

Programming with HTML, CSS and JavaScript and React Js (2+6=8days)

Module 1: A Quick Overview of Web Development

- Client-side Programming
- Server-side Programming
- Web Development Technologies

Lab 1: None

Module 2: Introduction to HTML

- HTML Elements, Attributes, and Comments
- Viewing the Page Source
- Paragraphs, Heading Levels
- The div Tag
- Links Introduction
- Text Links
- Absolute vs. Relative Paths
- Targeting New Tabs
- Inserting Images
- Image Links
- Adding Images to the Document
- Providing Alternative Images

Lab 1: Getting Started with a Simple HTML Document

Module 3: HTML Lists

- Unordered Lists
- Ordered Lists
- Definition Lists

Lab 1: Creating Lists in Html document

Module 4: Crash Course in CSS

- Benefits of Cascading Style Sheets
- CSS Rules
- Selectors
- Combinators
- Precedence of Selectors
- How Browsers Style Pages
- CSS Resets
- External Stylesheets, Embedded Stylesheets, and Inline Styles

Lab 1: Exercises on stylesheet

Module 5: CSS Fonts

- font-family
- @font-face
- font-size
- font-style
- font-variant
- font-weight
- line-height
- font shorthand
- Color and Opacity Values

Lab 1: Exercises on css fonts

Module 6: CSS Text

- letter-spacing
- text-align
- text-decoration
- text-indent
- text-shadow
- text-transform
- white-space
- word-break
- word-spacing

Lab 1: Exercises on text styling

Module 7: JavaScript Basics

- JavaScript vs. EcmaScript
- JavaScript Syntax
- Accessing Elements
- JavaScript Objects, Methods, and Properties
- Exercise: Alerts, Writing, and Changing Background Color
- JavaScript Variables
- Google Chrome DevTools

Lab 1: Working with JavaScript array

Module 8: JavaScript Functions

- Global Objects and Functions
- User-defined Functions
- Returning Values from Functions

Lab 1: Exercises on Functions

Module 9: Built-In JavaScript Objects

- Strings
- Math
- Date
- Helper Functions
- Returning the Day of the Week as a String
- Conditionals
- Switch / Case
- Ternary Operator
- Truthy and Falsy
- Loops
- while and do...while Loops
- for Loops
- break and continue

- Array: forEach()

Lab 1: Exercises

Module 10: Event Handlers and Listeners

Lessons

- On-event Handlers
- The addEventListener() Method
- Anonymous Functions
- Capturing Key Events

Module11. Welcome to React

- Obstacles and Roadblocks
- React's Future
- Working with Files

i. React Developer Tools

ii. Installation Node JS

Module 12. Emerging JavaScript

- Declaring Variable in ES6
- Arrow function
- Transpiling ES6
- ES6 Objects and Arrays
- Promises
- Classes

Module 13. Pure React

- Page Setup
- The Virtual DOM
- React Elements
- React DOM
- Children
- Constructing Elements with Data

- React Components
- DOM rendering
- React Elements as JSX

Module14. Props, State and the Component Tree

- Property Validation
- Refs
- React State Management
- State within component Tree

Module 15. Enhancing Components

- Component Lifecycle
- JavaScript Library Integration
- Higher-Order Components
- Flux

Module16. Redux

- State
- Actions
- Reducers
- The Store
- Action creators

Module17. React Redux

- Explicitly Passing the Store
- Passing Store via Context
- Presentation Versus Container Components
- The React Redux Provider
- React Redux Connect

Module 18. React Router

- Incorporating the Router
- Nesting Routes
- Route Parameters