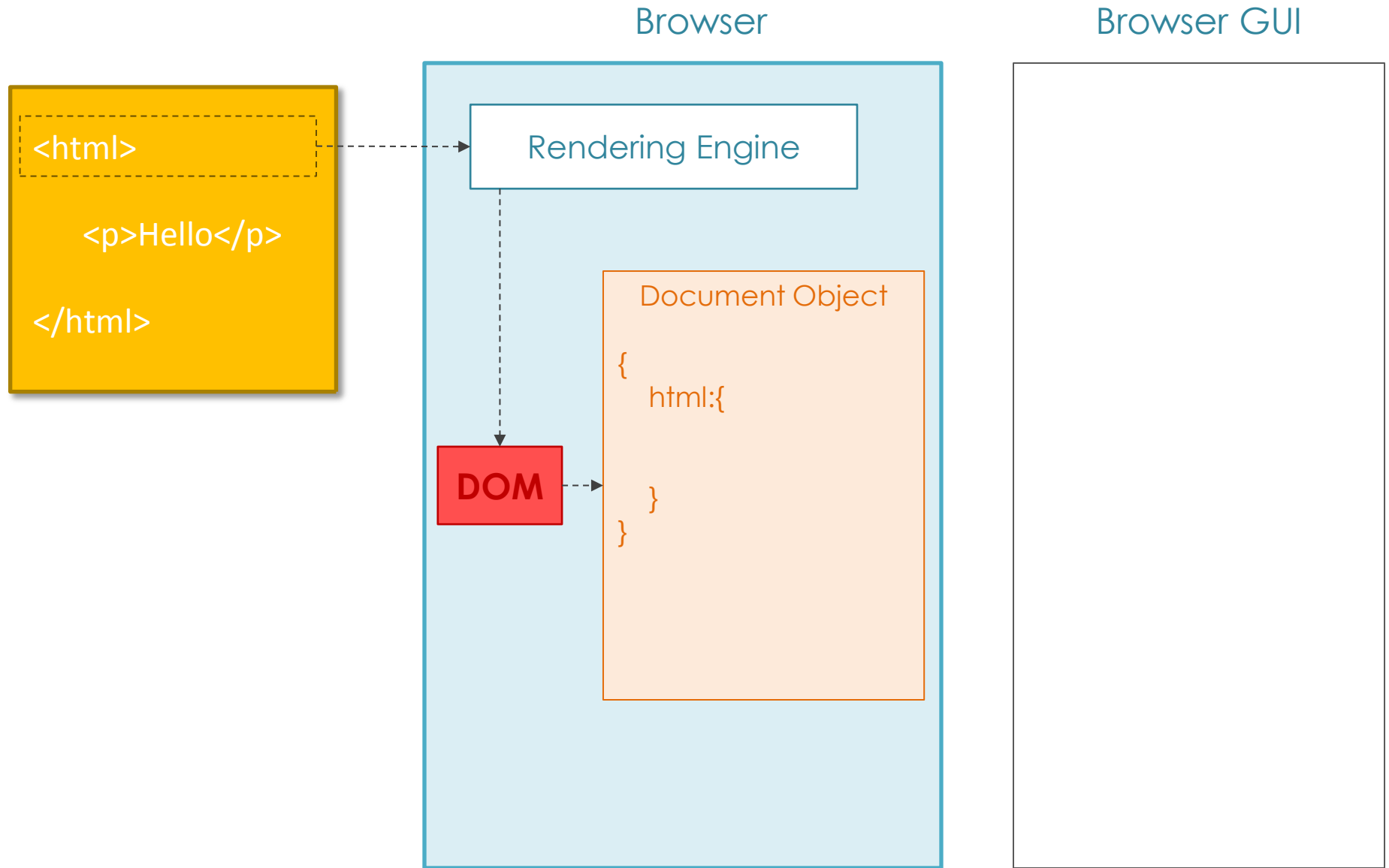
# DOM



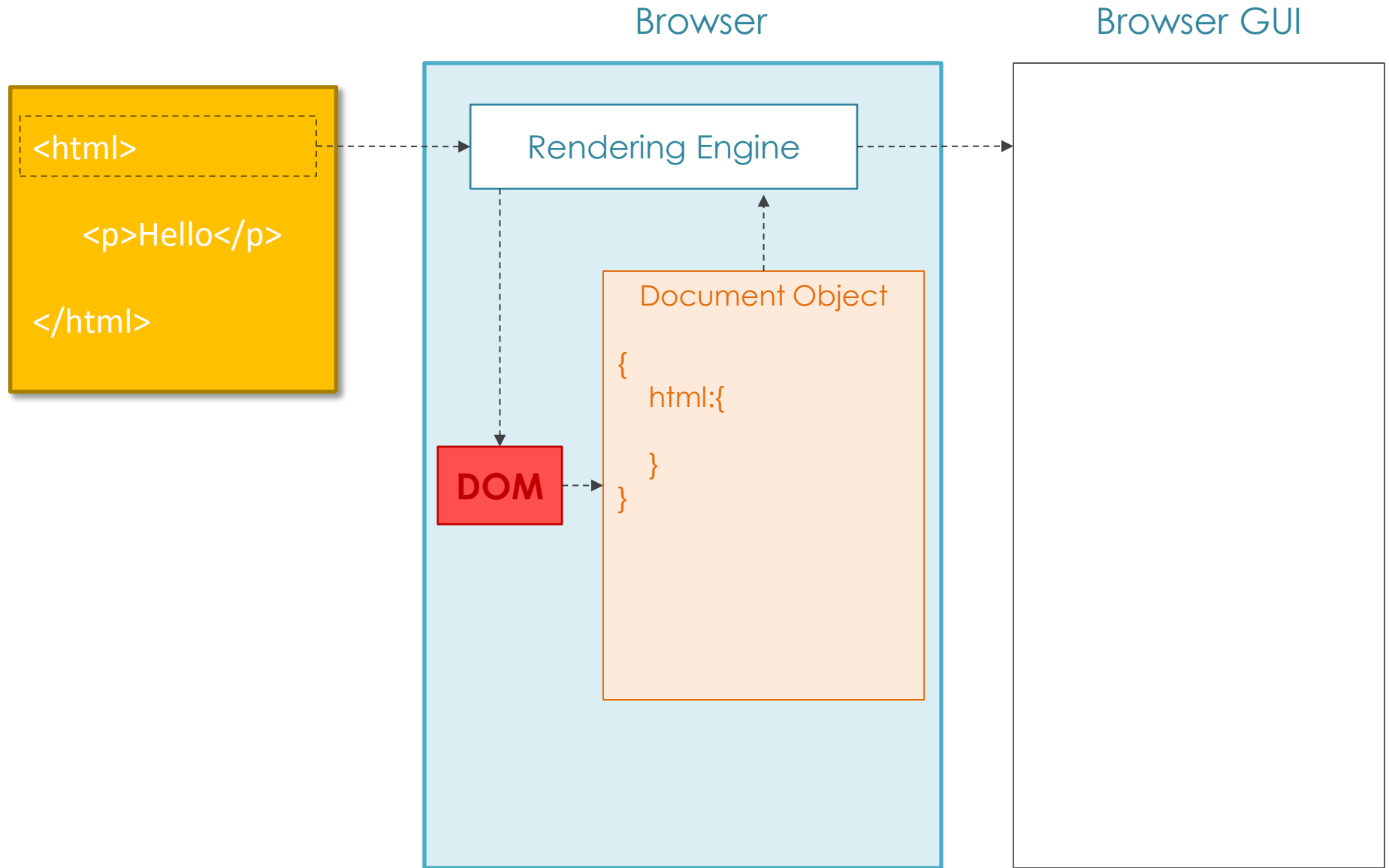
# DOM



# DOM

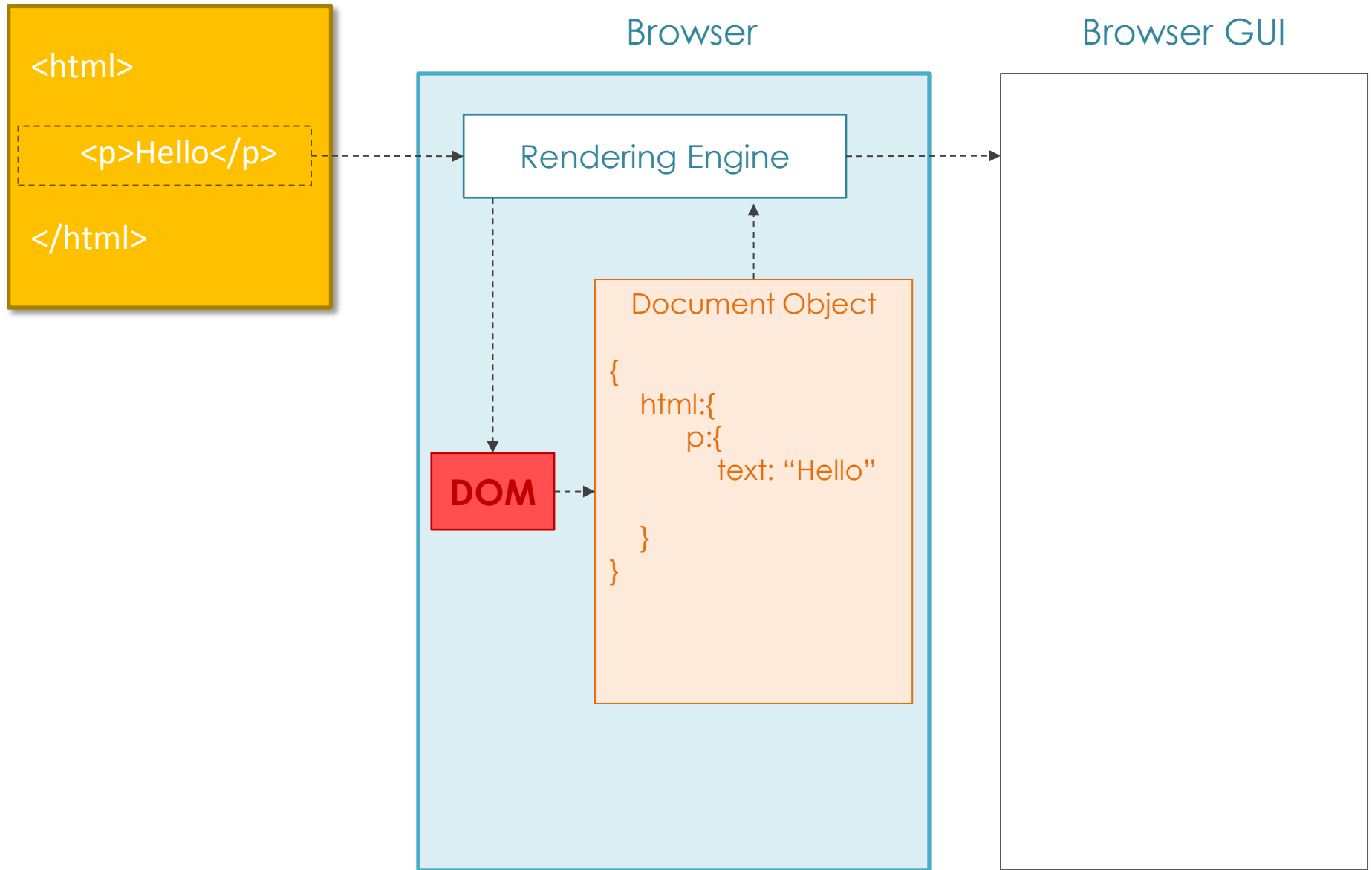


# DOM

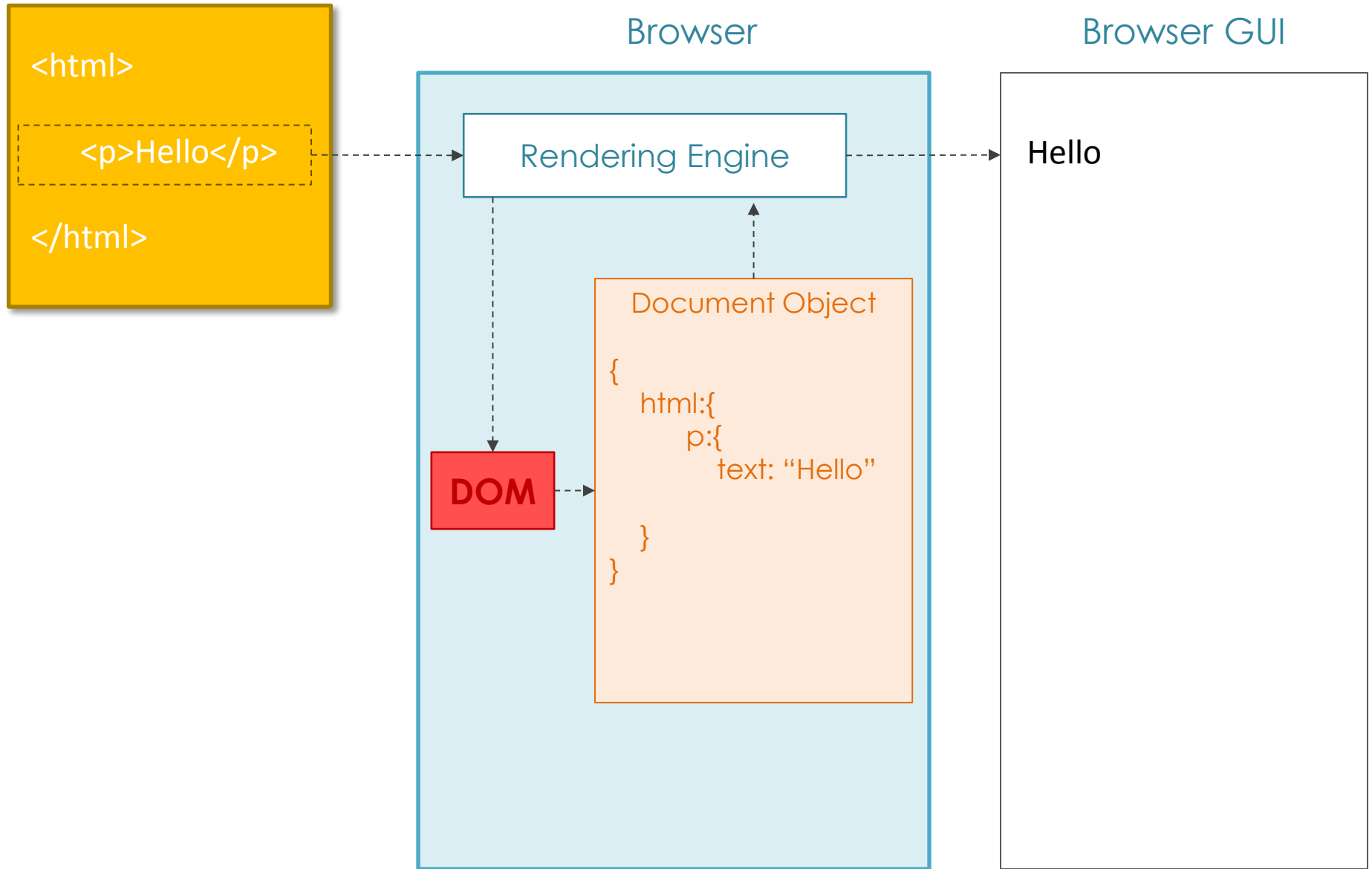




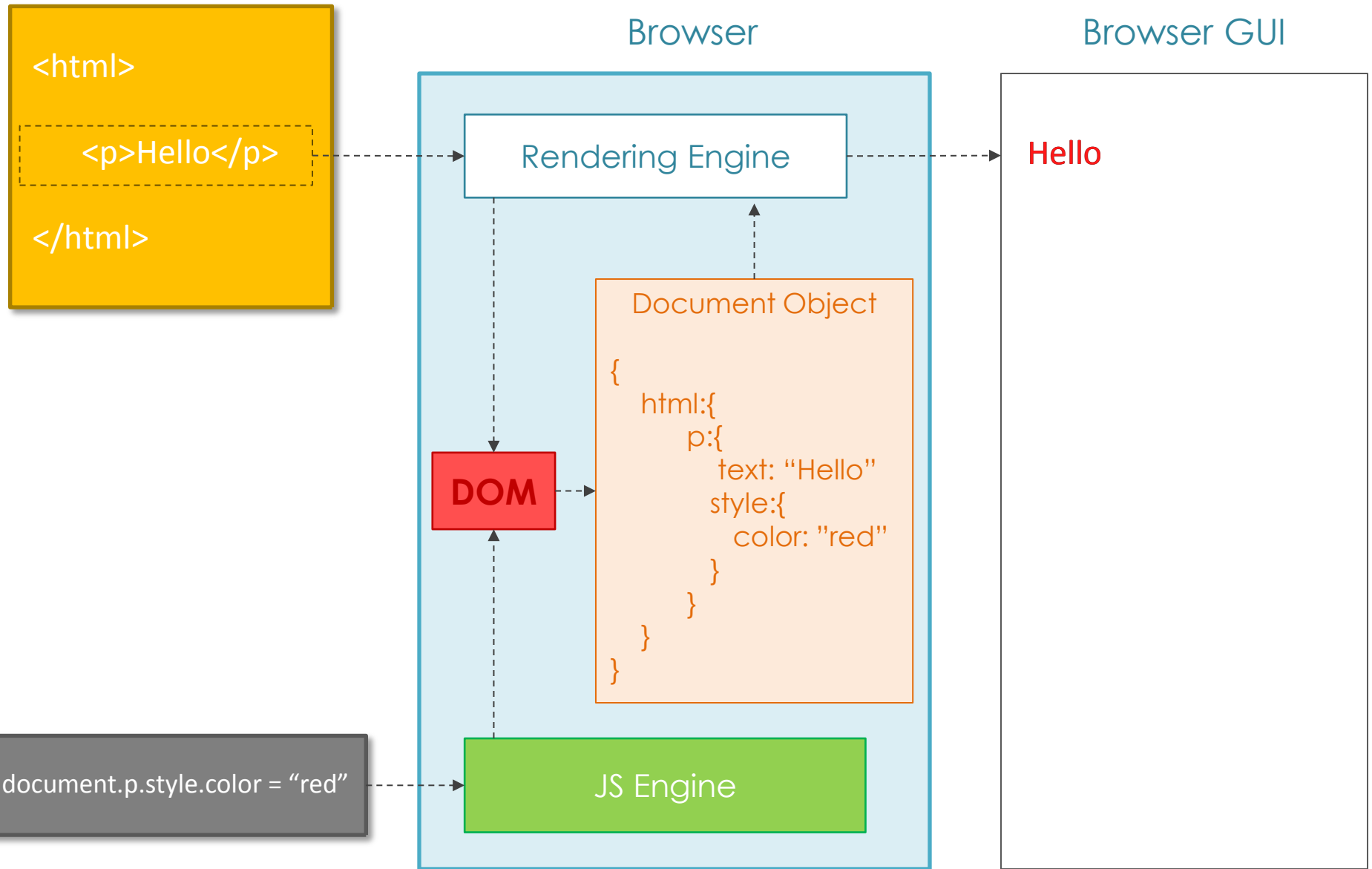
# DOM



# DOM



# DOM



The **HTML DOM** is a standard **object** model and **programming interface** for HTML.

