



**Mind Coders**<sup>TM</sup>

The Future Is Here...



**M E R N**

# MERN STACK DEVELOPMENT

Become an Expert Web Developer



**200+**  
**hours**

Recorded Content

**30 Week**

Classroom Program

**Internship**

Certificate

Build dynamic web apps with the MERN stack



# Mind Coders<sup>TM</sup>

The Future Is Here...

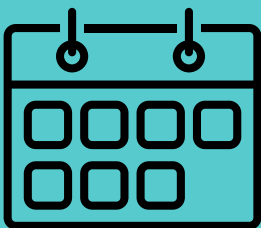
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## Course Overview



## Course Benefits



## Weekly Schedule



## Contact Us

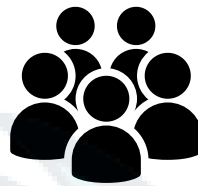
**The MERN Stack course** provides comprehensive training on building full-stack web applications using MongoDB, Express.js, React, and Node.js. Participants will learn to create dynamic and responsive web applications, from setting up the backend with MongoDB and Express.js to developing interactive front-end interfaces with React and managing server-side logic with Node.js. The course covers essential concepts, practical coding exercises, and hands-on projects, equipping learners with the skills needed to develop, deploy, and maintain robust web applications.



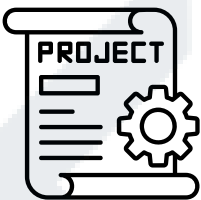
# COURSE BENEFITS



1:1 Mentorship



Limited Batch Strength



Multiple Real-Life Projects



Doubt Assistance



Contest



Course Completion Certificate



Hands-on practice with Real-World Datasets



Internship Certificate

# WEEKLY SCHEDULE

## Module 1: An Introduction to HTML

- What is HTML?
- A Simple HTML Document
- What is an HTML Element?

## Module 2: Beginning HTML Basics

- HTML Documents
- HTML Tags
- HTML Headings
- HTML Paragraphs
- HTML Images
- HTML Links

## Module 3: Main Topics of HTML

- HTML Attributes
- HTML Attributes
- HTML Formatting
- HTML Forms
- HTML Tables
- HTML Lists
- HTML Classes
- HTML IFrames
- HTML Comments

## Module 4: Main Topics of CSS

- CSS Text
- CSS Backgrounds
- CSS Images
- CSS Colors
- CSS Margins
- CSS Padding
- CSS Height/Width
- CSS Fonts
- CSS Position
- CSS Z-index
- CSS Opacity
- CSS Align

# WEEKLY SCHEDULE

## Module 5: Advanced CSS

- CSS 2D/3D Transform
- CSS Transitions
- CSS Effects
- CSS Animations
- CSS Buttons
- CSS Media Query

## Module 6: An Introduction to JS

- What is JavaScript?
- Way of adding JavaScript
- Syntax
- Display
- Identifiers
- Variables
- Rules

## Module 7: Main Topics of JS

- JavaScript Operators
- JavaScript Arithmetic
- JavaScript Assignments
- JavaScript Data Types
- JavaScript Functions
- JavaScript Objects
- JavaScript Strings
- JavaScript Events
- JavaScript Arrays
- JavaScript Booleans
- JavaScript If else
- JavaScript Switch
- JavaScript Loops

## Hands-on Practicals:

- Login & Signup Form
- Blogging Website

# WEEKLY SCHEDULE

## Module 9: Main Topics of Bootstrap

- BS Introduction
- BS Get Started
- BS Grid Basic
- BS Typography
- BS Tables
- BS Images
- BS Jumbotron
- BS Wells
- BS Alerts
- BS Buttons
- BS Button Groups
- BS Glyphicons
- BS Badges/Labels
- BS Progress Bars
- BS Pagination
- BS Pager
- BS List Groups
- BS Panels
- BS Dropdowns
- BS Collapse
- BS Tabs/Pills
- BS Navbar
- BS Forms
- BS Inputs & Inputs 2
- BS Input Sizing
- BS Media Objects
- BS Carousel
- BS Modal
- BS Tooltip
- BS Popover
- BS Scrollspy
- BS Affix
- BS Filters

# WEEKLY SCHEDULE

## Module 10: Bootstrap Grids

- BS Grid System
- BS Stacked/Horizontal
- BS Grid Small
- BS Grid Medium
- BS Grid Large
- BS Grid Examples

## Module 11: Bootstrap CSS Ref

- CSS All Classes
- CSS Typography
- CSS Buttons
- CSS Forms
- CSS Helpers
- CSS Images
- CSS Tables
- CSS Dropdowns
- CSS NavsGlyphicons
- BS Theme "Company"

## Module 12: Bootstrap JS Ref

- JS Affix
- JS Alert
- JS Button
- JS Carousel
- JS Collapse
- JS Dropdown
- JS Modal
- JS Popover
- JS Scrollspy
- JS Tab
- JS Tooltip

## Hands-on Practicals:

Login & Signup Form  
Portfolio Website  
E-commerce Portal

# WEEKLY SCHEDULE

## Module 1: What is React JS?

- React JS Introduction
- Advantages of React JS
- Work flow of React JS
- Scope of React JS

## Module 2: Overview of JSX

- Introduction of Virtual DOM.
- Difference between JS and JSX.
- React Components overview
- Containers and components
- What are Child Components?
- What are Namespaced components?
- What are the JavaScript expressions available in JSX?

