

CSS – Introduction

Introduction

CSS





Agenda

- What is CSS?
 - History
 - HTML Binding
 - Syntax
 - Properties
 - Selectors
- Questions

Learning Objectives

- What part does css take over in web sites?
- Why CSS?
- What is cascading?
- For what is it good to use selectors?

group work
html

create a house plan
7.5 min

demo time
css

What is CSS?

Styling is everything

- Cascading Style Sheets
- HTML defines site structure
- CSS defines how HTML elements are displayed => website style
- Fonts, Color, Layout, Positioning, Animations
- Separate **style** from **content**.
- a Design language



CSS complements HTML

Source: Treehouse

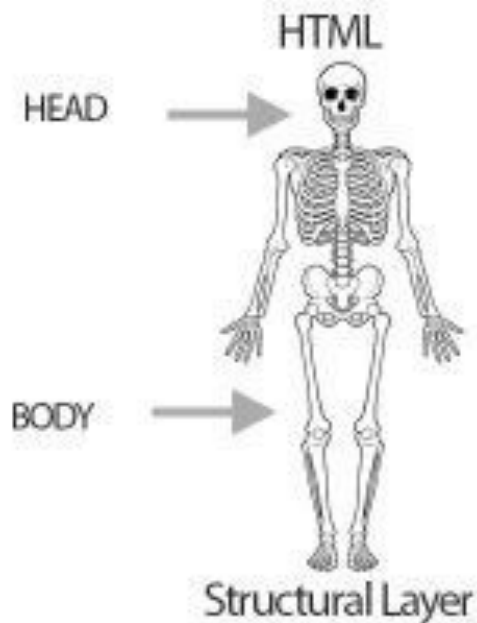
```
body {  
    background-color: lightblue;  
}  
  
h1 {  
    color: white;  
    text-align: center;  
}
```

Example Styling



Struktur gegen Design

Source: Web Design - Envato Tuts+



Visualisation/Presentation

Source: Quora

A little history

The origins of css

https://en.wikipedia.org/wiki/Cascading_Style_Sheets

- First suggestions for CSS from 1993 to 1995
 - First drafts at CERN
- **December 1996**, CSS Level 1 recommendation published
- **May 1998**, CSS Level 2 published
- **Since 1998**, CSS Level 3
 - living standard
 - continuously developed and extended
 - has a modular nature
- When will CSS4 arrive?
 - CSS-Workgroup at W3C says: “never”
 - CSS3 living standard principle, new additions are added continuously
- So nowadays we refer to it as CSS3 or simply CSS

Rough Timeline of Web Technologies

1991	HTML
1994	HTML 2
1996	CSS 1 + JavaScript
1997	HTML 4
1998	CSS 2
2000	XHTML 1
2002	Tableless Web Design
2005	AJAX
2009	HTML 5