It defines:

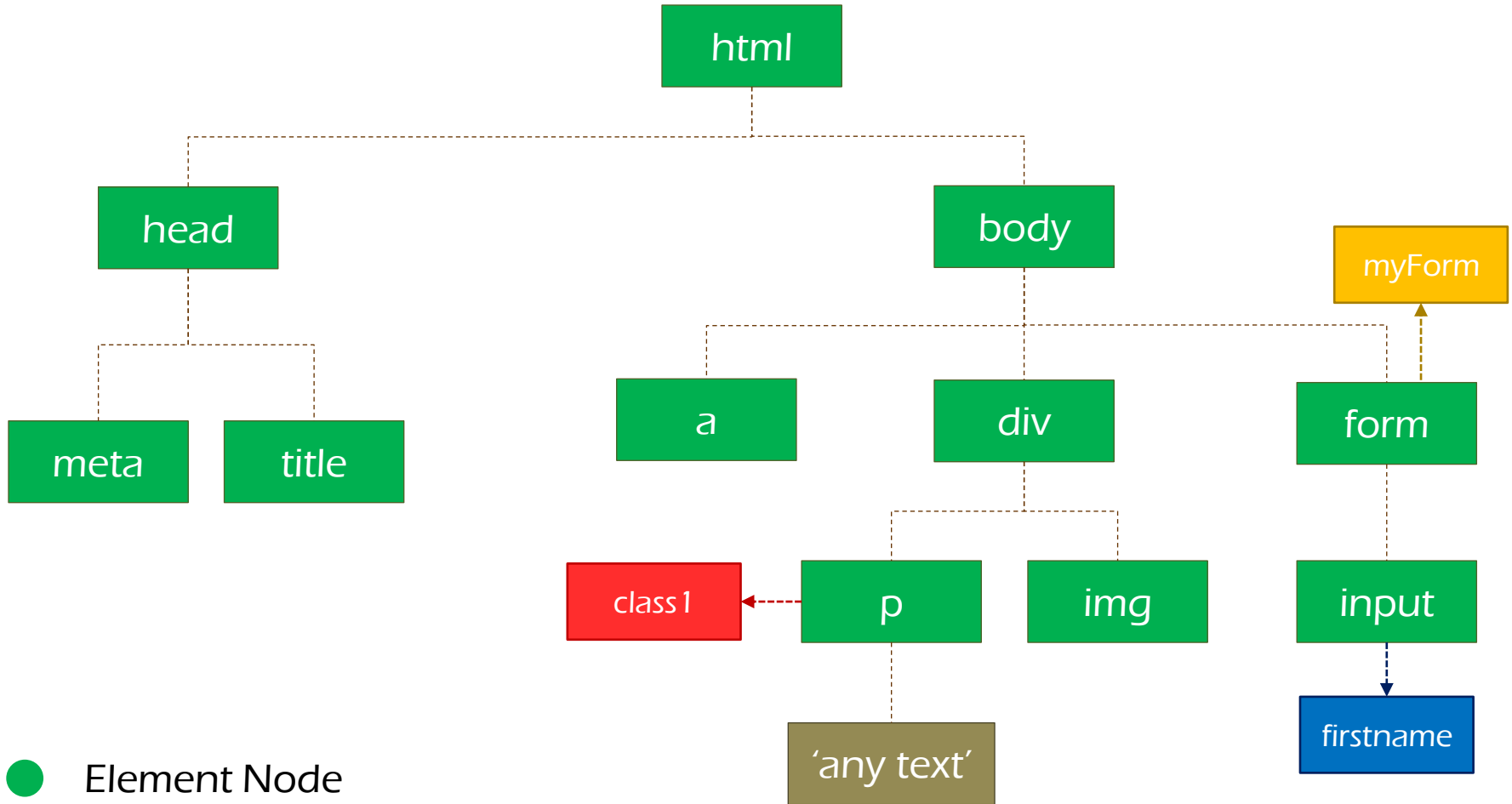
- The HTML elements as **objects**
- The **properties** of all HTML elements
- The **methods** to access all HTML elements
- The **events** for all HTML elements

In other words:

The **HTML DOM** is a standard for how to **get**, **change**, **add**, or **delete** HTML elements.



