

WEB DEVELOPMENT

HTML5, CSS3, JavaScript, React JS

HTML 4 & Older Versions:

- HTML Fundamentals Introduction
- Headings
- Tags and Types
- Elements and Types
- Diff b/w inline and block
- White spaces
- lists and types
- Tables and Examples
- Formatting Tables
- Spanning Columns and Rows
- Nested Elements
- Links & different ways of linking
- Images, absolute and relative paths

HTML Forms Fundamentals:

- Basics of forms
- Form Attributes
- Form Elements/inputs and usage

HTML 5 & Overview:

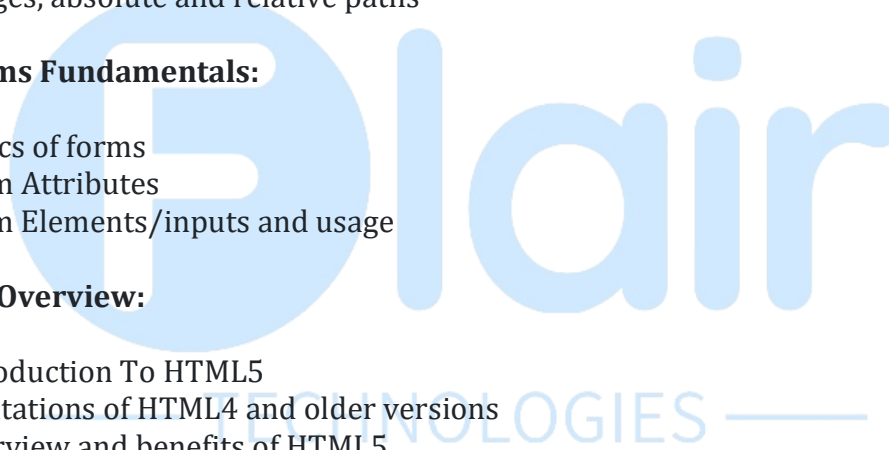
- Introduction To HTML5
- Limitations of HTML4 and older versions
- Overview and benefits of HTML5
- Importance of Doctype
- Details of new features of HTML 5
- Overview of semantic elements
- Page layout and structure
- Benefits of semantic elements
- Header & Footer
- Section and Articles
- Aside & Nav

Form Elements & Attributes:

- New Input Elements
- New Elements in Forms
- New Attributes in Form Elements

CSS2 & CSS3:

- Introduction To CSS3



- Ways to apply CSS
- Selectors & Examples
 1. Global Selectors
 2. Tag/Element Selectors
 3. Class Selectors
 4. ID Selectors
 5. Attribute selectors & Types
 6. Child Selectors & Types
 7. Sibling Selectors & Types
 8. Pseudo Selectors & Types
 9. Latest Selectors
- All Properties

JavaScript:

- Introduction
- Data types and data structures in Js
- Control structures, if, if-else, while, for, switch case statements
- Dynamic creation and manipulation of dom elements using js
- Adding dynamic event listeners to dom elements
- Event capturing and event bubbling.
- Validations using key char codes.
- Strings and predefined methods
- Arrays
- Predefined methods in arrays
- Objects
- JSON

Es6 – Es9:

- Es6
- History of Javascript
- What is ES6
- A word on babel
- Block scope, let & const
- Template literals
- Arrow functions
- Spread and Rest operators
- Object literal improvements
- Destructuring
- Classes
- Inheritance
- Static properties and methods
- Promises
- Iterators and Iterables
- Generators
- Modules

REACT JS:

Introduction to React:

- What is React?
- Why React?
- React version history
- React 16 vs React 15
- Just React - Hello World
- Using create-react-app
- Anatomy of react project
- Running the app
- Debugging first react app

Templating using JSX:

- Working with React. createElement
- Expressions
- Using logical operators
- Specifying attributes
- Specifying children and Fragments

It's all about components:

- Significance of component architecture
- Types of components
- Functional
- Class based.
- Pure Component
- Component Composition

Working with State & Props:

- What is state and its significance.
- Read state and set state.
- Passing data to component using props
- Validating props using prop Types
- Supplying default values to props using default Props

Rendering Lists:

- Using react key prop.
- Using map function to iterate on arrays to generate elements.

Event handling in React:

- Understanding React event system
- Understanding Synthetic event
- Passing arguments to event handlers

Understanding component lifecycle and handling errors:

- Understand the lifecycle methods.
- Handle errors using error boundaries.

Working with Forms:

- Controlled components
- Uncontrolled components
- Understand the significance to default Value prop.
- Using react ref prop to get access to DOM element.

Context:

- What is context
- When to use context
- Create Context
- Context.Provider
- Context.Consumer
- Reading context in class

Hooks:

- What are hooks
- Why do you need hooks
- Different types of hooks
- Using state and effect hooks
- Rules of hooks

Routing with React Router:

- Setting up react router.
- Understand routing in single page applications
- Working with Browser Router and Hash Router components
- Configuring route with Route component

Just Redux:

- What is redux
- Why redux
- Redux principles
- Install and setup redux
- Creating actions, reducer and store

React Redux:

- What is React Redux
- Why React Redux
- Install and setup
- Presentational vs Container components
- Understand high order component
- Understanding mapStateToProps and mapDispatchToProps usage