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INDUSTRIAL TRAINING PROGRAM

FULL STACK DEVELOPMENT (MERN)

Dive into the forefront of MERN Full Stack and JavaScript dialogues through interactive live sessions, meticulously covering a spectrum of topics ranging from front-end intricacies to back-end complexities. Elevate your expertise in comprehensive development with hands-on exploration.



Dynamic Web Applications

Introduction to JavaScript

Data Types | Variables | Basic Operators | Conditions | Loops | Functions | Arrays | Objects | Control Flow | Comments | Math Function.

DOM Manipulation

The Java Console | Introduction to the DOM | Dening the DOM | Select and Manipulate | Important Selector Methods | Manipulating Style | Manipulating Text and Content | Manipulating Attributes | Local Storage.

Forms

The Form element | The Label element | The Input element | The Option element | The opt group element | The Button element | the Select element | The text area element | Form Validations and Input | Validations.

Array Methods

Adding & Removing Elements | Push | Unshift | Splice | Pop | Shift | Finding Elements | Find | Index Of | CONCAT.

Events, Fetch & Callbacks

How to add Event Listeners | Callbacks | Schedulers | Set Timeout | Clear Timeout | Set Interval | Clear Interval | Hypertext Transfer Protocol (HTTP) | HTTP Requests using Fetch | HTTP Responses | Working with JSON data.



Intermediate JavaScript

Rest Parameters & Spread Syntax

Destructing Arrays | Destructing Objects.

More Objects

Constructor Functions | Factory Functions | Constructor Methods | New Keyword.

This

This In Methods | Window Scope | This In Function Declaration | This In Events.

Prototypes & ES6 Classes

Built-in Constructor Functions | Constructor Property | Inheritance | This In Classes.

Asynchronous JS

Async/Await | Promises | This In Function Declarations | This In Events.

Scope & Hoisting in JavaScript

Array Methods

Map | Filter | Reduce.

String Manipulations

Trim & Split Methods | To Uppercase & To Lowercase Methods | Includes Method.



Introduction to Web Design

What is Web | Web Features | W3C and W3C Members | Introduction to What is WG

Core HTML

Introduction | Parts in HTML Document | Version Information | Head Section | Meta Information | Favicons | Body Sections | HTML Forms | Anchors, Images.

Advance HTML5

Introduction | HTML5 History | Why HTML5? | New Features and Groups | Structures of HTML5 Document | Power of HTML5 and Features | Semantics and Block Level Elements | HTML5 Forms | HTML5 Multimedia | HTML5 Graphics.

Core CSS

Introduction | CSS Basics | CSS Introduction | CSS Syntax | CSS Versions | CSS Id & Class | CSS Styling | Styling Background | Styling Text | Styling Fonts | CSS Borders.

Advance CSS

Introduction | CSS3 Modules | Selections | Box Models | Backgrounds and Borders

| Text Effects | 2D/3D Transformations | Core & Advanced Animations | Multiple Column Layout | User Interface.



Responsive Web Design

CSS Layout

CSS Flexbox: Display | Ex Direction | Justify-content | Align-items | Exwrap | Ex- ow | Align-content | Align-self | Ex-grow | Ex-shrink | Order.
Sizing Elements | Over flow | Box Sizing | Content Box, Border Box.

CSS Media Queries

Media Query | Media Types | Media Features | Width, min-width, max-width | Height, min-height, max-height | Orientation. Combining | Multiple Media Features In a Single Media Query Logical Operators (and) | Logical Operators (not) | Logical Operators (,).

Introduction to React JS

React JS

Why React | Stateful + Stateless Components | Hello world | Introducing JSX | Rendering Elements | Components and Props | State an Lifecycle | Handling Events | Condition Rendering | Lists and Keys | Forms | Composition vs Inheritance | Thinking in React.

CSS in JS

Styled Components | Emotion.

Routing

Query Parameters | Path Parameters.



Introduction to Data Bases

Non-Relational Databases (MongoDB)

Introduction to MongoDB | CRUD Operations | Querying Document | Aggregations | Nested Documents.

Backend Development with Node Js & Express Js

Introduction to Node JS

Node REPL | Modules | NPM CLI | Aggregations | Usage of NPM Packages.

Introduction to Express Web Application Framework

HTTP Server | Routes | Handling HTTP Request | Preparing HTTP Response.

Fundamentals of Application Building in Express

Integration with Database | CRUD Operations | Error Handling | Middleware's.

Securing APIs

Json Web Token (JWT) | Authentication vs Authorization | Building Secure Web API with Express.

Debugging

Node Inspect | Visual Debugging.



Capstone Projects

The Capstone project represents the culmination of learning, allowing students to apply their skills to a real-world challenge. It showcases their expertise while addressing practical problems with innovative solution

- Location Application
- My Blog Website
- Income Expenses API Project
- MERN Expenses Live Project
- React Router DOM Mini Project
- Task Manager App (Local storage)
- React Portfolio
- HTML Navigation Project
- Full Stack Blog Application



Tools Covered



















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