

Day 1.
HTML, CSS, and Tailwind.

Edward.



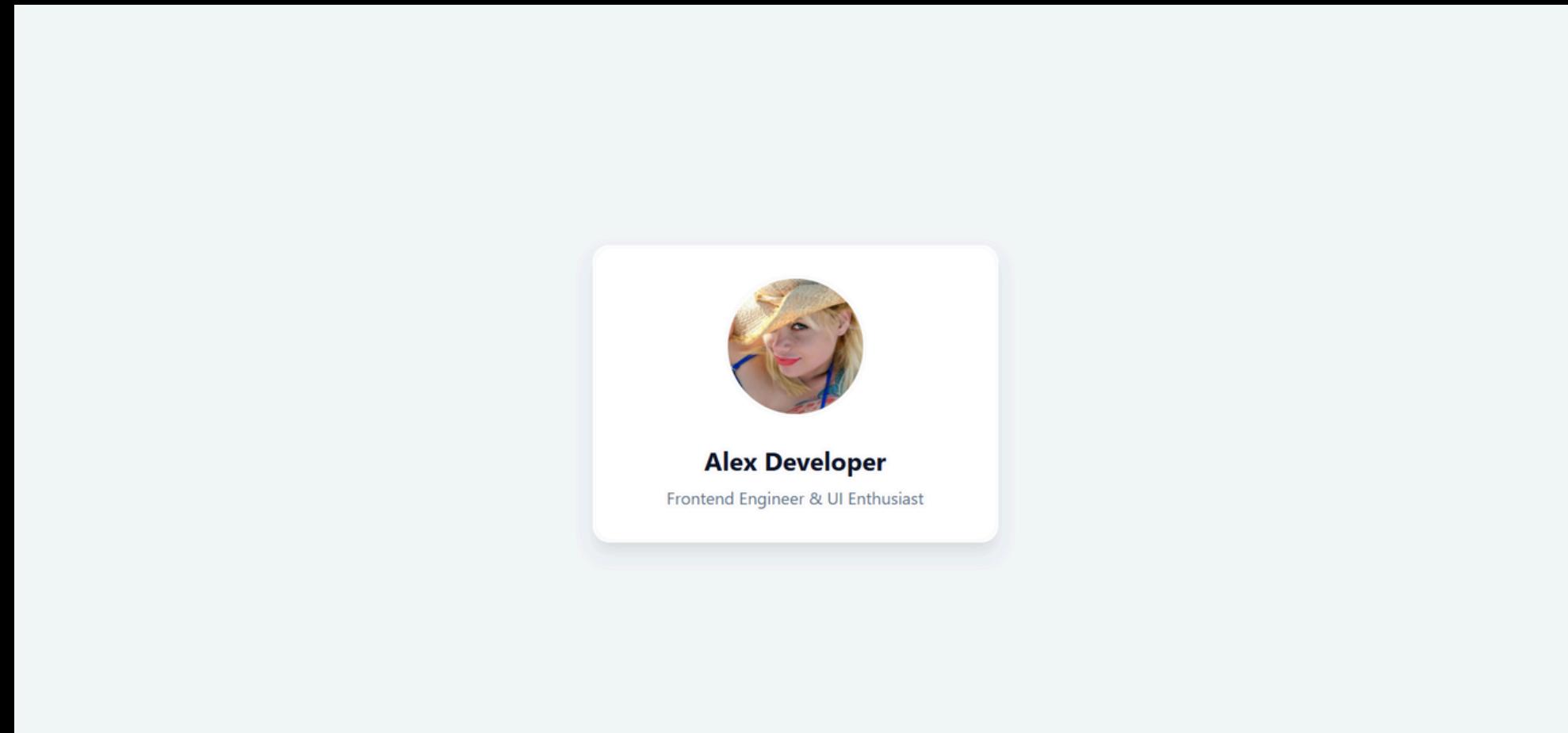
- Merit Scholar
- 2nd Year BS CS
- Ex-CTO @ Harbor

Alexi.



- qpi.alex.i.life
- 2nd Year BS CS
- SWE Intern @ NextPay

Our Goal for Today



The Dev-Folio Card

What is a Website?

Analogy: A Restaurant

Kitchen

**Prepares the food, has
the storage for all
ingredients.**

Dining Room

**Requests food from the
kitchen, is what the
customers see.**

What is a Website?

Analogy: A Restaurant

Backend

Contains the servers,
databases, and
application logic.

Dining Room

Requests food from the
kitchen, is what the
customers see.

What is a Website?

Analogy: A Restaurant

Backend

Contains the servers,
databases, and
application logic.

Frontend

The layout, colors,
fonts, and buttons.

Which Tools are we Using?

Backend

Contains the servers,
databases, and
application logic.

Frontend

The layout, colors,
fonts, and buttons.

Which Tools are we Using?

Backend

PostgreSQL,
JavaScript, NodeJS

Frontend

The layout, colors,
fonts, and buttons.

Which Tools are we Using?

Backend

PostgreSQL,
JavaScript, NodeJS

Frontend

HTML, CSS, JavaScript,
React, Tailwind, Shadcn
UI

Which Tools are we Using?

Backend

PostgreSQL,
JavaScript, NodeJS

Next.JS

Frontend

HTML, CSS, JavaScript,
React, Tailwind, Shadcn
UI

Which Tools are we Using?

Backend

PostgreSQL,
JavaScript, NodeJS

Next.JS

GitHub

Frontend

HTML, CSS, JavaScript,
React, Tailwind, Shadcn
UI

MISA's Take on a Modern Tech Stack



MISA's Take on a Modern Tech Stack

HTML CSS

TailwindCSS

Lab 1.

Creating the Dev-Folio Hero Page

Getting Started

Getting Started

1. A Code Editor.

Getting Started

1. A Code Editor.
2. Create your project folder.

Getting Started

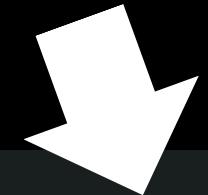
1. A Code Editor.
2. Create your project folder.
3. Create 2 Files: `index.html` + `styles.css`.

What is HTML?

```
<tagname attribute="value">Content</tagname>
```

What is HTML?

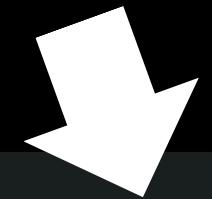
Opening Tag



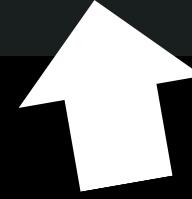
```
<tagname attribute="value">Content</tagname>
```

What is HTML?

