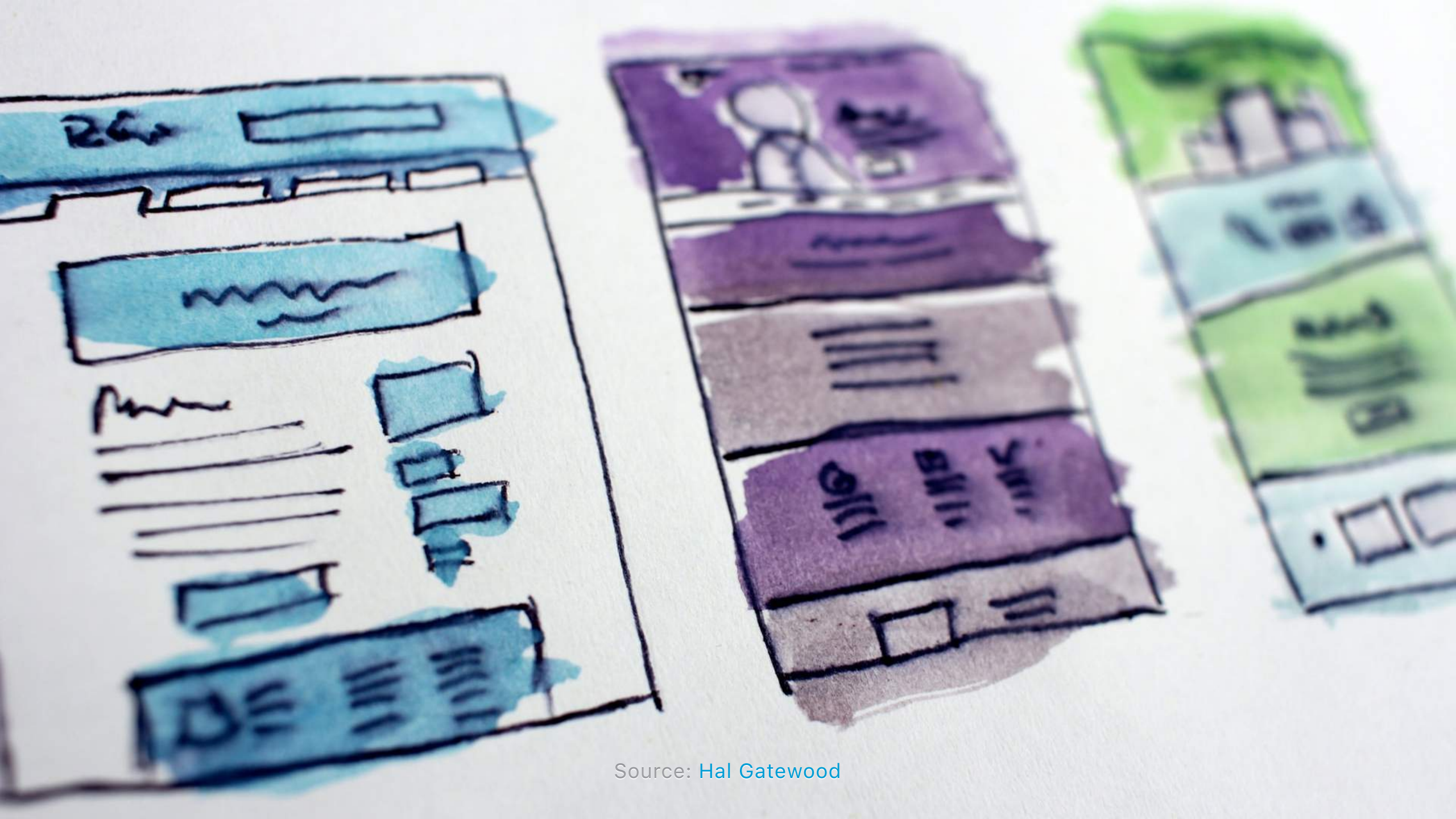


Source: Hal Gatewood

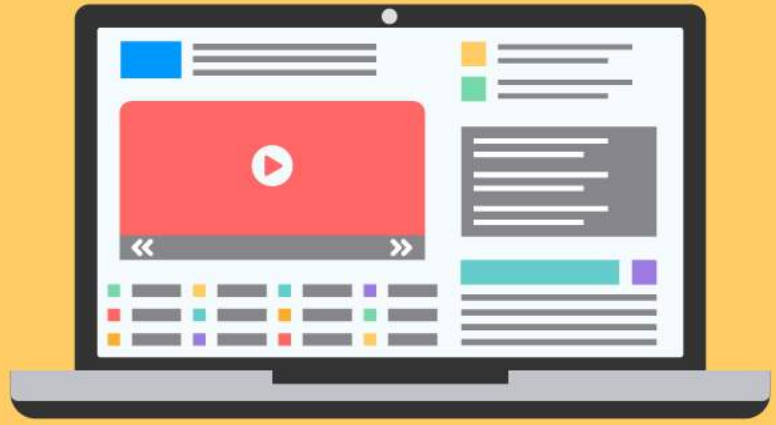
Web Design

“ ...html, css, js combined. ”

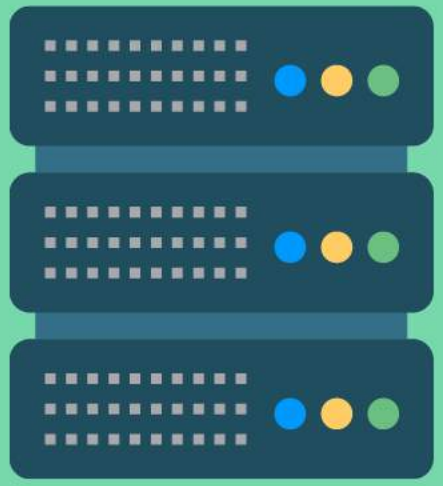
Content

- HTML / CSS
  - Basics
  - Responsive
  - Animations

Source: Diego PH



FRONT END



BACK END

Source: Ken Inoue

Front End

- HTML
- CSS
- JavaScript
- ~~(Flash / Java usw.)~~

Back End

- PHP
- Java
- NodeJS
- usw.

But why?

Squarespace / Wix / WYSIWYG 🙅🏻‍♂️

- Most relevant for designer
- Standard for UI development
- Multi-Target development

