

## Developing Node.js Web Applications

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

---

### Overview:

#### Developing Node.js Web Applications Course 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. Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### 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.

---

### Target Audience:

#### Who will the Course Benefit?

---

### Objectives:

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

### 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.
-

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

#### Session 2: MODULES AND NPM

- Node.js Modules
- Installing with NPM
- Global and Local Installation
- The package.json File
- The require() Function

#### Session 3: EVENTS AND CALLBACKS

- Callbacks
- Promises
- Arrow Functions

#### Session 4: MANAGING DATA

- JSON and Node.js
- Using Buffers
- Streaming Data
- Accessing the File System Developing Node.js Web Applications Training Course Course Contents - DAY 2

#### Session 5: ERROR HANDLING

- Errors from Callbacks and Promises
- Application Specific Errors
- Using the verror Module
- Running with Nodemon

#### Session 6: THE EXPRESS FRAMEWORK

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

#### Session 7: DATABASE INTEGRATION

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

#### Session 8: API SECURITY

- Securing Passwords
- JSON Web Tokens
- Authenticating Endpoints

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

[info@globalknowledge.be](mailto:info@globalknowledge.be)

[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)