Opening Tag



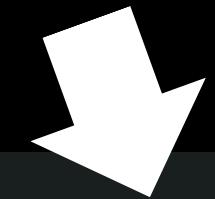
```
<tagname attribute="value">Content</tagname>
```



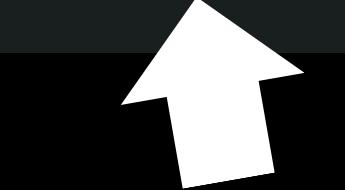
Closing Tag

What is HTML?

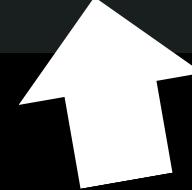
Opening Tag



```
<tagname attribute="value">Content</tagname>
```



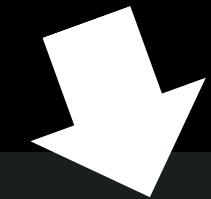
Content



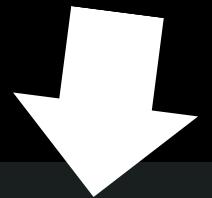
Closing Tag

What is HTML?

Opening Tag

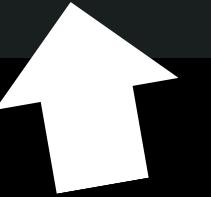


Attribute

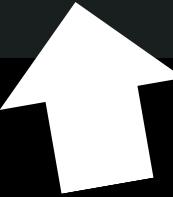


```
<tagname attribute="value">Content</tagname>
```

Content



Closing Tag



Most Common HTML Tags

Div Section

```
<div>Block element</div>
```

Headings

```
<h1>Page title</h1>
<h2>Subheading</h2>
<h3>Sub subheading</h3>
<h4>Quaternary heading</h4>
```

Paragraph with style

```
<p style="text-align: center;">text</p>
```

Image

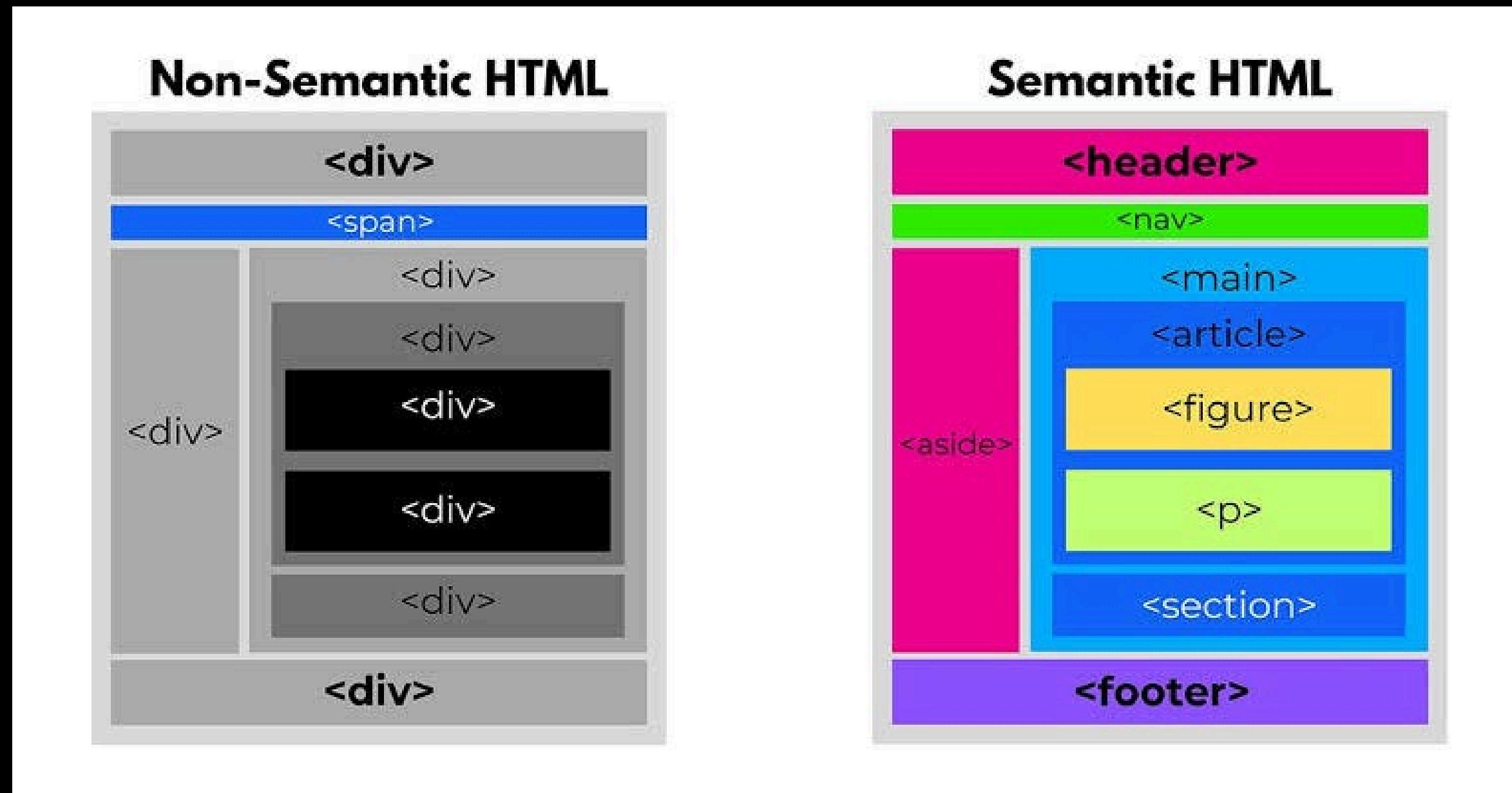
```

```

Text Links (to Our Sponsors)

```
<a href="https://html6.com/" target="_blank" rel="nofollow">
    Click here
</a>
```

Semantics are Important



The HTML Dev-Folio Skeleton

```
<!-- index.html -->

<head>
  <title>My Dev-Folio</title>
  <link rel="stylesheet" href="styles.css">
</head>

<body>
  <div class="hero-card">
    
    <h1 class="hero-name">Your Name</h1>
    <p class="hero-title">MIS Student & Aspiring Developer</p>
  </div>
</body>
```

So far, we have:



Alex Developer

Frontend Engineer & UI Enthusiast

Connecting CSS to HTML

```
<link rel="stylesheet" href="styles.css" />
```

What is CSS?

```
.hero-name { color : blue; }
```

What is CSS?

Selector



```
.hero-name { color : blue; }
```

What is CSS?

Selector

```
.hero-name { color : blue; }
```

Property

What is CSS?

