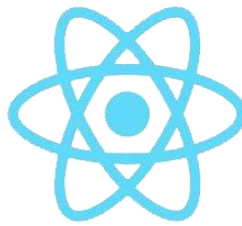




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MERN STACK



Programming & development

TECHNOLOGIES
SERVING INFORMATION WORLDWIDE

Course Curriculum

Basic – 30 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



POSITIVE QUADRANT
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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, React JS, 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 : ReactJS 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



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



Module 14: Backing up and Restoring Data in MongoDB

- Mongoimport with JSON
- Mongoimport with CSV

Module 15: Bulk Operations

- Converting a field to another type
- Updating the entire collection in Bulk.

Module 16: Collections in MongoDB

- Create a Collection
- Drop Collection
- Starting mongo with a specific config file

Module 17: Request parameters in Express JS

Request object holds all the HTTP request information

- .app
- .BaseUrl
- .body
- .cookies
- .hostname
- .ip
- .method
- .params
- .path
- .protocol
- .query
- .secure
- .signedCookies
- .xhr

Module 18: JSON Data in Express

- HTTP methods
- JSON DATA and Routers
- CRUD Operations
- Adding middleware

Module 19: ReactJS Components Life Cycle

- Life Cycle methods
- Reusable Components

Module 20: ReactJS – Forms and Props Validation

- Creating a form app.jsx
- Creation of main.js
- Debugging the app using react.js
- Using props
- Using App.propTypes in app.
- Using App.defaultProps in app.



Module 21: Node JS Modules

- Functions
- Buffer
- Module
- Module Types
- Core Modules
- Local Modules
- Module Exports

Module 22: Node Package Manager

- What is NPM
- Installing Packages Locally
- Adding dependency in package.json
- Installing packages globally
- Updating packages