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200
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Introduction to Web

Session 2

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

www.uwtsd.ac.uk

Today's Lecture

- Overview
- Notepad++ or VScode
- Basic HTML Tags

Anatomy of an HTML Element

tag

The element name in angle brackets

element

The content and its markup (start and end tags)

Opening tag

Content

(may be text and/or other HTML elements)

Closing tag

(starts with a /)

`<elementname>` Content here `</elementname>`

Element

Example:

`<h1>` Black Goose Bistro `</h1>`

Some Elements Are Empty

Some elements have no content and provide a simple directive. They are called empty elements:

`<element-name>`

Example: The `br` element inserts a line break.

`<p>1005 Gravenstein Highway North<br>Sebastopol, CA 95472</p>`

Basic HTML Document Structure

- **Activity:** Create a "Hello, World!" Page

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>Hello World Page</title>
```

```
  </head>
```

```
  <body>
```

```
    <h1>Hello, World!</h1>
```

```
  </body>
```

```
</html>
```

Creating a Heading and Paragraph

- **Activity:** Write a Short Bio

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>About Me</title>
```

```
</head>
```

```
<body>
```

```
<h1>John Doe</h1>
```

```
<h2>About Me</h2>
```

```
<p>I'm passionate about coding and technology. I love learning new things and working on creative projects.</p>
```

```
<h3>My Interests</h3>
```

```
<p>Some of my interests include web development, reading, and traveling.</p>
```

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta name="keywords" content="pests, weeds, fungus, plants, flowers,  
vegetables">
```

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

```
<title>The Garden Company</title>
```

```
</head>
```

```
<p>Welcome to The Garden Company! We hope you will find our site a  
useful resource for becoming a better gardener.</p>
```

```
<p>Our main store is located at:<br>
```

```
108 Ponting Street<br>
```

```
Macon, IN 46062</p>
```

```
<p>Please stop by and browse our extensive inventory from Monday through  
Saturday, 7:00 a.m. to 8:00 p.m.</p>
```

```
</html>
```

```
<head>
  <meta charset="UTF-8">
  <meta name="description" content="Free Web
tutorials">
  <meta name="keywords" content="HTML,
CSS">
  <meta name="author" content="John">
  <meta name="viewport" content="width=device-
width, initial-scale=1.0">
<meta http-equiv="refresh" content="30">
</head>
```

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Character Encoding Example</title>

</head>

<body>

<p>iHola! ¿Cómo estás?</p> <!-- Spanish text -->

</body>

</html>

Ensures special characters display correctly.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta name="keywords" content="pests, weeds, fungus, plants, flowers,  
vegetables">
```

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

```
<title>The Garden Company</title>
```

```
</head>
```

```
<p>Welcome to The Garden Company! We hope you will find our site a  
useful resource for becoming a better gardener.<p>
```

```
<p>Our main store is located at:<br>
```

```
108 Ponting Street<br>
```

```
Macon, IN 46062</p>
```

```
<p>Please stop by and browse our extensive inventory from Monday  
through
```

```
Saturday, 7:00 a.m. to 8:00 p.m.</p> </html>
```

```
<!DOCTYPE html>
```

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

```
<head>
```

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

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

```
  <title>My Simple Image Gallery</title>
```

```
</head>
```

specifies that the meta tag is
for viewport settings.

```
<!DOCTYPE html>
```

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

```
<head>
```

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

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

```
  <title>My Simple Image Gallery</title>
```

```
</head>
```

sets the viewport width to the device's width, the content will match the screen size (whether on a desktop, tablet, or smartphone).

```
<!DOCTYPE html>
```

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

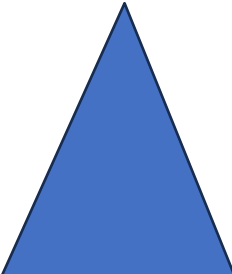
```
<head>
```

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

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

```
  <title>My Simple Image Gallery</title>
```

```
</head>
```



sets the initial zoom level, so the page loads at 100% scale.