Selector

```
.hero-name { color : blue; }
```

Property

Change Property to:

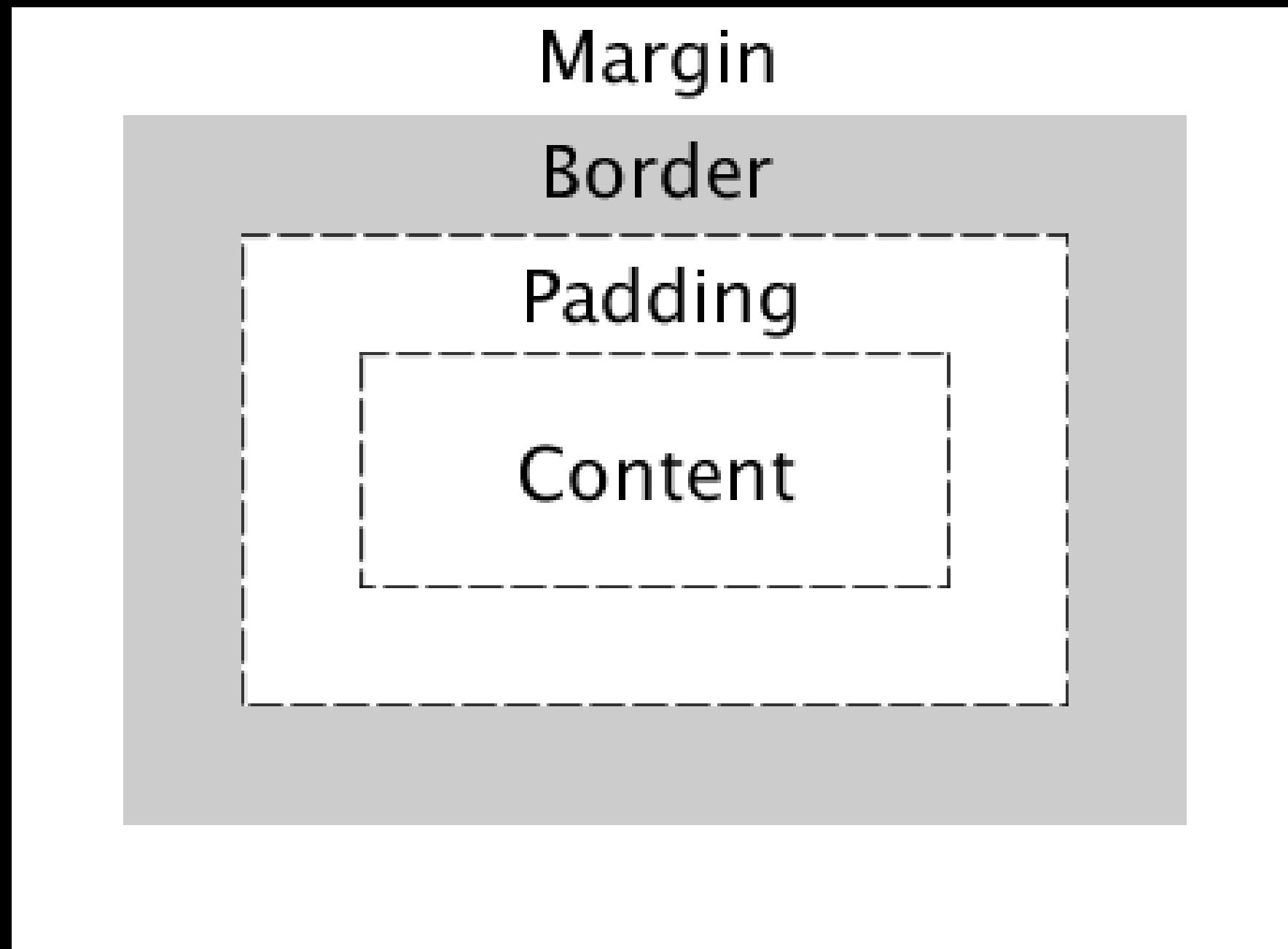
Most Common Properties

| | |
|------------------------|---------------------------------------------------------------------|
| font-family: | Sets the typeface of a text element. |
| font-size: | Sets the size of text in an element. |
| font-weight: | Sets how light or bold is the appearance of the text in an element. |
| font-style: | Sets whether the text of an element appears as italics. |
| color: | Sets the colour of the element. (Note the US spelling.) |
| letter-spacing: | The spacing between characters within the words of a text element. |
| text-transform: | Controls the capitalization of letters in a text element. |
| text-align: | Options include left, center (US spelling) and right |
| line-height: | The vertical spacing between the text lines of an element. |
| margin-top: | The vertical spacing above (before) an element. |
| margin-bottom: | The vertical spacing below (after) an element. |

