



# Cascading Style Sheets (CSS)

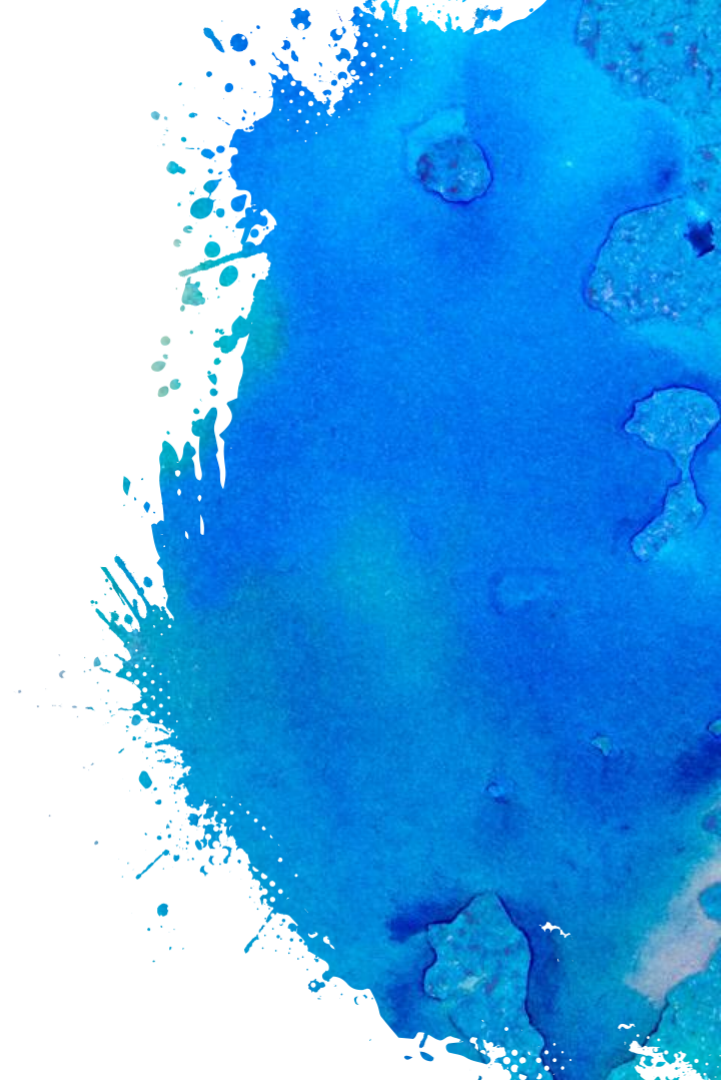
Amuthan Arulraj

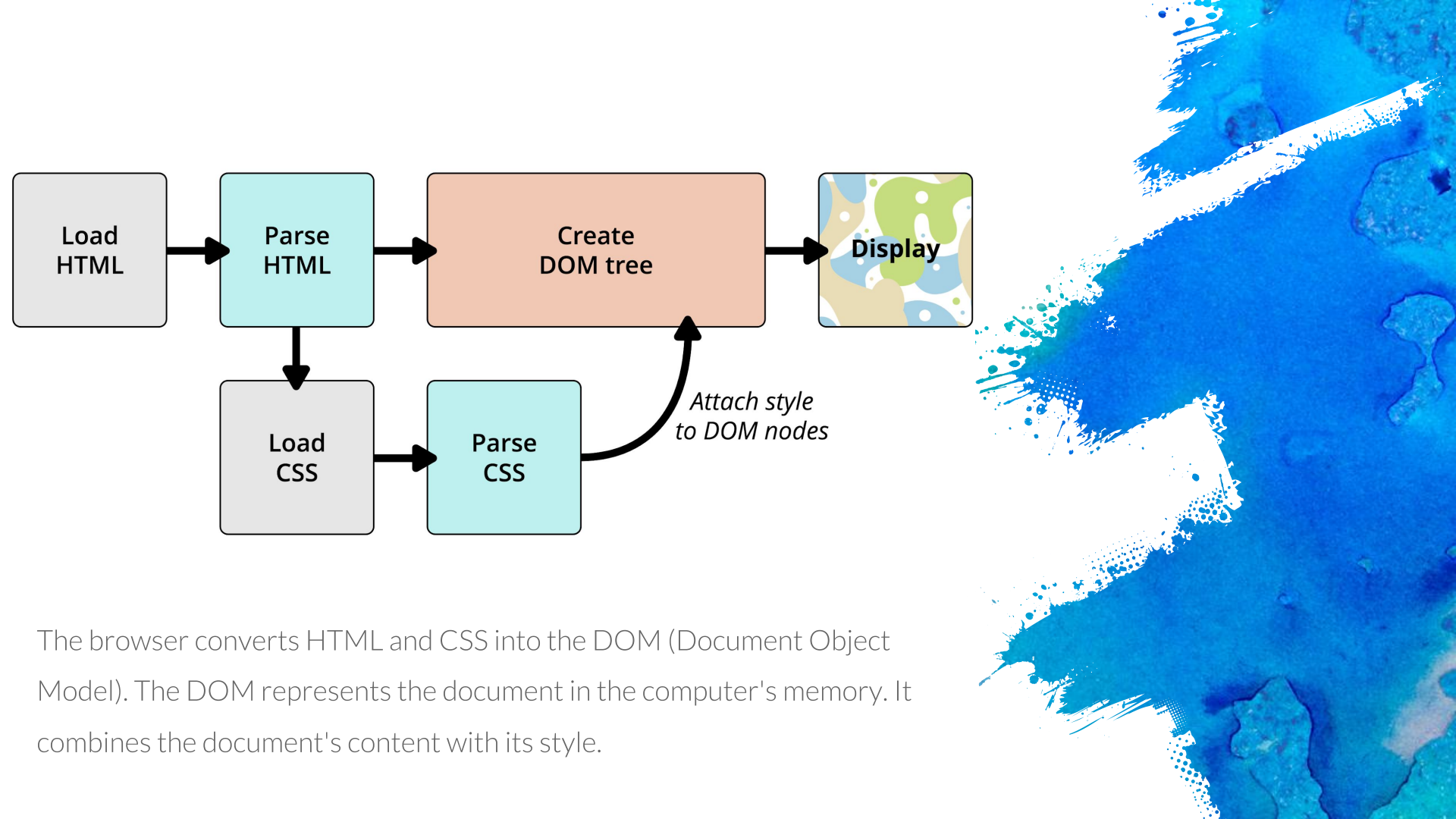
Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML. CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.