## Module 3: React JS Environment Setups

- Node setup How to use NPM?
- How to create package.json and purpose of it?
- ES6 Introduction and features.
- Webpack Overview Best IDE for React JS and How to write optimized code in React JS? React JS browser plugins overview.

## Hands-on Practicals:

NPM Installation by locally and Globally Create a Basic App with React JS and other Supported NPMs

## Module 4: React JS forms and UI

- Lists of Form components.
- Setup Controlled and Uncontrolled form components.
- Control Input elements.
- How to set default values on all formats of Input elements.
- React JS Form validations. How to write Styles? Animations overview

## Hands-on Practicals:

- Create a React Form.
- Client-side form validation.
- Applying form components.

# WEEKLY SCHEDULE

## Module 5: React JS Component Life Cycles Overview

- Initial Render Props
- Change Stage Change
- Component willmount
- Component didMount
- Component Unmount

### Hands-on Practicals:

- Applying Different Life Cycles in the Application.
- When to choose Appropriate lifecycles.

## Module 6 : Event Handling in JSX

- onBlur, onKeyUp, onChange, and other useful primary events in React JS.
- How to Share events between the components?

## Module 7: How to write Styles in React JS?

- CSS and inline styles in React JS overview.
- Introduction to styled-components

### Hands-on Practicals:

- Styling the application using styled component
- How to use Animations in the Application.

## Module 8: React Router with Navigation

- How to Load the router library?
- Configure the React Router?
- How to Pass and receive parameters?
- Integration of React-cookie overview.

## Module 9: Flux, Redux overview

- What is Flux Architecture?
- What are the Flux Components available?
  - Stores.
  - Dispatchers.
  - View Controllers.
  - Actions.
  - Views.
- How does Flux work?
- Flux and React work together.
- Introduction to One Store.
- Provider Component
- Actions.
- Reducers.
- sagas
- Dispatchers
- View Controllers
- Selectors

# WEEKLY SCHEDULE

## Module 10: Hooks

- Understanding Hooks
- The useState hook
- Side effects using the useEffect hook
- The useContext hook
- The useReducer hook
- Writing your own hook

## Module 11: Code Splitting

- Code splitting & Suspense
- Route Based Code Splitting
- Lazy Loading

## Module 12: INTRODUCTION TO NODE WORLD

- Introduction to Javascript event-driven programming
- Introduction to Node event-driven programming

## Module 13: MAKING A WEB SERVER

- Web Server basis
- Handling incoming requests in Node JS
- Serving static files/pages
- Content caching
- Streaming and optimization
- Handling filesystem

## Module 14: Rest API & HTTP OBJECT

- Rest API benefits
- Introduction to HTTP Object
- Processing POST Data
- Handling File uploads
- Using Node as HTTP Client
- Implementing download Throttling
- Node JS way of calling another server

## Module 15: WORKING WITH DATA SERIALIZATION

- JSON to Object & Object to JSON

## Module 16: WORKING WITH DATABASES (Preferred MongoDB over MYSQL)

- Writing to a CSV File in a Database
- CRUD using MongoDB

# WEEKLY SCHEDULE

## Module 17: WEB DEVELOPMENT WITH EXPRESS

- Express scaffolding
- Defining and applying environments
- Dynamic routing
- Templating IN Express
- CSS engines with Express
- How to use JWT benefit of using JWT over Sessions
- Demo of making an Express web application
- File System Security issues and measures

## Module 18: ADVANCED NODE CONCEPTS

- Sending Emails Sending SMSs
- What is a web socket?
- Communication using sockets!

## Module 19: WRITING CUSTOMIZED NODE MODULES

- Writing a functional module
- Extending the module's API
- Deploying a module to npm

## Module 20: GETTING IT TO PRODUCTION

- How to set up a production server environment
- How to set up auto crash recovery



## QUESTION & ANSWER



What is the MERN stack?

The MERN stack is a combination of four technologies used to develop full-stack web applications:

- MongoDB: A NoSQL database for storing data.
- Express.js: A web application framework for Node.js.
- React: A JavaScript library for building user interfaces.
- Node.js: A runtime environment for executing JavaScript on the server side.



Why should I use the MERN stack?

The MERN stack is popular because it uses JavaScript end-to-end, allowing developers to use a single language for both client-side and server-side code. This can streamline development, improve productivity, and ensure consistency across the application.



Prerequisites for learning MERN?

- Basic knowledge of HTML, CSS, JavaScript.
- Understanding of modern JavaScript (ES6+).
- Familiarity with Node.js and databases



## Contact Information

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