

# Node.js Fundamentals Training - Basic Info

## **This course is for organizations who:**

- Want to learn how to bootstrap and design projects.
- Want to create and develop Node.js applications.
- Want to create complex and maintainable web APIs..

## **Optimal Training Length:** 2 days

There are 9 topics included in the training agenda, however covering all of them would take around 4 days in total. In case it is not an option, we recommend to select the 4 modules that seems to be the most important to you. Those 4 topics can be covered in 2 days conveniently.

## **Prerequisites**

- JavaScript knowledge is required.
- No prior experience with Node.js is required - we will cover everything you need to get started.

# Node.js Fundamentals - Full Agenda

## Potential Topics to cover:

1. Node.js Basics

2. Setting Up a Project

3. API Design

4. Networking

5. Database Design

6. Authentication

7. Testing

8. Best Practices

9. Queues and Workers

# Node.js Fundamentals - Agenda

## 1. Node.js Basics

You will learn the basics of Node.js and when to use it. We will cover async programming patterns, events and streams. We will also cover the most important Node.js modules.

## 2. Setting Up a Project

We will cover how to use npm and npm scripts and how to set up a basic project. After that, we discuss the role of environmental variables and how to manage them with dotenv.

# Node.js Fundamentals - Day 1

## **3. API Design**

You will learn how to use express and how to design an API skeleton, which can be filled with logic later.

## **4. Networking**

.You will learn how to fetch data from other APIs through the OpenStreetMap project.

## **5. Database Handling**

.You will learn how to setup and connect to an SQL database or MongoDB. After that, we will design our model abstractions on top of the database and connect them with our API.

# Node.js Fundamentals - Day 2

## **6. Authentication**

You will learn how to create and manage sessions and how to use JWT tokens .

## **7. Testing**

We will cover unit testing and mocking with mocha, chai and sinon.

After that, we will write end-to-end tests.

# Node.js Fundamentals - Day 2

## 8. Testing

You will learn some best practices for your applications - including logging, caching, application lifecycle and healthcheck.

## 9. Queues and Workers

We will create a worker process and learn how to connect it to the API with queues.

After that, we will learn how to create jobs and how to schedule them.

In case you have any questions regarding this training, or you'd like to invite our team to provide a training exclusively for your company, please reach out to us at [info@risingstack.com](mailto:info@risingstack.com)