

Node.js / MEAN End-to-End Web Development

Course Summary

Description

Node.js is one of the most revolutionary frameworks to come out in quite a while! Its asynchronous nature and flexibility makes it relevant for building everything from Web applications to client tools and you'll find it being used in a variety of ways. Node.js is based on JavaScript so if you're already comfortable with the JavaScript language you can be productive with Node.js right away.

In the Node.js / MEAN End-to-End Web Development course you'll learn how to build a Web application from start to finish using MongoDB, Express, Angular, and Node.js (the MEAN stack). Topics covered include building model classes, connecting to MongoDB with Mongoose, securing a site with Passport, building a shopping cart with Angular and Node.js RESTful services, creating controllers and routes with Express, binding data to views using Handlebars.js, and much more. If you're looking to learn the ins-and-outs of Node.js then this course is for you!

Objectives

After taking this course, students will be able to:

- Understand key Node.js Concepts
- Run Node.js Scripts
- Learn the MEAN (MongoDB, Express, AngularJS, Node.js) Stack
- Explore Node.js Modules (Express, Mongoose, Passport, and others)
- Create MVC-style Applications with Express
- Secure Applications with Passport
- Query MongoDB with Mongoose
- Creating a RESTful API with Express
- Build a Shopping Cart with Angular and Node.js
- Use Handlebars.js templates on the server to bind data
- Much more!

Topics

- Getting Started with Node.js
- Using Node.js Modules
- Creating the Node.js Application Structure
- Model Objects and Mongoose
- Data Repository Objects
- Routes and Controllers
- Working with Views
- Creating a Passport Security Module
- Building a Shopping Cart with Angular and Node.js

Audience

This course is designed for Web and JavaScript developers who are looking to build Node.js Web applications.

Prerequisites

Before taking this course, attendees must be comfortable working with JavaScript to take this class. A minimum of 6-months of hands-on JavaScript experience is recommended to get the most out of the course.

Duration

Four days

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Course Outline

- I. Getting Started with Node.js**
 - A. What is Node.js?
 - B. Getting Started with Node.js
 - C. Debugging Node.js Code
- II. Using Node.js Modules**
 - A. Creating and Using Node.js Modules
 - B. The package.json File
 - C. Modules in Action
 - D. Getting Started with Express
- III. Creating the Node.js Application Structure**
 - A. The Node.js Application
 - B. Application Technologies
 - C. Application Folder Layout
 - D. Core Application Files
- IV. Model Objects and Mongoose**
 - A. Introduction to MongoDB and Mongoose
 - B. The Role of Model Objects
 - C. Schemas and Model Objects
 - D. Aggregating Multiple Schemas
- V. Data Repository Objects**
 - A. Introduction to the Repository Pattern
 - B. Connecting to the Database
 - C. Seeding Data
 - D. Creating Repository Objects
 - E. Mongoose Functions
- VI. Routes and Controllers**
 - A. Introduction to Routing
 - B. Defining Express Routes
 - C. Route Paths and String Patterns
 - D. Using express.Router()
 - E. Creating Express Routes Dynamically
 - F. Integrating "Controllers"
- VII. Working with Views**
 - A. Handlebars Fundamentals
 - B. Registering Handlebars with Node.js
 - C. Creating a Layout Page
 - D. Creating Handlebars Views
 - E. Creating a Custom Handlebars Helper
- VIII. Creating a Passport Security Module**
 - A. Passport Fundamentals
 - B. Creating a Local Passport Strategy
 - C. Creating a Custom Passport Module
 - D. Securing Routes
- IX. Building a Shopping Cart with Angular and Node.js**
 - A. What is a SPA?
 - B. Angular Fundamentals
 - C. Creating a RESTful API with Express
 - D. Building a Shopping Cart using Angular and Express