Platform Developers Enterprise Pricing Blog Support Log in Get Started

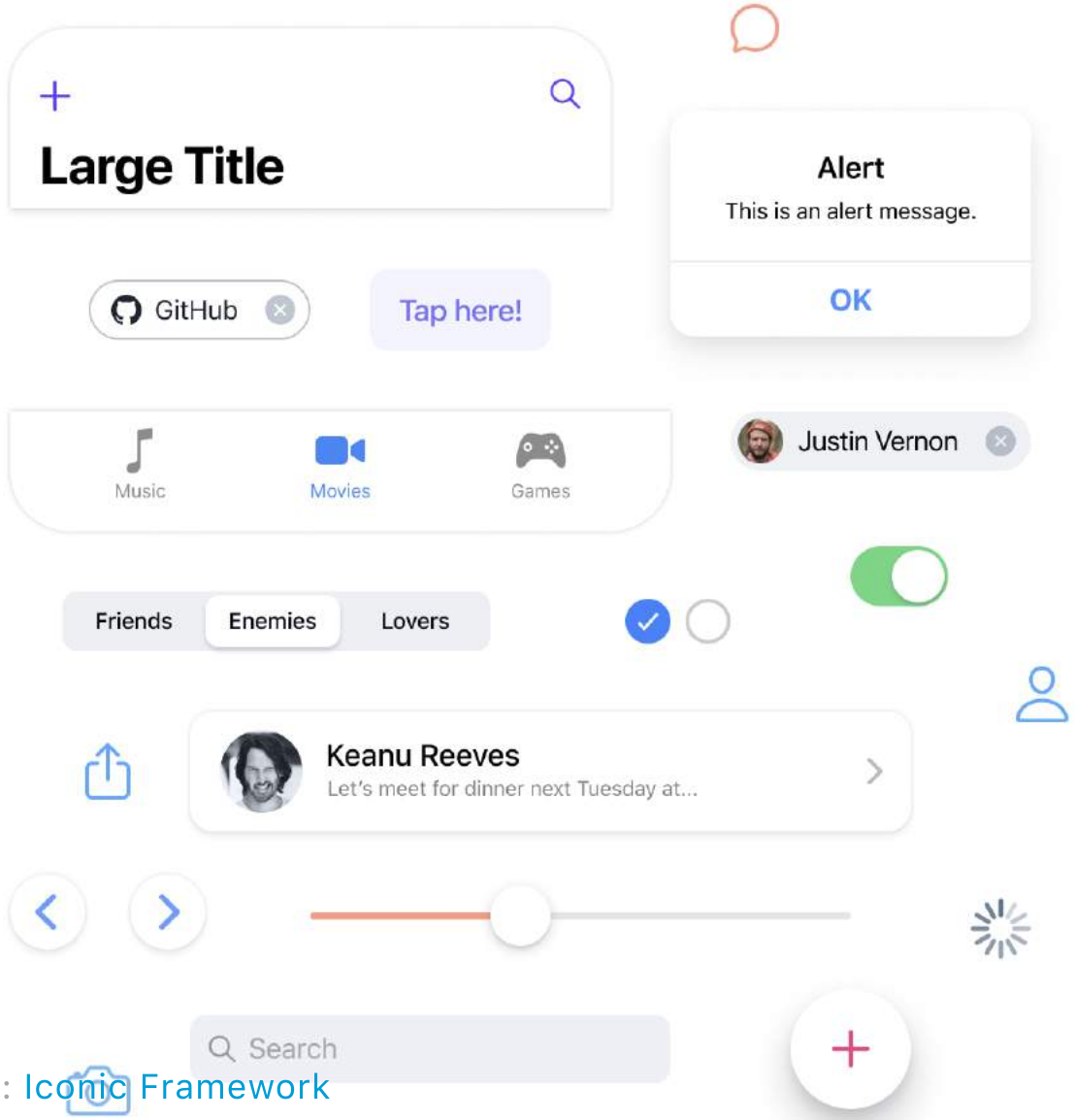
Ionic Framework 5

Design. Animation. Performance.

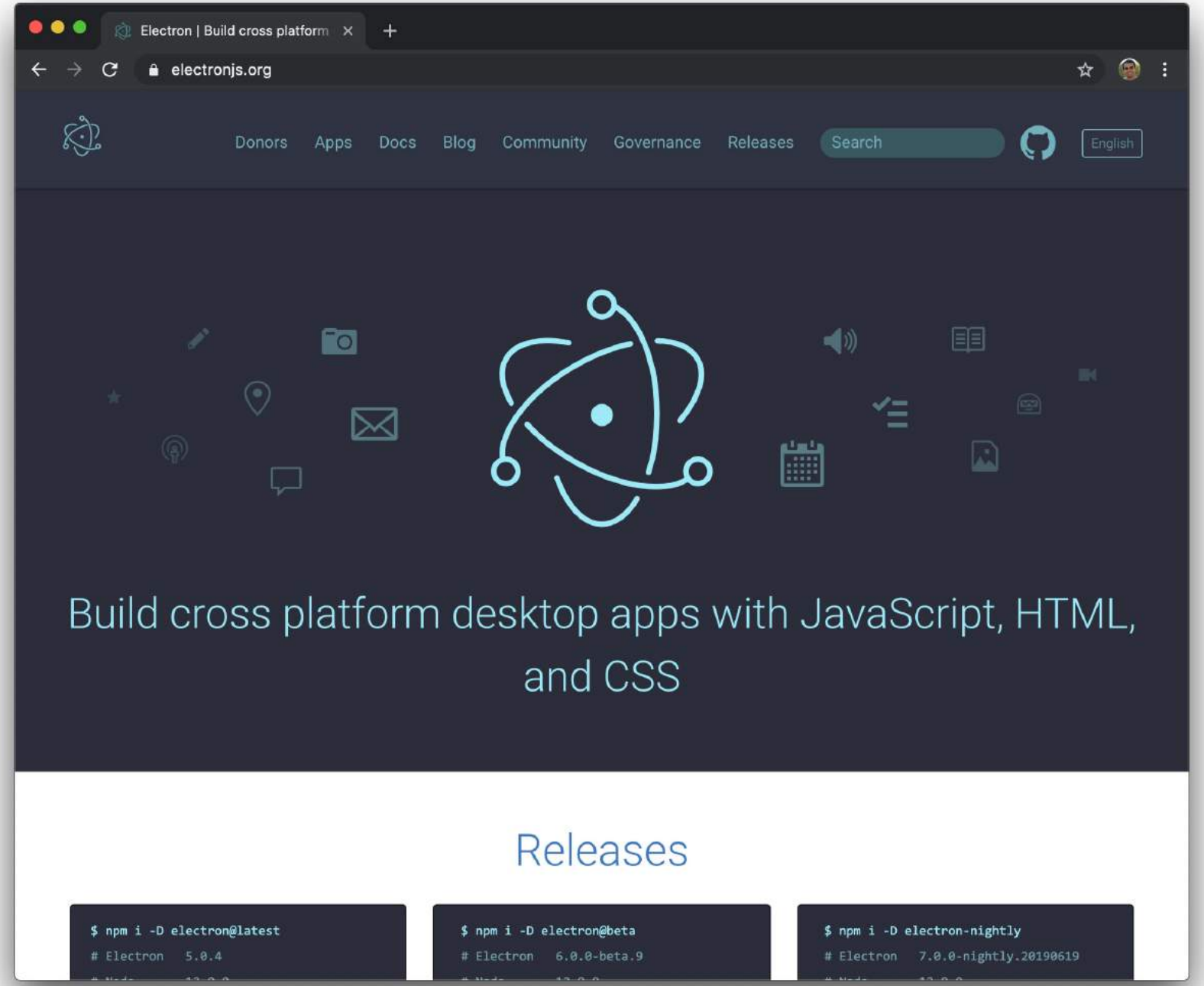
- ✓ New UI components and gestures
- ✓ Brand new custom animations API
- ✓ New icons, colors, and theming
- ✓ Official React & Angular integrations

