



## Welcome to this session: Semantic HTML & Bootstrap

**The session will start shortly...**

Questions? Drop them in the chat.  
We'll have dedicated moderators  
answering questions.



# Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:



Ian Wyles  
Designated Safeguarding  
Lead



Simone Botes



Rafiq Manan



Charlotte Witcher



Nurhaan Snyman



Ronald Munodawafa



Tevin Pitts

Scan to report a  
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or email the Designated  
Safeguarding Lead:  
Ian Wyles

[safeguarding@hyperiondev.com](mailto:safeguarding@hyperiondev.com)

# Skills Bootcamp Cloud Web Development

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- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

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- For all **non-academic questions**, please submit a query:  
**[www.hyperiondev.com/support](https://www.hyperiondev.com/support)**
- **Report a safeguarding incident:** **[www.hyperiondev.com/safeguardreporting](https://www.hyperiondev.com/safeguardreporting)**
- We would love your feedback on lectures: Feedback on Lectures

# World Mental Health Day 🌍🧠 (10 October 2024)

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- Let's take a moment to remind ourselves of the importance of mental well-being.
- Encourage everyone to check in with themselves and each other. Even a small act of kindness can make a huge difference.

## Learning Outcomes

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- ❖ Explain the concept of the World Wide Web and describe the key processes that occur on the front-end and back-end during web interactions.
- ❖ Identify and explain the functional roles of front-end and back-end components in a web application.
- ❖ Define the MERN stack and describe how its components work together in building full-stack web applications.
- ❖ Construct basic web pages using HTML, organising content with **semantic elements** such as heading, nav, section.
- ❖ **Apply CSS styles** to enhance the visual appearance of a web page.
- ❖ Make use of **Bootstrap** to assist with styling



# What is the purpose of the `<!DOCTYPE html>` element?

- A. Defines the document type and version of HTML.
- B. Specifies the character encoding.
- C. Links to external CSS styles.
- D. Provides metadata about the document.



# What is the purpose of the lang attribute in `<html lang="en">`?

- A. Sets the text direction (left-to-right or right-to-left).
- B. Indicates the character encoding.
- C. Specifies the language of the document.
- D. Links to a language-specific stylesheet.





# How can we style our HTML pages with CSS? (Select all that apply)

- A. Inline CSS (using the style attribute).
- B. Internal CSS (using `<style>` tags within the `<head>`).
- C. External CSS (linking to a separate .css file).
- D. CSS Frameworks (e.g., Bootstrap, Tailwind).

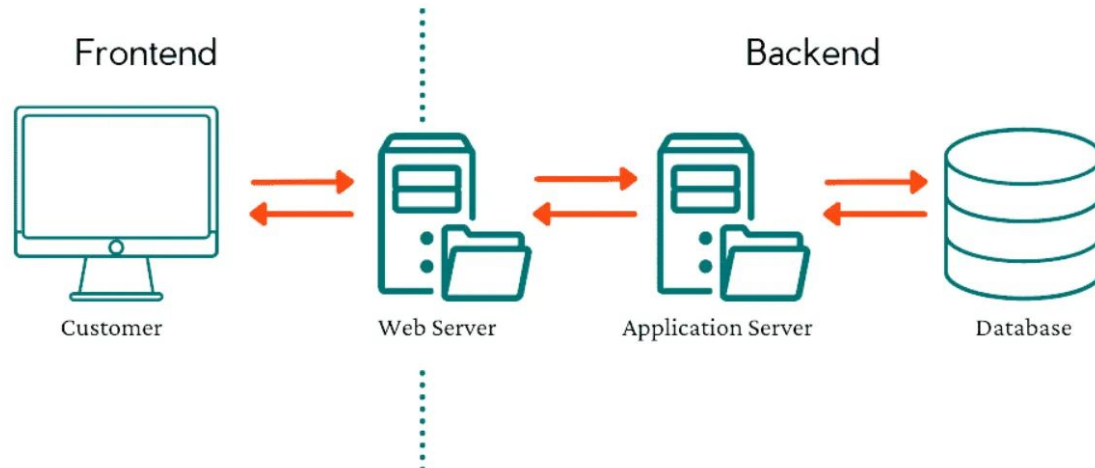
# World Wide Web

- ❖ The **World Wide Web (WWW)** is a system of interlinked documents and resources that can be accessed through the internet.
- ❖ Users navigate between pages using **hyperlinks**.
- ❖ Understanding the fundamental concepts behind the web is essential for building effective web applications.