HTML Timeline up to 2000s

Source: Mano - WordPress.com

CSS Timeline

Source: http://www.w3.org/TR/#tr_CSS

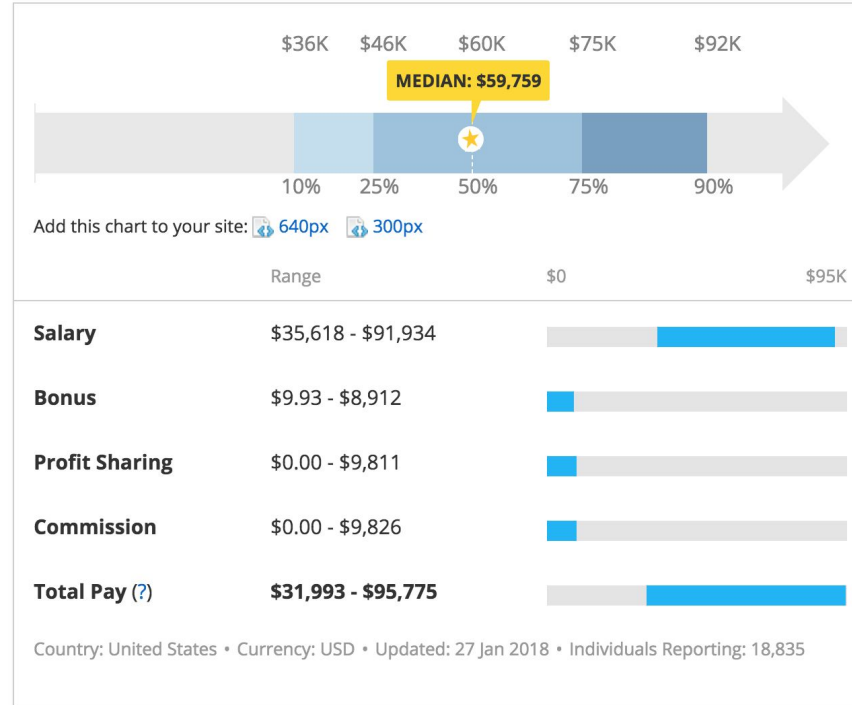


CSS Timeline up to 2015

Source: learncss.info

HTML CSS Developer Salary

An HTML CSS Developer earns an average salary of \$60,602 per year. The highest paying skills associated with this job are Ruby, React.js, Angular.js, Node.js, and Git.



Average CSS Developer Salaries

Source: Payscale

What is Design?

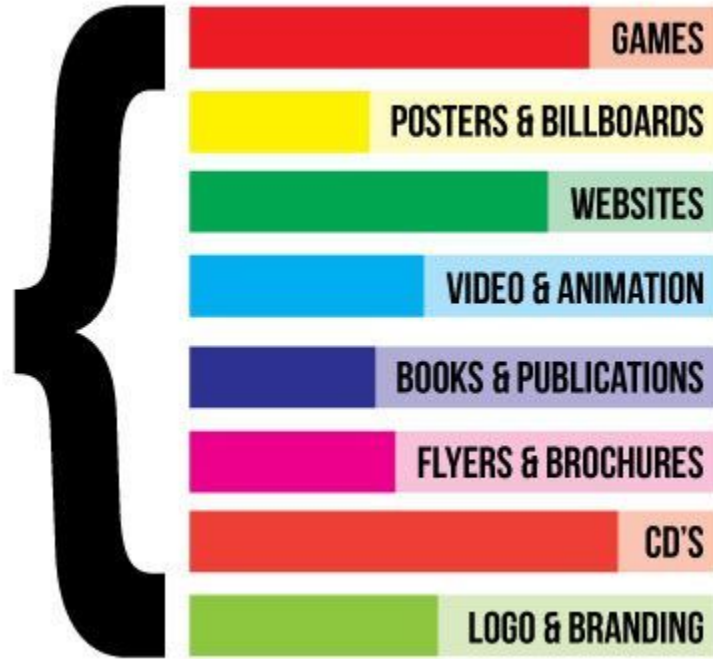
Creating eye catching artefacts
Composition of design
elements

A design is a plan or specification for the construction of an object or system or for the implementation of an activity or process, or the result of that plan or specification in the form of a prototype, product or process.

Source: Wikipedia

- Balance
- Proximity
- Alignment
- Visual hierarchy
- Repetition
- Contrast
- Color
- Typography
- Images
- Layout

GRAPHIC DESIGN



So, what is graphic design?

CSS is a design language for web

CSS enables us web design

Handling design via CSS

- Layouting
- Positioning
- Element (text, table) styling
- Color
- Shapes
- Animation
- Media Queries
- Printing
- ...

How can I use CSS within HTML?

Inline > Internal > External

<https://www.w3schools.com/css/>


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

- External style sheet
- Internal style sheet (inside the <head> tag)
- Inline style (inside an HTML element)
- Inline trumps Internal trumps External
 - Actual ruling is a little more complicated, but out of scope of this course
- External Style Sheets
 - Reusable
 - Cleaner HTML code
 - More flexible
 - Not uniformly supported
 - Allows modularity through separation into files
 - helps keeping overview!

```
<head>
<meta content="text/html; charset=utf-8" http-equiv="Content-Type">
<title>Untitled 1</title>

<style type="text/css">
#video-gallery {
    width:350px;
    padding:12px;
    margin:15px auto;
}
</style>

</head>
```



internal

Internal Style:
Style Declaration in
the <head> section.