GET STARTED

Try the new App Wizard! >



Source: Iconic Framework

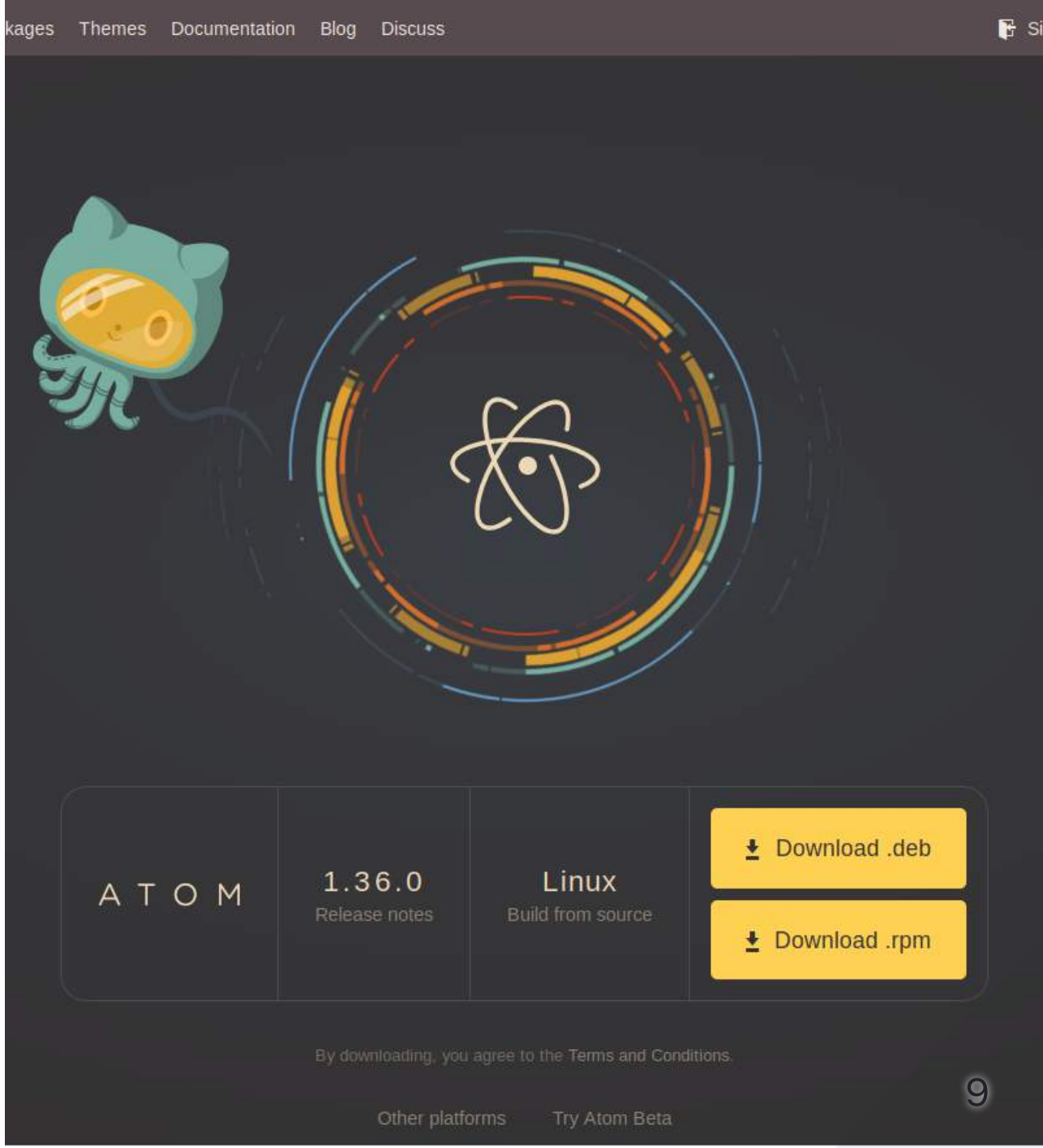


Source: Electron

Apps

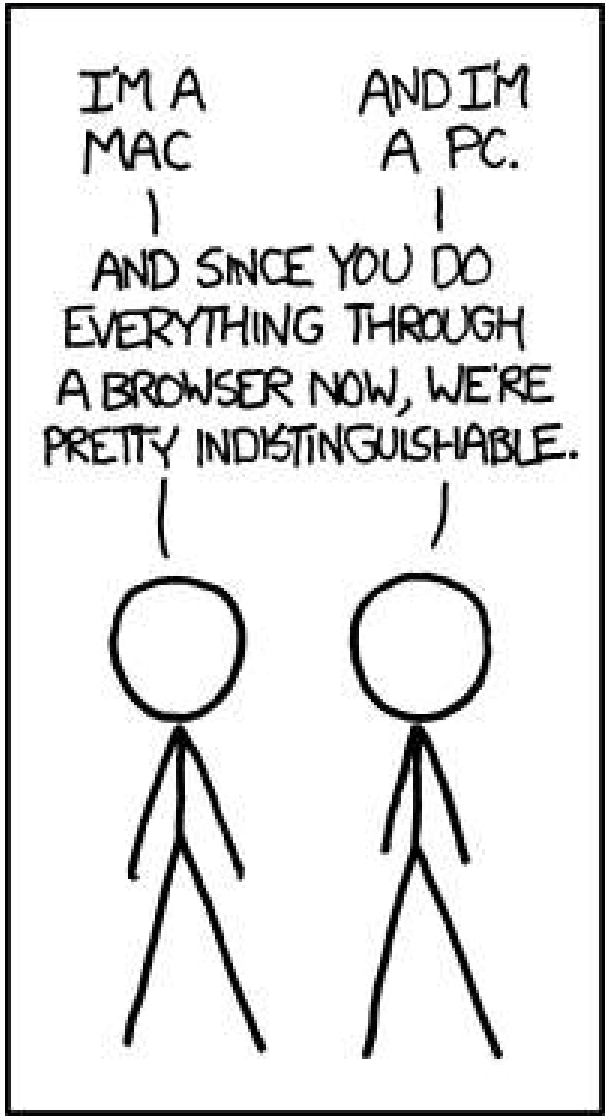
- Atom Texteditor
- Github Desktop
- WhatsApp Desktop
- Skype

