



Workshop 11 - Client Side Rendering

**SKILLS
FOR LIFE**

SKILLS BOOTCAMPS




Department
for Education

Session Housekeeping

- 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](#)

Session Housekeeping cont.

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



Skills Bootcamp Certification Overview

✓ **Criteria 4: Original Deadline
for Demonstrating
Employability without
Co-certification**

**Record a job outcome by
23 September 2024**

✓ **Criterion 4: Updated
Deadline for Imperial College
London & University of
Manchester Co-certification**

**Record a job offer by
15 July 2024**

Lecture Objective s

- Understand the basic JavaScript Syntax
- Understand how JavaScript can be connected to HTML
- Be able to describe the role of the DOM in web development

JavaScript

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Learning a New Programming Language

Key Concepts

- Variables
- Data Structures
- Conditions
- Loops
- Functions

Learning a New Programming Language

Practice

- Rebuild some old projects in the new language
- Learn about the methods for each data type
- Look at other people's code and research techniques that you're not familiar with
 - Copy paste code into ChatGPT and ask what the specific feature does
- Watch videos and read books on the language to get some tips and tricks.

**Let's look at
JavaScript**

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Client Side Rendering



Client Side Rendering

What is it

- Relies on the users browser for rendering content
- Code is sent from the server to the clients browser, the code is then run on the browser to generate the content

Client Side Rendering

Advantages

- Interactions feel fast since the application isn't constantly requesting pages from the server
- Allow for more app like functionality in a websites
- Reduces the load on the server since each client is responsible for rendering it's own content

Client Side Rendering

Disadvantages

- Slower initial load since the browser needs to install the code before doing anything
- If a browser disables JavaScript, the site won't be able to function correctly
- Very hard to secure sensitive information like API Keys since all of the code and dependent files are downloaded.

DOM



Document Object Model

What is it

- The Document Object Model (DOM) is a programming interface for web documents.
- It represents the structure of HTML documents as a hierarchical tree of objects.
- Each node in the tree corresponds to a part of the document, such as elements, attributes, or text content.
- The DOM provides a structured representation of the document, allowing scripts to dynamically access, modify, and manipulate its content and structure.

Document Object Model

What is DOM Manipulation

- DOM manipulation refers to the process of dynamically altering the structure, content, or style of web documents using scripting languages like JavaScript.
- It allows developers to create interactive and dynamic web pages by accessing and modifying elements in the Document Object Model (DOM).

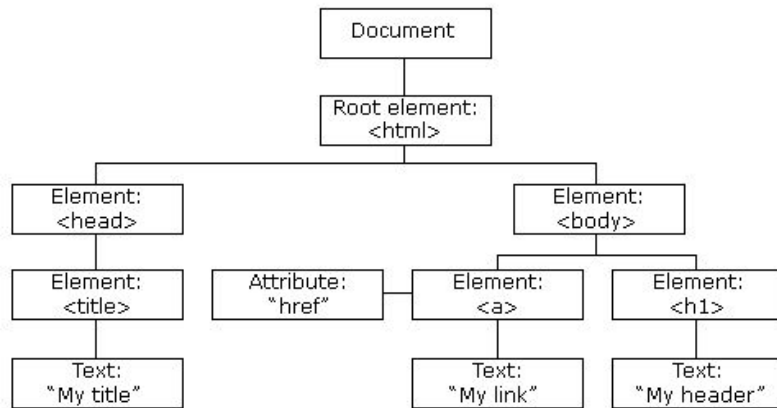
Document Object Model

Importance

- Enables developers to respond to user actions, update content dynamically, and create engaging user experiences without page reloads.
- Forms the foundation for modern web applications, facilitating tasks such as form validation, content updates, and animation effects.
- Empowers developers to create responsive and interactive interfaces, enhancing usability and user engagement.

Document Object Model

- The DOM tree is hierarchical, with a single root node.
- Nodes can have parents, children, and siblings.
- Organizes document elements in a structured manner.
- Facilitates traversal and manipulation.
- Provides a logical representation of document elements.



Document Object Model

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**Let's look at the
DOM**



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Q & A SECTION

**Please use this time to ask
any questions relating to the
topic, should you have any.**



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Thank you for
joining!