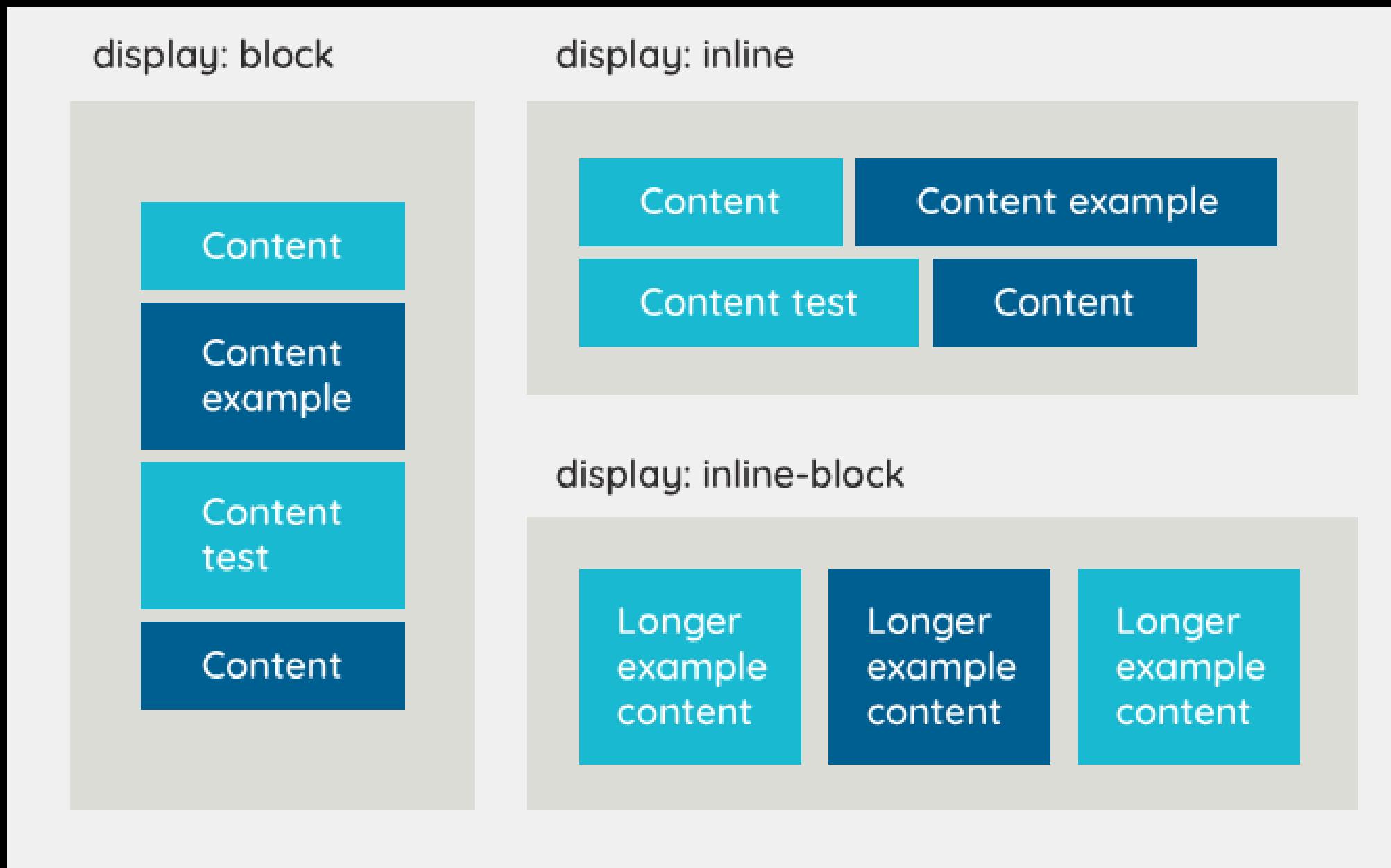
Selectors and Specificity



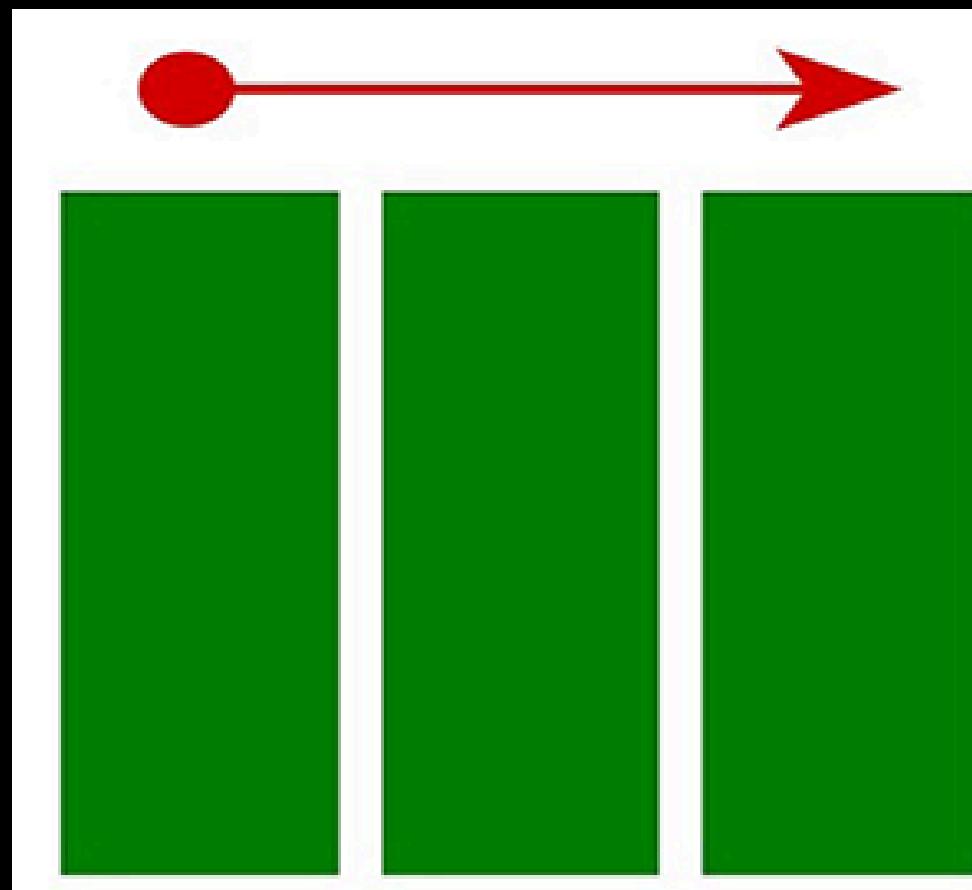
The CSS Box Model



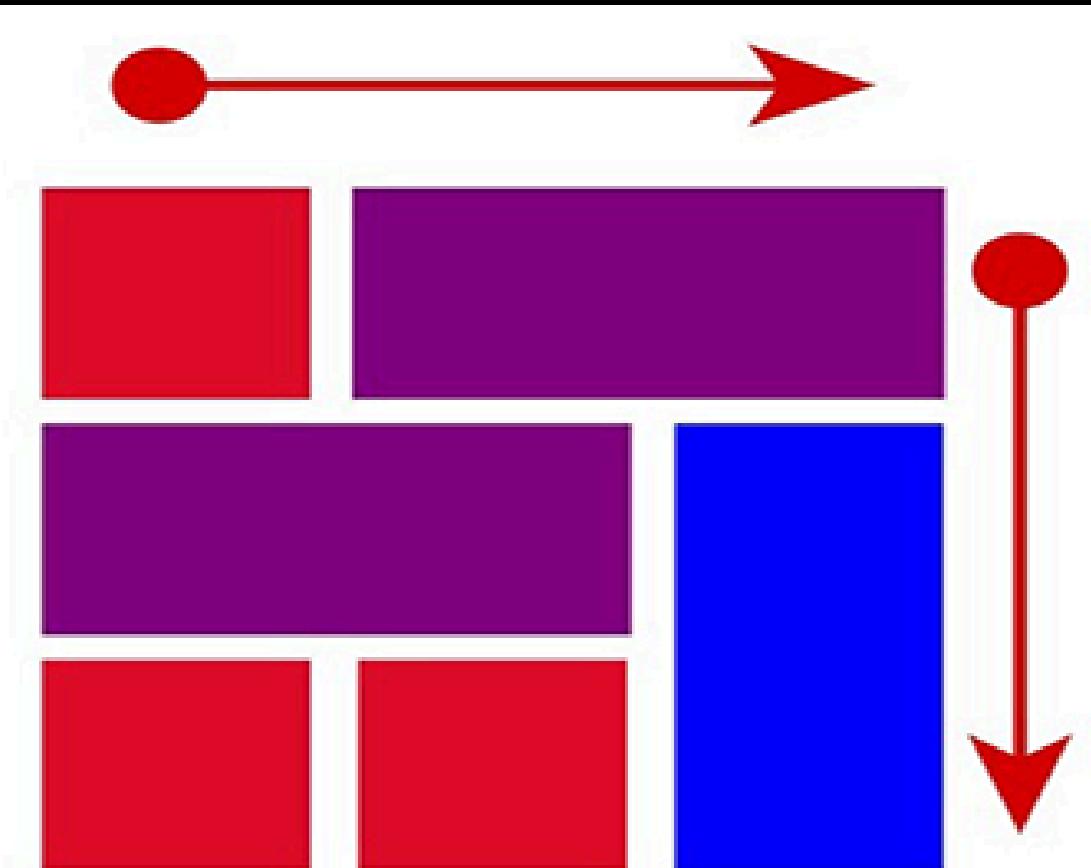
The “Display” Property



The “Display” Property



Flexbox
One Dimensions

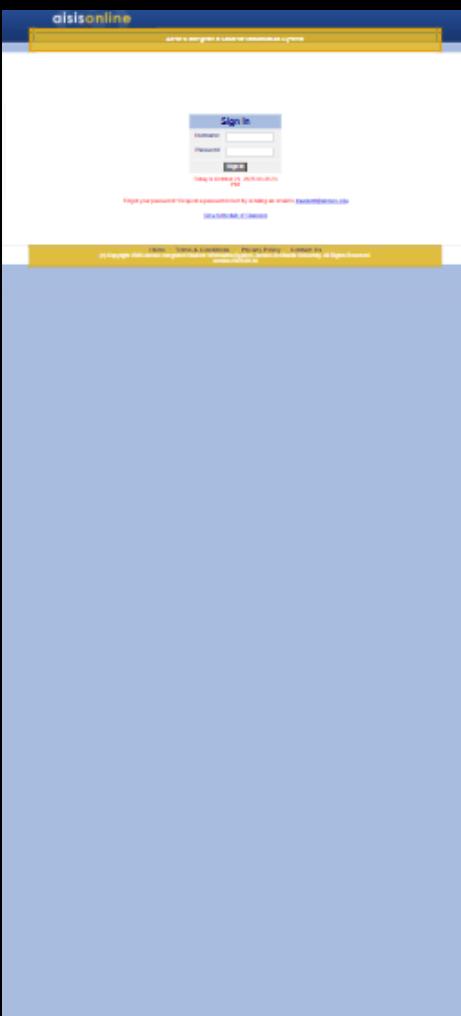
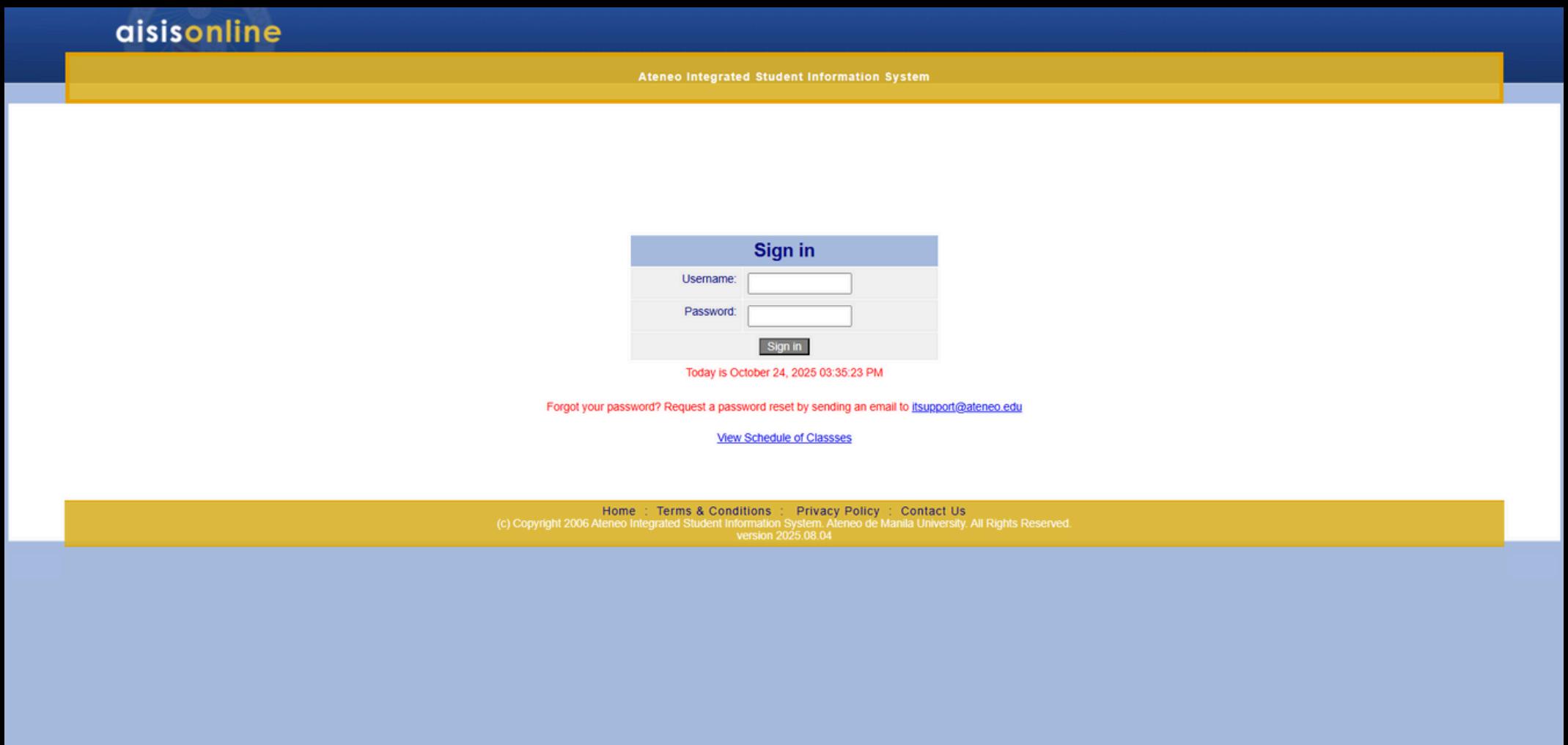


CSS Grids
Two Dimensions

Flexbox Properties

| Property | What it does | Example |
|-----------------|---------------------------|---------------------------------------|
| justify-content | Aligns items horizontally | center , space-between , space-around |
| align-items | Aligns items vertically | center , flex-start , flex-end |
| flex-direction | Row vs column | row , column |
| gap | Spacing between items | gap: 20px; |

