

FRONTEND DEVELOPMENT

Become a frontend developer with
HTML, CSS & JAVASCRIPT

4 MONTH Curriculum (MICRO DIPLOMA)



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COURSE TITLE: FRONT END WEB DEVELOPMENT

DURATION: 4 MONTHS

ABOUT THIS COURSE

This is an intensive training curriculum for beginners. It is designed to build your knowledge from scratch. At the end of the course, you should have attained the knowledge to build a responsive website from scratch.

SKILLS TO MASTER

- **HTML** is the standard markup language for Web pages, With HTML you can create your own Website. HTML is easy to learn - You will enjoy it!
- **CSS** is the language we use to style an HTML document. CSS describes how HTML elements should be displayed.
- **Responsive Web Design (RWD)** makes your web page look good on all devices.
- **Bootstrap** is the most popular CSS framework for developing responsive, mobile-first websites.
- **JavaScript** is the world most popular programming language. It is the programming language of the web and easy to learn.

PRE-REQUISITES

- There is no coding experience required for this course but participants must be computer literate and know how to navigate their way around it.
- A Laptop with at least 4GB RAM
- Passion for coding

COURSE OBJECTIVE

- Understanding the basics of how the web works
- Get familiar with the basics of HTML5, CSS3 & JAVASCRIPT
- Writing and styling website pages using HTML and CSS
- Build responsive web pages using CSS Media Query
- Make websites interactive using JavaScript
- Understand the concept of version control and use it in the class
- Build real-world projects including; Shopping web page, Photo Studio, landing page, Todo App & An Expense Tracker

WEEK 1: Introduction to Web Development/HTML

- How the internet works
- Understanding Basic HTML tags and attributes (Inline and Block-Level Elements)
- Building a basic layout of a webpage
- Understanding Semantic HTML/HTML5
- Understanding File Paths and how the browser parses HTML/DOM Tree

WEEK 2: Styling HTML Web Pages Overview of CSS

- Introduction to CSS Selectors
- Understanding Inline, Internal and External Stylesheets
- Understanding Values and Units
- Understanding the Box Model and CSS Layout
- Enhancing the Design of a Web Page with CSS
- Introduction to responsive Layout and CSS Flexbox

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WEEK 3: Intermediate CSS Crafting Responsive Layouts

- More on CSS Flexbox
- CSS Grid Layouts
- Positioning in CSS
- Basic CSS Transforms
- Code Along - How the pros do it
- Understanding CSS Transitions

WEEK 4: Bootstrap and Responsive Design Introduction to Bootstrap

- Understanding Bootstrap classes, attributes
- Understanding how Bootstrap works under the hood Bootstrap grid system
- Bootstrap CSS Components
- Bootstrap Javascript

WEEK 5: Javascript Fundamentals and DOM

- Understanding Basic programming concepts like variables, data types and conditional statements
- Understanding the basic syntax of the JavaScript Programming Language
- Introduction to the console and understanding how to debug a program
- Understanding JavaScript loops and arrays
- Understanding Functions and why they are useful for Events Handling and the DOM

WEEK 6: JavaScript HTML DOM

- DOM Intro
- DOM Methods
- DOM Documents
- DOM Elements
- DOM HTML
- DOM Forms
- DOM CSS
- DOM Animations
- DOM Events
- DOM Events Listener
- DOM Navigation
- DOM Nodes
- DOM Collections
- DOM Node Lists

WEEK 7: ES6 and Javascript Modules New Variables

- Template Strings
- Destructuring
- Iterables & Looping
- An Array of Array Improvements
- ES6 Spread and Rest
- Object Literal Upgrades
- Promises
- ES6 Classes
- Sets and WeakSets
- Map and WeakMap
- Function Improvements: Arrows and Default Arguments

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WEEK 8: JavaScript Objects

- Object Definitions
- Object Properties Object Methods
- Object Display
- Object Accessors
- Object Constructors
- Object Prototypes
- Object Iterables
- Object Sets
- Object Maps

WEEK 9: JavaScript Functions

- Function Definitions
- Function Parameters
- Function Invocation
- Function Call
- Function Apply
- Function Bind
- Function Closures

WEEK 10: JavaScript Classes

Class Intro
Class Inheritance
Class Static

WEEK 11: Asynchronous JavaScript

- JavaScript Callbacks
- JavaScript Asynchronous
- JavaScript Promises
- JavaScript Async/Await

Week 12: Javascript Objects (ii)

- Understanding Object-literals, JSON
- Introduction to Object-oriented Programming (OOP) Introduction to AJAX
- Understanding and implementing AJAX
- Restful Api and Fetch

WEEK 13: JavaScript Browser BOM

- JavaScript Window
- JavaScript Screen
- JavaScript Location
- JavaScript History
- JavaScript Navigator
- JavaScript Popup Alert
- JavaScript Timing
- JavaScript Cookies

JavaScript Web APIs

- Web API Intro
- Web Forms API
- Web History API
- Web Storage API
- Web Worker API
- Web Fetch API
- Web Geolocation API

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WEEK 14: JavaScript AJAX

- AJAX Intro
- AJAX XML Http
- AJAX Request
- AJAX Response
- AJAX XML File
- AJAX ASP
- AJAX Database
- AJAX Applications
- AJAX Examples

JavaScript JSON

- JSON Intro
- JSON Syntax
- JSON vs XML
- JSON Data Types
- JSON Parse
- JSON Stringify
- JSON Objects
- JSON Arrays
- JSON Server
- JSON PHP
- JSON HTML
- JSON JSONP

WEEK 15/16: FINAL/CAPSTONE PROJECT:

This project provides the student with the opportunity to use the knowledge they have gained all through the course in solving a given problem.