

## PREREQUISITE FOR THIS CLASS:

Laptop ( Min. 4gb Ram )

Text Editor (Sublime Text or Visual Code)

Web Browser (Mozilla or Chrome Browser)

Power Supply

Internet.

## AT THE END OF THIS COURSE:

You will be able to Build Client side Application on the web comfortably

You will be able to build Attractive and Colorful User Experience even without relying on a designer

You will be able to store Datas / Information in a Database

You will be able to consume API (Application Programming Interface)

You will be able to host / publish your projects to live Servers.

Happy Learning. CHEERS! 😊 😊

# COURSE CURRICULUM

## HTML5 ESSENTIALS

- Introduction to Basic HTML and HTML5
- The Evolution of HTML5
- HTML5 structure elements
- Validating HTML5 Code
- The <video> Element
- The <audio> Element
- The <img> Element
- The Anchor tag
- Displaying HTML5 content on the Browser

## INTRODUCTION TO BASIC CSS

- Introduction to Basic CSS
- Viewing styling from the perspective of a designer
- Types of styling and its advantages
- Basic Styling
  - Selectors
  - Colors
  - Background
  - Height and Width
  - Box Model (Margin, Padding, and Border)
  - Positioning
  - Float



TODO : Build a basic portfolio page( Your data )

## DEVELOPING HTML5 TABLES

- Understanding where tables are applicable
- Advantages and Disadvantages of a Table
- Building a Responsive Table with basic CSS



TODO : Storing a static user data in a Table.

## DEVELOPING HTML5 FORMS

- Introduction to HTML5 Forms
- Cross-Browser Compatible HTML5 Forms
- HTML5 Form Input Types

- New Form Elements in HTML5
- HTML5 Global Attributes for Form Elements



TODO : Build a simple Registration page ( User must be able to enter their Bio-data ).

## INTRODUCTION TO JAVASCRIPT

An Evolution and Introduction to Javascript

Writing your first Application in Javascript

Developers Console

Variables

Data Types

Type conversions

Operators

Interactions: (Alert, Confirm, Prompt)

Conditional Operators: 'IF', '?'

Loops (While, For)

The Switch statement

Functions

Functions expressions

Arrow functions, The basics ES6

## COMPLETING, SUBMITTING AND VALIDATING USER INPUT FORMS

Improving Forms with HTML5

HTML5 Attributes for the <form> Element

HTML5 Attributes for the <input> Element

Submitting Forms with the <button> Element

Concepts and Techniques for Validating User Input

Validating User Input with HTML5 Attributes

Validating User Input with JavaScript

## HTML5 APIS

Introduction to HTML5 APIS

Document Object Model (DOM)

Common HTML5 APIs

The Canvas API

The Offline AppCache API

The Geolocation API

The Drag-and-Drop API

The File API  
The History API

## HTML5 STORAGE APIS

Session storage  
Local storage  
IndexedDB

Project to work on:

- Mini Blog
  - ❖ **User story:** The App must allow the Admin to be able to create, read, delete and update a Blog post.



TODO : Todo App

- **User story:** A user must be able to Perform CRUD operation i.e Add a new Todo list, Update it or delete it.

## DIVING DEEP INTO CSS3

CSS Box Model  
Position  
Working With Text  
Margin, Rounded Corners, Box Shadow and Z-Index



TODO : Creating a Nike Logo with pure CSS

Display  
Element Visibility  
Floating Elements  
Color Gradients  
Background Images  
Object-fit  
Borders  
2D Transforms  
3D Transforms  
Flex  
CSS Grid



TODO : Create a Lagos Bus using pure css  
Update your portfolio page with rich css3.  
Build a product Landing Page.

## **DIVING DEEP INTO JAVASCRIPT**

Javascript specials

Objects: the basics

- Garbage collection
- Symbol type
- Object methods, "this"
- Object to primitive conversion
- Constructor, operator "new"

Data types

- Methods of primitives
- Numbers
- Strings
- Arrays
- JSON methods, toJSON
- Map and Set
- And so on...

Advanced Working with functions

- Recursion and stack
- Rest parameters and spread syntax
- Variable scope ( Var, Let and Const )
- Global object
- The "new Function" syntax
- Scheduling: setTimeout and setInterval
- Function binding
- Arrow functions revisited

Classes

- Introduction to classes
- Different between classes and functions
- Class inheritance
- Static properties and methods
- Extending built-in classes
- Understanding 'this' in classes

Error handling

Network requests

## Promises, async/await

- Introduction: callbacks
- Promise
- Promise API
- Promisification
- Async/await

## Manipulating Document Object Model in Javascript

### Project to work on:

- Mini Calculator
  - ❖ **User story:** The calculator must be able to do some basic mathematics such as (BODMAS) - It must as well respond to user clicks.
- Quiz App
  - ❖ **User story:** The user must be able to register, login and takes a quiz. The application must be able to keep track of the user score, Updates the leader board based on the user that has the highest.
  - ❖ DB: indexedDB

### Popular Resources to check

<https://www.freecodecamp.org/learn>

<https://developer.mozilla.org/en-US/docs/Web>

<https://css-tricks.com/>

<https://developers.google.com/web/fundamentals>