Source: Atom

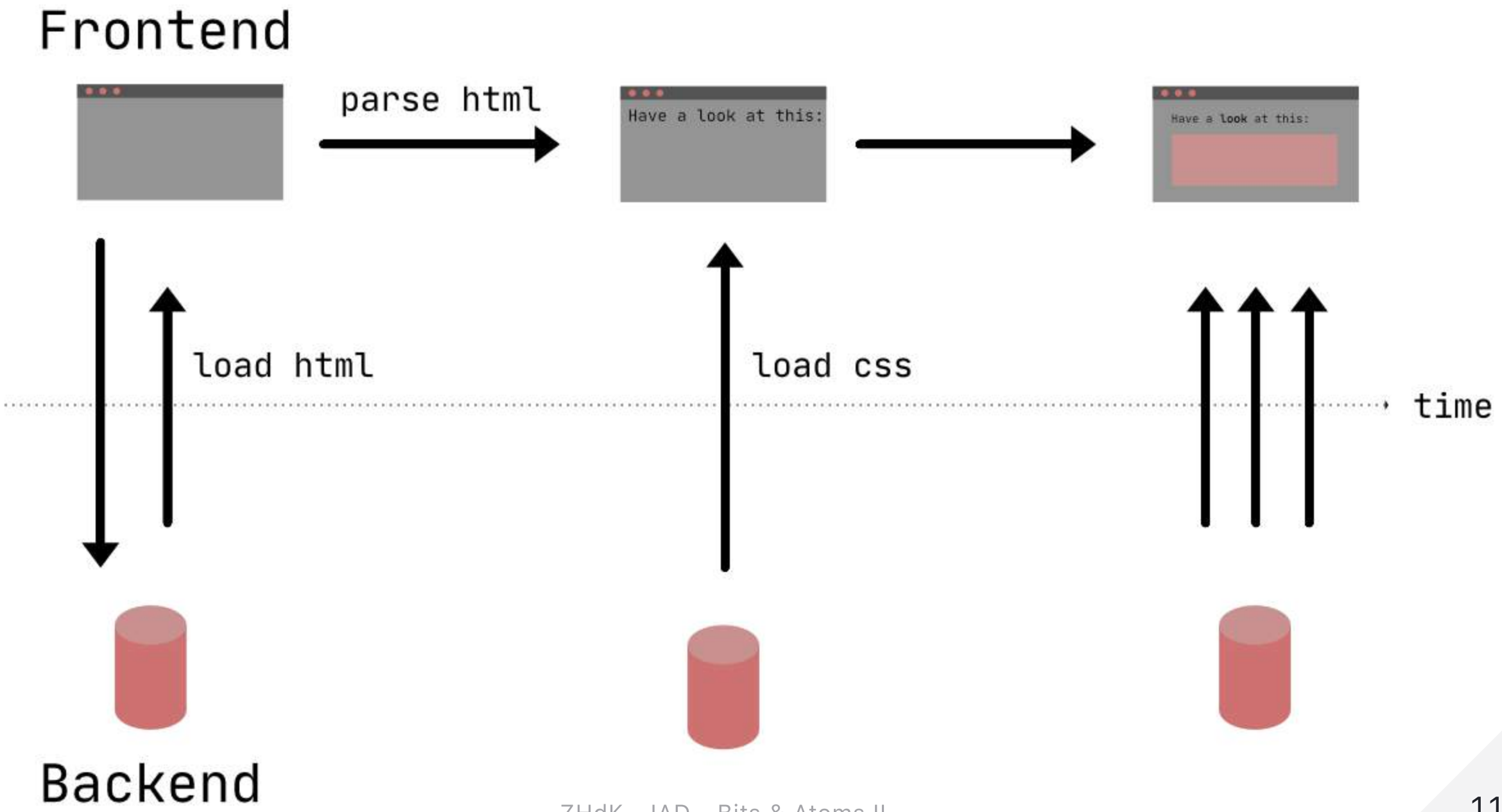


Web Browser

- 👩‍💻 http request
- 🖥️ returns html
- 👩‍💻 parse html
- 👩‍💻 loads additional content
  - CSS / Javascript
  - Images / Fonts / ...



Source: xkcd

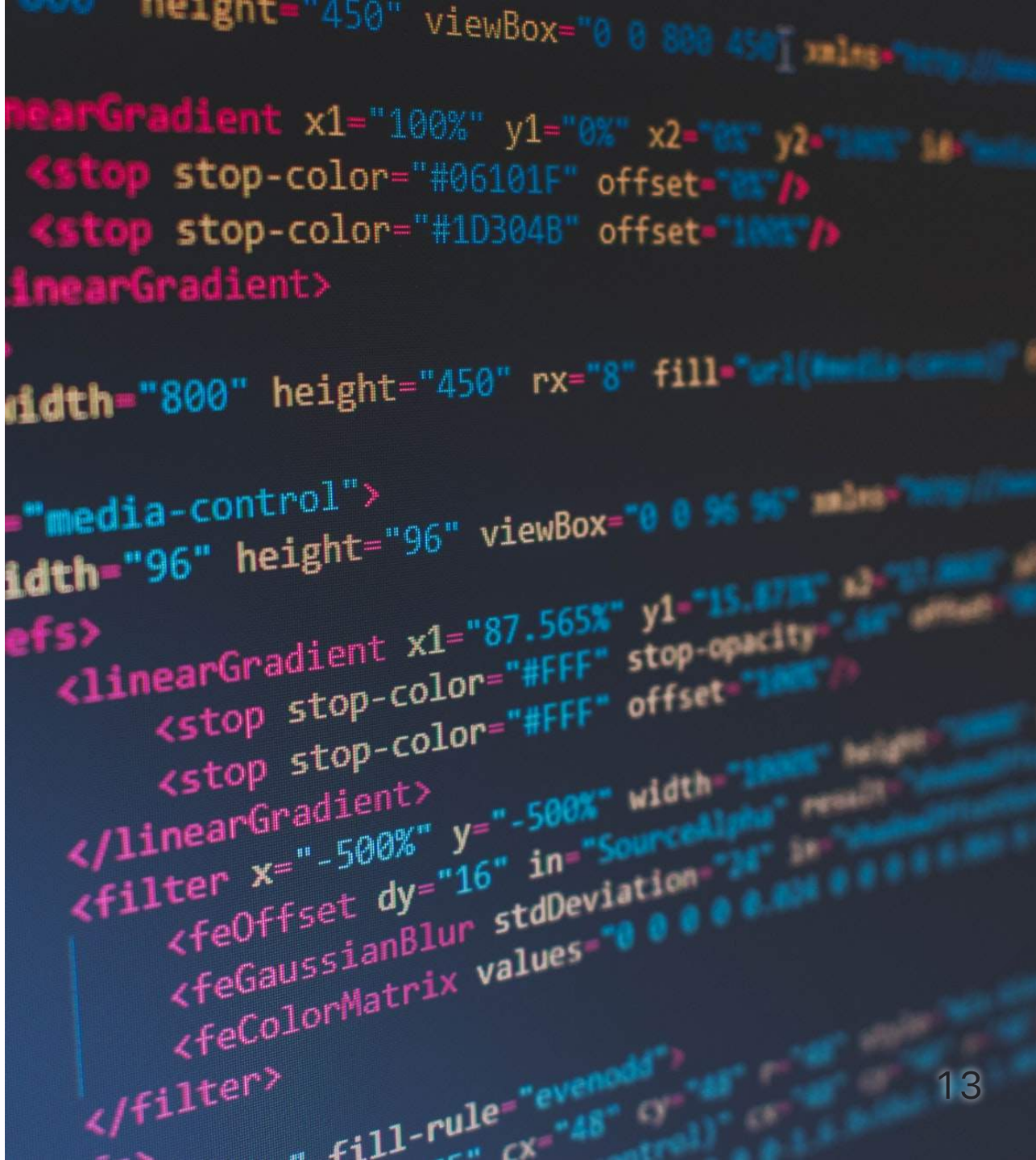

Frontend
parse html
Have a look at this:
Have a look at this:
load html
load css
time
Backend