- Helps screen readers pronounce words correctly.
- Assists search engines in understanding the language of the page.

```
<!DOCTYPE html>
```

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

```
<head>
```

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

```
<title>English Language Example</title>
```

```
</head>
```

```
<body>
```

```
<h1>Hello, World!</h1>
```

```
<p>This page is in English.</p>
```

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
<html lang="cy">
<head>
  <meta charset="UTF-8">
  <title>Welsh Language Example</title>
</head>
<body>
  <h1>Helo, Byd!</h1>
  <p>Mae'r dudalen hon yn Gymraeg.</p>
</body>
</html>
```

Adding Links

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>My Favourite Website and Image</title>
```

```
</head> <body>
```

```
<h1>Visit My Favourite Website</h1>
```

```
<p>Check out this awesome site:</p>
```

```
<a href="https://www.wikipedia.org" target="_blank">Wikipedia</a>
```

```
<p>Visit <a href="https://www.wikipedia.org">Wikipedia</a> to learn more about  
various topics.</p>
```

```
<iframe src="https://en.wikipedia.org/wiki/Web_development" width="600"  
height="400"> Your browser does not support iframes.
```

```
</iframe>
```

```
</body>
```

```
</html>
```

Adding Images with Dimensions

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>My Favourite Website and Image</title>
```

```
</head> <body>
```

```
<h2>Here is a picture I like:</h2>
```

```
<!-- Image 1 with specified dimensions -->
```

Right click image and
select copy image
address

```
<img src= "https://cdn.pixabay.com/photo/2015/04/23/22/00/tree-  
736885_1280.jpg" alt = "tree" width="250" height="150">
```

```

```

```
</body>
```

```
</html>
```

Adding Images

- If the image is in the **same folder** as your HTML file:

```

```

- If it's in a subfolder (e.g., a folder called images):

```

```

project-folder/

|

|— html/ ← contains your HTML files

| — index.html

|

|— images/ ← contains your image files

— photo.jpg

```

```

Creating a basic website about a "**Favourite Hobby**"
(e.g., cooking, traveling, gaming) with three pages:
Home, About, and Gallery.

Create a new folder on your computer named MyHobby.

Create a subfolder images

Inside Myhobby folder, create three HTML files:

- index.html (Home Page)
- about.html (About Page)
- gallery.html (Gallery Page)

Inside the images folder, save all the required images

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Cooking Hobby - Home</title>
</head>
<body>
  <h1>Welcome to My Cooking World!</h1>
  <p>Cooking is my passion. I love trying out new recipes </p>
  <nav>
    <a href="index.html">Home</a> |
    <a href="about.html">About</a> |
    <a href="gallery.html">Gallery</a>
  </nav>
</body>
</html>
```

define a section of the page
that contains navigation
links.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Cooking Hobby - About</title>
</head>
<body>
  <h1>About My Cooking Hobby</h1>
  <p>I started cooking when I was 12. Over time, it became a way to relax and
express creativity. From baking cakes to making spicy curries, I enjoy exploring
all kinds of cuisines.</p>

  <nav>
    <a href="index.html">Home</a> |
    <a href="about.html">About</a> |
    <a href="gallery.html">Gallery</a>
  </nav>
</body>
</html>
```

Gallery.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Cooking Hobby - Gallery</title>
</head>
<body>
  <h1>My Favourite Dishes</h1>

  <nav>
    <a href="index.html">Home</a> |
    <a href="about.html">About</a> |
    <a href="gallery.html">Gallery</a>
  </nav>
</body>
</html>
```

Creating Bulleted and Numbered Lists

```
<!DOCTYPE html>
<html>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <head>
    <title>My Favorites</title>
  </head>
  <body>
    <h1>My Favorite Movies</h1>
    <ul>
      <li>Inception</li>
      <li>The Matrix</li>
      <li>Interstellar</li>
    </ul>
```

contd.....

