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200  
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# Introduction to CSS in HTML

*Man Geni Addysg Uwch yng Nghymru*  
*Where Higher Education Began in Wales*

[www.uwtsd.ac.uk](http://www.uwtsd.ac.uk)

# Today's Lecture

- Overview
- Introduction to CSS
- Activities

# Understanding the Importance of CSS in Web Design

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

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

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <title>Simple HTML</title>
```

```
</head>
```

```
<body>
```

```
  <h1>Welcome to My Website</h1>
```

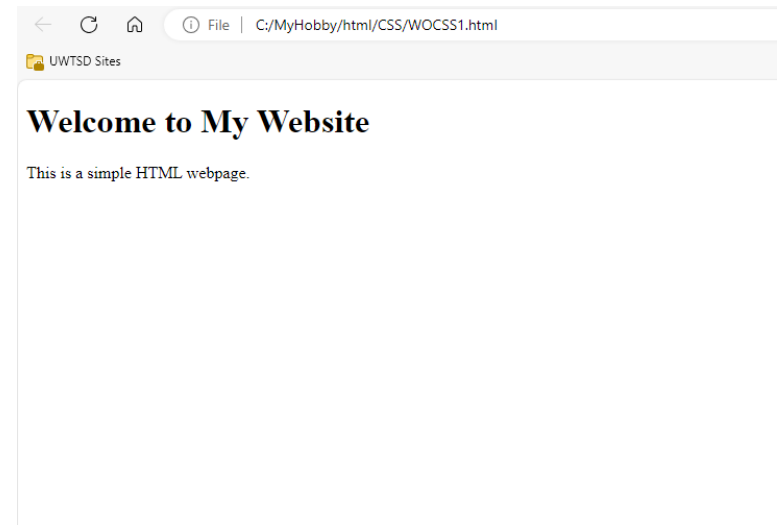
```
  <p>This is a simple HTML webpage.</p>
```

```
</body>
```

```
</html>
```

# Understanding the Importance of CSS in Web Design

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport"
content="width=device-width, initial-scale=1.0">
  <title>Simple HTML</title>
</head>
<body>
  <h1>Welcome to My Website</h1>
  <p>This is a simple HTML webpage.</p>
</body>
</html>
```



# Adding CSS (Structure + Style)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Simple HTML</title>
</head>
<body>
  <h1 style="color:blue;">Welcome to My Website</h1>
  <p style="color:red;">This is a simple HTML webpage.</p>
</body>
</html>
```

# Using CSS

CSS can be added to HTML documents in 3 ways:

- **Inline** - by using the `style` attribute inside HTML elements
- **Internal** - by using a `<style>` element in the `<head>` section
- **External** - by using a `<link>` element to link to an external CSS file

# Adding CSS (Structure + Style)

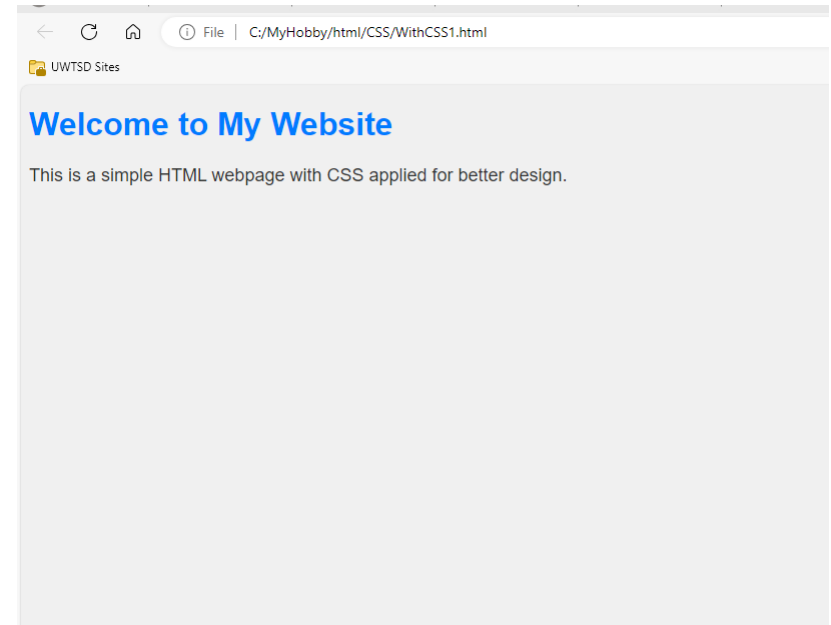
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Styled HTML</title>
  <style>
    body {
      background-color: #f0f0f0;
      font-family: Arial, sans-serif;
      color: #333;
    }
    h1 {
      color: #007BFF;
    }
    p {
      font-size: 18px;
    }
  </style>
</head>
<body>
  <h1>Welcome to My Website</h1>
  <p>This is a simple HTML webpage with CSS applied for better design.</p>
</body>
</html>
```