Demo

HTML

- Markup Language
- Version 5
- Structure

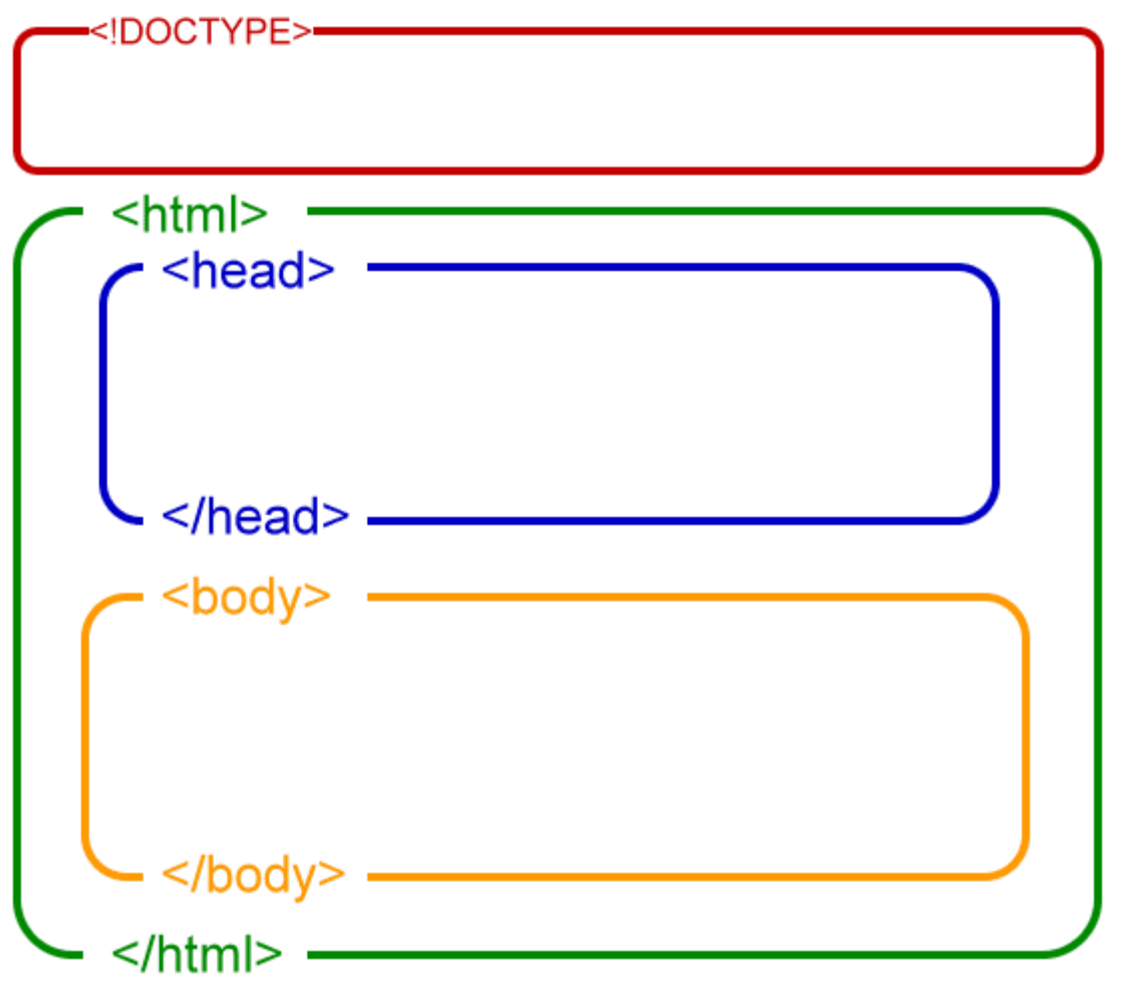
Source: Florian Olivo



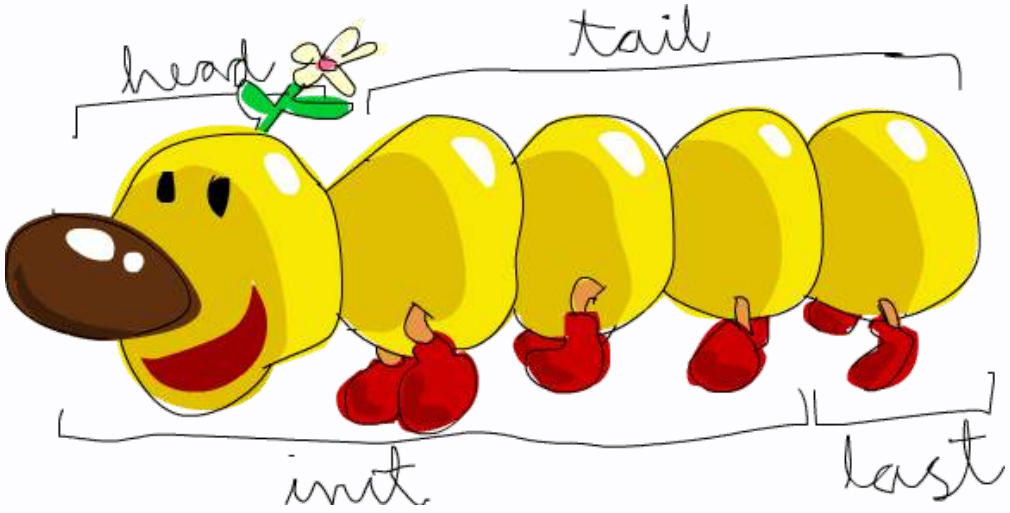
First Example

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>My Super Portfolio</title>
</head>
<body>
    <h1>My Super Page</h1>
</body>
</html>
```

HTML Document



Source: DYZAIN



Head & Body

- Head
  - Information
  - Includes (JS / CSS)
- Body
  - Visible Content

Source: Miran Lipovača

HTML Element

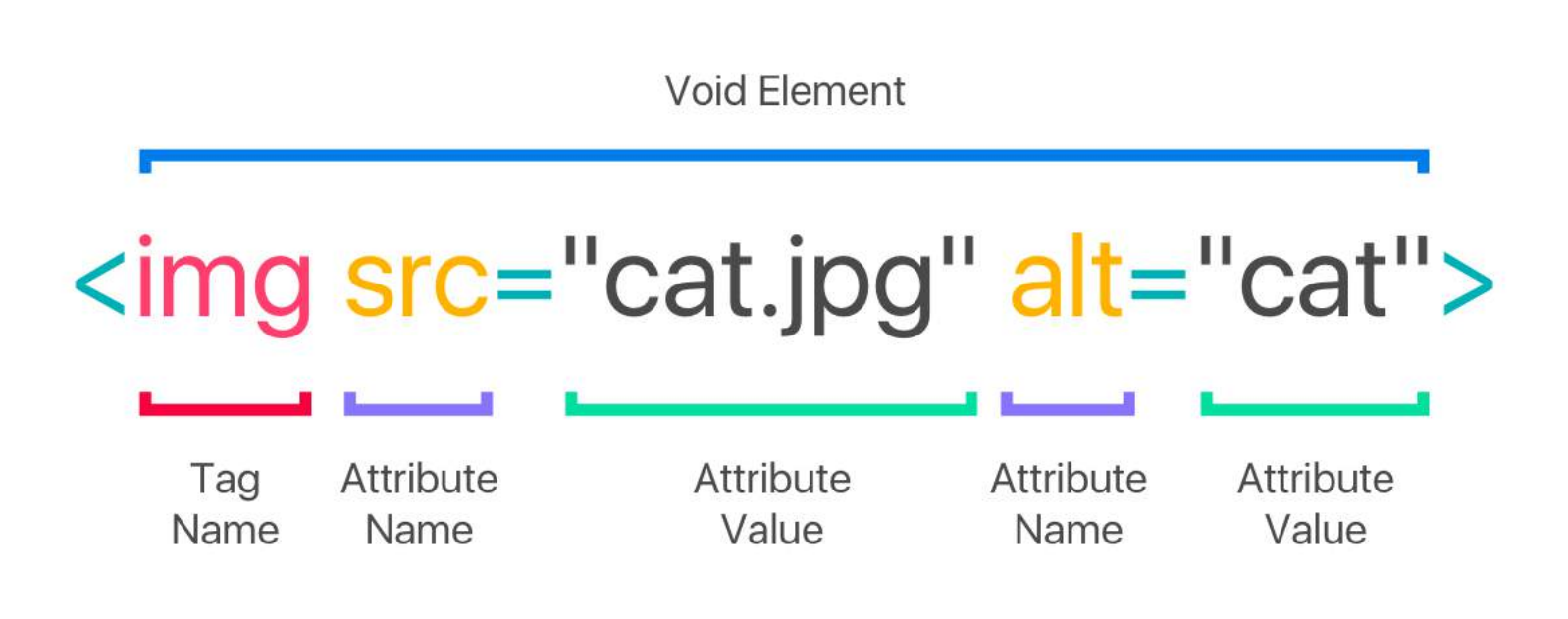
A single element with content.

- `<html>`, `<head>`, `<body>`
- `<h1>`, `<a>`, `<p>`

Source: makeschool

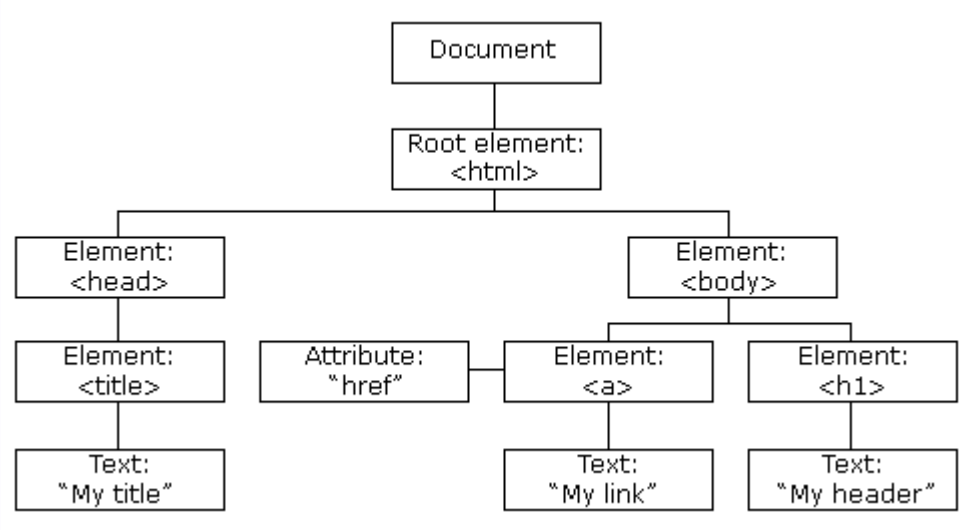
HTML Void Elements

Elements without content.



Source: makeschool

Common Elements



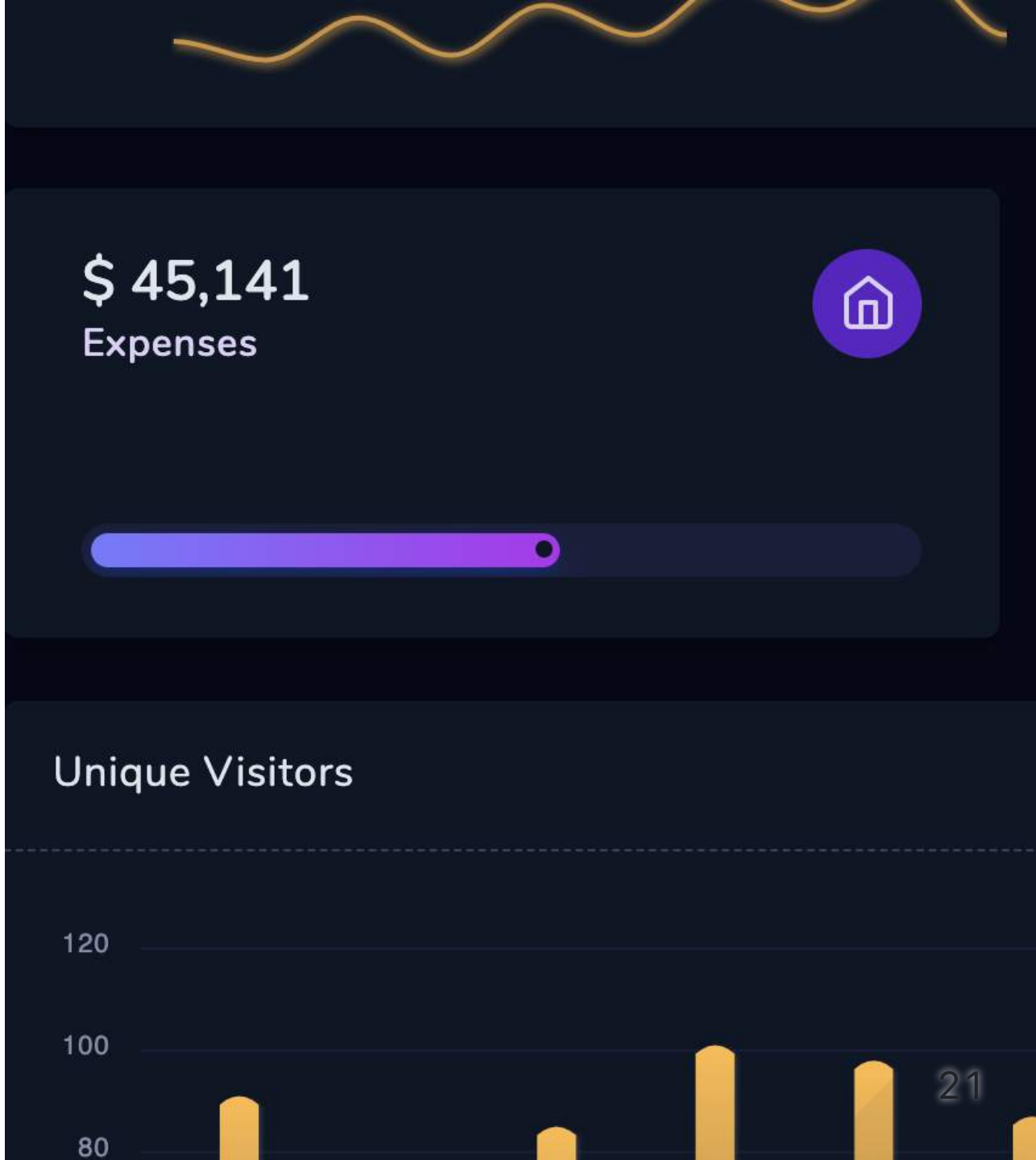
Source: w3schools

Head Elements

```
<head>
    <meta charset="UTF-8">

    <title>Florian's Portfolio</title>

    <meta name="description" content="Florian le designer">
    <meta name="keywords" content="Design, Interaction">
    <meta name="author" content="Florian">

    <link rel="icon" href="favicon.ico" type="image/x-icon">
</head>
```

Body Elements

- Visible User Interface
- UI Controls



Source:

Title

```
<h1>Hello</h1>
<h2>Hello</h2>
<h3>Hello</h3>
<h4>Hello</h4>
<h5>Hello</h5>
<h6>Hello</h6>
```

Hello

Hello

Hello

Hello

Hello

Hello

Paragraph

Defines a text paragraph

```
<p>Hello World</p>
<p>This is my portfolio</p>
```

Link

Anchor to another page

```
<a href="https://google.com">Google</a>
```

- href Path: Relative / Absolute

Image

Displays an image (jpg, png, gif, svg..)