# DOM TREE



● Element Node

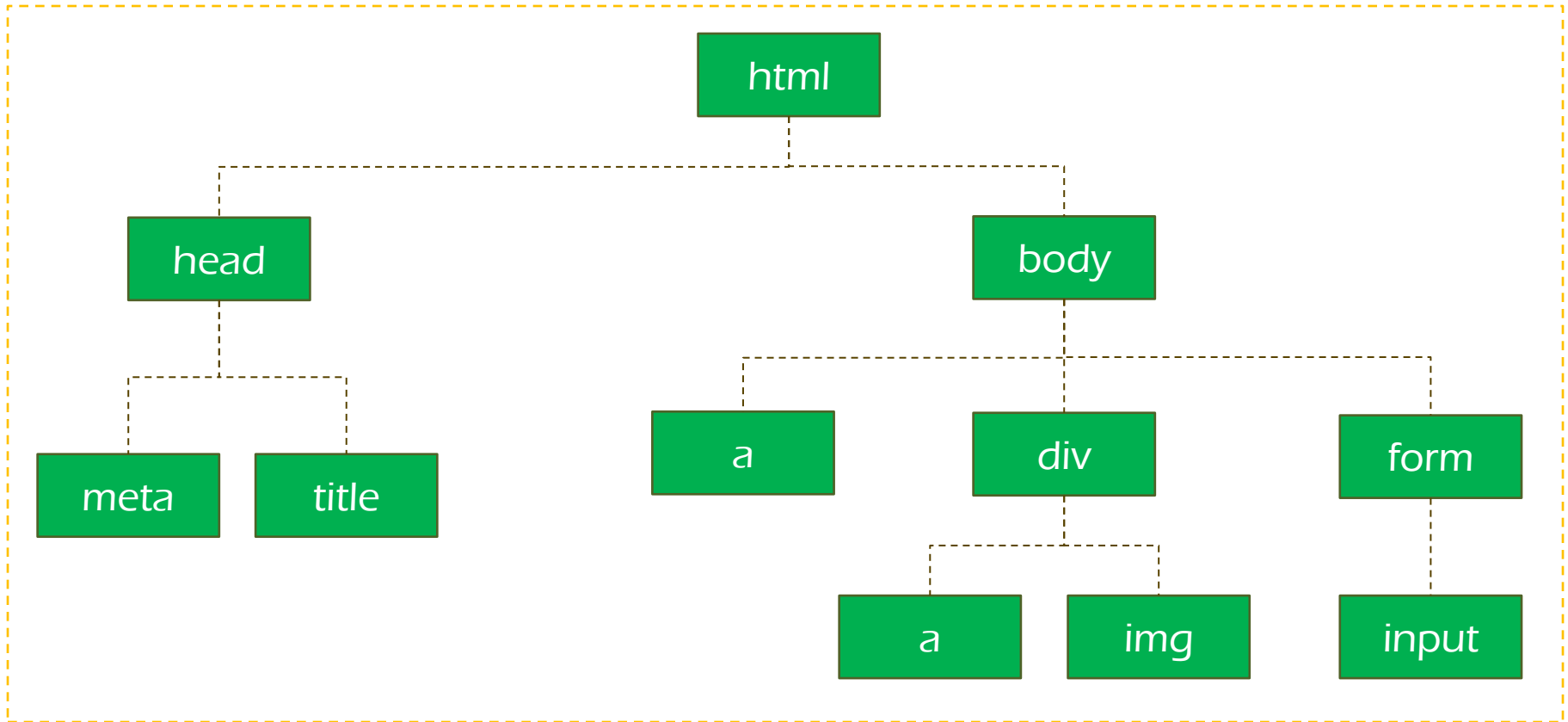
● Text Node

● ● ● Attribute Node



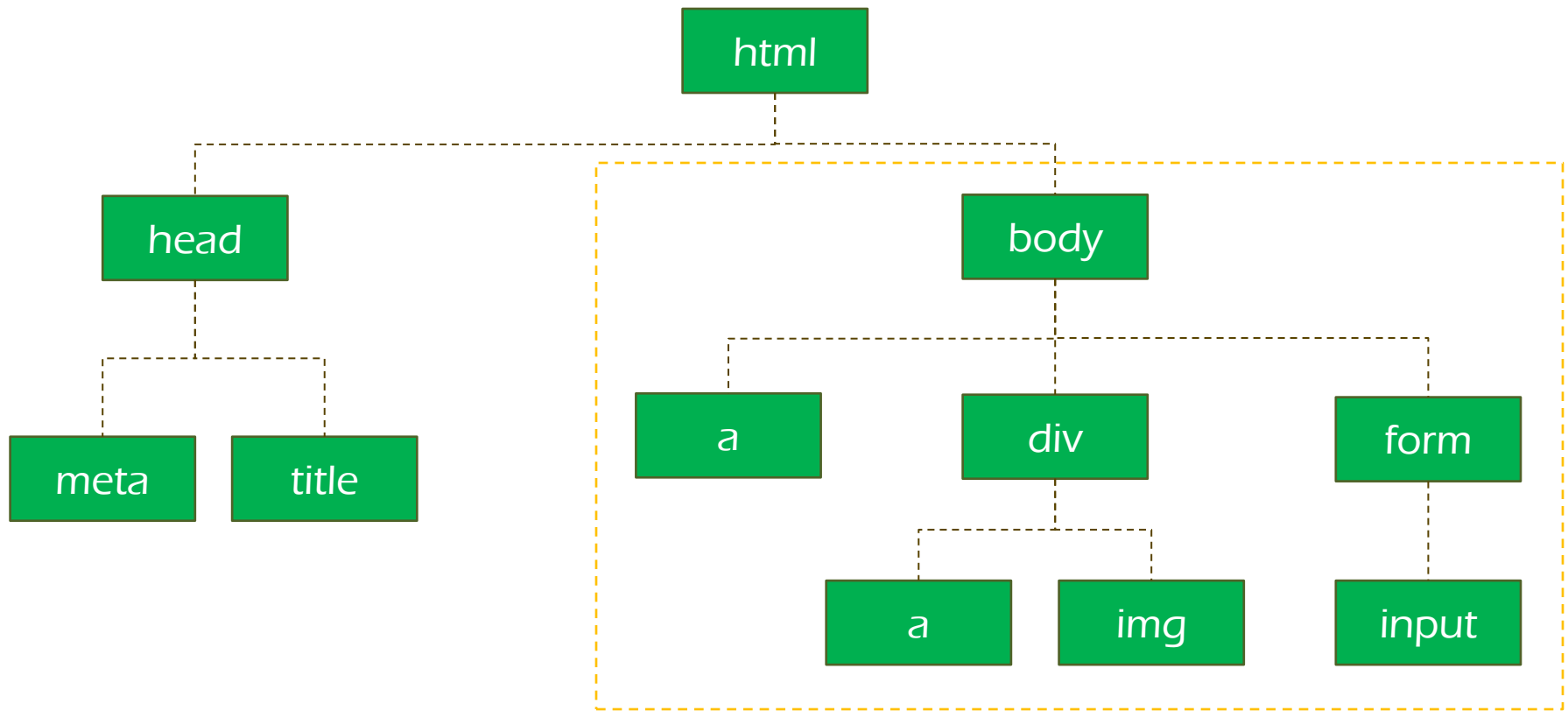
# DOCUMENT OBJECT

`document.documentElement`



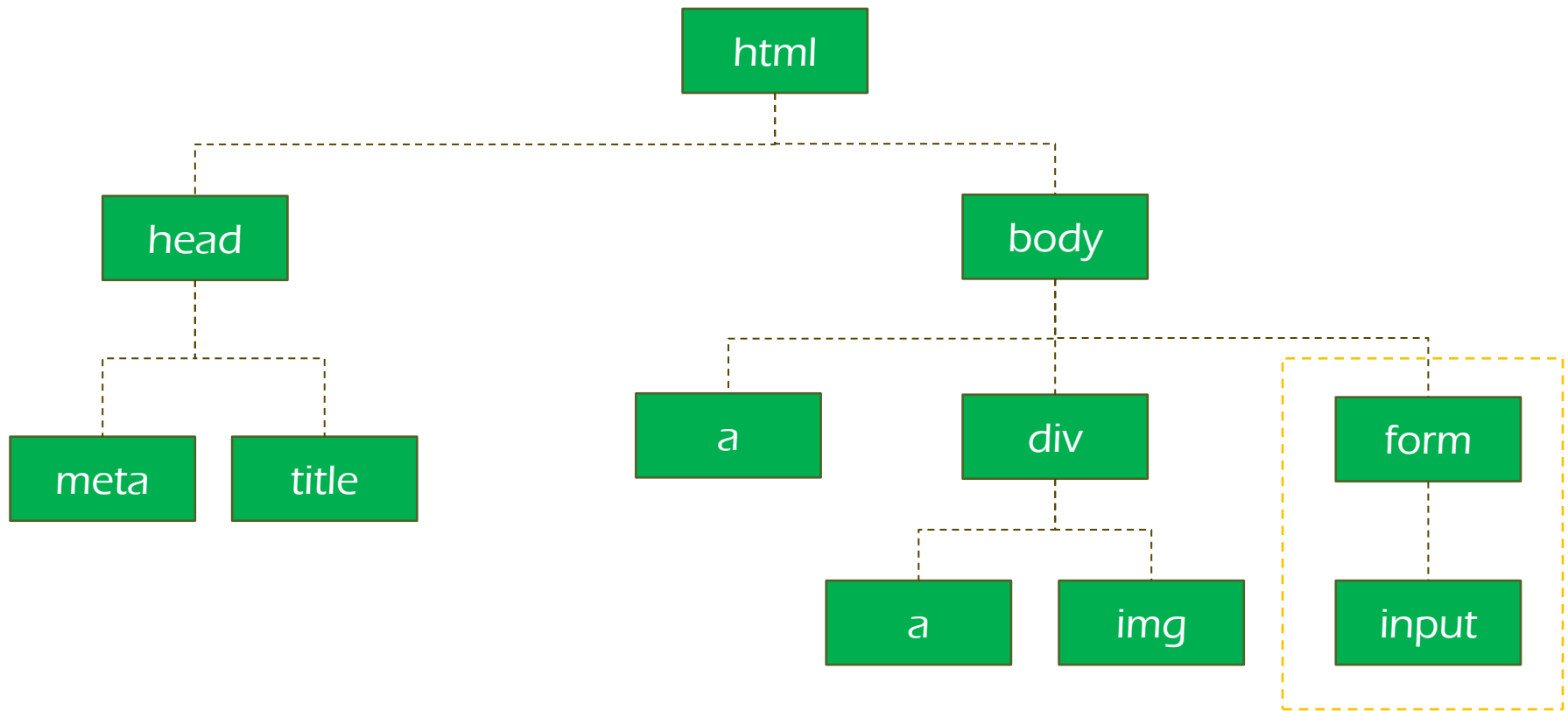
# DOCUMENT OBJECT

`document.body`



# DOCUMENT OBJECT

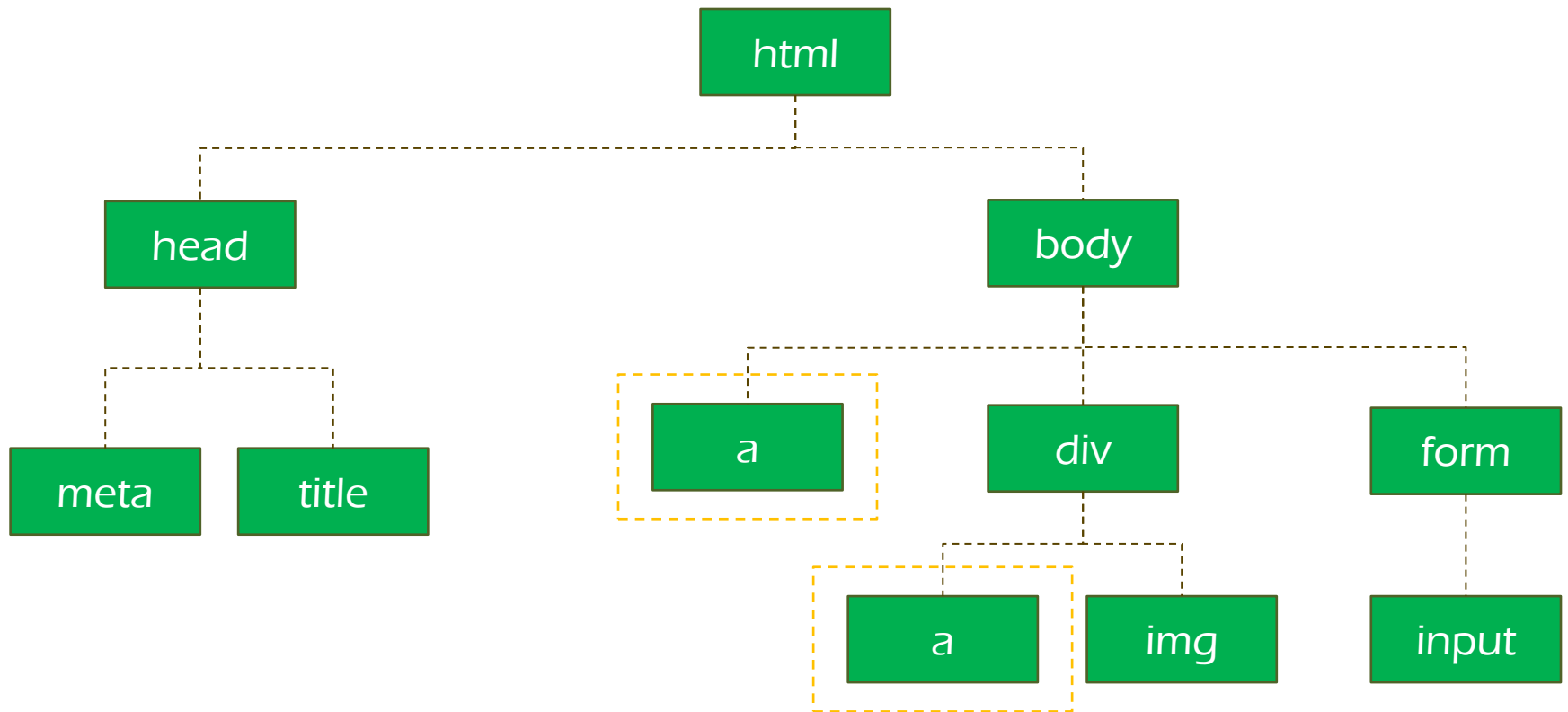
document.forms





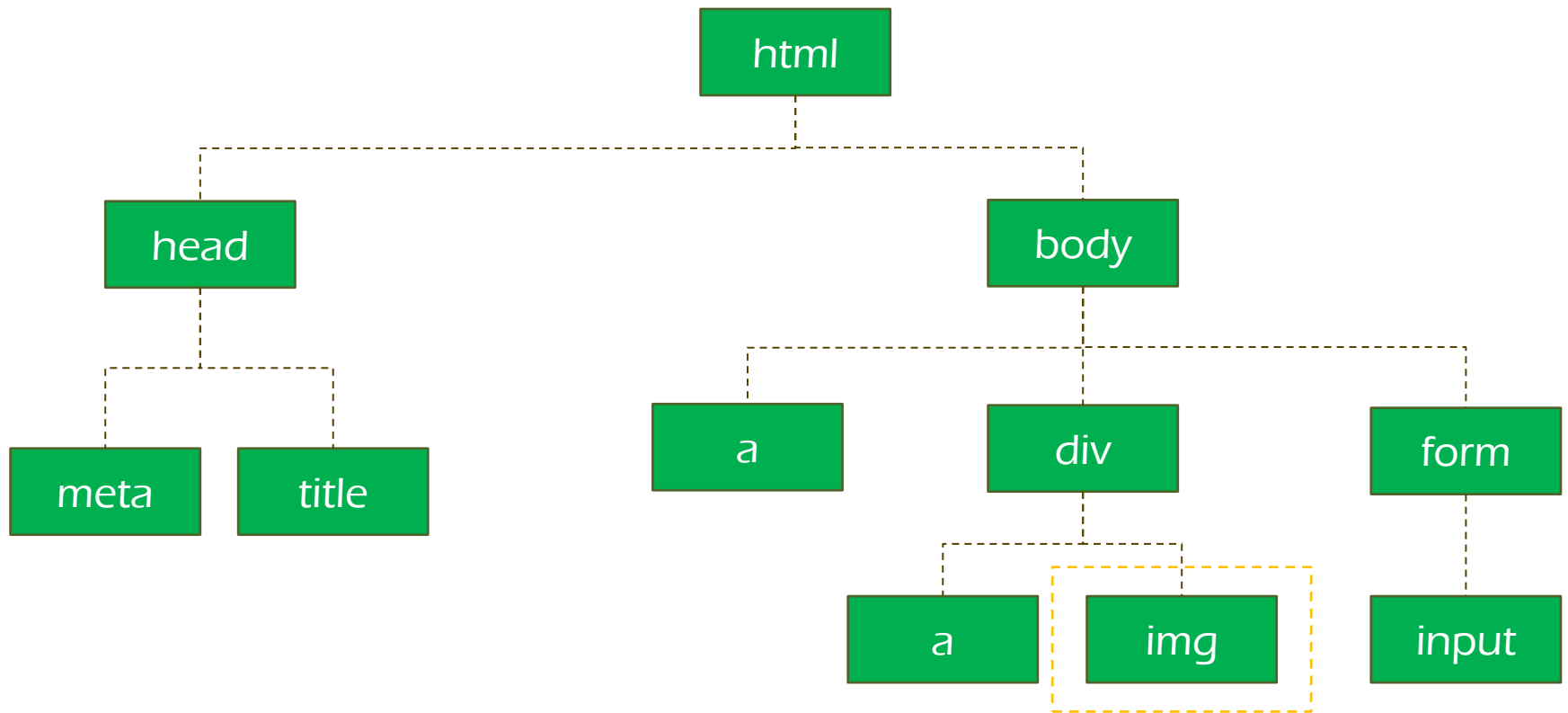
# DOCUMENT OBJECT

`document.links`

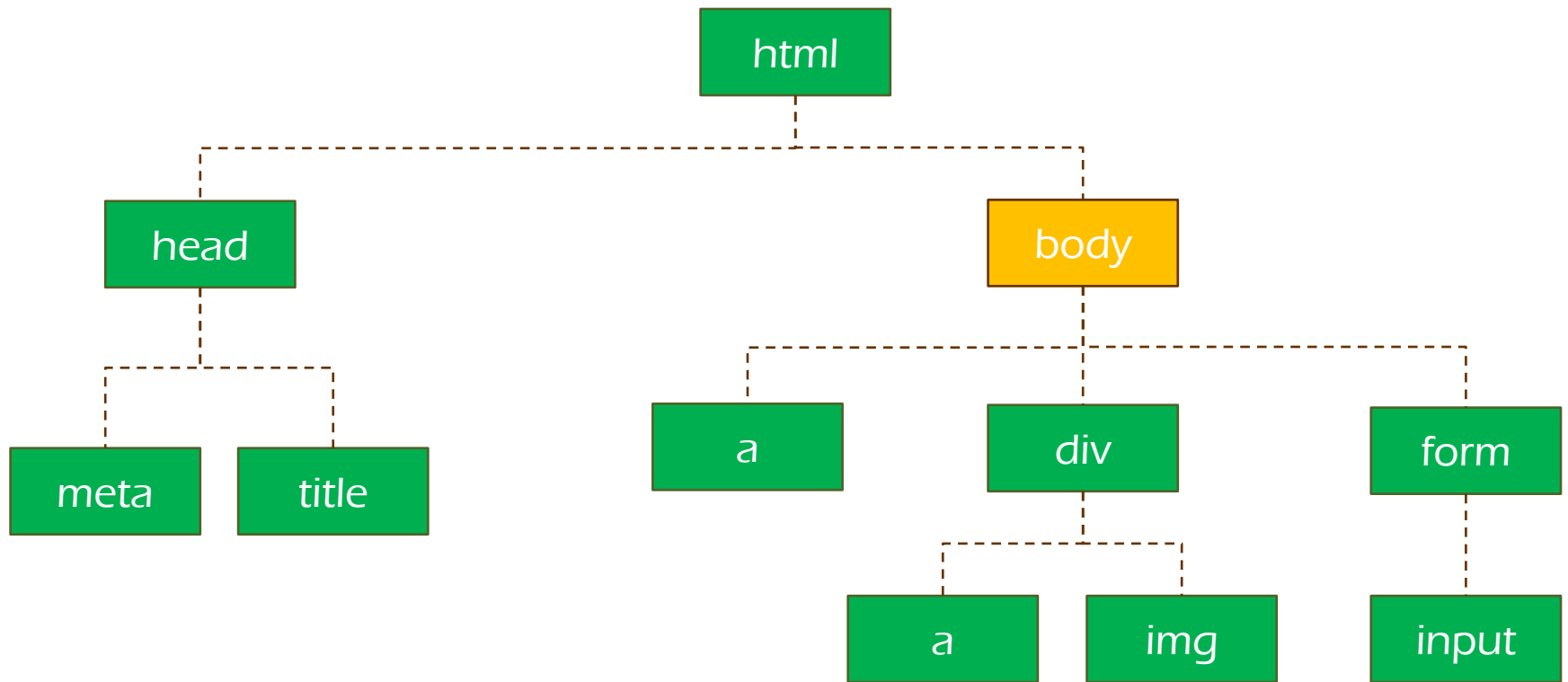