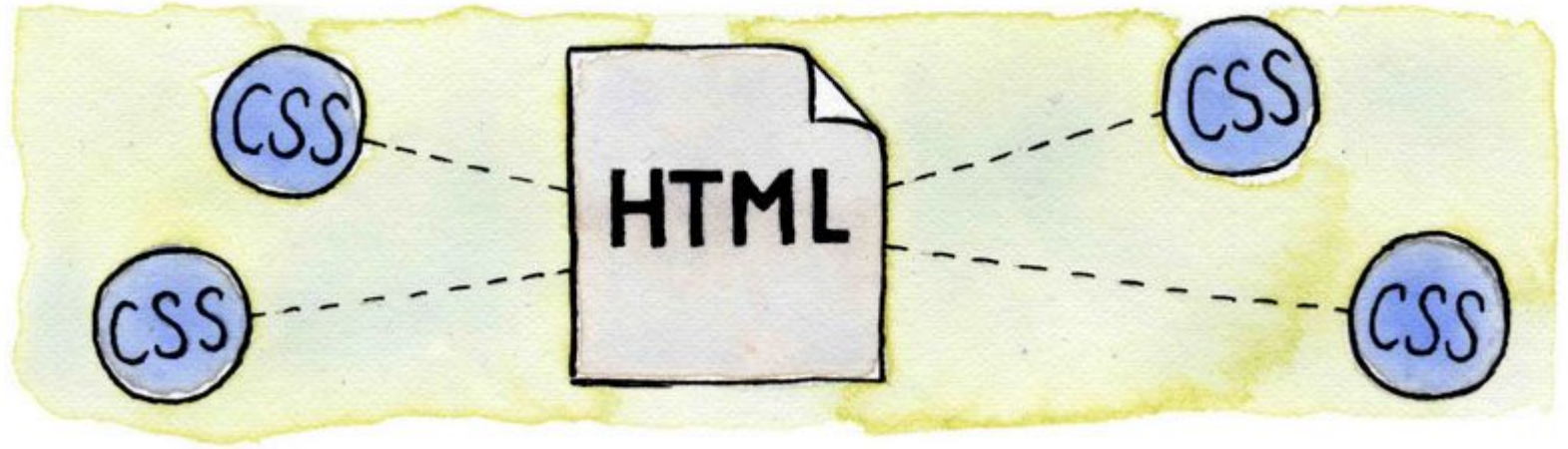
```
<p style="color:white; background-color:gray;">
    This is an example of inline styling.
</p>
```

inline

Inline & Internal CSS usages

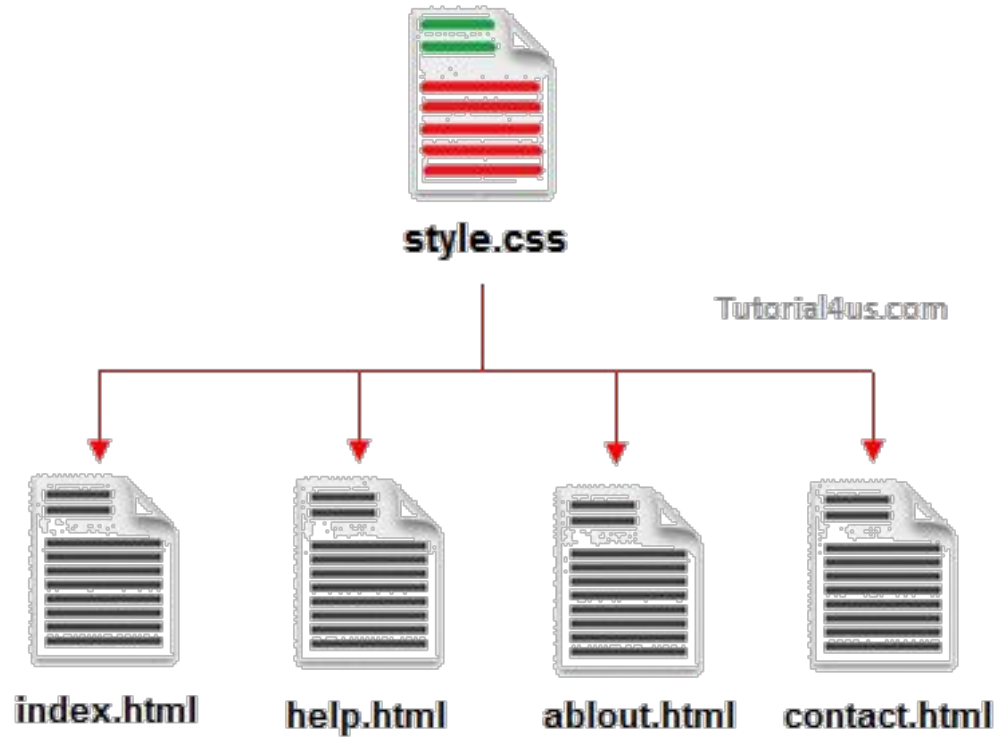
```
<!DOCTYPE HTML>
<HTML>
  <HEAD>
    <TITLE>About</TITLE>
    <LINK REL="stylesheet" TYPE ="text/css" HREF="../css/styles.css">
  </HEAD>
  <BODY>
    <A HREF="../index.html">
      Go the the Home Page
    </A>
  </BODY>
</HTML>
```