```
<img src="myimg.png"/>
```

List

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

1. Coffee
2. Tea
3. Milk

- Coffee
- Tea
- Milk

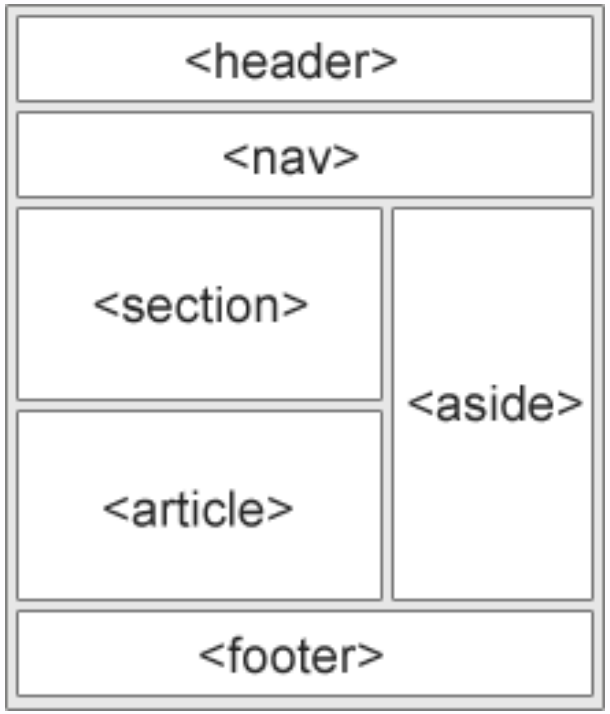
Nesting

Button with an image as background?

```
<a href="https://google.com">
    <img src="google-logo.gif"/>
</a>
```


Semantic Tags

- Structure
- Screenreader
- SEO (Search Engine Optimization)



Source: w3schools

Comments

- Start: `<!--`
- End: `-->`

```
<!-- this is a very
    important title! -->
<h1>Test</h1>
```

Source: Tranmautritam

Project

- Create your own page
  - Portfolio, Business, Product, Project

Source: Ave Themeforest

Examples

- Pfadfinderei
- Studio Joanie Lemercier
- Olafur Eliasson
- Silva Sveta
- homunculus
- Kenta Toshikura

Task: Sketch & Plan (15min)

Define your own project!

- What kind of web page?
- Structure / Design / Layout?
- Content ✨
  - Text
  - Images
  - Videos
- Present very briefly! 🐳

Portfolio 0.1

- Only basic HTML
- Structure 🙌🏻
- Design 🤷🏻‍♂️

Florian

Software developer with interests in computer graphics, generative art and realtime visual performance.

Projects

åben

At a time when individualism is experiencing its high culture, we should again focus more on togetherness and together pave the way for a better future. The immersive installation «åben» (Danish: open) lets the viewer playfully experience how important collective coexistence is and how easy it is to accomplish a task with it.

TIL

While entering the office, the art installation «til» welcomes each visitor and reflects the influence they will have on the work and projects of MCH Global. The art installation «til» consists of multiple light elements, which are called «luboids». The layout of the elements represents the structure of a project

Cascading Style Sheets (CSS)

> CSS is a language that describes the style of an HTML document.

Source: Kim T

```
.App {
  text-align: center;
}

.App-logo {
  animation: App-logo-spin infinite 20s
  height: 80px;
}

.App-header {
  background-color: #222;
  height: 150px;
  padding: 20px;
  color: white;
}

.App-title {
  font-size: 1.5em;
}

.App-intro {
  font-size: large;
}

@keyframes App-logo-spin {
  from { transform: rotate(0deg); }
  to { transform: rotate(360deg); }
```

Example

```
div {
    background-color: #efefef;
    border: 1px solid #efefef;
}

p {
    margin: 10px 20px 30px 70px;

    width: auto;
    background-color: white;
    border: 2px solid #e9385a;
    text-align: center;
}
```

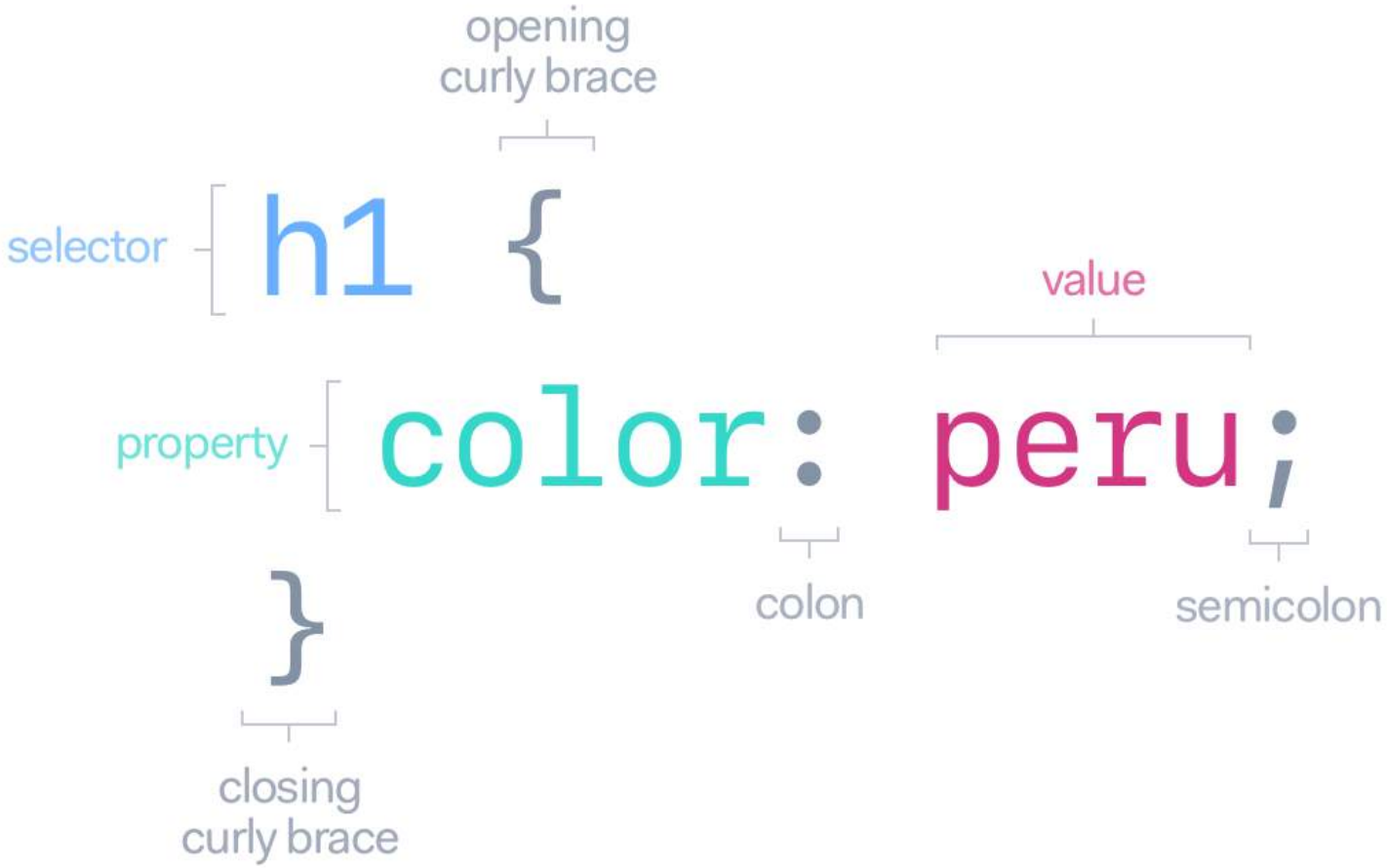
Style Tag