# DOM

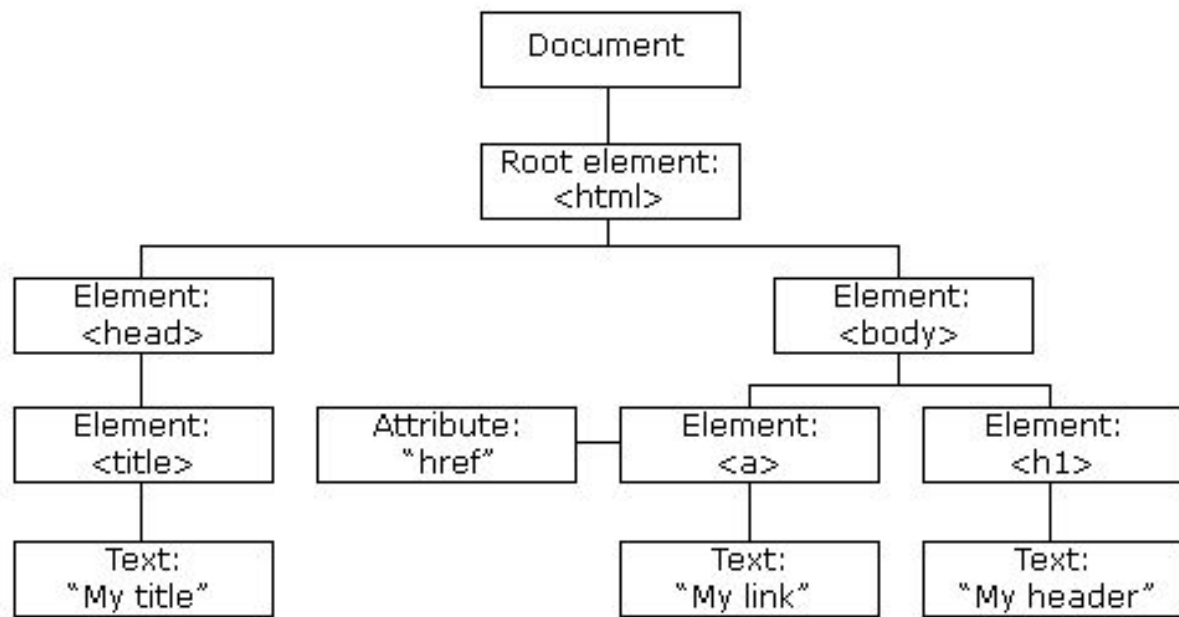
Document Object Model





The browser converts HTML and CSS into the DOM (Document Object Model). The DOM represents the document in the computer's memory. It combines the document's content with its style.





# CSS Rule

- × A set of properties which defines how a element should be displayed on the screen.
- × A selector which can identify the element(s) where the properties should be applied.
- × Each property in the set along with its value is called a declaration.
- × A block of declarations is called declaration block.
- × Declaration block along with selector(s) is a CSS Ruleset or CSS Rule



# CSS Rule

```
p {  
  color: blue;  
  background-color: yellow;  
  border: 1px solid black;  
}
```



# Using CSS

1. External stylesheet
2. Internal stylesheet
3. Inline styles





# Readability

1. Whitespace
2. Comments





# Types of Selectors

# Simple Selectors

Match one or more elements based on element type, class, or id.

```
#para_1 {  
    color: blue;  
}
```

```
.blue_para {  
    color: blue;  
}
```

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

```
* {  
}
```



# Combinators

- × Descendant selector - (space)
- × Child selector - (>)
- × Adjacent sibling selector - (+)
- × General sibling selector - (~)





# Attribute selectors

- × [attr]
- × [attr=val]
- × [attr~=val]
- × [attr|=val]
- × [attr^=val]
- × [attr\$=val]
- × [attr\*=val]



# Pseudo Class

A CSS pseudo-class is a keyword preceded by a colon (:) that is added on to the end of selectors to specify that you want to style the selected elements only when they are in certain state.

:hover



# Pseudo Elements

Selects a certain part of an element.

`::after`

`::first-letter`



# Multiple Selectors

Separated by commas and they apply the same rule to multiple sets of selected elements at once.

```
p, h1{  
    color: blue  
}
```







# Values & Units

# Numeric Values

- × px, %, & em
- × Unitless



# Colors

Modern computers supports 16.7 M ( $256 \times 256 \times 256$ ) colors.