External CSS

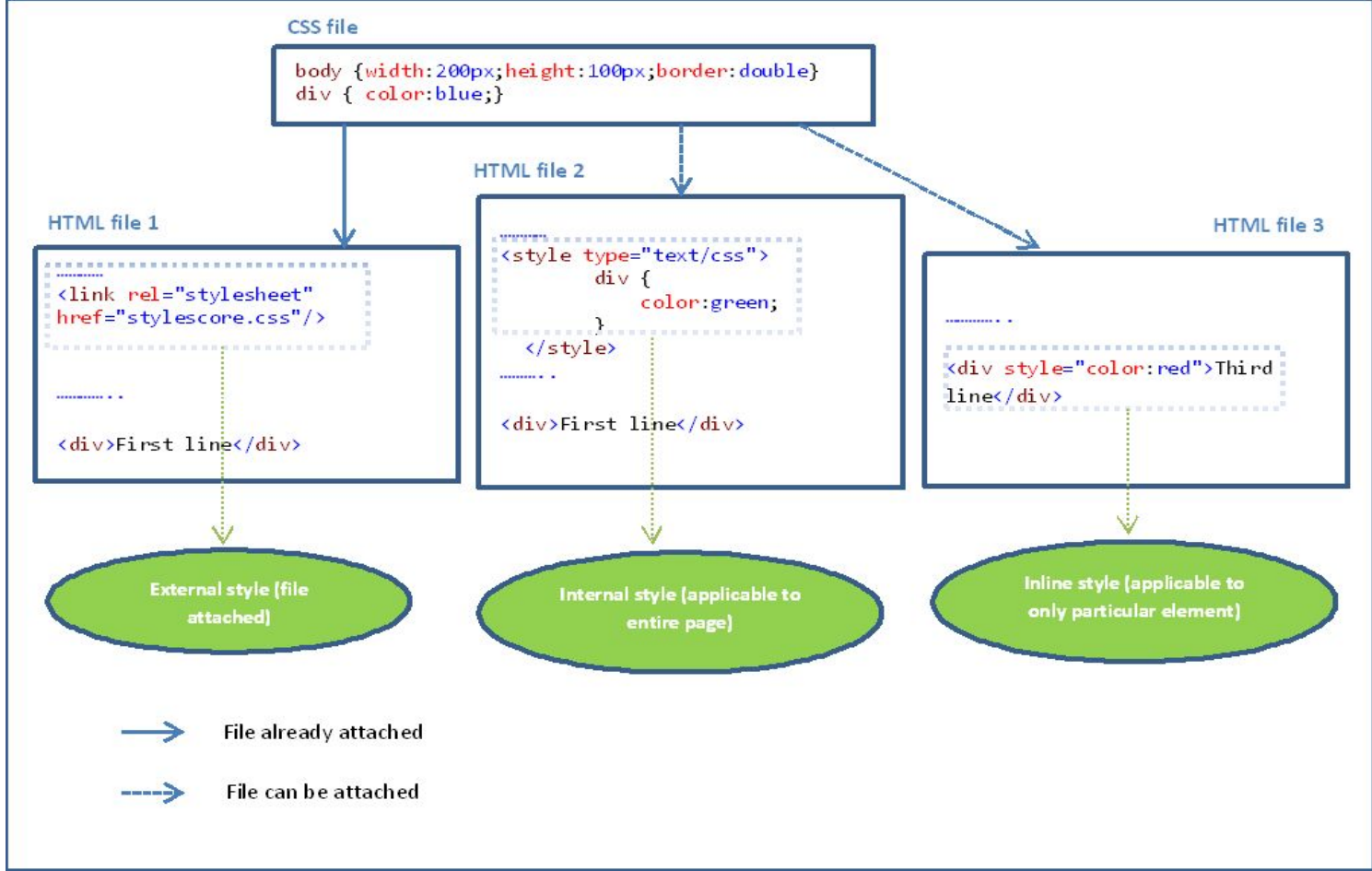


HTML document can import external files like CSS.