# Front-end and Back-end

- ❖ Web applications are typically divided into two key components: the **front-end** and the **back-end**.
- ❖ The **front-end** is responsible for everything users see and interact with in their browser, such as text, images, and buttons.
- ❖ The **back-end**, on the other hand, handles the server-side logic, database management, and processing requests.

# Front-end and Back-end



# MERN Stack

- ❖ In modern web development, **frameworks** like the **MERN stack** simplify the creation of full-stack web applications.
  - MongoDB - a NoSQL database
  - Express.js - a web framework
  - React.js - a front-end JavaScript library
  - Node.js - a runtime environment for executing JavaScript on the server
- ❖ Together, these tools allow developers to build powerful and dynamic web applications efficiently.

# HTML

- ❖ **HTML (HyperText Markup Language)** is used to structure and format the content of websites on the World Wide Web.
- ❖ In simple words, HTML is the primary building block to create and structure website content.
- ❖ Web Developers use it to create a skeleton of modern websites and web apps.

# CSS

**Cascading Style Sheets (CSS) is a language used to change the presentation and styling of a document written in a markup language e.g. HTML**

- ❖ Helps us create visually appealing and user-friendly websites.
- ❖ HTML structures the content, CSS controls how the content looks.
- ❖ CSS uses a set of rules written in a certain syntax to style HTML.
- ❖ We use CSS to create style sheets, which define the appearance and layouts of the elements on a webpage.
- ❖ The various properties which we can control with CSS can be found [here](#).



Let's take a  
break





# Tutorial Overview

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- Introduction to Semantic HTML
- Style with Bootstrap

# Introduction to Semantic HTML

- ❖ **Semantic HTML** focuses on the **meaning** of elements rather than their presentation.
- ❖ It involves using specific HTML tags to define the structure and layout of web pages more clearly.
- ❖ This approach makes web pages more understandable and easier for browsers and search engines to interpret.
- ❖ Unlike non-semantic elements like `<div>` and `<span>`, semantic elements provide **context** for their **content**.

# List Of Common Semantic HTML Elements

- ❖ `<header>...</header>`
- ❖ `<nav>...</nav>`
- ❖ `<main>...</main>`
- ❖ `<section>...</section>`
- ❖ `<figure>...</figure>`
- ❖ `<figcaption>...</figcaption>`
- ❖ `<footer>...</footer>`
- ❖ `<aside>...</aside>`

# Why Use Semantic HTML?

- ❖ Accessibility
- ❖ Search Engine Optimisation (SEO)
- ❖ Easy to understand

# What is Bootstrap?

- ❖ A **front-end framework** used to build pages faster using HTML and CSS.
- ❖ Provides a lot of useful CSS and HTML templates that you can use and modify.
- ❖ It helps you to create websites that **automatically adjust** based on the device which they are being used on (aka. a **responsive website**).
- ❖ It's **free**!

# Advantages of Bootstrap

- ❖ Easy to use.
- ❖ Responsive features.
- ❖ Mobile-first approach.
- ❖ Browser compatibility.

# How do you use it?

## ❖ **Link** to Bootstrap from your HTML files

```
<head>
```

```
  <link rel="stylesheet"
```

```
    href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css"
```

```
    integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T" crossorigin="anonymous">
```

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

```
</head>
```

❖ Follow this link to get started with Bootstrap: [here](#).



# Questions and Answers





# Thank you for attending



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