# DOCUMENT OBJECT

document.images

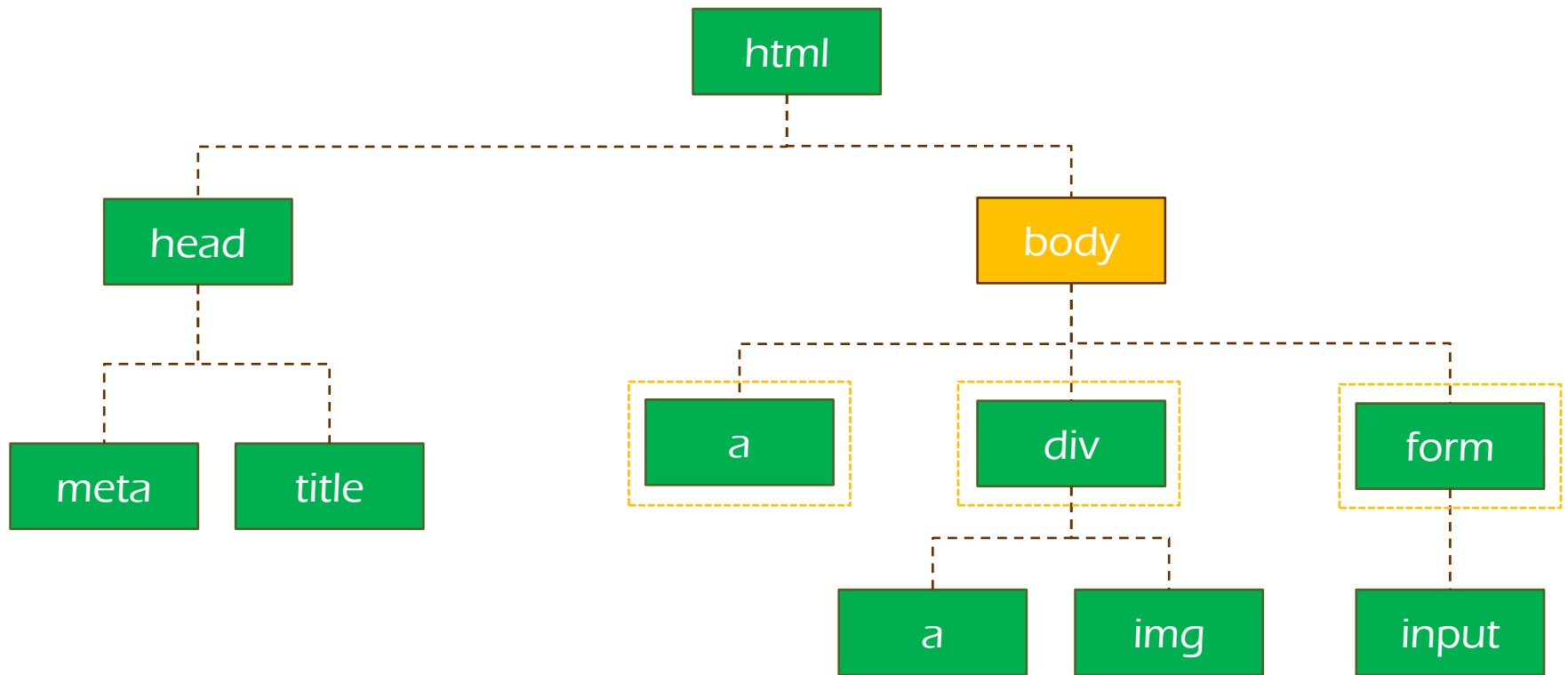


`document.body.`



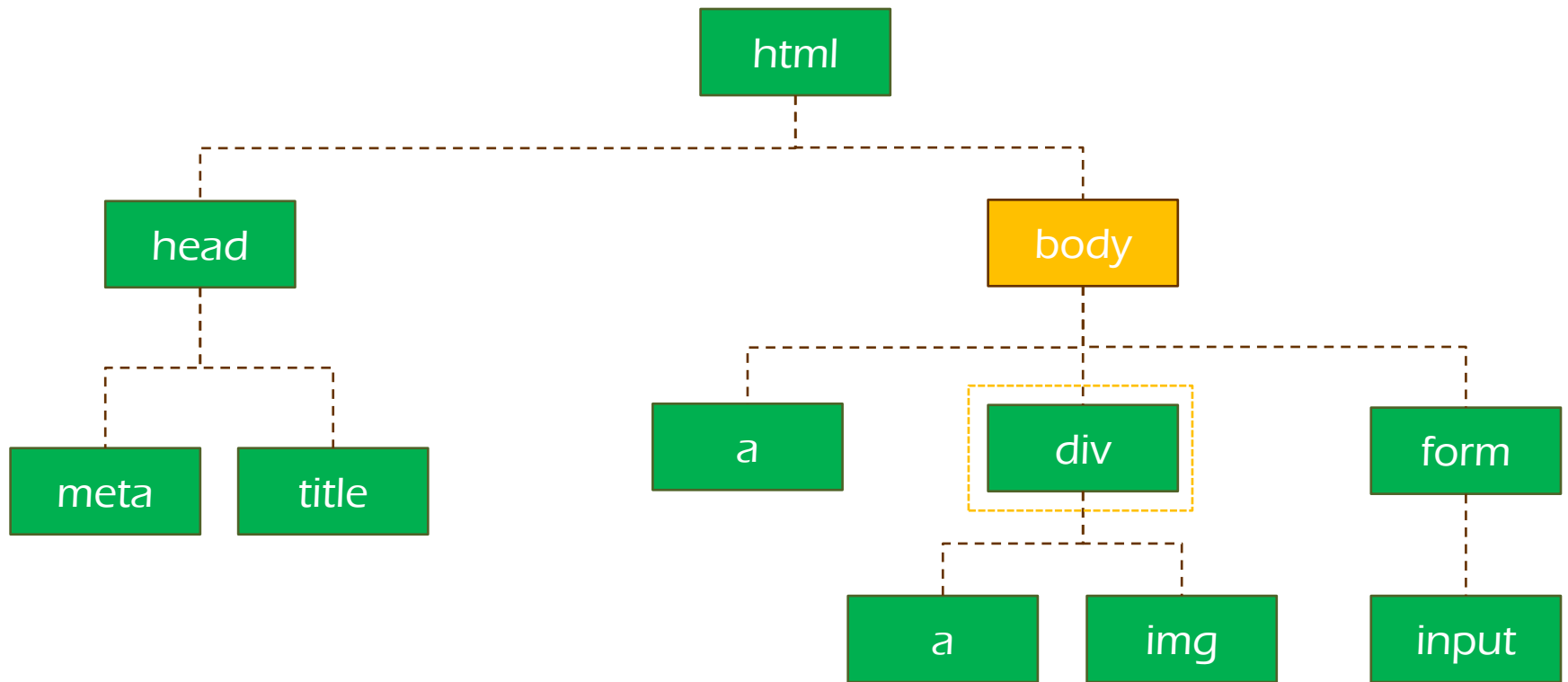
# DOM NAVIGATION

`document.body.children`

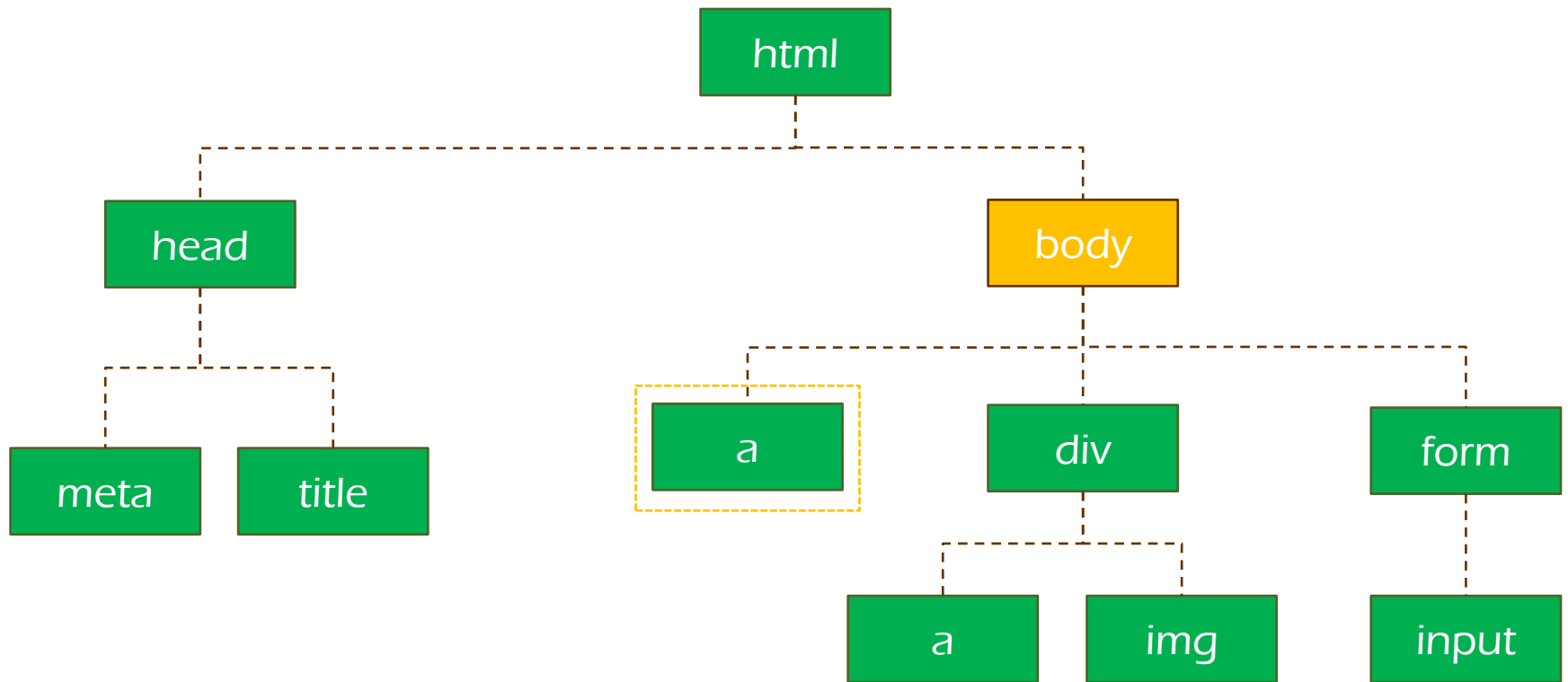


# DOM NAVIGATION

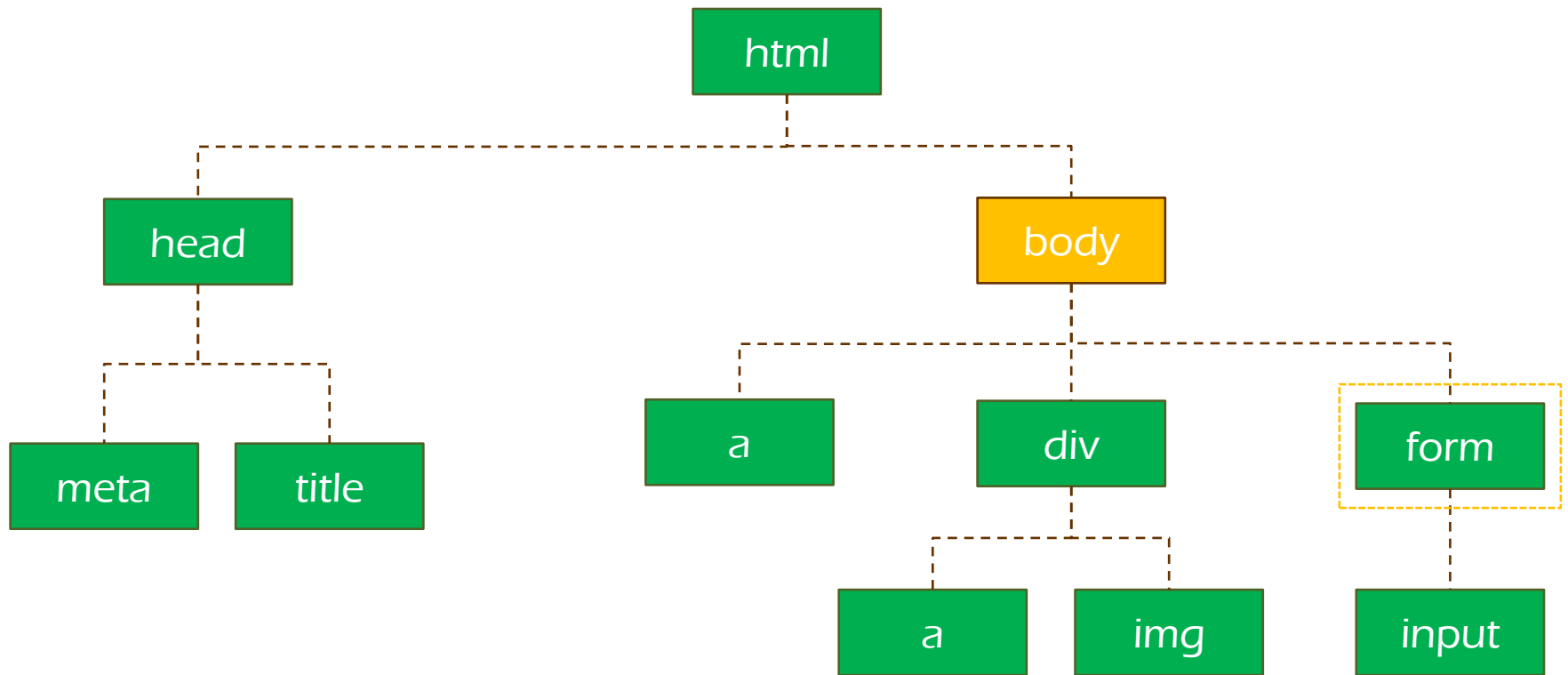
`document.body.children[1]`



`document.body.firstElementChild`

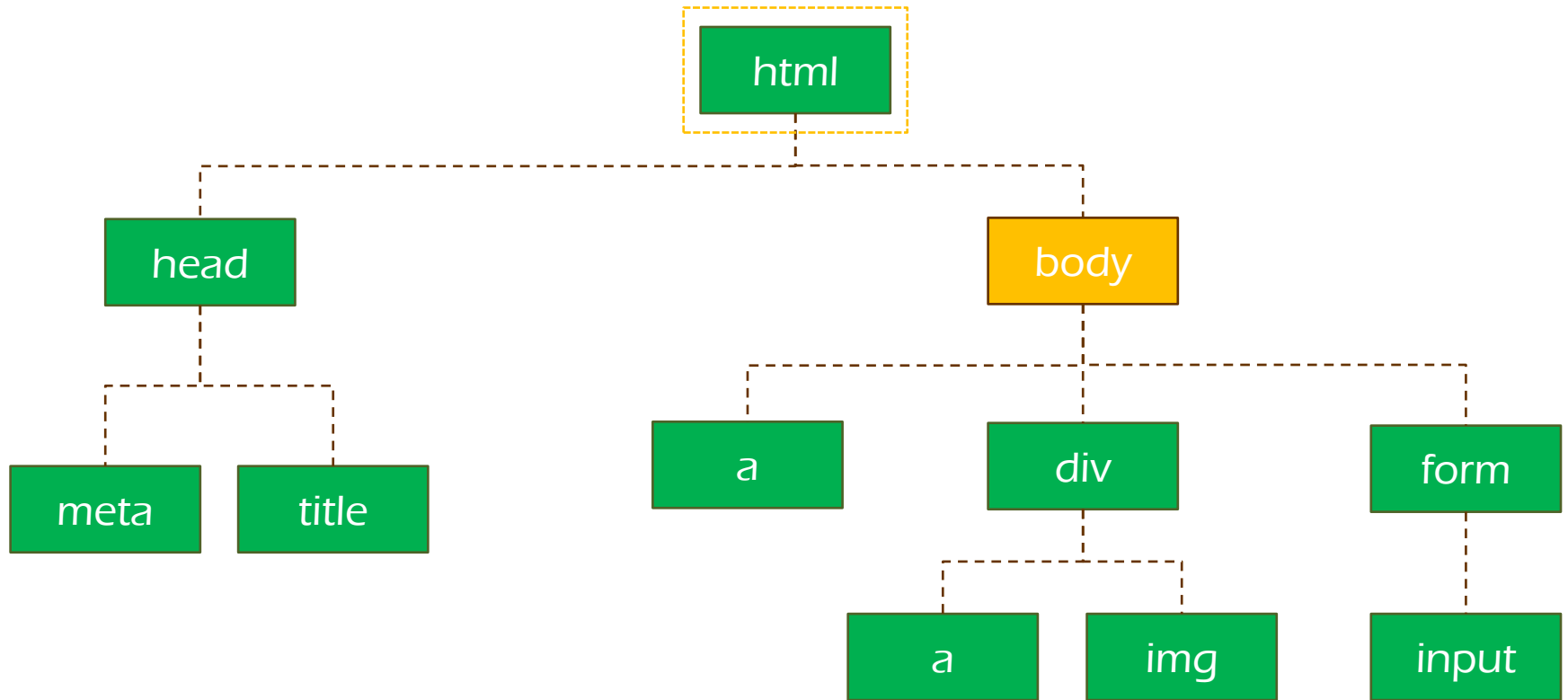


`document.body.lastElementChild`



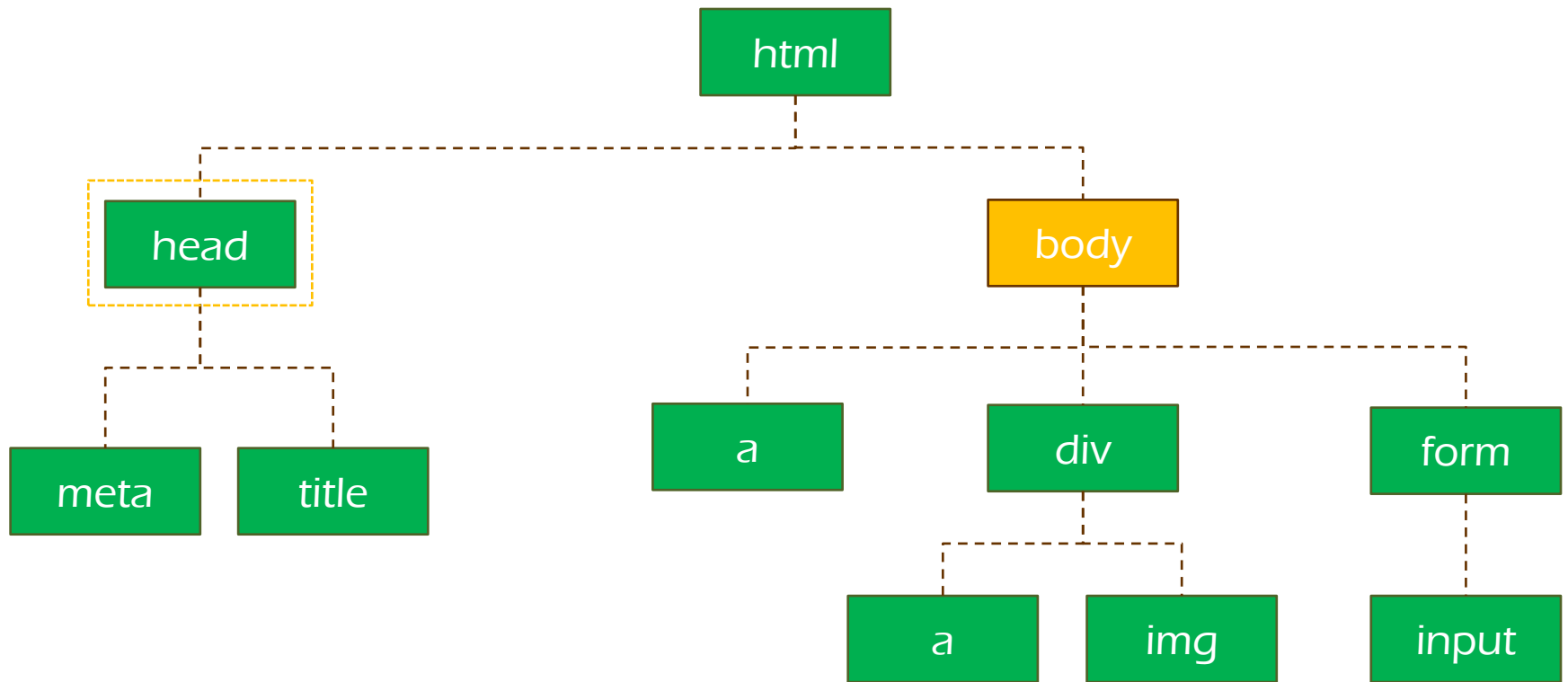