Source: Matthew James Taylor

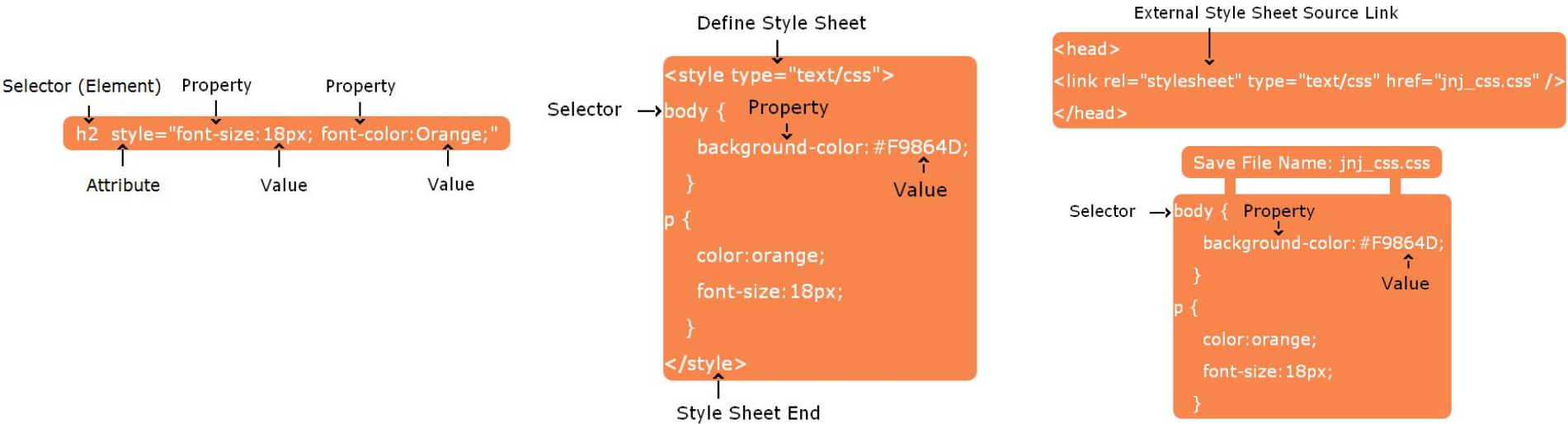


One css style file can rule all of them.



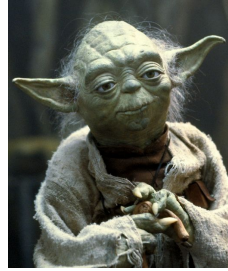
All in One

Source: CSS Reference | CSSSolid



```
<!DOCTYPE html>
<html>
<head>
  <title>HTML</title>
  <link rel="stylesheet" type="text/css" href="myStyle.css">

  <style>
    p {
      color: blue;
    }
  </style>
</head>
<body>
  <p>This is a paragraph</p>
  <p style="color: red">This is a paragraph</p>
</body>
</html>
```



Yoda says:
"Use External Style Sheets we shall!"



