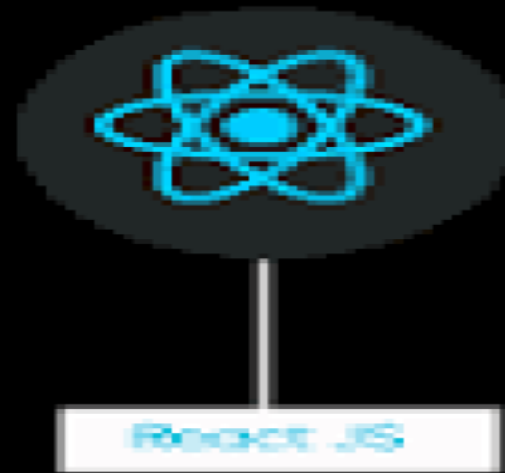


MERN STACK



ROLASOFT PROFESSIONAL COMPUTER & IT
COURSES VERSION 2.0 LATEST

Diploma in Certified MERN Full Stack Developer

*Become a job-ready MERN Developer in 6
months!*

Benefits of Studying Diploma in Certified MERN Full Stack with RolaSoft

✓ 1. Industry-Relevant Curriculum

Stay ahead with a syllabus designed by industry experts, focused on real-world dynamic and scalable full-stack applications using the **MERN stack**.

✓ 2. Hands-On Training

Learn by doing — build real-time projects, develop applications, and gain practical coding experience.

✓ 3. Experienced Instructors

Gain insights from certified professionals and senior software engineers with years of teaching and industry experience.

✓ 4. Placement Assistance

Access job support services including resume building, mock interviews, and direct placement opportunities with partner companies.

✓ 5. Flexible Learning Modes

Choose between: **Online**, **Offline (at our center)**, or **Hybrid Classes**

Benefits of Studying Diploma in Certified MERN Full Stack with RolaSoft

✓ 6. Mini & Major Projects

Work on individual and group projects to strengthen your portfolio and impress future employers.

✓ 7. Certification Upon Completion

Earn a **Diploma Certificate** from **RolaSoft Technologies**, recognized by IT recruiters and employers.

✓ 8. Small Batch Size

Personalized attention and better interaction in small groups for an enhanced learning experience.

✓ 9. Affordable Fees & Installment Plans

Top-tier training at a reasonable cost, with flexible payment options.

✓ 10. Career-Oriented Skills You'll Gain at RolaSoft Technologies

RolaSoft ensures you're job-ready with the right tech stack and practical knowledge.

Diploma in Certified MERN Full Stack Course Details



Duration

Six (6) Months



Schedule

Weekdays / Weekends



Learning Modes

Online, Offline (at our center), or Hybrid Classes



Start Date

New batches start every month — enroll now!



Eligibility

No prior experience required

Certified MERN Full Stack Prerequisites

- ✓ Basic knowledge of mathematics and logical reasoning
- ✓ Basic knowledge of JavaScript, HTML, and CSS is helpful but not mandatory.
- ✓ Basic understanding of programming concepts (JavaScript preferred)
- ✓ Familiarity with HTML, CSS, and basic database concepts is helpful

Certified MERN Full Stack – Program Details

Program Overview

The **MERN Full Stack Web Development** course at ***Rolasoft Technologies*** is a comprehensive 6-month program designed to teach students how to build dynamic, scalable web applications using the **MERN stack**. The stack includes **MongoDB** for database management, **Express.js** for backend API development, **React.js** for front-end development, and **Node.js** for server-side programming.

The course is designed for individuals looking to become proficient in **full-stack development**, covering everything from basic web development principles to advanced techniques. Students will learn how to create real-time applications, implement authentication systems, work with APIs, and deploy applications to cloud platforms.

By the end of this program, students will be prepared to work as **Full Stack Developers, MERN Stack Developers, and Web Application Developers**.