# DOM NAVIGATION

`document.body.` `parentElement`



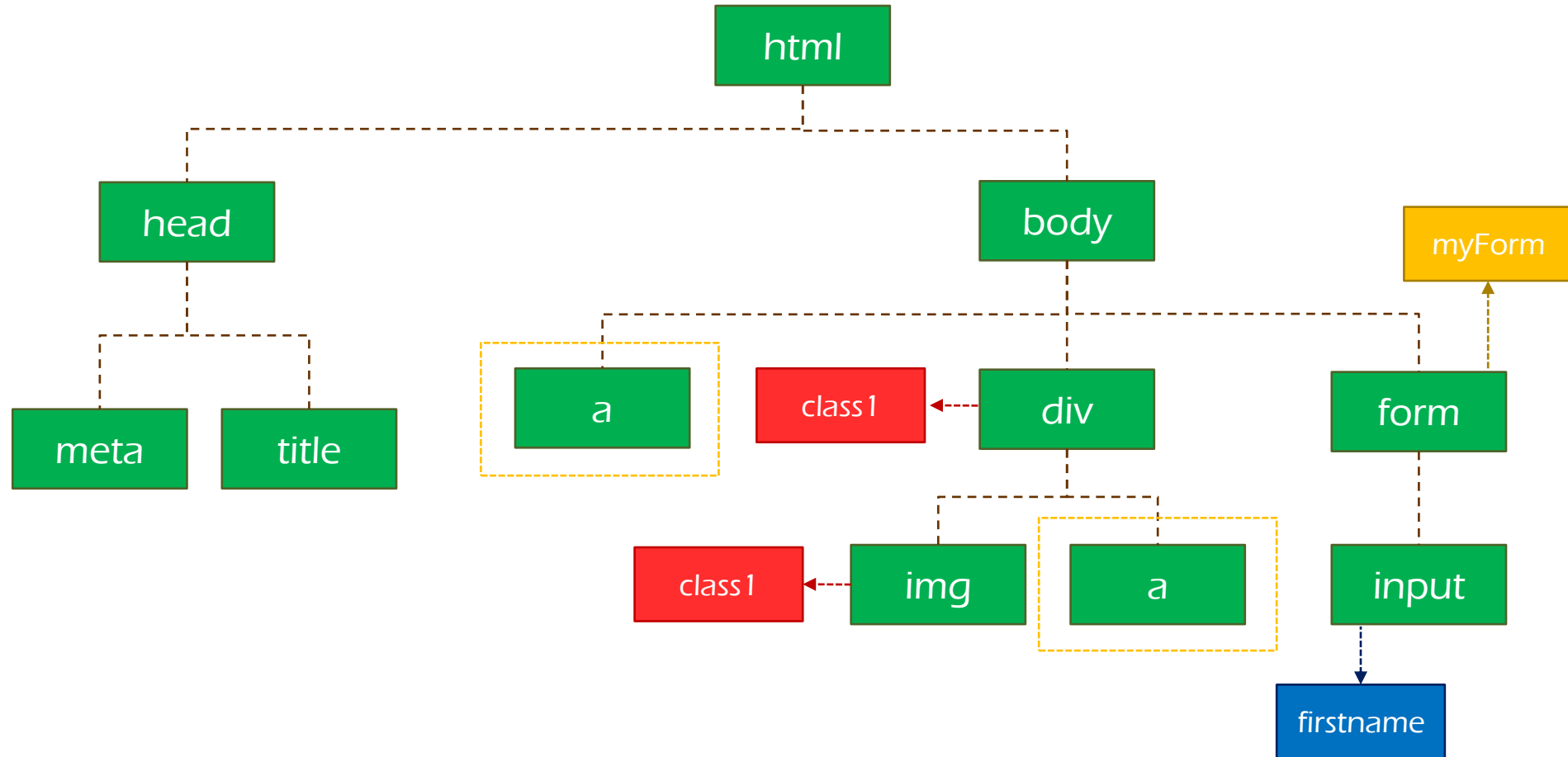


`document.body.previousElementSibling`



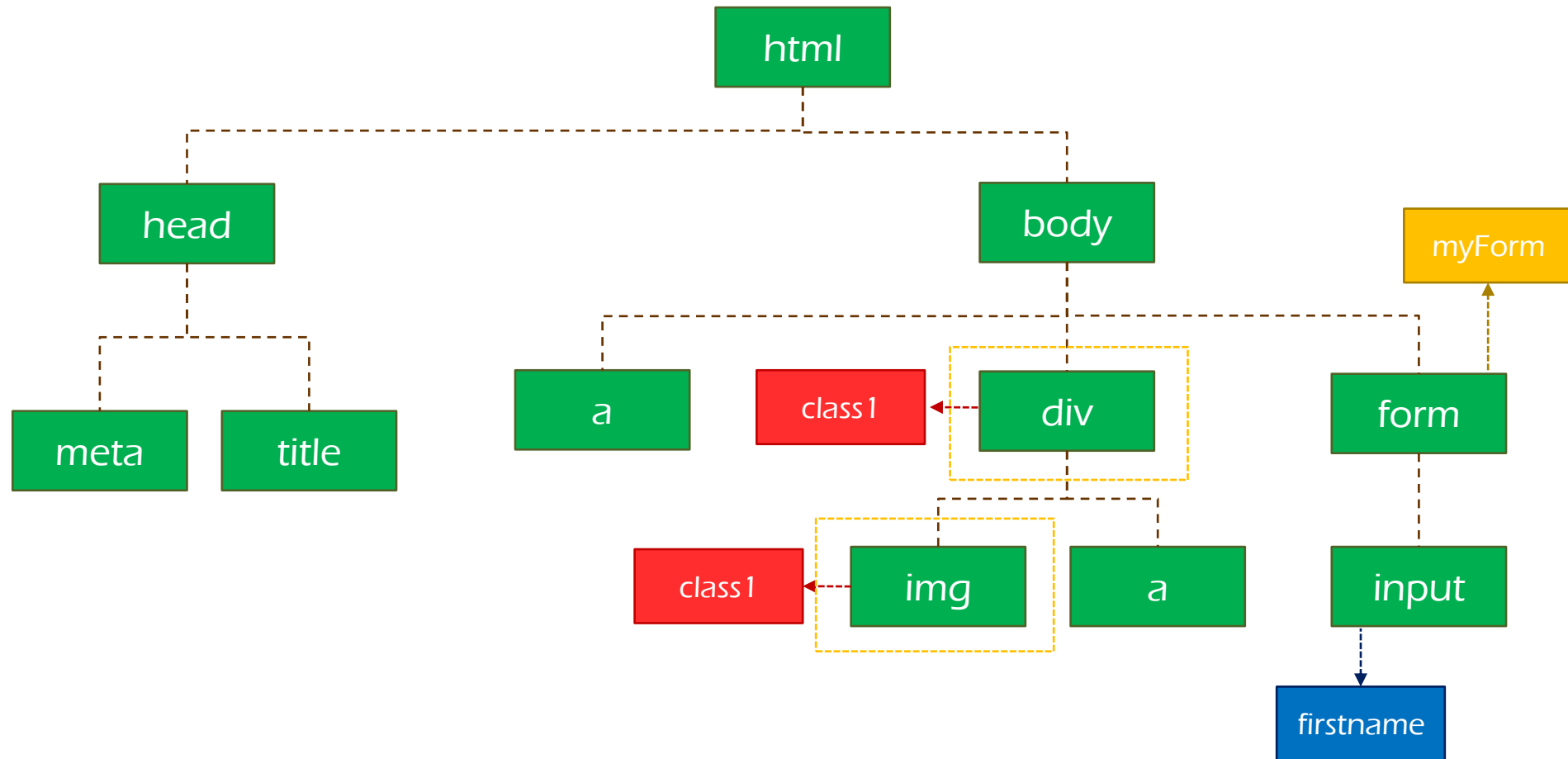
# FIND ELEMENTS IN DOM

```
document.getElementsByTagName('a');
```



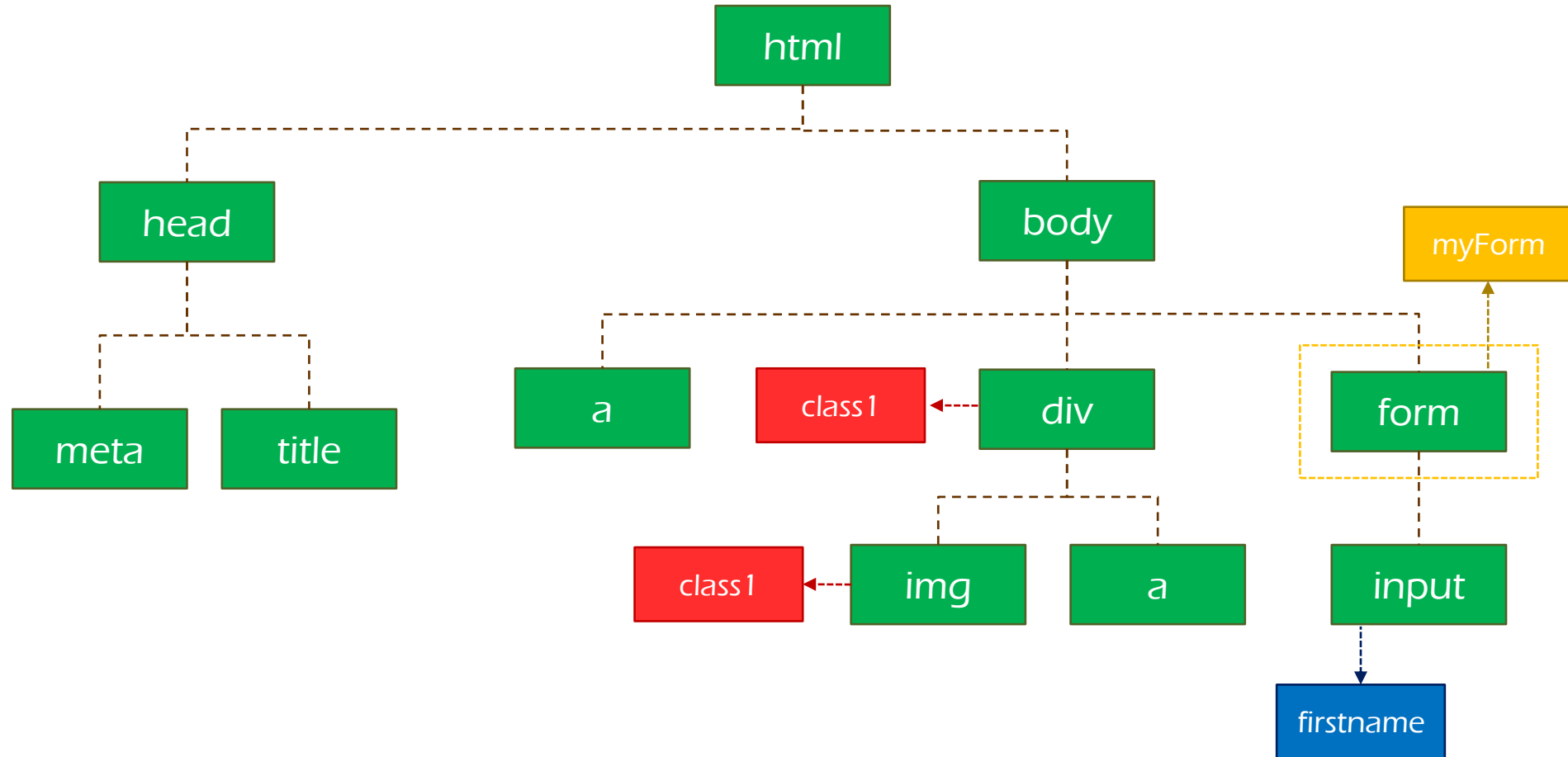
# FIND ELEMENTS IN DOM

```
document.getElementsByClassName('class1');
```



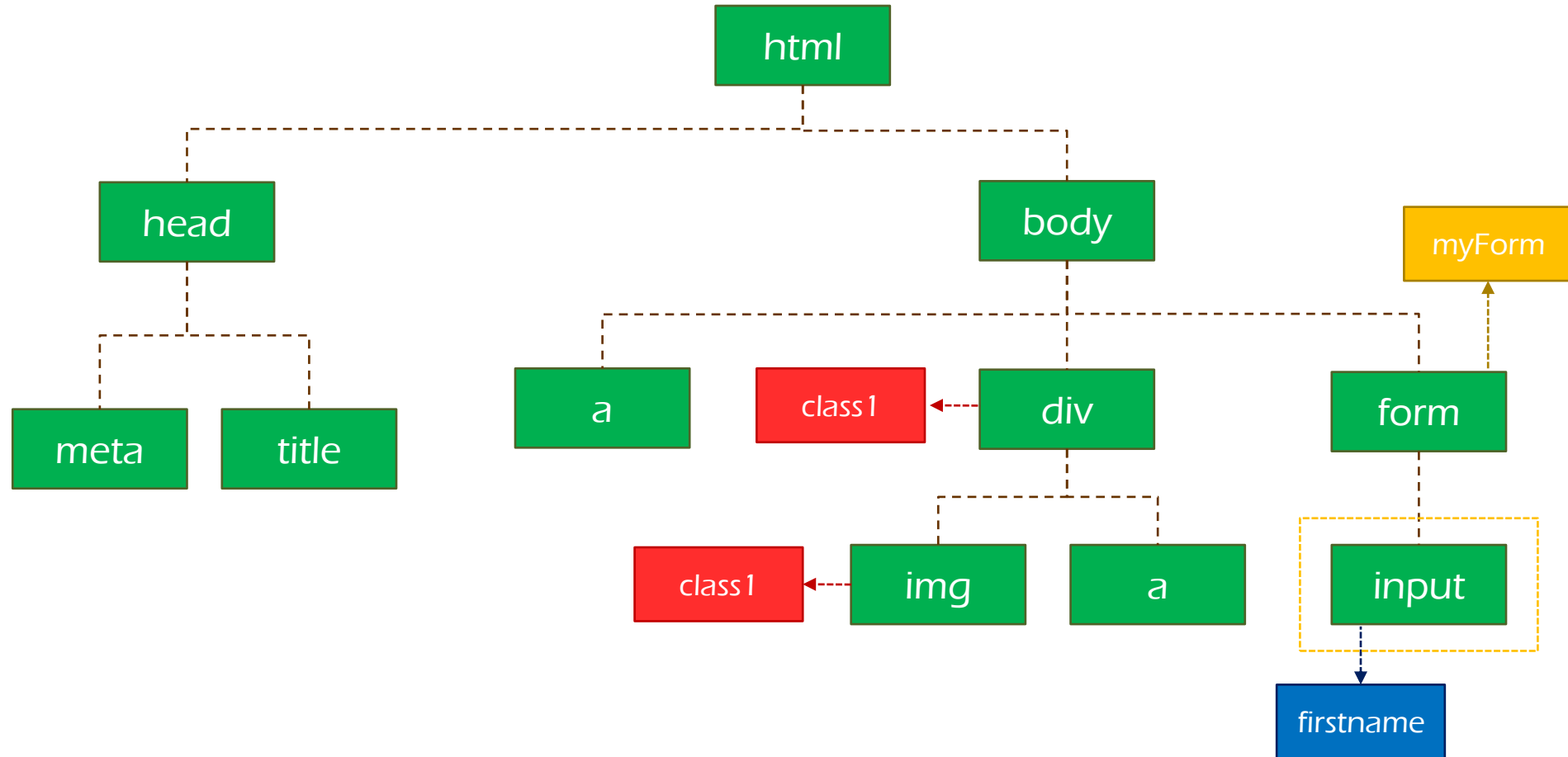
# FIND ELEMENTS IN DOM

```
document.getElementById('myForm');
```



# FIND ELEMENTS IN DOM

```