# Adding CSS (Structure + Style)

```
<title>Styled HTML</title>
<style>
  body {
    background-color: #f0f0f0;
    font-family: Arial, sans-serif;
    color: #333;
  }
  h1 {
    color: #007BFF;
  }
  p {
    font-size: 18px;
  }
</style>
```

# Adding CSS (Structure + Style)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Styled HTML</title>
  <style>
    body {
      background-color: #f0f0f0;
      font-family: Arial, sans-serif;
      color: #333;
    }
    h1 {
      color: #007BFF;
    }
    p {
      font-size: 18px;
    }
  </style>
</head>
<body>
  <h1>Welcome to My Website</h1>
  <p>This is a simple HTML webpage with CSS applied for better design.</p>
</body>
</html>
```



# External CSS

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

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

```
  <meta name="viewport" content="width=device-width, initial-  
scale=1.0">
```

```
  <title>Simple Website</title>
```

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

```
</head>
```

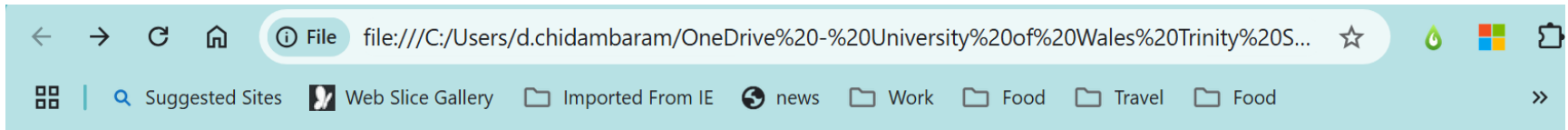
# External CSS

```
<body>
  <header>
    <h1>Welcome to My Website</h1>
    <nav>
      <ul>
        <li><a href="index.html">Home</a></li>
        <li><a href="about.html">About</a></li>
        <li><a href="contact.html">Contact</a></li>
      </ul>
    </nav>
  </header>
```

# External CSS

```
<main>
<h2>Introduction</h2>
<p>This is a simple webpage with validated HTML
and CSS.</p>
</main>
<footer>
    <p>© 2024 My Website</p>
</footer>
</body>
</html>
```

# HTML without linking styles.css



## Welcome to My Website

- [Home](#)
- [About](#)
- [Contact](#)

## Introduction

# Styles.CSS

```
/* General body styling */
body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    color: #333;
    margin: 0;
    padding: 0;
}
```

# Styles.css

```
/* Header styling */
header {
    background-color: #007BFF;
    color: white;
    padding: 10px;
    text-align: center;
}
```

# Styles.css