HTML Site



One HTML 3 different pages through applying CSS

<http://www.csszengarden.com/>

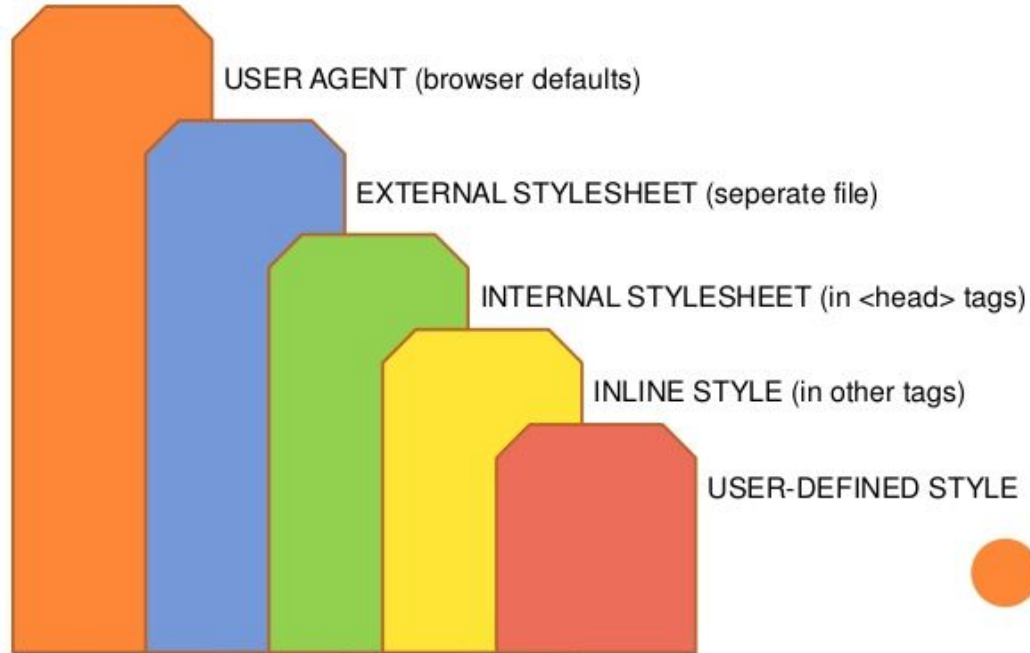
Cascading

“The cascade is an algorithm that defines how to combine property values originating from different sources”

- MDN

- Waterfall
- Style inheritance
- Overriding styles between
 - User-agent stylesheets
 - Author stylesheets
 - User stylesheets

CASCADING?



Different sources of styles define style properties

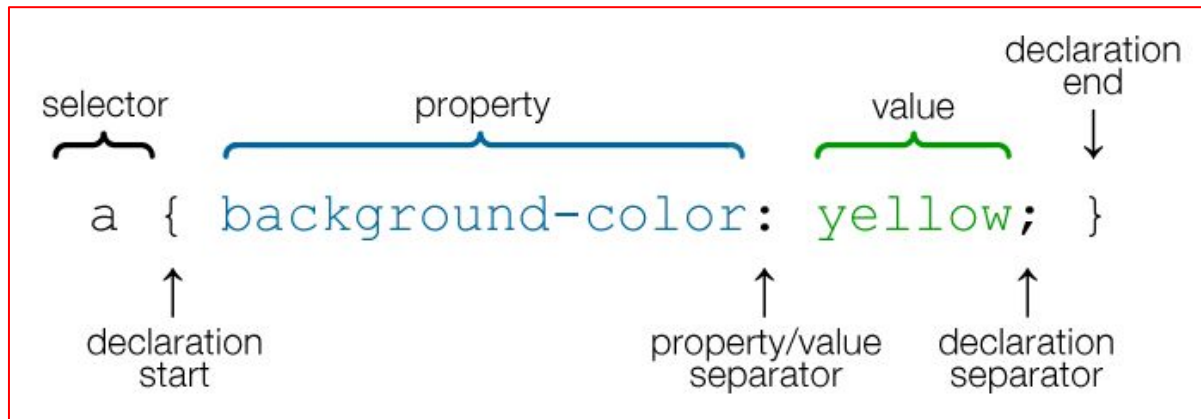
Source: <https://www.slideshare.net/lifeinoleg/web-design-class-css-fundamentals>

CSS Syntax

Style rules

CSS syntax contains

- Selectors to find elements for applying style rules
- Properties to change the design
 - like background, color, font, border, margin, width, height
- Comment lines (`/*here i am*/`)
- `@import` statement
- `@media` statement
- ~~`@document` statement~~
- `@font-face` statement
- `@charset` statement
 - `@charset "UTF-8";`

