



## Developing Node.js Web Applications

**Duration: 2 Days**    **Course Code: NODEJS**    **Delivery Method: Virtual Learning**

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### Overview:

This Developing Node.js Web Applications course is for developers who wish to use JavaScript to create network applications. This course explains the event loop structure of Node.js applications and how to use structures like callbacks and promises to take advantage of it. It goes on to describe file handling, streams and error handling. It takes a hands-on approach to Node.js applications and includes details on NPM, database access and the Express framework.

### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

This course is aimed at JavaScript developers who wish to use Node.js to build fast, efficient and scalable applications.

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### Objectives:

- By the end of the course delegates should be able to:
  - Install Node.js, NPM and Express
  - Understand Node.js event-based programming
  - Create a web server and build web applications on it
  - Create and use modules
  - Build a web application using promises, buffers and streams
  - Improve an application with robust error handling
  - Handle routing with Express.js
  - Use Node.js to connect to a database
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### Prerequisites:

An understanding of HTML and CSS selectors, as well as some knowledge of JavaScript is required. This knowledge can be obtained by attendance on the pre-requisite courses.

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## Content:

Developing Node.js Web Applications Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: INTRODUCING NODE.JS

- What is Node.js?
- Asynchronous Processing
- Server-side JavaScript
- Modularity
- Why Use Node?

Session 2: GETTING STARTED

- Installing Node and NPM
- Running REPL
- Executing a File
- Command Line Input

Session 3: EVENTS AND CALLBACKS

- Callbacks
- Callbacks
- Promises
- Arrow Functions

Session 4: MODULES AND NPM

- Node.js Modules
  - Installing with NPM
  - Global and Local Installation
  - The package.json File
  - The require() Function
- Developing Node.js Web Applications Training Course Course Contents - DAY 2

Session 5: MANAGING DATA

- JSON and Node.js
- Using Buffers
- Streaming Data
- Accessing the File System

Session 6: ERROR HANDLING

- Callback Errors
- Application Specific Errors
- Using the verror Module
- Running with Nodemon

Session 7: THE EXPRESS FRAMEWORK

- Express Web Servers
- Request and Response Objects
- Configuring Routes
- Uploading Files

Session 8: DATABASE INTEGRATION

- Connecting to SQL Databases
- Connecting to MongoDB
- Transaction Handling

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## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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