

# Data Structure, DOM, Events



For Week 7, we'll dive into data structures, DOM manipulation, and event handling. You'll explore how to organize and store data efficiently in web applications, interact with the Document Object Model (DOM), and handle user events such as clicks, mouseovers, and key presses. By the end of the week, fellows will be able to choose appropriate data structures, manipulate webpage elements through the DOM, and implement event listeners to make their webpages interactive and responsive to user actions.

## Learning Objectives for the week

At the end of this week you should be able to;

- ★ Classify common data structures in JavaScript (e.g., arrays, objects, lists) based on their characteristics and practical use cases.
- ★ Use arrays and objects in JavaScript to efficiently store, retrieve, and manipulate data.
- ★ Interact with the Document Object Model (DOM) by selecting, modifying, and creating web page elements using JavaScript.
- ★ Handle web page events such as clicks and mouseovers with JavaScript event listeners and trigger appropriate responses.
- ★ Apply your knowledge of data structures, DOM manipulation, and event handling to create more complex, interactive web applications.



# Software Development Week 7



## Online Learning Modules

This is the online module that you have to complete this week.

- Data Structure Full Course: [Click Here](#) 1
- DOM and Events Full Course: [Click Here](#) 2

## Additional Resource links

1. [Click here](#) - Text
2. [Article](#) - Text
3. [Download](#) - Ebook



## Weekly Applied Learning Assignment

Create a simple interactive webpage that displays a list of items (e.g., a to-do list or product catalog) using JavaScript.

### 1. Instructions:

- Use an array to store your list items.
- Use DOM manipulation to display the items on the webpage.
- Add functionality for the user to add new items to the list using an input field and a button.
- Implement an event listener that updates the list when the user submits a new item.

### Submission:

- Submit your JavaScript code and summary via CodePen.