<h2>Ingredients</h2>

Flour

Sugar

Eggs

Milk

<h2>Steps to Bake a Cake</h2>

Preheat the oven

Mix the ingredients

Pour into a pan

Bake for 30 minutes

My Favourite Dishes

 Dish 1  Dish 2  Dish 3

Ingredients

- Flour
- Sugar
- Eggs
- Milk

Steps to Bake a Cake

1. Preheat the oven
2. Mix the ingredients
3. Pour into a pan
4. Bake for 30 minutes

[Home](#) | [About](#) | [Gallery](#)

Footer Element in HTML

The <footer> element is used to define a bottom section for a webpage. It often contains:

- Contact information
- Copyright information
- Links to terms of service or privacy policies
- Navigation links(sometimes)

Footer Element in HTML

The <footer> element is used to define a footer for a document or a section. It often contains:

- Contact information
- Copyright information
- Links to terms of service or privacy policies
- Navigation links

```
<footer>
```

```
<p>&copy; 2025 My Cooking Hobby. All rights reserved.</p>
```

```
<p>Contact: myemail@example.com</p>
```

```
</footer>
```

Footer Element in HTML

```
<footer>
```

```
<p>
```

Follow us on:

```
<a href="https://twitter.com" target="_blank">Twitter</a> |
```

```
<a href="https://facebook.com" target="_blank">Facebook</a> |
```

```
<a href="https://instagram.com" target="_blank">Instagram</a>
```

```
</p>
```

```
</footer>
```

About My Cooking Hobby

I started cooking when I was 12. Over time, it became a way to relax and express creativity. exploring all kinds of cuisines.

[Home](#) | [About](#) | [Gallery](#)

© 2025 My Cooking Hobby. All rights reserved.

Contact: myemail@example.com Follow us on: [Twitter](#) | [Facebook](#) | [Instagram](#)

Inserting special characters

Symbol	Entity Name	Entity Number
& (ampersand)	&	&
< (less than)	<	<
> (greater than)	>	>
(nonbreaking space)	 	
¢ (cent)	¢	¢
£ (pound)	£	£
¥ (yen)	¥	¥
© (copyright)	©	©
® (registered trademark)	®	®
° (degree)	°	°
± (plus or minus)	±	±
† (dagger)	†	†
™ (trademark)	™	™

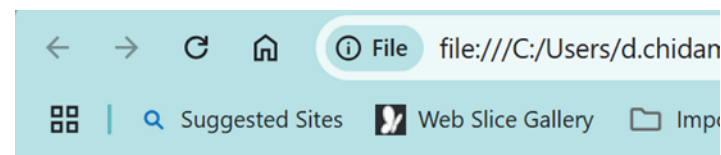
Tables in html

```
<body>
  <h2>Basic Table Example</h2>
  <table border="1">
    <!-- Table header -->
    <thead>
      <tr>
        <th>Name</th>
        <th>Age</th>
        <th>City</th>
      </tr>
    </thead>
```

Tables in html

```
<tbody>
<tr> <td>John Smith</td>
  <td>30</td>
  <td>London</td> </tr>
<tr> <td>Emily Brown</td>
<td>25</td>
  <td>Manchester</td> </tr>
<tr>
<td>Oliver Jones</td>
  <td>22</td>
  <td>Birmingham</td>
</tr>

</tbody>
</table>
</body>
</html>
```



Basic Table Example

Name	Age	City
John Smith	30	London
Emily Brown	25	Manchester
Oliver Jones	22	Birmingham

Class attribute

```
<!DOCTYPE html>
```

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

```
<head>
```

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

```
  <title>Class Demo</title>
```

```
  <style>
```

```
    .highlight {
```

```
      background-color: yellow;
```

```
      font-weight: bold;
```

```
    }
```

```
    .important {
```

```
      color: red;
```

```
      font-style: italic;
```

```
    }
```

```
  </style>
```

```
</head>
```