- × Hexadecimal
- × `rgb()`
- × `hsl()`
- × `rgba()`
- × `hsla()`



# Cascading

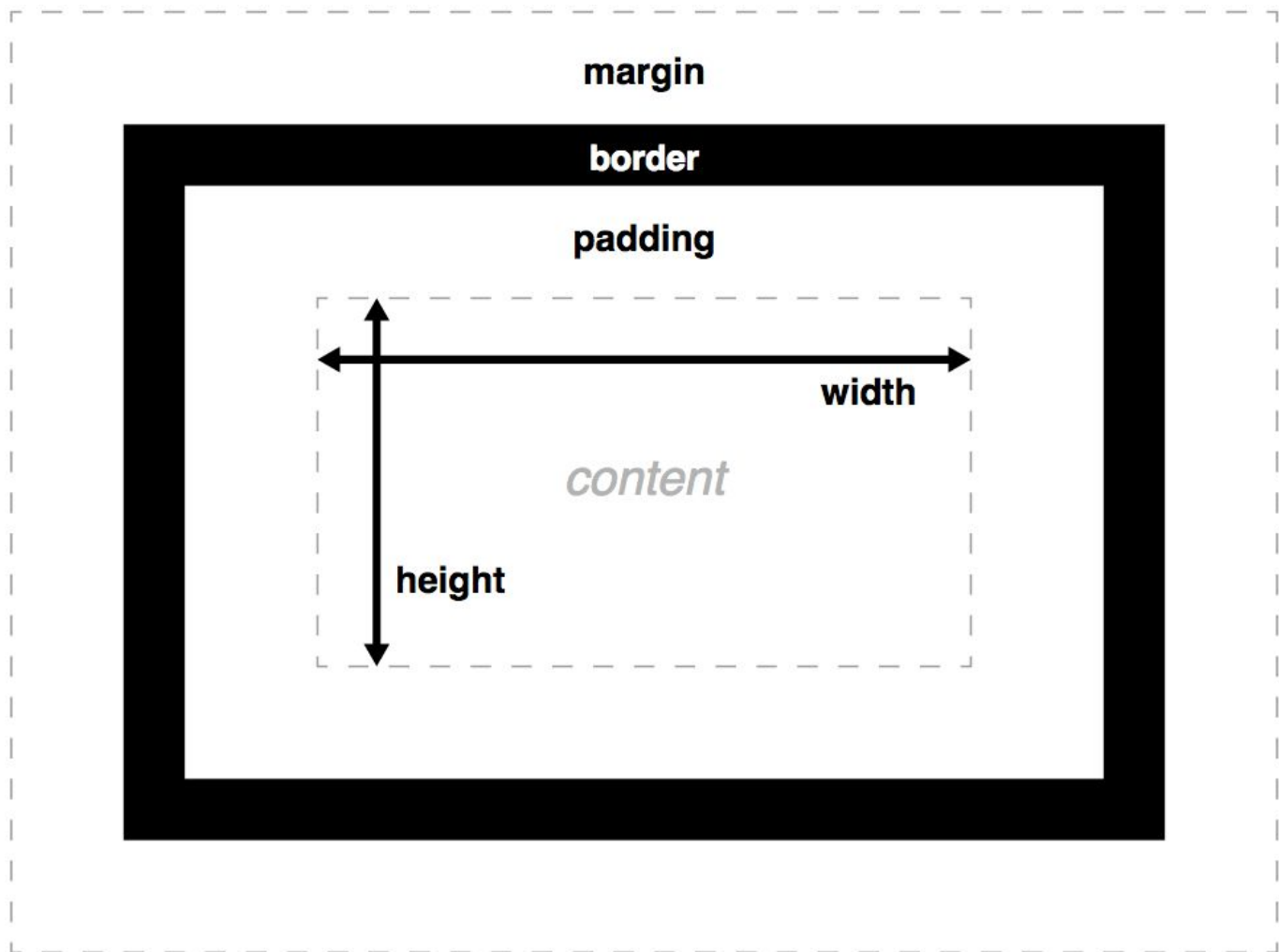
- × Importance
- × Specificity
- × Source Order







# Box Model



# Box Background

Box backgrounds are made up of colors and images, stacked on top of each other (`background-color`, `background-image`.) They are applied to a box and drawn under that box. By default, backgrounds extend to the outer edge of the border. This is often fine, but in some cases it can be annoying (what if you have a tiled background image that you want to only extend to the edge of the content?) This behaviour can be adjusted by setting the `background-clip` property on the box.



# Types of Boxes

- × block
- × inline
- × inline-block





# Overflow

- × auto
- × hidden
- × visible



# Inheritance

- × Inherit
- × Initial



# Position

- × static
- × absolute
- × relative
- × sticky
- × fixed



# References

[https://developer.mozilla.org/en-US/docs/Learn/CSS/Introduction\\_to\\_CSS](https://developer.mozilla.org/en-US/docs/Learn/CSS/Introduction_to_CSS)

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

<https://cssreference.io/>