Diploma in Certified MERN Full Stack Course Curriculum

Month 1: Introduction to Web Development & Node.js Basics

✓ Overview of Web Development

(Understanding the Basics of Web Development (Frontend vs Backend), Introduction to Full Stack Development)

✓ Introduction to JavaScript

(Basics of JavaScript (Variables, Loops, Functions, Objects), Understanding Asynchronous Programming (Callbacks, Promises), Introduction to ES6 features (Arrow Functions, Classes, Modules))

✓ Node.js Basics

(Introduction to Node.js and its Ecosystem, Setting up a Node.js Server, Handling HTTP Requests and Responses, Understanding the Event-Driven Architecture of Node.js)

✓ Project: Build a simple Node.js server and API

Diploma in Certified MERN Full Stack Course Curriculum

Month 2: MongoDB – NoSQL Database

✓ Introduction to MongoDB

(Understanding NoSQL Databases vs SQL Databases, MongoDB Architecture and Data Models, CRUD Operations in MongoDB (Create, Read, Update, Delete))

✓ MongoDB with Node.js

(Setting up MongoDB and Connecting to Node.js, Using Mongoose to interact with MongoDB, Data Validation and Modeling in MongoDB)

✓ Data Relationships in MongoDB

(Embedding vs Referencing Data, Using MongoDB Aggregation Framework, Performance Optimization and Indexing in MongoDB)

✓ **Project:** Create a RESTful API with MongoDB, Node.js, and Express.js

Diploma in Certified MERN Full Stack Course Curriculum

Month 3: Express.js – Backend Framework

✓ Introduction to Express.js

(Setting up and Configuring Express, Understanding the Express Router and Middleware, Building Simple API Endpoints (GET, POST, PUT, DELETE))

✓ Building RESTful APIs with Express

(API Design Principles (Routing, Controllers, Services), Input Validation and Error Handling, Authentication with JWT (JSON Web Tokens))

✓ Database Integration with MongoDB and Express

(CRUD Operations Using Express and MongoDB, Implementing User Authentication (Login/Registration), Connecting to Multiple Databases)

✓ **Project:** Build a RESTful API using Express and MongoDB with user authentication

Diploma in Certified MERN Full Stack Course Curriculum

Month 4: React.js – Front-End Development

✓ Introduction to React.js

(Understanding Components, Props, and State, JSX Syntax and Rendering UI Elements, Functional Components vs Class Components)

✓ Handling User Input in React

(Working with Forms, Input Fields, and Events, Controlled vs Uncontrolled Components, Managing Form Data in React)

✓ React Router

(Setting Up and Configuring Routing in React, Creating Dynamic Routes and Passing Parameters, Nested Routing and Protected Routes)

Diploma in Certified MERN Full Stack Course Curriculum

✓ **State Management with Context API and Redux**

(Understanding Component State and Prop Drilling, Introduction to Redux for Global State Management, Connecting React with Redux for Complex State Management)

✓ **Project:** Build a simple dynamic web application with React.js

Diploma in Certified MERN Full Stack Course Curriculum

Month 5: Full Stack Integration & Advanced Topics

✓ Integrating Front-End (React) with Back-End (Node.js, Express)

(Connecting React with Express API using Axios, Managing API Calls and Displaying Data in React, Handling Errors and Responses from the API)

✓ User Authentication and Authorization

(Implementing JWT Authentication in MERN Stack, Securing Routes and Protecting Private Data, Role-Based Access Control)

✓ Real-Time Applications with Socket.io

(Introduction to Real-Time Communication with WebSockets, Setting up Socket.io in Node.js and React for Real-Time Features, Building a Real-Time Chat Application)

Diploma in Certified MERN Full Stack Course Curriculum

✓ **Deploying MERN Applications**

(Deploying Backend (Node.js, Express) on Heroku, Hosting Front-End (React) on Netlify or Vercel, Configuring MongoDB Atlas for Cloud Database Deployment)

✓ **Project:** Build a real-time chat application with MERN stack and deploy it to the cloud

Diploma in Certified MERN Full Stack Course Curriculum

Month 6: Final Project & Career Preparation

✓ Capstone Project Development

(Students will work on their final project that integrates all aspects of the MERN stack, The project can include a combination of front-end (React.js) and back-end (Node.js, Express, MongoDB))

✓ Advanced MERN Features

(Performance Optimization in MERN Applications, Error Handling, Logging, and Debugging, Security Best Practices (Password Encryption, Input Validation))

✓ Soft Skills & Career Preparation

(Resume Building, Interview Preparation, and Mock Interviews, Effective Communication in a Development Team, Preparing for the Job Market as a MERN Stack Developer)

✓ **Project:** Final Full-Stack MERN Application

Diploma in Certified MERN Full Stack Curriculum

- ✓ **Capstone Project:** Students will work on their final project that integrates all aspects of the MERN stack. The project can include a combination of front-end (React.js) and back-end (Node.js, Express, MongoDB)
- ✓ Final Presentation and Review