Case Study



Case Study

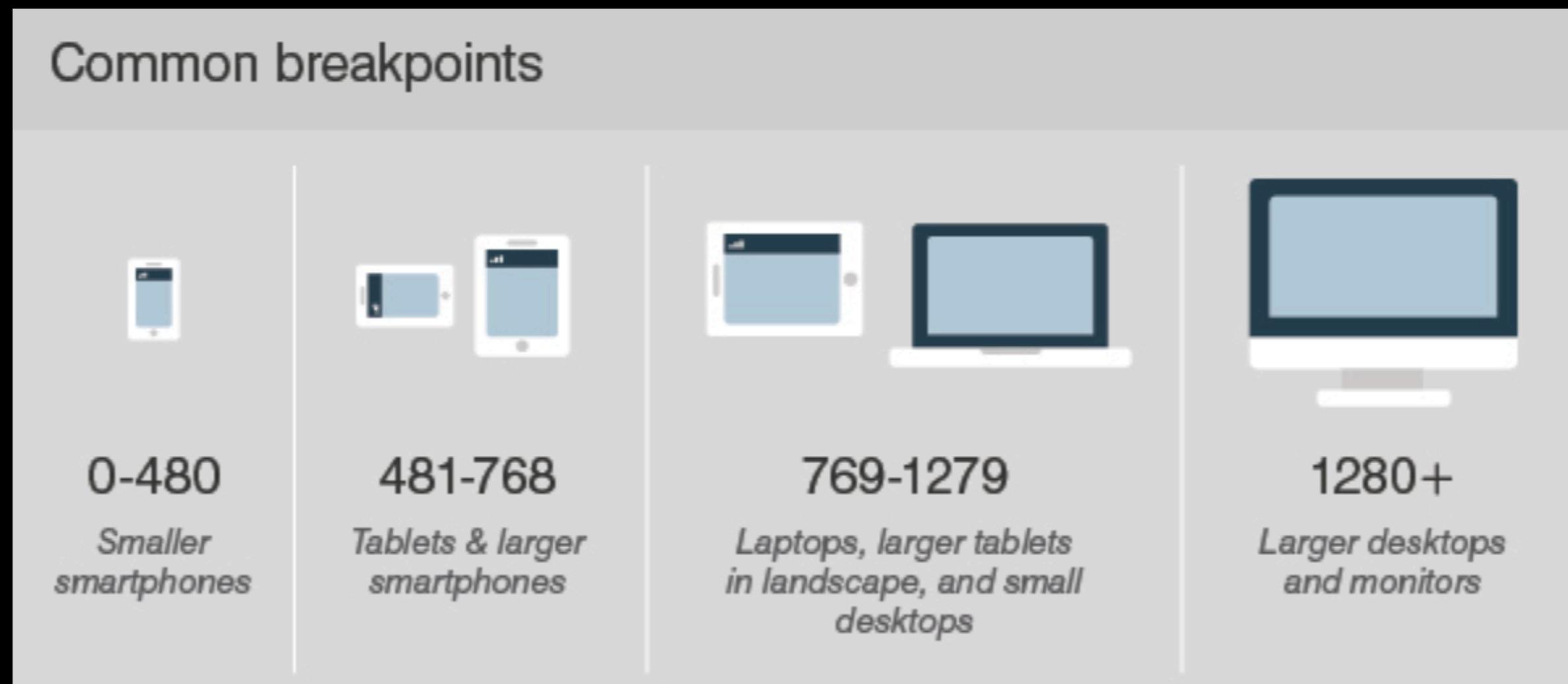
The screenshot shows the Roblox Home page. At the top, there's a banner for the "Halloween Spotlight" event with the tagline "Brave the dark to claim your rewards. If you dare." Below the banner, a section titled "Today's Picks: Halloween Spotlight" features four game cards: "Dress To Impress" (Halloween hits the runway), "Build a Zoo" (Halloween at the Zoo!), "HAPPY" (It's Halloween at Wobmart!), and "untitled tag game" (Nothing left behind...). A large blue "Join" button is positioned above the game cards. At the bottom, there's a "Continue →" button followed by six small game thumbnails.

The screenshot shows the Roblox Home page with a single event card for the "Halloween Spotlight". The card features the "HALLOWEEN SPOTLIGHT" logo, the text "Event", and "Halloween Spotlight" with "Maturity: Mild • Ages 5+". A blue "Join" button is located in the bottom right corner of the card.

CSS Media Queries

```
@media (max-width: 480px) {  
    /* Styling here */  
}
```

CSS Breakpoints



The CSS Dev-Folio Skeleton

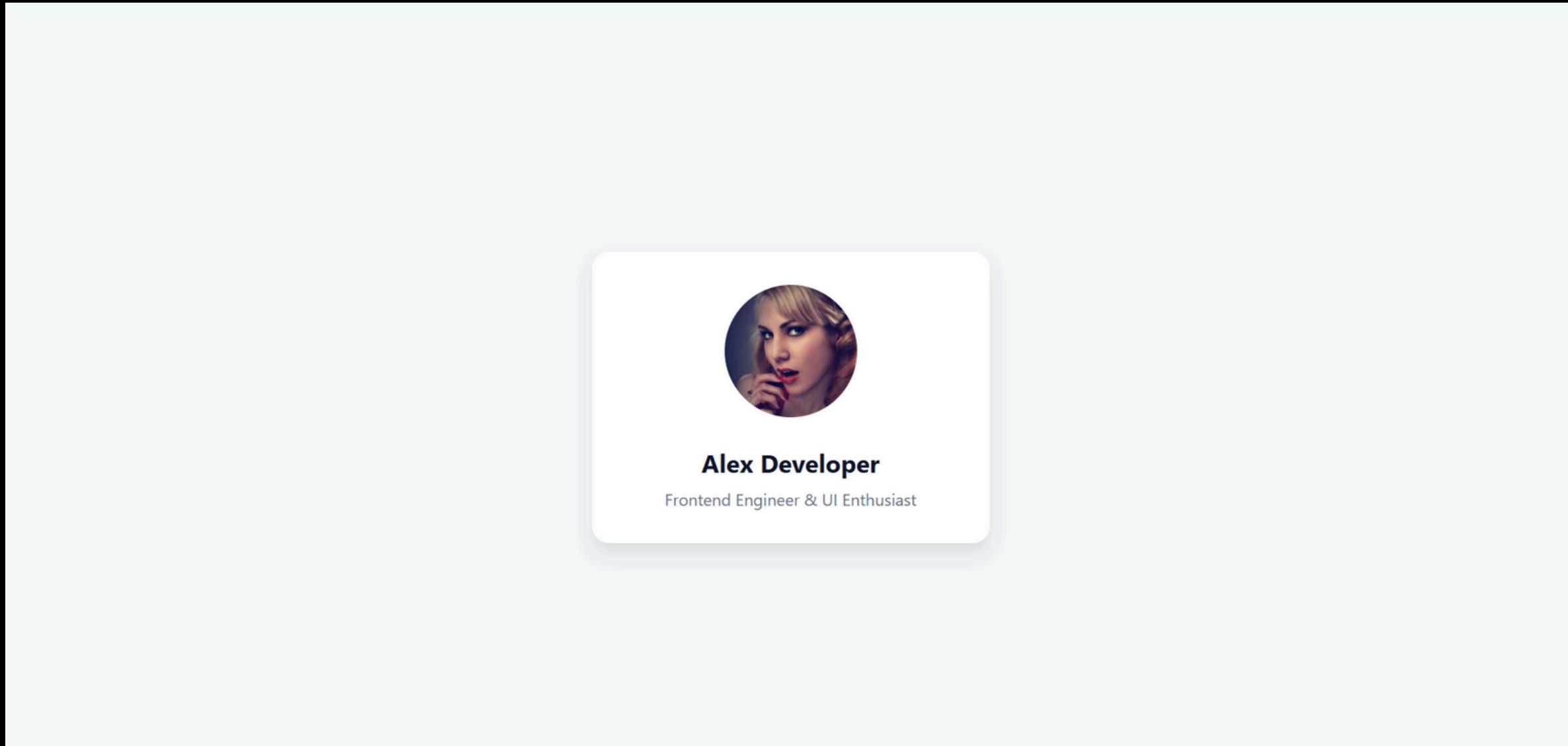
```
/* 1. Resetting some defaults and styling the page background */
body {
    font-family: sans-serif;
    background-color: #f1f5f9; /* Light gray-blue */
    margin: 0;
    min-height: 100vh; /* Full viewport height */
    display: flex;
    justify-content: center; /* Center horizontally */
    align-items: center; /* Center vertically */
    padding: 20px; /* ...our content. */
}

/* 2. Styling the card container */
.hero-card {
    background-color: #ffffff;
    width: 320px;
    max-width: 90vw; /* Responsive width - max 90% of viewport width */
    padding: 32px;
    border-radius: 16px; /* Rounded corners */
    text-align: center; /* Centers text inside the card */
    box-shadow: 0 10px 15px -3px rgb(0 0 0 / 0.1); /* deeply technical shadow rule */
}
```

