



MERN Stack Web Development Expert



The Synnefo Advantage

MongoDB

Express.js

Angular / React

Node.js

Full Stack Development

Synnefo Solutions is a technology driven learning academy that equips students with in-demand skills through hands-on training

↗ 100% Job Guaranteed

↗ Synnefo SmartSpace: Kerala's First LaaS

↗ Intensive Internship

↗ Realtime projects



ONLINE



OFFLINE



HYBRID

Class Mode Details

- ▶ Course Duration:
6 Months + 1 Months Internship



Overview

MERN Stack Web Development Expert focuses on designing, developing, and deploying modern, scalable web applications using full stack JavaScript technologies.

This program trains you to work like real Full Stack Web Developers using

➤ Frontend development (HTML, CSS, JavaScript, TailWind)

➤ Modern UI frameworks (Angular / React / Next)

➤ Backend development with Node.js & Express

➤ Database management using MongoDB

➤ REST APIs & full stack application workflows

What You Will Learn

You will gain hands-on experience in building complete web applications using MongoDB, Express.js, Angular or React, and Node.js, following real industry development standards and best practices.

Suitable for

Freshers | Students | Web Designers | Software Developers
IT Support Professionals | Career Switchers



Features

Training Features

- ▶ Live projects & real-world case studies
- ▶ Hands on coding lab access (Synnefo SmartSpace)
- ▶ One-to-one mentoring support
- ▶ Recorded sessions (Online / Hybrid)
- ▶ Mock interviews & career guidance
- ▶ Industry-experienced trainers

Key Modules

- ▶ Web Fundamentals (HTML5 & CSS3,TailWind)
- ▶ JavaScript Mastery (ES6+)
- ▶ MongoDB (NoSQL Database)
- ▶ Express.js (Backend Framework)
- ▶ React.js (Frontend Library)
- ▶ Node.js (Server-side Runtime)
- ▶ RESTful API Development
- ▶ State Management (Redux)
- ▶ Authentication (JWT & OAuth)
- ▶ Git & GitHub (Version Control)
- ▶ Cloud Deployment (AWS/Vercel)



Careers

Career Opportunities

- ▶ Full Stack Web Developer
- ▶ Frontend Developer
- ▶ Backend Developer
- ▶ MERN Stack Developer
- ▶ JavaScript Developer
- ▶ Web Application Developer
- ▶ Software Engineer (Web)
- ▶ Freelance Web Developer

Certifications

- ▶ Synnefo Course Completion Certificate
- ▶ NACTET Certificate
- ▶ Internship Certificate



About Us

Synnefo is an ISO 9001:2015 certified, IT company-based academy offering 100% job-guaranteed programs, supported by 50+ recruitment partners and NACTET affiliation. With 5000+ students trained, we deliver industry driven learning through live projects and internships.

Students gain hands-on exposure in real-time lab facilities with integrated NOC, SOC, and Data Center environments, along with an exclusive SDLC Hub.

Our programs are further strengthened by soft-skill training, mock interviews, international testing centers, and lifetime placement support, ensuring complete career readiness

Start your MERN Stack Web Development journey with assured career support

ENQUIRE NOW



+91 773 601 3411



**Near Maharajas
Metro Station, Kochi**



www.synnefo.in

MERN SYLLABUS



01 INTRODUCTION TO WEB DEVELOPMENT

- ▶ What is full-stack web development?
- ▶ What is a website / web application?
- ▶ How does a web site / web application work?

02 VCS

- ▶ What is a Version Control System (VCS)
- ▶ Introduction to Git and GitHub
- ▶ Installing Git
- ▶ Configuring Git
- ▶ Basic Git commands
- ▶ Managing a git repository

03 HTML

- ▶ HTML introduction
- ▶ HTML page structure
- ▶ Basic HTML tags
- ▶ Comments
- ▶ HTML div
- ▶ List
- ▶ Image
- ▶ Link
- ▶ Form
- ▶ Table
- ▶ Iframe
- ▶ SVG
- ▶ Audio & Video
- ▶ HTML5
- ▶ Meta tags and SEO basics
- ▶ Aria attributes