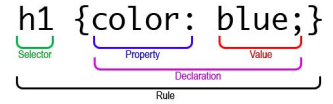
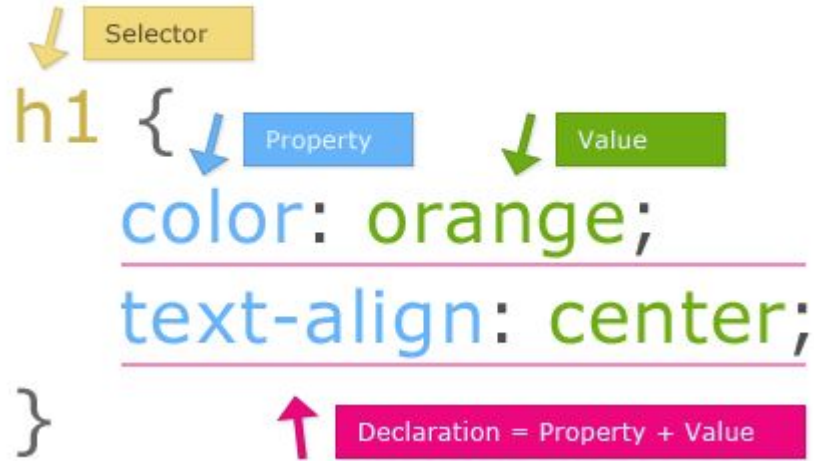


```
body {  
  background-color: #cccc99;  
}
```

```
#menu {  
  background-color: #ffff00;  
}
```

Anatomy of a css style rule

Anatomy of a CSS Rule



Multi property style rules

Group of properties

- Text&Font related
- Box related
- Layout related
- Animation related
- Printing related

CSS Selectors

Element Selector

Class Selector

Id selector

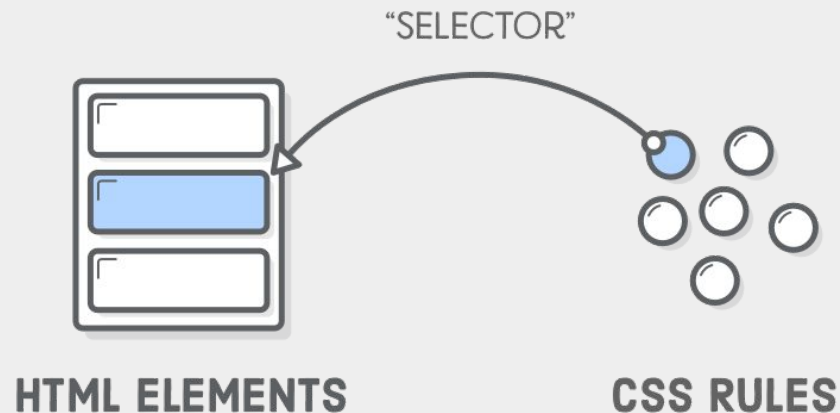
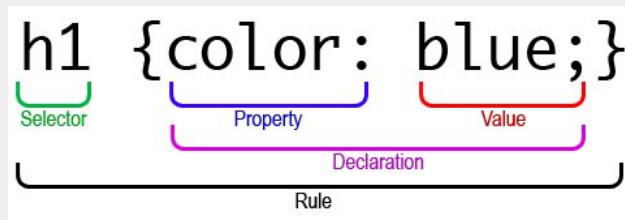
Universal Selector

CSS rules are living in their own world. To apply these rules on html (DOM) we need a bridge between two worlds. Selectors help us to apply style declarations on html element(s)

- Element Selector, html tags like h1, h2, body, ul, li, div
- Class selector selects ALL elements of the same class - case sensitive - alphanumeric
- Id selector selects ONLY ONE element - case sensitive - alphanumeric
- “*” is wildcard

CSS Selectors

Accessing HTML via CSS and applying rules on them.



```
div
{
    background-color:black;
}
```

```
body {
    background-color:#ccc99;
}
```

Tag selectors

```
.example{
color: #f4f4f6;
font-weight:bold;
}
```

```
<div class="example">
Lorem ipsum dolor sit amet.
</div>
```

```
<div class="example">
Lorem ipsum dolor sit amet.
</div>
```

Class selectors

```
#example{
color: #f4f4f6;
font-weight:bold;
}
```

```
<div id="example">
Lorem ipsum dolor sit amet.
</div>
```

ID selectors

Tag, class and id base css selectors

demo

Let' try it!

Additional Resources

- <https://www.w3.org/Style/CSS/Overview.en.html>
- https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Selectors
- <https://www.youtube.com/watch?v=yfoY53QXEnI>
- https://www.youtube.com/watch?v=1PnVor36_40

Questions?