

Developing Web Applications Using Node.js (2 Days)

Overview

Node.js® is a platform built on Chrome's JavaScript runtime for easily building fast, scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Developing Web Applications Using NodeJS is a two-day instructor-led course that teaches students how to build server-side web applications using open source JavaScript frameworks. Students will learn how to install, configure and utilize many open-source javascript frameworks to create a custom development environment for designing modern web applications and APIs.

Course Outline

Setting up Node.js and Other Essentials

- Installing Node.js and NPM
- Launching Node.js Scripts
- Node.js Basics and Syntax
- Node.js Core Modules
- Handy Node.js Utilities

Node Package Manager

- Installing a Package
- Global Packages
- Updating Packages
- Creating Packages

Using Express.js to Create Node.js Web Apps

- Installing Express.js
- Express.js Scaffolding
- Setting Up Folders and Configuration

TDD and BDD

- Installing and Understanding Mocha
- TDD with Assert
- BDD with Expect.js

Persistence with MongoDB and Mongoose

- Installing and Running MongoDB
- Data Manipulation from the Mongo Console
- Native MongoDB Driver for Node.js
- Main Mongoose Methods

Boosting Data with Mongoose ORM Library

- Installing Mongoose
- Mongoose Schemas
- Mongoose Models
- Relationships and Joins
- Express.js + Mongoose = True MVC

Using Sessions and OAuth in Node.js Apps

- Authorization with Express.js
- Token-Based Authentication
- Session-Based Authentication
- Node.js OAuth

Building Node.js REST API Servers

- RESTful API Basics
- Test Coverage with Mocha and Superagent
- REST API Server Implementation with Express and Mongoose