```
/* Navigation menu */
nav ul {
    list-style-type: none;
    padding: 0;
}
nav ul li {
    display: inline;
    margin: 0 10px;
}
nav ul li a {
    color: white;
    text-decoration: none;
}
```

# Styles.css

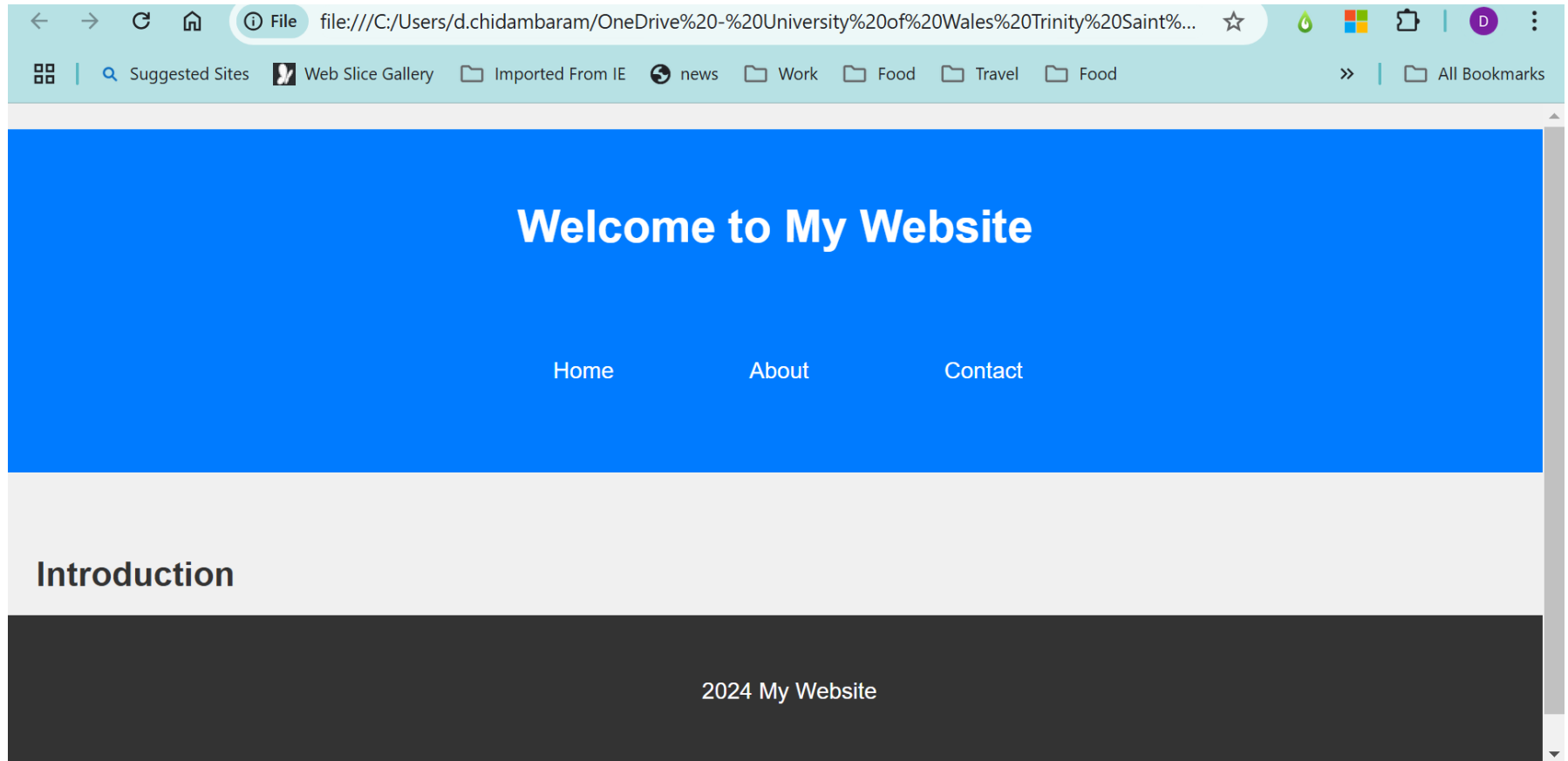
```
/* Main content styling */
```

```
main {  
    padding: 20px;  
}
```

```
/* Footer styling */
```

```
footer {  
    background-color: #333;  
    color: white;  
    text-align: center;  
    padding: 10px;  
    position: fixed;  
    bottom: 0;  
    width: 100%;  
}
```

# HTML with styles



# Validate HTML

<https://validator.w3.org/detailed.html>

Validate by direct input

Enter the Markup (Full Document) to validate:

```
</ul>
</nav>
</header>
<main>
  <h2>Introduction</h2>
  <p>This is a simple webpage with validated HTML and CSS.</p>
</main>
<footer>
  <p>© 2024 My Website</p>
</footer>
</body>
</html>
```

More Options

☒ **Validate Full Document**

Use Doctype: (detect automatically) ☐ Only if Doctype is missing

☐ **Validate HTML fragment**

Use Doctype: ☒ HTML 4.01 ☐ XHTML 1.0

☒ List Messages Sequentially ☐ Group Error Messages by Type

☐ Show Source ☐ Clean up Markup with HTML-Tidy

☐ Show Outline ☐ Validate error pages ☐ Verbose Output

Check

This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) [tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).



The W3C validators rely on community support

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# Validate HTML

<https://validator.w3.org/detailed.html>

The screenshot shows the W3C HTML Validator interface. The browser address bar displays `validator.w3.org/nu/#textarea`. The document content area contains the following HTML code:

```
<p>This is a simple webpage with validated HTML and CSS.</p>
</main>
<footer>
  <p>© 2024 My Website</p>
</footer>
</body>
</html>
```

Below the code area is a **Check** button. Underneath, a message states: "Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings." Below this is a **Message Filtering** button.

A green banner indicates: **Document checking completed. No errors or warnings to show.**

The **Source** section displays the full HTML document structure with line numbers:

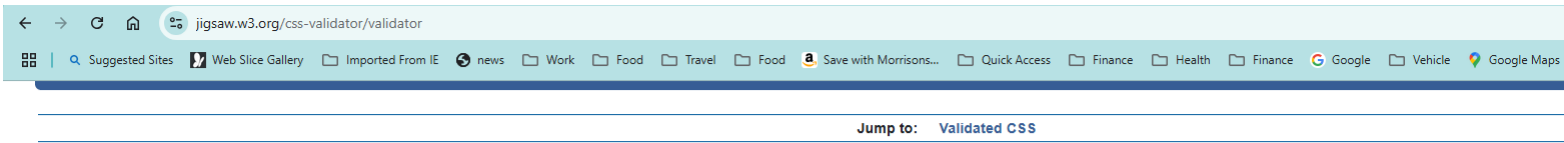
```
1. <!DOCTYPE html>↵
2. <html lang="en">↵
3. <head>↵
4.   <meta charset="UTF-8">↵
5.   <meta name="viewport" content="width=device-width, initial-scale=1.0">↵
6.   <title>Simple Website</title>↵
7.   <link rel="stylesheet" href="styles.css">↵
8. </head>↵
9. <body>↵
10.   <header>↵
11.     <h1>Welcome to My Website</h1>↵
12.     <nav>↵
13.       <ul>↵
14.         <li><a href="index.html">Home</a></li>↵
15.         <li><a href="about.html">About</a></li>↵
16.         <li><a href="contact.html">Contact</a></li>↵
17.       </ul>↵
18.     </nav>↵
19.   </header>↵
20.   <main>↵
21.     <h2>Introduction</h2>↵
22.     <p>This is a simple webpage with validated HTML and CSS.</p>↵
23.   </main>↵
24.   <footer>↵
25.     <p>© 2024 My Website</p>↵
26.   </footer>↵
27. </body>↵
28. </html>
```

Below the source code, it states: "Used the HTML parser." and "Total execution time 2 milliseconds."

At the bottom, there are links: [About this checker](#) • [Report an issue](#) • Version: 24.11.12

# Validate CSS

<https://jigsaw.w3.org/css-validator/>



## W3C CSS Validator results for TextArea (CSS level 3 + SVG)

### Congratulations! No Error Found.

This document validates as [CSS level 3 + SVG](#) !

To show your readers that you've taken the care to create an interoperable Web page, you may display this icon on any page that validates. Here is the XHTML you could use to add this icon to your Web page:



```
<p>
  <a href="http://jigsaw.w3.org/css-validator/check/referer">
    
    </a>
  </p>
```



```
<p>
  <a href="http://jigsaw.w3.org/css-validator/check/referer">
    
    </a>
  </p>
```

(close the img tag with > instead of /> if using HTML <= 4.01)



The W3C validators rely on community support for hosting and development.

[Donate](#) and help us build better tools for a better web.

If you like, you can download a copy of this image to keep in your local web directory, and change the XHTML fragment above to reference your local image rather than the one on this server.

If you would like to create a link to this page (i.e., this validation result) to make it easier to re-validate this page in the future or to allow others to validate your page, the URI is:

```
http://jigsaw.w3.org/css-validator/validator$link
or
http://jigsaw.w3.org/css-validator/check/referer (for HTML/XML document only)
```

# Further Reading :

**Part II: HTML Markup for Structure**

**Part III: CSS for Presentation**

Robbins, J., 2018, Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics, O'Reilly Media