The CSS Dev-Folio Skeleton

```
.hero-avatar {  
    width: 120px;  
    height: 120px;  
    border-radius: 50%; /* The trick to make a square into a circle */  
}  
  
.hero-name {  
    font-size: 24px;  
    font-weight: bold;  
    margin-top: 24px;  
    margin-bottom: 8px;  
}  
  
.hero-title {  
    color: #6b7280; /* A nice gray color for secondary text */  
}
```

This should be the output for Lab 1:



This is great and all, but
there is still something we
could improve upon.

Case Study

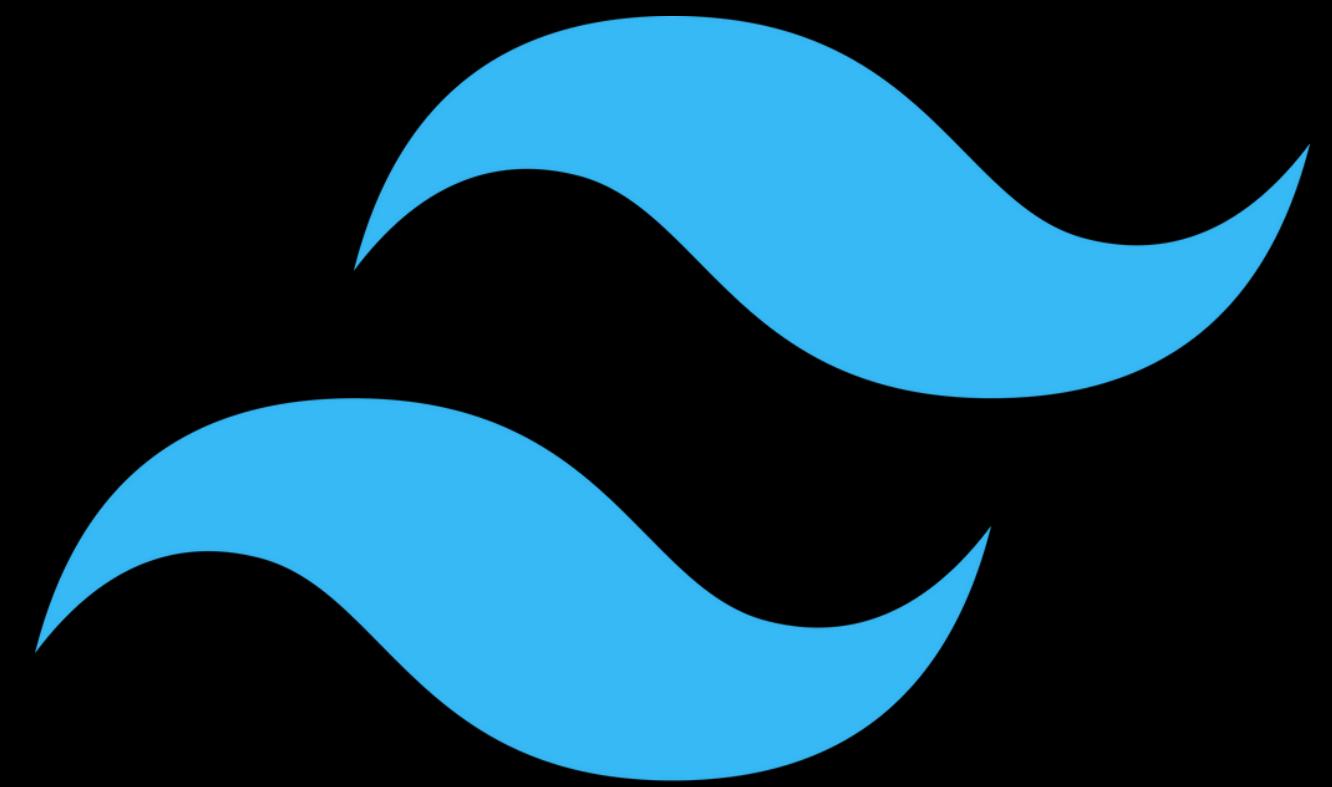
The image displays the homepage and a product configuration interface for the Configurator plugin.

Homepage: The top half shows the Configurator website's homepage. It features a large, split-screen image of two sneakers: a white one on the left and a blue one on the right. Overlaid on the image is the word "CREAMS" in large, bold, red and white letters. Below the image, the text "CONFIGURE YOUR PRODUCTS WITH THE BEST WOOCOMMERCE TOOL" is visible. At the bottom of the page is a "SHOW ME MORE" button. The top navigation bar includes links for "MEET THEME", "MEET PLUGIN", and "CONTACT". A search icon is located in the top right corner. A badge in the top left corner indicates "AVAILABLE FOR Woo + W".