document.getElementsByClassName('firstname');
```



## 1 Creating The Element:

```
var paragraph = document.createElement("p");
```



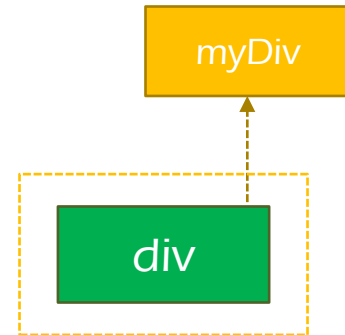
## 1 Creating The Element:

```
var paragraph = document.createElement("p");
```



## 2 Adding this Element:

```
var myDiv = document.getElementById('myDiv');
```



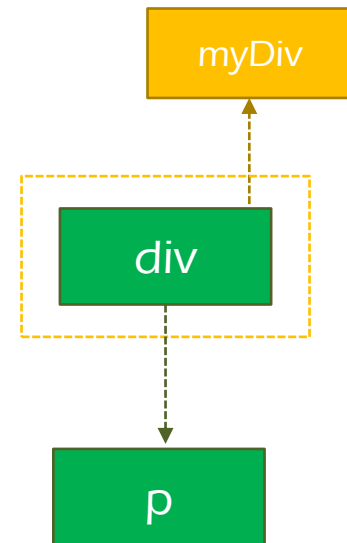
## 1 Creating The Element:

```
var paragraph = document.createElement("p");
```

