

Full Stack Development MERN

Objectives

This course gives the learner a thorough knowledge of software development such as HTML, CSS, JavaScript, React Js, Mongo DB, Node.JS, Express. Js & REST API to build interactive web applications.

S.N	Time	Title	Content
1	6 Hours	Responsive Web Page	<ul style="list-style-type: none">• HTML5<ul style="list-style-type: none">➤ Heading, paragraph, list and table➤ Image, video, audio and map➤ form• CSS3<ul style="list-style-type: none">➤ Color, margin, padding and font➤ Background, display and opacity➤ Position, Shadow and Box Sizing➤ Flexbox➤ Media query• Bootstrap
2	6 Hours	Basic JavaScript Programming	<ul style="list-style-type: none">• Introduction• Variable• Data Types• Date• Math• Conditions• Function• Events• Arrays and Object• Loop• DOM and DOM Manipulation• JSON
3	2 Hours	ECMA Script	<ul style="list-style-type: none">• Let• Const• Map• Reduce• Filter• Arrow function

			<ul style="list-style-type: none"> • Template Literals
4	2 Hours	Async And Await	<ul style="list-style-type: none"> • Callbacks • Asynchronous • Promises • Async/Await
5	10 Hours	React Js (Redux, Axios and React Router)	<ul style="list-style-type: none"> • Components • Virtual DOM • Class and Functional Components • JSX • Props • Conditional Rendering • State Management • Event handling • Form handling • Hooks • React router • Server Side Rendering • Redux • Context API • Integrating with other libraries • Connect with API • Provider API • Dispatch Methods • Axios and its usage with REST API
6	10 Hours	Mongo DB (working with NoSQL)	<ul style="list-style-type: none"> • Introduction to NoSQL • Create and Drop Database • Create and Drop Collection • Data Types • Insert Document • Query Document • Update and Delete Document • Projection, Sorting and Limiting • Relationships • Aggregation and Replication

			<ul style="list-style-type: none"> • Indexing and Advance Indexing • Mongoose for Node Js
7	12 Hours	Node Js & Express Basic	<ul style="list-style-type: none"> • Simple Server • Understanding the flow of Request • Response Types –HTML,JSON • Routing • Express Introduction • Node Core(Callbacks and Error Handling) • Understanding Node Modules • Exports and Require • Sequencing Response by Routes • Static Files and Middleware • Structuring an App
8	12 Hours	API Development with Express	<ul style="list-style-type: none"> • Server • API Routes • Model • Controller • Middleware • JWT Authentication • Authorization • Request and Body Validation • Implementing JWT • Custom Auth Middleware and JWT Verify • Cookie • Nodemailer to send email • Express Validators • Relationship two or more Models • Mongoose • File upload using multer or any package

			<ul style="list-style-type: none">• Test API with Postman• Understanding CORS
9		Project Assignment	<ul style="list-style-type: none">• Ecommerce Application• Food Delivery Application• Entertainment Application• Timeline Discussion• Weekly Progress Discussion