Product Configuration Interface: The bottom half shows two screenshots of the Configurator plugin's product configuration interface. The left screenshot shows a white bicycle with various configuration options listed on the right side, including "254€" and a "ADD TO CART" button. The right screenshot shows a pair of white headphones with similar configuration options and pricing information.

This would mean
thousands of styles.css
lines.

A Solution: Tailwind



A Solution: Tailwind

Hero Card: Traditional CSS

```
.hero-card {  
    background-color: white;  
    width: 320px;  
    padding: 32px;  
    text-align: center;  
    border-radius: 16px; /* This makes the corners soft */  
    box-shadow: 0 4px 6px -1px rgb(0 0 0 / 0.1); /* A nice shadow */  
}
```

A Solution: Tailwind

Hero Card: TailwindCSS

```
<div class="bg-white w-80 p-8 text-center rounded-2xl shadow-md">  
  <!-- Content of your hero card goes here -->  
</div>
```

A Solution: Tailwind

Pros:

Eliminates naming fatigue.

**Combines styling and layout
in 1 file.**

Allows for reusable components.

Industry-standard.

Cons:

**Some people prefer the
separation between layout and
styling.**

**People don't like seeing
hundreds of classes.**

Lab 2.

Revising the Dev-Folio Hero Page

Media Queries: Revisited

There are five breakpoints by default, inspired by common device resolutions:

| Breakpoint prefix | Minimum width | CSS |
|-------------------|---------------|--------------------------------------|
| `sm` | 640px | `@media (min-width: 640px) { ... }` |
| `md` | 768px | `@media (min-width: 768px) { ... }` |
| `lg` | 1024px | `@media (min-width: 1024px) { ... }` |
| `xl` | 1280px | `@media (min-width: 1280px) { ... }` |
| `2xl` | 1536px | `@media (min-width: 1536px) { ... }` |

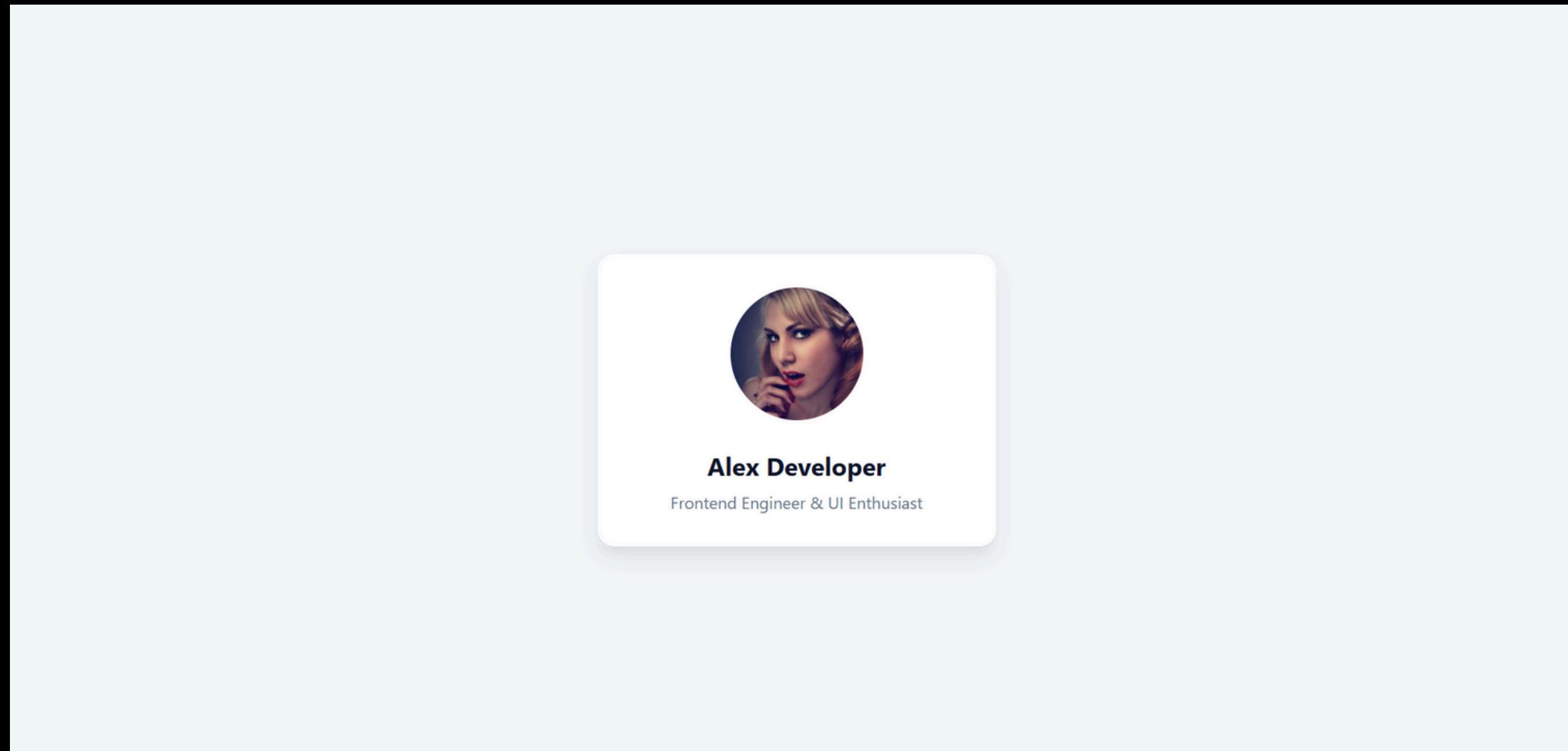
Media Queries: Revisited

```
class="bg-red-100 sm:bg-blue-100"
```

Media Queries: Revisited

[PLAY.TAILWINDCSS.COM](https://play.tailwindcss.com/media-queries)

This should be the output for Lab 2:



Resources

<https://nerdcave.com/tailwind-cheat-sheet>
The Tailwind Cheatsheet

<https://tailwindcss.com/>
Tailwind Documentation

<https://www.w3schools.com/html/>
HTML Full Tutorial

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

Resources

<https://www.theodinproject.com/>

Full Web Development Tutorial From Zero To Employment

<https://htmlcheatsheet.com/css/>

CSS Cheat Sheet

<https://htmlcheatsheet.com/>

HTML Cheat Sheet

<https://www.youtube.com/>

Search for Tutorials Here :)

Resources

<https://css-tricks.com/snippets/css/a-guide-to-flexbox/>
CSS Flexbox Cheat Sheet

Edward.



Alexi.



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HTML, CSS, and Tailwind.