

OBJECTIVE OF THE COURSE

This program will advance your career as a MERN stack developer. you'll learn top skills such as Mongo dB, Express.js, Reactjs, and Node.js ("MERN"), plus git, html, CSS, and JavaScript to build and deploy interactive applications and services.

This MERN stack developer program offers a comprehensive curriculum using our unique blended learning approach to make you career-ready as a full stack MERN developer upon successful completion of the program.

DURATION OF THE COURSE:60 HOURS (4 WEEKS).

MINIMUM ELIGIBILITY CRITERIA AND PRE-REQUISITE:

- BASIC KNOWLEDGE OF ANY PROGRAMMING LANGUAGE
- BASIC KNOWLEDGE OF WEB DEVELOPMENT

Module 1 (Week 1-16 hours):

- Introduction to MERN (MONGO-DB | EXPRESS-JS | REACT-JS | NODE-JS)
- Introduction to **JavaScript Framework**: What is **ES6**? ES6 Module System. A word on **BABLE**. Block Scope, Let & Const, Template Literals, Arrow Functions, Spread and Rest Operators, Object Literal Improvements, De-structuring, Classes, Inheritance, Static Properties and Methods, Promises, Iterators and Iterables, Generators, Modules, New Features in ES6, JavaScript let, JavaScript const, JavaScript Arrow Functions, JavaScript Classes, Default parameter values, Array.find(), Array.findIndex(), Exponentiation (**) (ECMA Script 2016)

Module 2 (Week 2 – 14 hours):

- Introduction to **Node.JS**. Downloading and Installing NodeJS. Creating a NodeJS Application, Make a request to NodeJS Server.
- **REPL**: what is REPL? Starting REPL, REPL commands, Stopping REPL.
- **NPM (Node Package Manger)**: installing modules using npm, global and local installations, **packages.json**, uninstalling modules, creating modules, updating modules

Module 3 (Week 3 – 16 hours):

- Introduction to **Express.JS**, Request, Response, GET, POST, Routing, HTTP Methods, URL Building, Middleware, Templates, Static Files, Form Data, Database, Cookies, Sessions, File Upload, Authentication, REST FUL API's, Scaffolding, Debugging,
- Introduction to **MongoDB**, Advantages, History, Features, No SQL Databases, Advantages over RDBMS.
- Install MongoDB, MongoDB Shell, MongoDB Data Model, MongoDB Datatypes
- Creating and Dropping **Database**. Creating and Dropping **Collection**.
- **CRUD** operations (INSERT, UPDATE, DELETE, QUERY).

Module 4 (Weeks 4 -14 hours):

- Introduction to **React.JS**. Create of Root Folder, Install Global Packages, Add Dependencies and Plugins, Create the Files, Set Compiler, Server and Loaders, Html, JSX and Main.js, Running the Server.
- What is **JSX**? Using JSX, Nested Elements, Attributes, JavaScript Expressions, Styling, Components, Naming Convention.
- **Components, States, Props, Forms, Events, Refs, Keys**
- **Router**: installing a Router, adding a Router, **Flux & Redux**: Flux Elements, Flux props, **Animations**: appear animations, enter animations, leave animations.