# VTechLabs

# MERN

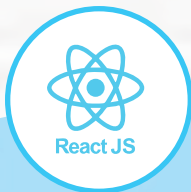## Stack Course Syllabus

# HTML

- Introduction about HTML
- Building blocks
- Tags and Attributes
- Elements
- Formatting Tags
- Practical with Tags (List,Image,Link)
- Form Tag
- Input Tag
- Meta Tag
- Media Tag
- Table Tag
- Practicals

# CSS

- Common CSS Selectors
- Values
- Colors
- Keyword Colors
- RGB
- HSL
- Absolute Length
- Relative Length
- Percentages
- EM
- Inline Display
- Working with BOX model
- width
- height
- margin and padding
- color & declarations with Practical
- Working With Borders
- Individual Border
- Content Box
- Radius
- Padding Box
- Border Box
- Browser Specific Properties
- Typography
- Typeface Vs Fonts
- Font Attributes
- Adding Media
- List
- Building Forms with Tables

# BOOTSTRAP

- Bootstrap Pagination
- Dropdown
- Navigation Bar
- Carousel
- Filters And Grid with Practical

# JAVA SCRIPT

- Introduction
- Arrays
- Variables
- Typecasting
- Operators With Practical
- Loops
- Conditional statements
- Functions with Practical
- Classes & Objects

# PHP & MYSQL

- Introduction & Installation
- Input/output statements
- PHP comments
- Echo & print
- Scope of variables
- $_POST, $_GET, $_SERVER, $_SESSION
- $_COOKIES, $_REQUEST
- Server side scripting (S3) with MYSQL connections
- Predefined methods of PHP
- Error handling in PHP
- File handling in PHP
- OOPS with PHP
- AJAX with PHP
- Storing images with MYSQL
- MySQL DB connection and joins with PHP

# MONGODB

- MongoDB Table creation
- Working with Queries
- Connect your UI with DB

# NODE.JS

- Installation and usage of Node.js
- Node Modules
- Foundation
- The Node.js framework
- Using Node.js to execute scripts
- Node Projects
- The Node Package Manager
- The package.json configuration file
- Automating tasks with Gulp.
- Building an HTTP server
- Rendering a response
- Using Representational State Transfer
- Configuring TLS
- Buffers, Streams, and Events
- Flowing vs. non-flowing streams
- Configuring event handlers
- Synchronous vs. asynchronous I/O
- Asynchronous file reads and writes
- Modules and Unit Testing
- Defining modules with exports
- Module scope and construction
- Building unit tests with Mocha
- ExpressData Sources
- Performing CRUD operations
- Authentication
- Building client requests to web services

# JAVASCRIPT WITH AJAX

- What is AJAX
- Asynchronous JavaScript and XML
- JavaScript and HTML DOM
- How AJAX Works
- Modern Browsers (Fetch API)

# WORKING WITH JSON

- What is JSON
- Java Script Object Notation
- JSON Syntax Rules
- Converting JSON to JavaScript Objects

# WEB API HANDLING

- Web API Handling
- What is web API
- Building RESTful APIs with Node.js and Express
- CRUD Operations
- Server-Side Rendering
- Authentication and Authorization

# TYPESCRIPT INTRODUCTION

- What is TypeScript
- JavaScript and TypeScript
- Components of TypeScript
- Typescript usages

# Introduction to React & JSX

- Origins of React
- React.js Syntax
- Overview of JSX and why you should use it
- React Components
- Functional and Class Components
- Passing Data to Components using Props
- JSX Behind the Scenes
- Adding Styles to React Elements
- Redux vs React Context
- Creating a Redux Store for React
- Redux with Class-based Components
- Redux Toolkit
- Working with States and Multiple States
- Event Handling and React state In React
- Updating State That Depends On The Previous State

- > Lifting The State Up
- > Building a Custom Http Hook
- > Using the Custom Http Hook
- > Adjusting the Custom Hook Logic

## CREATING APPLICATION USING REACT JS

- > React Life cycle
- > Functional components
- > Class Components
- > React Hooks
- > UseEffect, UseState, UseCallback
- > UseContext,UseMemo,UseRef
- > Server Side Node.js
- > axios module
- > State Management
- > Redux Toolkit
- > Dashboard layout
- > Tables and Pagination
- > Node with MYSQL / Mongo DB integration

✉ alok@webmyne.com

📞 +91 94276 02525

📍 702, Ivory Terrace , Opp. Circuit House
R.C. Dutt Road, Vadodara-07
Gujarat - India.