04 CSS

- ▶ CSS introduction
- ▶ Selectors
- ▶ Inline vs Internal vs External Styling
- ▶ CSS Properties
- ▶ Font styling
- ▶ Font awesome / google font
- ▶ Pseudo-elements and pseudo-classes
- ▶ Tool tips
- ▶ Transitions, Transformation, Animations
- ▶ Box sizing
- ▶ Flex
- ▶ Grid
- ▶ Media Query
- ▶ Creating a page design
- ▶ Mini project 1

05 Tailwind CSS

- ▶ Introduction to Tailwind CSS
 - What is Tailwind CSS?
 - Difference between Tailwind and other CSS frameworks (Bootstrap, Material UI)
 - Installing Tailwind (CDN, npm, Vite, Next.js)
 - Setting up Tailwind in an HTML project
- ▶ Basic Utility Classes
- ▶ Layout & Positioning
- ▶ Components & Reusability
- ▶ Advanced Tailwind Concepts
- ▶ Custom Configuration



06 JAVASCRIPT

- ▶ JavaScript introduction
- ▶ Variable, scoping and data types
- ▶ Strings and numbers
- ▶ Comments
- ▶ Operators
- ▶ Conditional statements
- ▶ Loops
- ▶ Break and continue
- ▶ Function
- ▶ Data Structures – Arrays, Objects
- ▶ Regular expression
- ▶ Set timeout, setInterval, clear interval
- ▶ Working with DOM
- ▶ Developers tools in Browsers
- ▶ Call back function
- ▶ Call back Hell
- ▶ Promise
- ▶ Async and await
- ▶ ES6+ : Destructuring, modules, optional chaining
- ▶ Closures
- ▶ Local Storage, SessionStorage, cookies
- ▶ Advanced javascript (ES6, ES7 & ES8)
- ▶ OOP concepts
- ▶ Mini project 3



07 DATABASE

- ▶ Introduction to MongoDB
- ▶ Installing MongoDB
- ▶ Connecting MongoDB
- ▶ Creating database and create collection
- ▶ Data modeling
- ▶ Creating and retrieving data
- ▶ Updating and deleting data
- ▶ Limit, sort and indexing
- ▶ Data Types
- ▶ Aggregation
- ▶ Drop database and drop collection

08 NODE JS

- ▶ NodeJS introduction
- ▶ Install NodeJS
- ▶ Node Package Manager (NPM)
- ▶ Create NodeJS app
- ▶ Simple server using NodeJS
- ▶ Request and Response
- ▶ Response types - JSON
- ▶ Scaling a NodeJS application
- ▶ Events
- ▶ Buffers
- ▶ Streams
- ▶ File system
- ▶ Global objects
- ▶ Utility modules
- ▶ Web modules
- ▶ Packaging
- ▶ Mini Project



09 EXPRESS JS

- ▶ ExpressJs introduction
- ▶ Install ExpressJS
- ▶ Creating express server
- ▶ Routing
- ▶ HTTP methods
- ▶ HTTP response codes
- ▶ Express params and Query strings
- ▶ Creating REST API
- ▶ Middlewares
- ▶ Static files
- ▶ Form data
- ▶ Express with Database
- ▶ Cookies
- ▶ Sessions
- ▶ Authentication
- ▶ JWT token
- ▶ API Testing: Postman
- ▶ Multer
- ▶ Async Enhancements: Express with async handlers
- ▶ Payment Integration
- ▶ Debugging
- ▶ Mini project

10 REACT JS

- ▶ React introduction
- ▶ Javascript Compilers & package bundlers
- ▶ Installing React
- ▶ Understanding basics of React app
- ▶ JSX
- ▶ React components [(class vs function)]
- ▶ Understanding virtual DOM and single page apps
- ▶ States and props
- ▶ Event handling



- ▶ React lifecycle
- ▶ Conditional rendering
- ▶ Hooks
- ▶ Advanced Hooks: Custom hooks, useMemo/useCallback
- ▶ Global State Management
- ▶ Forms
- ▶ Controlled vs Uncontrolled components
- ▶ Routes
- ▶ Pure components
- ▶ High order components
- ▶ Axios
- ▶ Redux
- ▶ Security: Secure API calls, state protection
- ▶ Oauth0
- ▶ Real-time in React: Socket.io client integration
- ▶ MiniProject

11 HOSTING

- ▶ AWS
- ▶ Netlify
- ▶ Vercel
- ▶ Render