Tools & Technologies Used

Tools & Technologies Used for Certified MERN Full Stack Developer Course are:

- ✓ **Front-End:** React.js, HTML, CSS, JavaScript, Redux
- ✓ **Back-End:** Node.js, Express.js
- ✓ **Database:** MongoDB, Mongoose
- ✓ **Version Control:** Git, GitHub
- ✓ **Real-Time Communication:** Socket.io
- ✓ **Deployment:** Heroku, Netlify, MongoDB Atlas
- ✓ **Authentication:** JWT, OAuth
- ✓ **Package Management:** NPM, Yarn

Final Capstone Project (End of 6 Months)

Students will complete an **industry-level project** in Certified MERN Full Stack :

- ✓ Students will work on their final project that integrates all aspects of the MERN stack. The project can include a combination of front-end (React.js) and back-end (Node.js, Express, MongoDB)

Certified MERN Full Stack Learning Outcomes

By the end of this course, students will be able to:

- ✓ Develop dynamic and scalable full-stack applications using the **MERN stack** (MongoDB, Express, React, Node.js)
- ✓ Build **RESTful APIs** and integrate them with front-end applications
- ✓ Implement **user authentication** and **authorization** using **JWT**
- ✓ Create real-time web applications using **Socket.io**
- ✓ Deploy full-stack MERN applications to cloud platforms (e.g., **Heroku**, **MongoDB Atlas**)
- ✓ Apply best practices for **security**, **performance optimization**, and **error handling**
- ✓ Complete a **capstone project** that demonstrates proficiency in the MERN stack

Certification Obtain

After completion of the program, the student will be awarded with a certificate:

Diploma in Certified MERN Full Stack Developer

The program also prepares students for industry certifications such as:

- ✓ MongoDB Certified Developer Associate
- ✓ Node.js Application Developer Certification
- ✓ Meta Front-End Developer Professional Certificate (*includes React*) & Certified React Developer (Vskills)
- ✓ IBM Full Stack Software Developer (Coursera)
- ✓ Meta Full Stack Developer Certificate (Coursera)

Certified MERN Full Stack Career Opportunities

- ✓ Full Stack Developer (MERN Stack)
- ✓ JavaScript Full Stack Developer
- ✓ React.js Developer (front-end focused)
- ✓ Node.js Developer (back-end focused)
- ✓ Frontend Developer (with React specialization)
- ✓ Backend Developer (with Node + Express specialization)
- ✓ Web Application Developer
- ✓ Software Engineer (Full Stack)

Who Should Take This Certified MERN Full Stack ?

Who Should Take This **Certified MERN Full Stack Developer**?

- ✓ Aspiring web developers who want to master full-stack development
- ✓ Students who want to specialize in **MongoDB, Express.js, React.js, and Node.js**
- ✓ Developers seeking to transition to full-stack web development
- ✓ Anyone interested in creating scalable, real-time web applications using the **MERN stack**
- ✓ Developers who want to learn the modern tools and technologies for web development
- ✓ Entrepreneurs and professionals wanting to build web applications
- ✓ IT professionals transitioning into web development

Rolasoft Technologies Services

Rolasoft Technologies – Services Offered

✓ **SOFTWARE DEVELOPMENT COMPANY**

(MOBILE APPLICATION, WEB APPLICATION, DESKTOP APPLICATION, CUSTOMIZED APPLICATION, E-COMMERCE WEBSITE)

✓ **PROFESSIONAL COMPUTER AND IT EDUCATION**

(TOP-UP PROGRAMS, DIPLOMA PROGRAMS, CERTIFICATE PROGRAMS, TECH @ SCHOOL, CORPORATE PROGRAMS, SIWES PROGRAMS, CUSTOMIZED PROGRAMS)

✓ **DIGITAL ADVERTISING AND BUSINESS BRANDING**

(SOCIAL MEDIA MARKETING, EMAIL MARKETING, CONTENT MARKETING, WEBSITE SEO, BRANDED CLOTHING, STICKERS AND TAG, CUSTOM BRANDING, AND MANY MORE)

✓ **INTERNATIONAL UNIVERSITY ADMISSION PROCESSING**

(AMERICA, UK, CANADA, EUROPE, AFRICA, AND MANY MORE)

Contact & Registration

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 **Enroll Today & Start Your Certified MERN Full Stack Developer Journey!**

Shape your future with Certified MERN Full Stack Developer