## 2 Adding this Element:

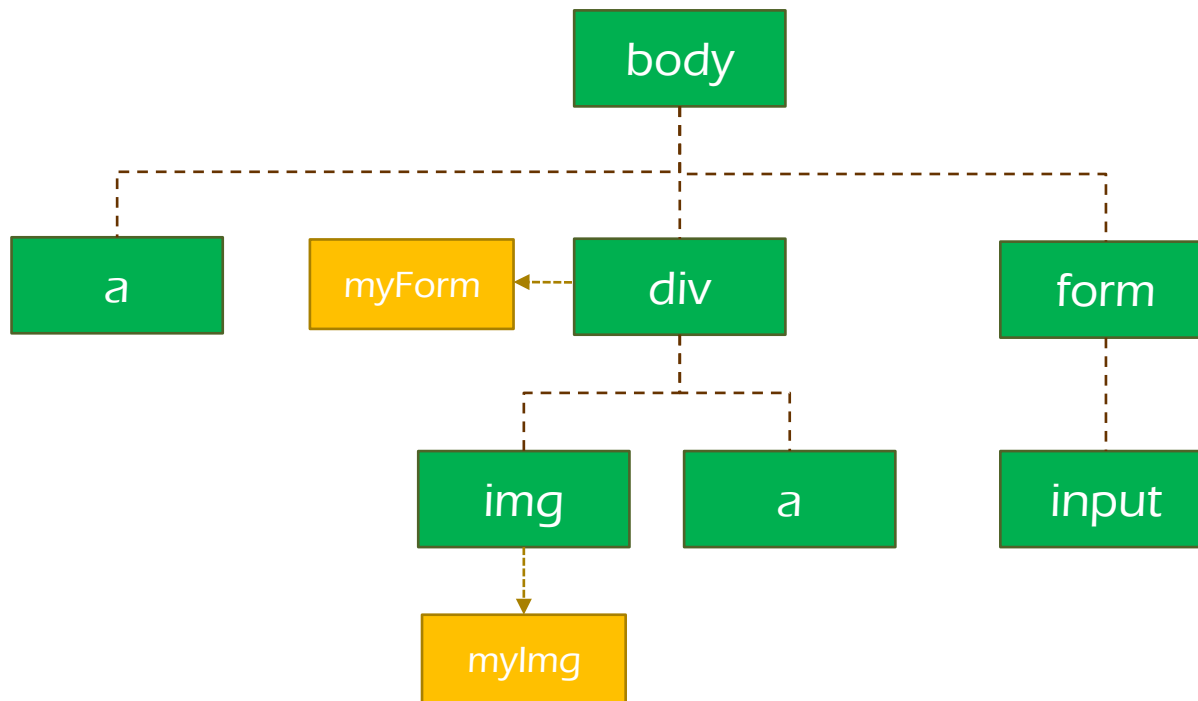
```
var myDiv = document.getElementById('myDiv');
```

```
myDiv.appendChild(paragraph);
```

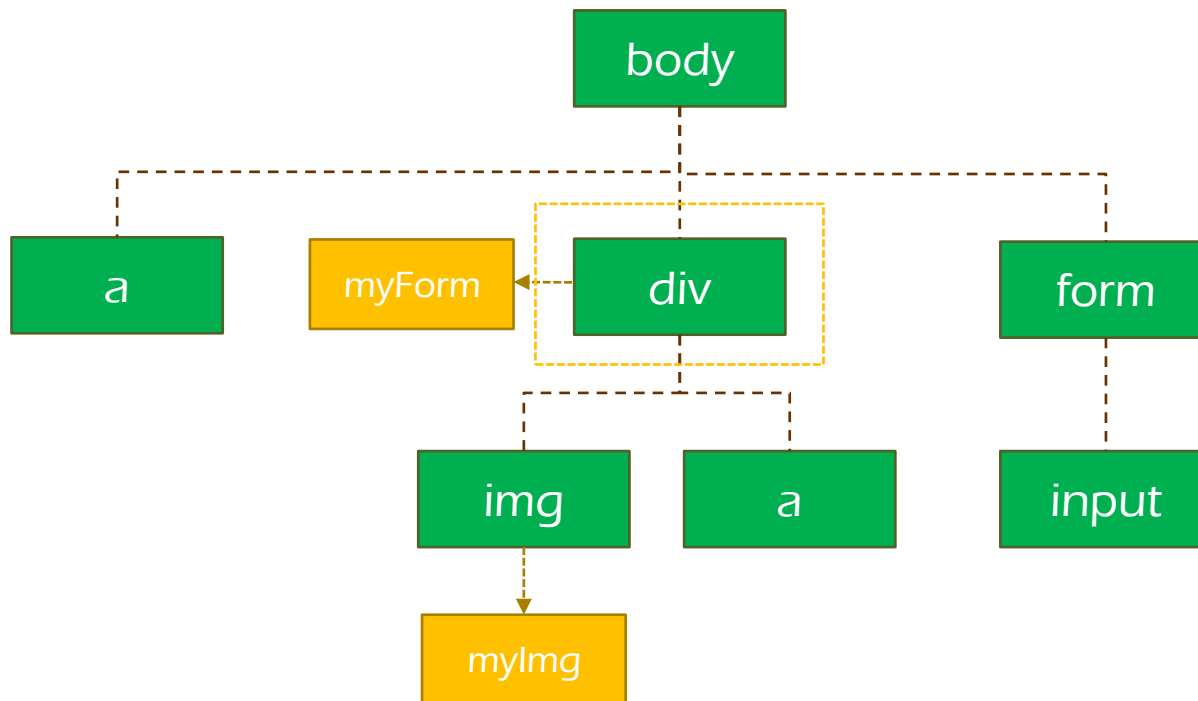




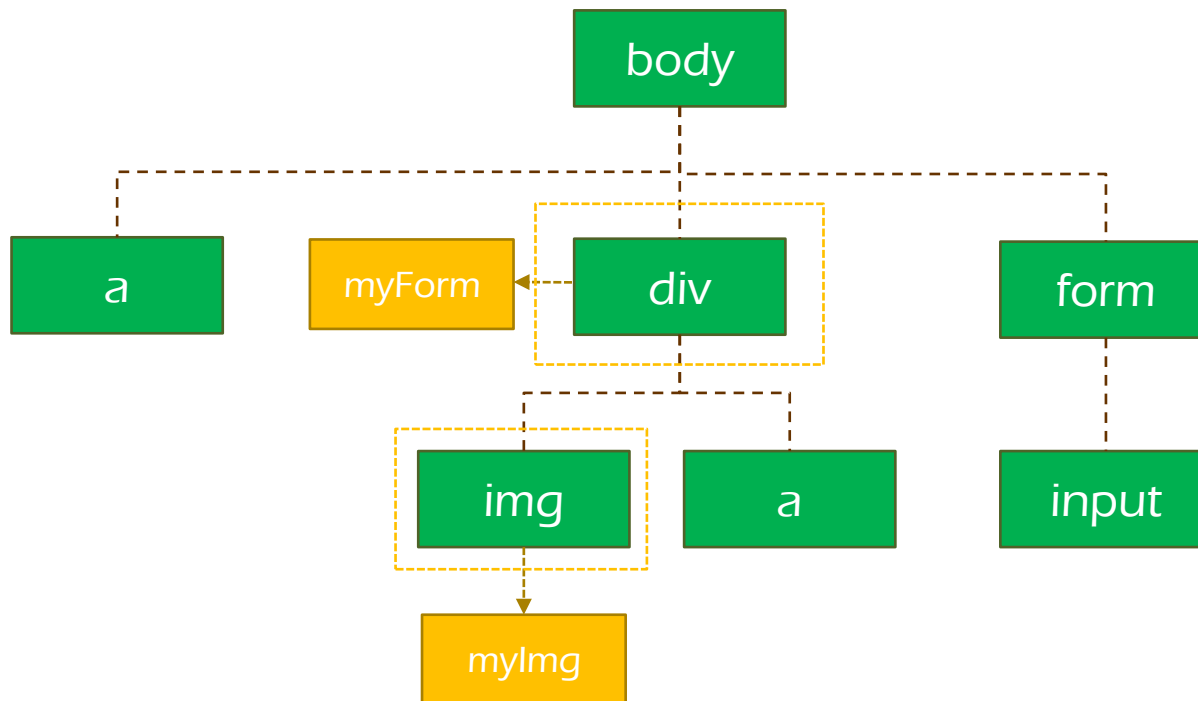
```
var paragraph = document.createElement("p");
```



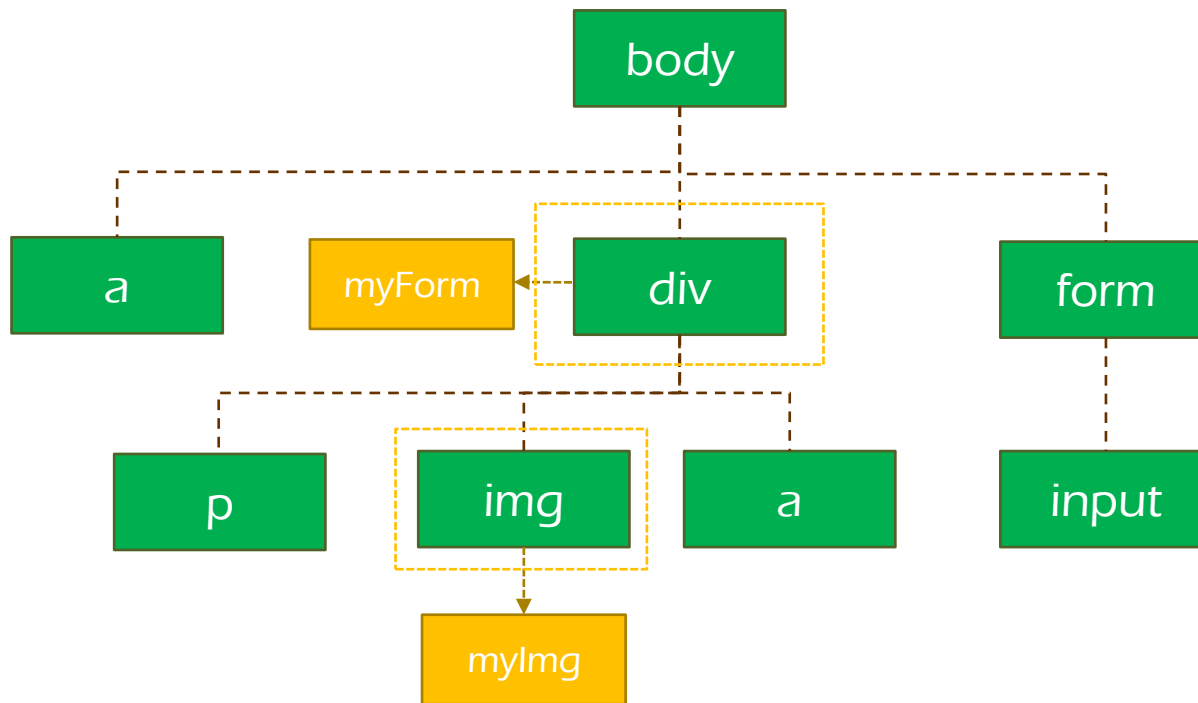
```
var paragraph = document.createElement("p");  
var parent = document.getElementById('myDiv');
```



```
var paragraph = document.createElement("p");  
var parent = document.getElementById('myDiv');  
var child = document.getElementById('myImg');
```

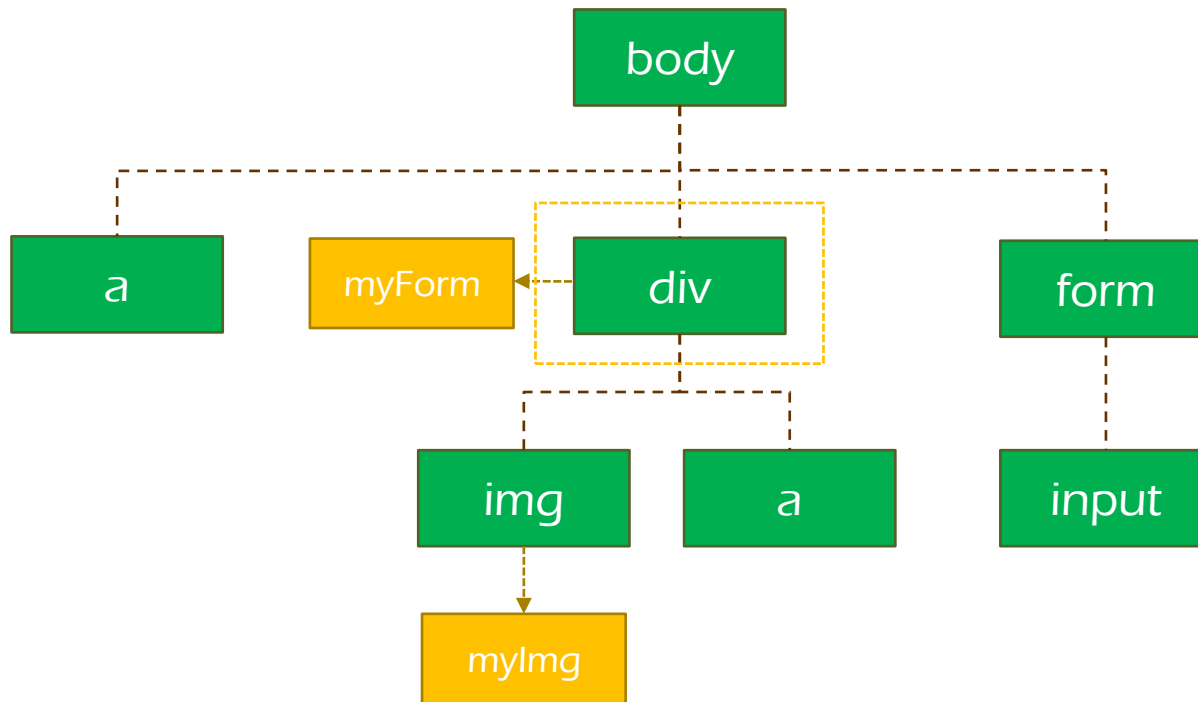


```
var paragraph = document.createElement("p");  
var parent = document.getElementById('myDiv');  
var child = document.getElementById('myImg');  
parent.insertBefore(paragraph, child);
```



