



# MERN STACK

Programming & development  
Course Curriculum

Basic – 16 Hours



# MERN STACK (MongoDB, Express.js, ReactJS, and Node.js)

## **Module 1 : Introduction to Web Development**

- HTML Basic
- HTML Elements
- HTML Attributes
- HTML Styles
- HTML Forms
- HTML Form Elements
- HTML Input Element Types
- HTML Input Attributes
- HTML File Paths Script tag and its uses

## **Module 2 : Introduction to CSS**

- HTML & XHTML CSS
- Introduction CSS Syntax CSS Selectors CSS Styling



## **Module 3 : Java Script**

- Introduction to JavaScript
- JavaScript Statements
- JavaScript Keywords
- JavaScript Functions
- JavaScript Programs
- JavaScript Operators
- Function Parameters
- Function Return Values
- JavaScript Data Types
- Primitive Types



## **Module 4 : Java Script & Objects**

- Object Overview
- Object Oriented Programming
- Object creation
- Adding Properties to Objects
- Adding Methods to Objects
- JavaScript Conditional Statements
- JavaScript Loops & Iteration
- Enumerating properties
- Call-backs
- JSON

## **Module 5 : Introduction to MERN Stack**

- Overview of MongoDB, Express.js, ReactJS, and Node.js

## **Module 6 : Introduction to MongoDB**

- Introduction to Mongo DB
- Why use MongoDB?
- Installation of MongoDB

## **Module 7 : Aggregation in MongoDB**

- Introduction to Aggregation
- Syntax
- Parameters Count, Sum, Average, Match and Operations with arrays

## **Module 8 : Introduction to Express.js**

- Introduction to Express.js
- What is Express.js?
- How Express.js Works
- Installation

## **Module 9 : MVC Structure**

- The model-view-controller pattern
- Configuring Express
- Postman configuration
- Hello world example

## **Module 10 : React JS Basics**

- What is React JS
- Advantages of React JS
- Limitation of React JS
- Installation

## **Module 11 : React JS – JSX, Components**

- Overview of JSX
- Rendering an Element into the DOM
- Naming Conventions
- Overview of Components
- Props
- State



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## **Module 12 : Node JS Basics**

- Introduction to Node.JS
- What is Node JS?
- Advantages of Node JS
- Traditional Web Server Model
- Node.js Process Model

## **Module 13: Environment setup for Node.js**

- Install Node.js on Windows
- Installing in mac os
- Working in REPL
- Node JS Console