

## What is CSS and How it Works with HTML

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

### Key Points:

- **CSS** separates content (HTML) from design (CSS), allowing for more flexible and maintainable code.
- **HTML** is used to structure content, while **CSS** is used to style it.

### Example:

html

Copy code

```
<!-- HTML -->
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Profile</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>Welcome to My Profile</h1>
  <p>Hello, I'm ADAMU MUHAMMAD MUHAMMAD.</p>
</body>
</html>
```

css

Copy code

```
/* CSS (styles.css) */
body {
  font-family: Arial, sans-serif;
  background-color: #f0f0f0;
  color: #333;
}
h1 {
  color: #0056b3;
}
p {
  font-size: 18px;
}
```

## CSS Syntax and Selectors

### CSS Syntax:

- A CSS rule consists of a selector and a declaration block.
- **Selector:** Indicates which HTML elements the style applies to.
- **Declaration block:** Contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property and a value, separated by a colon.

### Example:

css

Copy code

```
selector {  
    property: value;  
}
```

### Common Selectors:

**Element Selector:** Selects elements by their name.

css

Copy code

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

- 

**Class Selector:** Selects elements by their class attribute.

css

Copy code

```
.myClass {  
    color: green;  
}
```

- 

**ID Selector:** Selects elements by their id attribute.

css

Copy code

```
#myId {  
    color: red;  
}
```

-

**Attribute Selector:** Selects elements based on an attribute or attribute value.

CSS

Copy code

```
[type="text"] {  
    background-color: yellow;  
}
```

- 

## Applying Styles to HTML Elements

### Inline Styles:

Directly within an HTML element using the `style` attribute.

HTML

Copy code

```
<h1 style="color: blue;">Hello World</h1>
```

- 

### Internal Styles:

Within a `<style>` tag in the HTML `<head>` section.

HTML

Copy code

```
<head>  
    <style>  
        h1 {  
            color: blue;  
        }  
    </style>  
</head>
```

- 

### External Styles:

Using an external CSS file linked within the HTML document.

HTML

Copy code

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

- 

## Hands-on: Styling the Personal Profile Page

Let's create and style a personal profile page using the concepts learned.

**Step 1: HTML Structure** Create an HTML file `index.html` with the following content:

html

Copy code

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Profile</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <header>
    <h1>Welcome to My Profile</h1>
  </header>
  <section class="profile">
    
    <h2>ADAMU MUHAMMAD MUHAMMAD</h2>
    <p>Computer Science Student, Tech Enthusiast, and Mentor</p>
  </section>
</body>
</html>
```

**Step 2: CSS Styling** Create a CSS file `styles.css` with the following content:

css

Copy code

```
/* General Styles */
body {
  font-family: Arial, sans-serif;
  background-color: #f0f0f0;
  color: #333;
  margin: 0;
  padding: 0;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
  text-align: center;
}

/* Header Styles */
```

```
header {
    background-color: #0056b3;
    color: white;
    padding: 20px;
    width: 100%;
}

h1 {
    margin: 0;
}

/* Profile Section Styles */
.profile {
    background-color: white;
    padding: 20px;
    border-radius: 10px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    max-width: 400px;
}

.profile img {
    border-radius: 50%;
    width: 150px;
    height: 150px;
}

.profile h2 {
    color: #0056b3;
    margin-top: 10px;
}

.profile p {
    font-size: 18px;
}
```

**Step 3: Viewing the Page** Open [index.html](#) in a web browser to see the styled personal profile page.

## Summary

- **CSS** enhances the appearance of HTML elements.
- **Syntax** includes selectors and declaration blocks.

- Styles can be applied inline, internally, or externally.
- **Selectors** target elements based on names, classes, IDs, and attributes.

**Next Steps:**

- Experiment with different selectors and properties.
- Try adding more elements to the profile page and styling them.
- Practice using developer tools in your browser to inspect and modify CSS in real-time.