```
<head>
    <style>
        body {
            color: rgba(65, 5, 23, 0.97);
            font-family: Helvetica;
        }
    </style>
</head>
```

CSS File Link

Include an external stylesheet

```
<head>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
```



Source: Oleg Tsaplin

Selectors

- Element `p`, `img`, `main`
- Id `#myText`
- Class `.myButton`, `.dark`

Id Attribute (unique)

```
<p id="myText">Hello</p>
```

Class Attribute

```
<a class="myButton dark" href="x.htm">Click me</a>
```

Comments

```
/* This is
   a comment */
```

Color

```
body {
    color: rgba(65, 5, 23, 0.97);
    background-color: aquamarine;

    color: #121212;
}
```

Adobe Kuler / Color

Font / Text

```
.myText {
  font-family: Helvetica, serif;
  font-style: italic;
  font-variant: small-caps;
  font-size: 40px;

  text-align: center;
  text-transform: uppercase;
}
```

```
p {
  font: 20px Arial, sans-serif;
}
```

Background Image

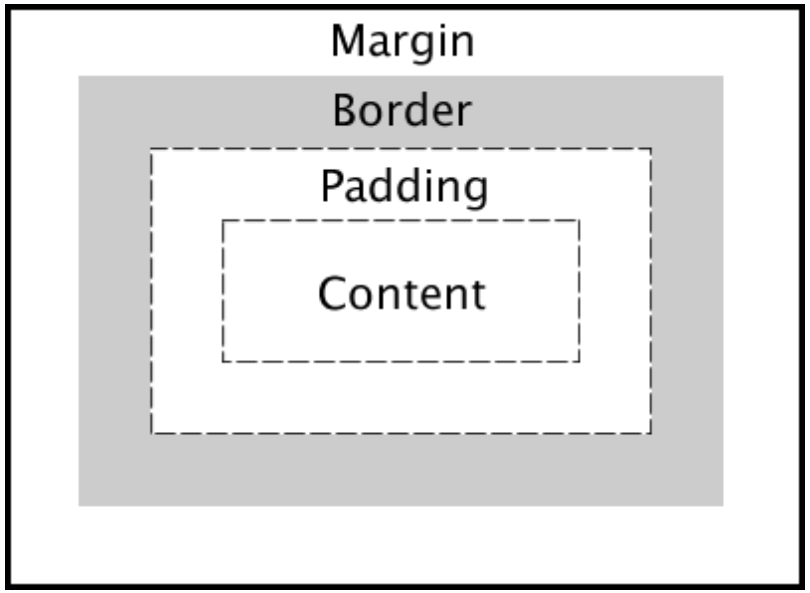
```
header {
  background-image: url("images/headerbg.jpg");
  background-position: center;
  background-repeat: no-repeat;
  background-size: cover;
}
```

Width & Height

```
#myImage {
  width: 200px;
  height: 50%;

  min-width: 100px;
  max-width: 200px;

  /* images */
  object-fit: cover;
}
```

Margin & Padding

- Give content a bit of space.



Source: tutorialehtml

Margin & Padding Example

```
header {
  padding-left: 10px;

  margin: 20 20 30 30;
}
```

Examples

How to center content?

```
.center {
  width: 300px;
  margin: 0 auto;
}
```

How to create a button?

```html
<a class="button" href="#">Test</a>
```

```css
.button {
    background-color: #4CAF50;
    border: none;
    color: white;
    padding: 15px 32px;
    text-align: center;
    text-decoration: none;
    font-size: 16px;
    display: inline-block;
}
```

Pseudo Classes

```
.button {
    ...
    transition: 0.3s;
}

.button:hover {
    background-color: #59d55d;
}
```

Reference

Generic Container Element

Mainly used to combine multiple elements (Semantic Tags)

```
<div class="content">
  <h3>This is a heading</h3>
  <p>This is a paragraph.</p>
</div>
```

Layout (Floating)

```
nav {
  float: right;
  width: 30%;
}

article {
  float: left;
  width: 70%
}
```

Task (30min)

Start to design and layout your own web page.

- How to implement?
- Structure
  - One Page / Multi Page

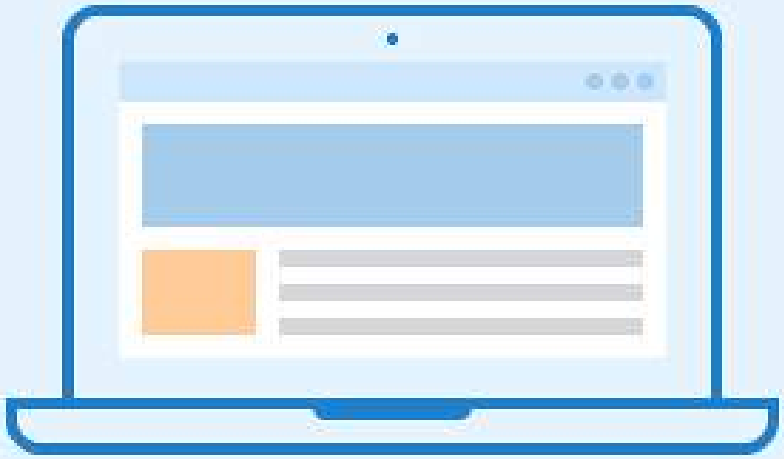
Help

https://www.w3schools.com/html/
https://www.w3schools.com/css/
http://wiki.iad.zhdk.ch/CP

CSS Advanced

- Responsive
- Animations
- Web Fonts

Desktop

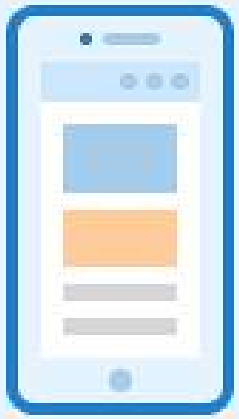


@media screen and
(min-width: 1024px)
{...}

Tablet

@media screen and
(min-width: 768px) and
(max-width: 1023px)
{...}

Smartphone



@media screen and
(max-width: 767px)
{...}

Source: seobility

Media Queries

```
/* desktop first */

@media only screen and (max-width: 600px) {
  body {
    background-color: lightblue;
  }
}
```

Mobile First

```
@media only screen and (min-width: 768px) {
  body {
    background-color: lightblue;
  }
}
```

Orientation Detection

```
@media only screen and (orientation: landscape) {
  body {
    background-color: lightblue;
  }
}
```

CSS Animations

Animate without P5js

```
div {
  width: 100px;
  height: 100px;
  background-color: red;
  animation-name: example;
  animation-duration: 4s;
  animation-iteration-count: 2;
  animation-direction: alternate-reverse;
}

@keyframes example {
  from {background-color: red;}
  to {background-color: yellow;}
}
```

Google Web Fonts

https://fonts.google.com/

HTML

```
<link href="https://fonts.googleapis.com/css2?family=Barlow+Condensed:w
```

CSS

```
font-family: 'Barlow Condensed', sans-serif;
```

Questions?