Class attribute

```
<body>
```

```
  <h1 class="highlight">This heading is highlighted</h1>
```

```
  <p>This paragraph is normal.</p>
```

```
  <p class="highlight">This paragraph is highlighted with  
yellow background.</p>
```

```
  <p class="important">This paragraph is important and red  
italic.</p>
```

```
  <p class="highlight important">This paragraph is both  
highlighted and important.</p>
```

```
</body>
```

```
</html>
```

Class attribute

<body>

<h1 class="highlight">This heading is highlighted</h1>

<p>This paragraph is normal.</p>

<p class="highlight">This paragraph is highlighted with yellow background.</p>

<p class="important">This paragraph is important and red italic.</p>

<p class="highlight important">This paragraph is both highlighted and important.</p>

</body>

</html>

```
<style>
  .highlight {
    background-color: yellow;
    font-weight: bold;
  }
  .important {
    color: red;
    font-style: italic;
  }
</style>
</head>
```

This heading is highlighted

This paragraph is normal.

This paragraph is highlighted with yellow background.

This paragraph is important and red italic.

This paragraph is both highlighted and important.

Sections in HTML: divide content into logical parts

<style>

section {

border: 2px solid #4CAF50;

padding: 15px;

margin: 15px 0;

border-radius: 8px;

background-color: #e8f5e9;

}

h2 {

color: #2e7d32;

}

</style>

</head>

<body>

<section>

<h2>Introduction</h2>

<p>This section introduces the topic.</p>

</section>

<section>

<h2>Conclusion</h2>

<p>This section wraps up the discussion.</p>

</section>

</body> </html>

Sections in HTML: divide content into logical parts

<style>

section {

border: 2px solid #4CAF50;

padding: 15px;

margin: 15px 0;

border-radius: 8px;

background-color: #e8f5e9;

width: 350px;

}

h2 {

color: #2e7d32;

}

</style>

<body>

<section>

<h2>Introduction</h2>

<p>This section introduces the topic.</p>

</section>

<section>

<h2>Conclusion</h2>

<p>This section wraps up the discussion.</p>

</section>

</body> </html>

Sections in HTML: divide content into logical parts

`<style>`

`section {`

`border: 2px solid #4CAF50;`

`padding: 15px;`

`margin: 15px 0;`

`border-radius: 8px;`

`background-color: #e8f5e9;`

`width: 350px;`

`}`

`h2 {`

`color: #2e7d32;`

`}`

`</style>`

Introduction

This section introduces the topic.

Main Content

This section contains the main content.

Conclusion

This section wraps up the discussion.

Horizontally aligned sections using Flexbox

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <title>Horizontal Sections</title>
<style>
  .section-container {
    display: flex;
  /* enables horizontal layout */
    gap: 20px;
  /* space between sections */
    margin: 20px;
  }
```

```
section {
  border: 1px solid #4CAF50;
  padding: 10px;
  width: 250px;
  background-color: #e8f5e9;
  border-radius: 8px;
  box-sizing: border-box;
}
h2 {
  color: #2e7d32;
  margin-top: 0;
}
</style> </head>
```

Horizontally aligned sections using Flexbox

```
<body>
  <div class="section-container">
    <section>
      <h2>Introduction</h2>
      <p>This section introduces the topic.</p>
    </section>
    <section>
      <h2>Conclusion</h2>
      <p>This section wraps up the discussion.</p>
    </section>
  </div>
</body>
</html>
```

Introduction

This section introduces the topic.

Main Content

This section contains the main content.

Conclusion

This section wraps up the discussion.

Activity:

responsive Flexbox layout arranges the <section> elements horizontally on larger screens but stacks them vertically on smaller screens (like phones or tablets).

Redesign these sections to Responsive flexbox containers

Further Reading :

Part I: Getting Started

Part II: HTML Markup for Structure

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