# REMOVING ELEMENTS

```
var parent = document.getElementById( 'myDiv' );
```



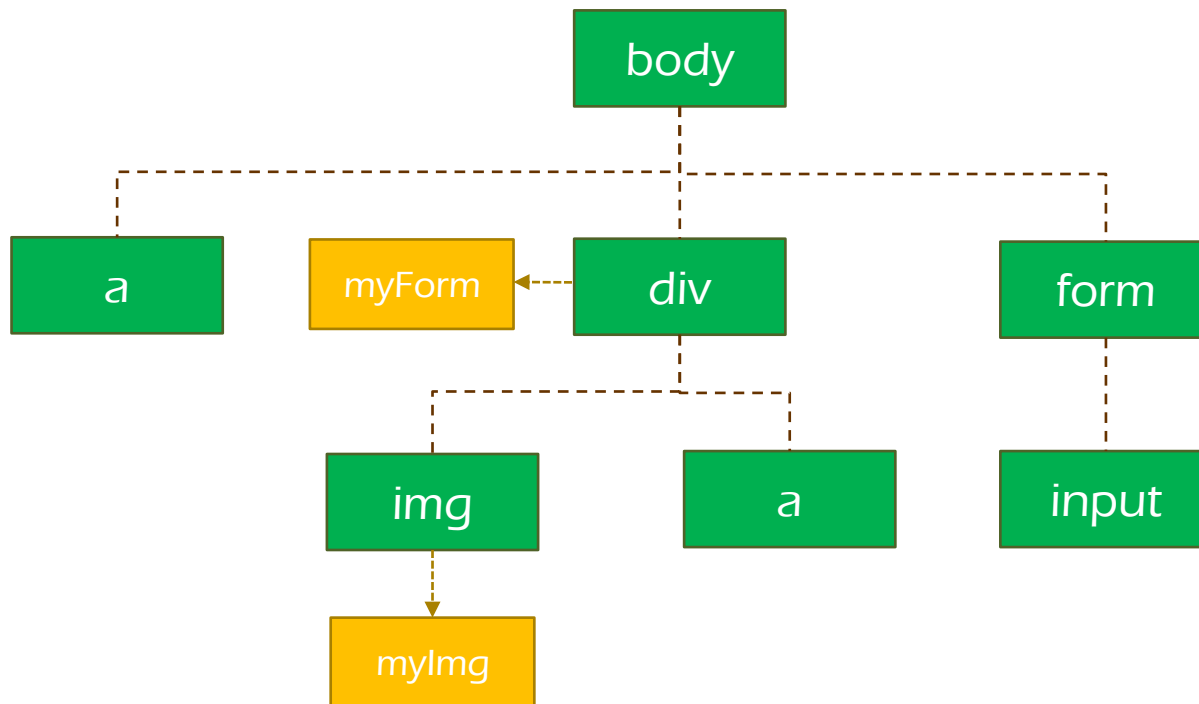




# REPLACING ELEMENTS

```
var paragraph = document.createElement("p");
```

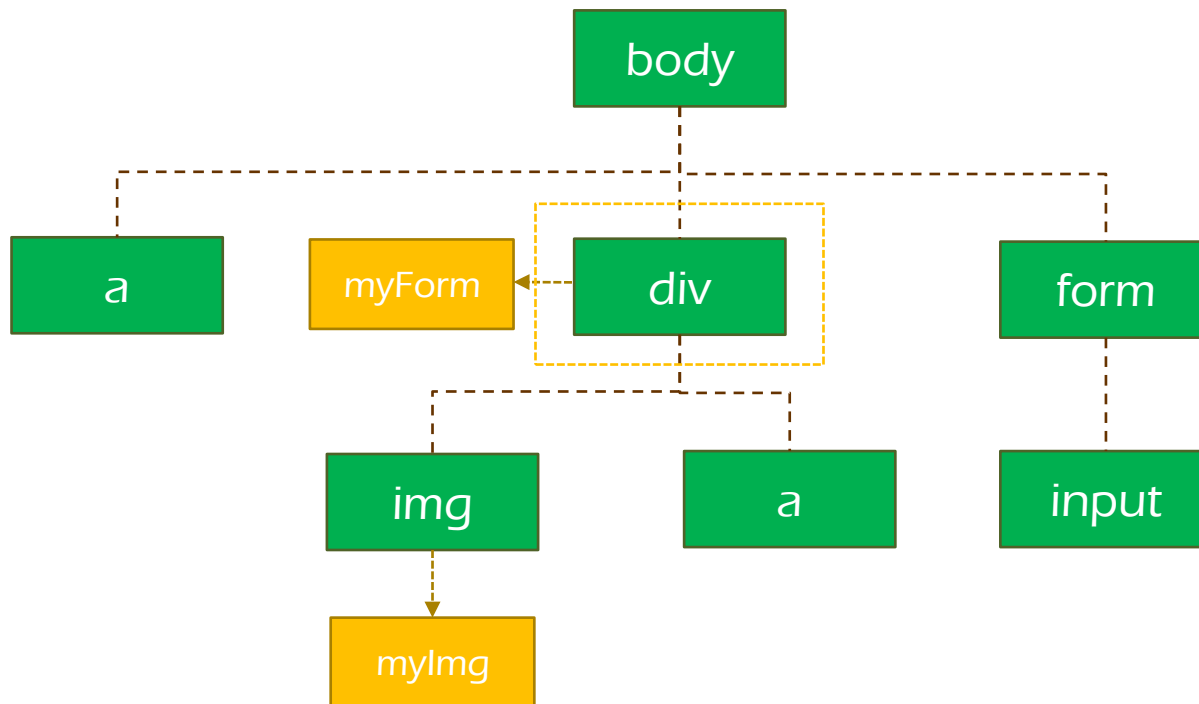
p





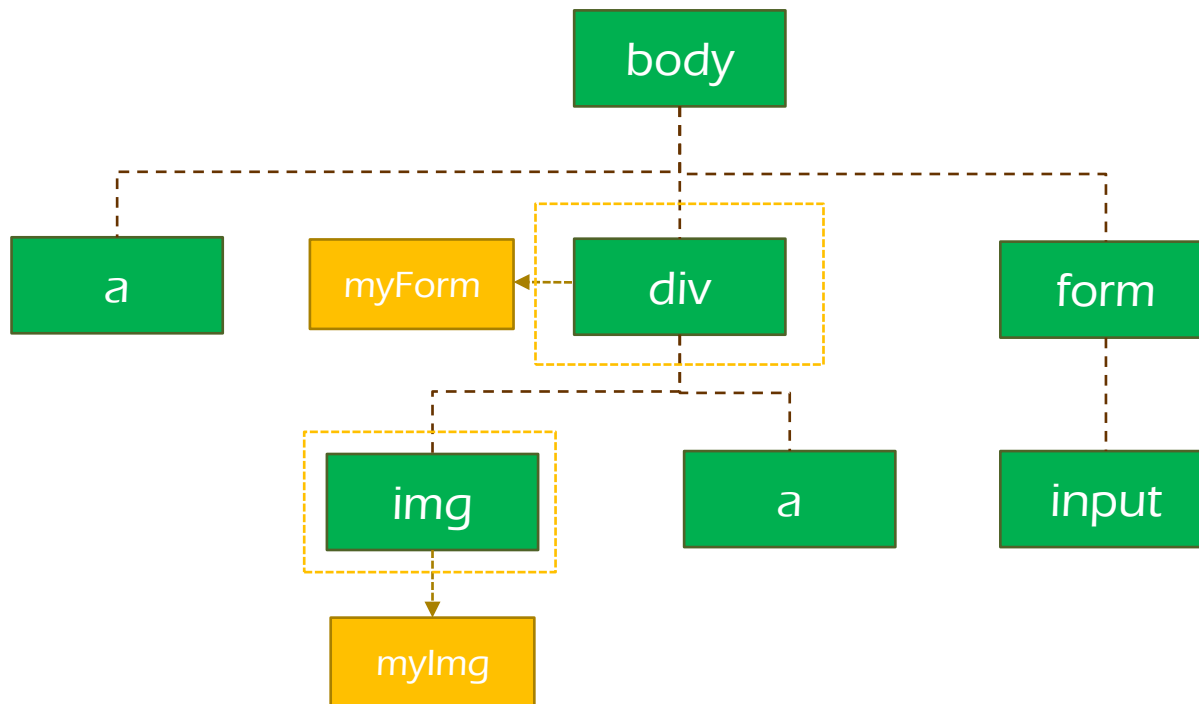
# REPLACING ELEMENTS

```
var paragraph = document.createElement("p");  
var parent = document.getElementById('myDiv');
```



# REPLACING ELEMENTS

```
var paragraph = document.createElement("p");  
var parent = document.getElementById('myDiv');  
var child = document.getElementById('myImg');
```





## innerHTML

Getting the HTML inside an Element

```
var html = document.getElementById('myDiv').innerHTML;  
  
console.log(html);
```

---

Setting the HTML inside an Element

```
document.getElementById('myDiv').innerHTML = '<new HTML Content/>'
```



## textContent

Getting the HTML inside an Element

```
var html = document.getElementById('myDiv').textContent;  
  
console.log(html);
```

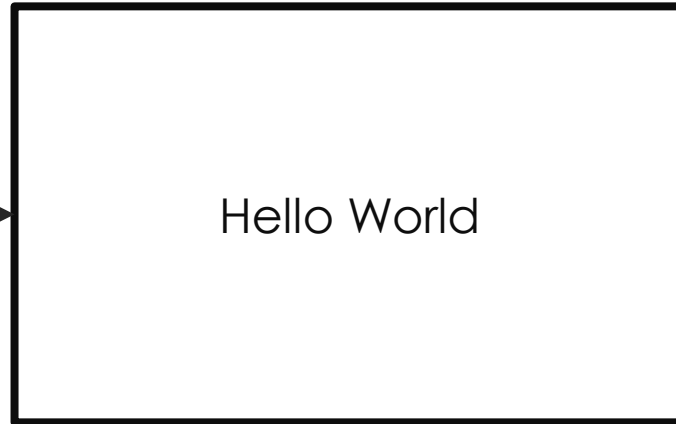
---

Setting the HTML inside an Element

```
document.getElementById('myDiv').textContent = 'hi there';
```



This is Div



```
var div = document.getElementById('myDiv');
```



This is Div



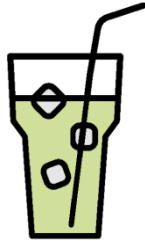
Hello World

```
var div = document.getElementById('myDiv');
```

```
div.style.backgroundColor = 'green';
```

```
div.style.borderColor = 'red';
```





Getting an attribute value of an Element

```
var imgSource = document.getElementById('myImg').src;  
  
console.log(imgSource); //lemon-juice.png
```

---







Getting an attribute value of an Element

```
var imgSource = document.getElementById('myImg').src;  
console.log(imgSource); //lemon-juice.png
```

---

Setting an attribute value of an Element

```
document.getElementById('myImg').src = 'orange-juice.png';
```





Getting an attribute value of an Element

```
var img = document.getElementById( 'myImg' );  
var imgSource = img.getAttribute( 'src' );  
console.log(imgSource); //lemon-juice.png
```

---





Getting an attribute value of an Element

```
var img = document.getElementById( 'myImg' );  
var imgSource = img.getAttribute( 'src' );  
console.log(imgSource); //lemon-juice.png
```

---

Setting an attribute value of an Element

```
img.setAttribute( 'src', 'orange-juice.png' );
```



My Div

```
<div id="my-div" class="blue square"> My Div</div>
```

Getting class list of an Element

```
var div = document.getElementById('my-div');  
var classes = div.classList;  
console.log(classes); // [blue, square]
```





```
<div id="my-div" class="square"> My Div</div>
```

## Setting class list of an Element

```
var div = document.getElementById( 'my-div' );  
div.classList.add( 'blue' );  
div.classList.remove( 'blue' );  
div.classList.toggle( 'red' );  
div.classList.toggle( 'red' );
```



# CREATING AND FORMING ELEMENTS

```
var article = document.createElement( 'p' );
```

<p >

</p>



# CREATING AND FORMING ELEMENTS

```
var article = document.createElement('p');  
var content = document.createTextNode("I'm an article");  
article.appendChild(content);
```

<p >

I'm an article

</p>



# CREATING AND FORMING ELEMENTS

```
var article = document.createElement('p');  
var content = document.createTextNode("I'm an article");  
article.appendChild(content);  
var myAttr = document.createAttribute('class');  
myAttr.value = 'make-me-bold';  
article.setAttributeNode(myAttr);
```

<p class='make-me-bold'>

**I'm an article**

</p>





The **Browser Object Model** (BOM) allows **JavaScript** to talk to the browser.

	<b>JavaScript</b> Can you help me creating Element?	01:29
	<b>Chrome</b> No, I'm Busy Now.	01:29
	<b>Chrome</b> You can talk to Firefox 😊	01:29
	<b>JavaScript</b> Who is FireFox 😊	01:29
	<b>Chrome</b> I saw you and him in window 8 yesterday .. and Don't Lie	01:29
	<b>JavaScript</b> Sorry 😊 , But you was busy and he helps me removing silly Element .	01:30
	<b>Chrome</b> Don't Be Sorry , We Break up 😡	01:29

The **window** object represents the browser's window.

- **All** global JavaScript **objects**, **functions**, and **variables** automatically become members of the window object.

`alert( "Hello")` === `window.alert("hello")`

`document` === `window.document`

- Global variables are **properties** of the window object.
- Global functions are **methods** of the window object.





THANK YOU

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