CSS Introduction

What is CSS?

- **CSS = Cascading Style Sheets**

- A language designed to **simplify the process of making web pages presentable**.

- It allows you to apply **colors, fonts, spacing, positioning, and layout** to HTML documents.

- **HTML uses tags**, while **CSS uses rule sets**.

- CSS styles are applied to HTML elements using **selectors**.

Main Advantages

- **Separation of content and style** → HTML handles structure, CSS handles design.

- **Reusable rules** → the same CSS file can style multiple pages.

- **Cleaner code** → easier to maintain and update.

Why CSS?

- **Saves Time** → write once, reuse everywhere.

- **Easy Maintenance** → change one CSS file, update the whole site.

- **Search Engine Friendly** → clean, structured code improves readability.

- **Superior Styles** → more styling options than HTML alone.

- **Offline Browsing** → CSS can be cached for offline use.

CSS Introduction

CSS Syntax

A CSS rule set consists of:

- **Selector** → targets the HTML element.

- **Declaration Block** → contains one or more property-value pairs.

- **Selector:** h1 → targets all <h1> elements.

- **Declarations:** { color: blue; font-size: 12px; }

- Each declaration = **property: value;**

```
Code Card

<!-- HTML -->
<h1>CodeFrill</h1>
/* CSS */
h1 {
   color: blue;
   font-size: 12px;
}
```

Ways to Apply CSS

1. **Inline CSS** → inside the style attribute.
2. <h3 style="color: red; text-align: center;">Hello CSS</h3>
3. **Internal CSS** → inside a <style> tag in the <head>.
4. <style>
5. h3 { color: green; }
6. </style>
7. **External CSS** → best practice, using a separate .css file.
8. <link rel="stylesheet" href="style.css">

What is Cascading?

The **"C" in CSS** stands for **Cascading**.

- When multiple rules apply to the same element, the browser decides which one to use.

- **Priority order:**

   1. Inline styles (highest priority)
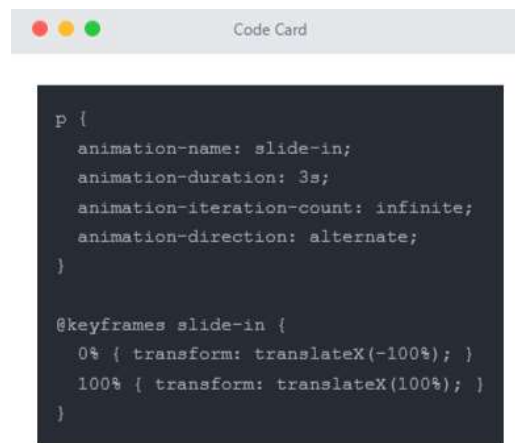
CSS Introduction

2. Internal styles

3. External stylesheets (lowest priority)

Other factors:

- **Specificity** → id > class > element.

- **Order of rules** → later rules override earlier ones.

- **!important** → forces a rule to override others (use sparingly).

CSS Animations (Fun Example)

This makes a <p> element slide left

and right continuously.

```
p {
  animation-name: slide-in;
  animation-duration: 3s;
  animation-iteration-count: infinite;
  animation-direction: alternate;
}

@keyframes slide-in {
  0% { transform: translateX(-100%); }
  100% { transform: translateX(100%); }
}
```

Code Card

Advantages of CSS

- Simplifies web design and maintenance.

- Enhances website performance and user experience.

- Supports **responsive design** for all devices.

- Provides **flexibility** with layouts (Flexbox, Grid).

- Improves **SEO and accessibility**.

Key Takeaways

- CSS = **style and layout** for web pages.

- Syntax = **selector + declaration block**.

CSS Introduction

- Three ways to apply CSS: **inline, internal, external** (external is best).

- Cascading = **priority rules** that decide which style applies.

- CSS makes websites **beautiful, responsive, and maintainable**.