



Advanced Node

32

Academic Hours

Advanced Node

Outline

NodeJs is one of the most common FullStack technology those days.

In this course we will learn the core Node.js concepts, advanced NodeJs stuff like how V8 works, express as server and mongo as DB.

Users will get to know advanced NodeJs stuff like Express and V8 as the NodeJs engine, events, CLI commands, MongoDB and its architecture in order to understand some advanced stuff and behind the scenes of NodeJs.



Objectives

User will learn

- | What is Node?
- | What is V8 & advanced stuff of V8
- | How node use Events & Event Emitter
- | Streams, buffers , FS
- | Express
- | Mongo dB
- | Passport JS
- | Build a Web Server in Node & understand how it really works
- | Building full applications with GUI, server & DB





Content

Module 01 Introduction

- | Node introduction / History
- | Installations (Requirements):
 - nodeJS/npm
 - Visual studio code
 - Git
 - Postman
- | Node's Architecture and dependencies
- | V8 as Js engine
- | Non-blocking asynchronous execution
- | package.json
- | Json
- | Automation + Grunt
- | nodemon

Module 02 Node Basics

- | Require
- | .npmrc
- | Module patterns / module.exports
- | The event-loop
- | Callbacks
- | Promises
- | Globals
- | Logging (Winston)
- | Debugging (--inspect, logging)

Module 03 Modules + Testing's

- | util
- | fs / Read / write working with files
- | streams & buffers
- | Event Emitter
- | Jasmine as test framework / mocha

Module 04 Event emitters

- | What is it, why is a crucial module of NodeJs
- | Events
- | Event loop
- | Event Emitter
- | Emitter inheritance
- | Usage
- | on / once / maxListeners



Module 05

Files Streams Sockets

- | Working with simple fs API & streams
- | Streams & buffers
- | Pipes
- | Socket.io

Module 06

Express

- | Using express as Webserver.
- | Static files
- | Templates
- | Middleware
- | Routes / Post / Get
- | Authentication with Passport Js
- | Building Rest API

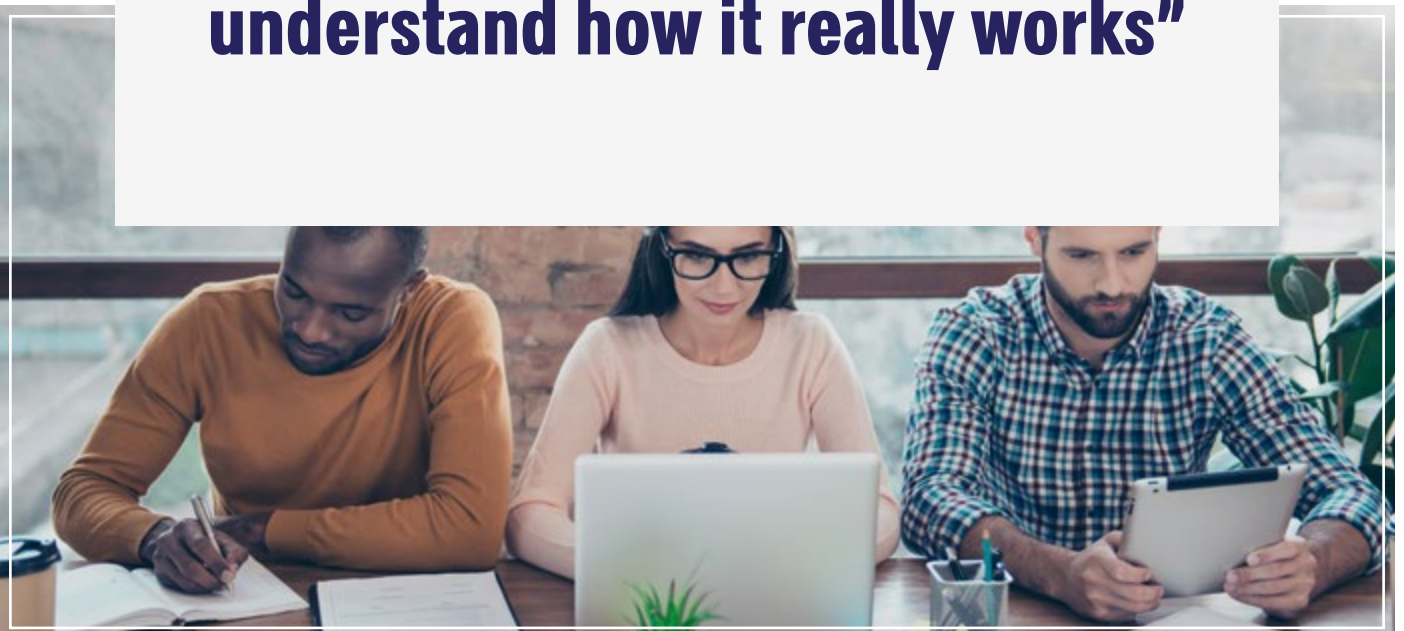
Module 08

MongoDB

- | What is mongoDB.
- | How to use it
- | Mongoose – Api for working with Schema
- | Model
- | CRUD
- | Robomon as GUI client



Build a Web Server in Node and
understand how it really works”



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