

NodeJS

You will learn important Node.js concepts for server-side programming. We begin with an easy-to-follow pure JavaScript primer, which you can skip if you're confident of your JS skills. We then delve into Node.js concepts such as streams and events, and the technology involved in building full-stack Node.js applications. You'll also learn how to test your Node.js code, and deploy your Node.js applications on the internet.

Node.js is a great and simple platform to work with. It is lightweight, easy to deploy and manage. You will see how using Node.js can be a fun and rewarding experience – start today with *Node.js!*

What you'll learn on this Node.js training course

- Learn how JavaScript can help you be highly productive as a full-stack developer
- How to set up an end to end Node.js development environment
- Learn how to create reusable and maintainable Node.js modules
- Patterns for sharing code between the server and the client
- Create Node.js restful web services and websites
- Store and retrieve your data using Document Databases
- How to test your Node.js applications
- How to deploy your applications on the internet

Prerequisites

[JavaScript](#)

Intended Audience

This course is great for front-end developers looking to use Node.js in their websites. If you understand the basics of programming this course will teach you how you can leverage JavaScript to create full stack web-apps using Node.js. Node.js allows you to write code that runs both on the client and server. This allows you to reuse more code and deliver applications faster. This course will teach you how to write maintainable server-side JavaScript using Node.js, how to test your code and deploy it on the internet.

Course Material

Will be provided

Course Contents

Day 1

Setting up for Node.js Development

- Installing Node.js
- Using the REPL
- Executing Node.js Scripts
- Setting Up an Integrated Development Environment

Understanding Node.js

- Variables
- Functions
- Closures
- Understanding Node.JS Performance
- Node.JS Internals
- More JavaScript

Core Node.js

- Node.JS File-based Module System
- Important Globals
- Core Modules
- Reusing Node.JS Code in the browser

Day 2

Node.js Packages

- Node Modules
- JSON
- NPM
- Semantic Versioning
- GlobalNode.JS Packages

Events and Streams

- Classical Inheritance in JavaScript
- Node.JS Events
- Streams

Getting Started with HTTP

- Basics of Node.js HTTP
- Creating Your Own File Web Server
- Introducing Connect
- HTTPS

Day 3

Introducing Express

- Basics of Express
- Popular Connect /ExpressJS Middleware
- Express Response Object
- Express Request Object
- Understanding REST
- Express Application Routes
- Additional Resources

Persisting Data

- Introduction to NoSQL
- Installing MongoDB
- Important MongoDB Concept
- MongoDB Using Node.js

- Mongoose ODM
- Using a MongoDB as a Distributed Session Store
- Managing MongoDB
- Additional Resources

Front-End

- What Is a SPA?
- Why AngularJS?
- Introduction to Twitter Bootstrap
- Set Up a Simple AngularJS Application
- Creating a Simple To-Do List Application

Day 4

Simplifying Callbacks

- The Callback Hell
- Introduction to Promises
- Converting Callbacks to Promises
- Providing a Promise + nodeback Interface
- Further Notes on the Promise API
- Generators
- Promises and Generators

Debugging

- The Console Object
- The Debugger Statement
- Node's Built-in Debugger
- Node-inspector
- Remote Debugging Node.js

Day 5

Testing

- Assert
- Mocha
- Chai

Deployment and Scalability

- Ensuring Uptime
- Node.JS Clustering
- Core AWS Concepts
- Creating an EC2 Instance
- Connecting to an EC2 Instance

Duration and pricing

- In pricing [group A](#)

Certificate

- Upon completion of this course we will issue you with attendance certificate to certify your attendance and / or completion of the prescribed minimum examples.
- You may sit for our competency assessment test and on passing you will obtain our competency certificate.
- Our competency assessment can be booked and taken by someone who has not attended the course at a cost of R2950.

Bookings

You can download the course registration form on our home page or by clicking [here](#)

Brochure

You may download a pdf copy of this page by clicking on the pdf icon at the top of the page.

Questions

Please [email us](#)

Schedule

On the calendar below. If your browser doesn't display the calendar below, please click on [this link](#) or try using [Google Chrome](#), alternatively please enquire via our [Contact Us](#) page.