

## Professional Node Js Building Javascript Based Scalable Software

You Are About To Start Your Journey To Becoming The JavaScript Professional That You've Always Wanted To Become! JavaScript is the language of the web. As such, if you want to understand the web in the internet driven world that we live in today, you need to learn JavaScript. Whether you want to learn the language as a hobby or want to become a JavaScript professional who can build a career out of your knowledge of the programming language, this book will help you with all that. The following are some of the features that make JavaScript popular and a programming language every programmer should learn: It is used in web and mobile application development, It is a scripting language interpreted by an engine, It is an Object Oriented Programming language, It helps create beautiful and fast web applications, It offers, It is dynamic and fast, JavaScript is cross platform, Used to create both front-end and back-end applications The following are some of JavaScript programming language features we shall be discussing in this guide and using hands-on projects, show you how to use JavaScript to create dynamic, responsive web pages and web applications: It supports Server-Side Programming - In programming, we normally use frameworks such as Node.js to deploy complex JavaScript server applications. Asynchronous back-end - JavaScript provides frameworks such as Ajax to help with back-end data loading while performing other tasks. HTML manipulation - JavaScript aids the process of manipulating HTML web pages. Input Validation - Programmers and web developers normally use JavaScript to verify the user inputs in the browser before submitting. In this JavaScript guide for beginners and intermediates, you shall learn everything you need to learn to go from having very little knowledge of how to use JavaScript, to being someone who can use JavaScript to create a dynamic, web-based game that has two levels of difficulty: easy and difficult. More specifically, you will learn: How to get started with JavaScript Some HTML basics you need to know if you are new to JavaScript to help your JavaScript learning process easier JavaScript Syntax that you need to learn to create useful projects 8 Different JavaScript data types that you should master and how to go about it How to work with 6 different JavaScript operators to bring out your A game How to work with 4 types of conditionals in JavaScript to optimize your work/projects How to master loops and functions in JavaScript How to make the most of 2 JavaScript events to optimize performance of your code The ins and outs of working with AJAX in JavaScript Error handling in JavaScript, including the different types of errors you have to deal with Mastery of JavaScript's Object Document Model Forms and forms validation with JavaScript A hands-on project that will help you to put everything you have learned into use And much more! Don't wait. Click Buy Now in 1-Click or Buy Now to get started with JavaScript!

A project-based, practical guide to get hands-on into Vue.js 2.5 development by building beautiful, functional and performant web applications About This Book\* Build exciting real world web projects from scratch and become proefficient with Vue.js Web Development\* Take your app to the next level with animation, routing, state management, server-side rendering and i18n\* Learn professional web programming techniques to supercharge your Vue.js projects Who This Book Is For If you are a web developer who now wants to create rich and interactive professional applications using Vue.js, then this book is for you. Prior knowledge of JavaScript is assumed. Familiarity with HTML, Node.js, and tools such as npm and webpack will be helpful but not necessary. What You Will Learn\* Set up a full Vue.js npm project with the webpack build tool and the official scaffolding tool, vue-cli\* Write automatically updated templates with directives to create a dynamic web application\* Structure the app with reusable and maintainable components\* Create delightful user experiences with animations\* Use build tools and preprocessor to make larger professional applications\* Create a multi-page application with the official Vue.js routing library\* Integrate non-Vue.js elements into your apps like Google Maps\* Use the official state-management library to prevent errors\* Optimize your app for SEO and performance with server-side rendering and internationalization In Detail Do you want to make your web application amazingly responsive? Are you unhappy with your app's performance and looking forward to trying out ways to make your app more powerful? Then Vue.js, a framework for building user interfaces, is a great choice, and this book is the ideal way to put it through its paces. This book's project-based approach will get you to build six stunning applications from scratch and gain valuable insights in Vue.js 2.5. You'll start by learning the basics of Vue.js and create your first web app using directives along with rich and attractive user experiences. You will learn about animations and interactivity by creating a browser-based game. Using the available tools and preprocessor, you will learn how to create multi-page apps with plugins. You will create highly efficient and performant functional components for your app. Next, you will create your own online store and optimize it. Finally, you will integrate Vue.js with the real-time Meteor library and create a dashboard showing real-time data. By the end of this book you will have enough skills and will have worked through enough examples of real Vue.js projects to create interactive professional web applications with Vue.js 2.5. Style and approach Project-based guide that will help you start building applications immediately with an easy to follow approach. Our book will have 6 concrete projects. It will take readers through clear and logical steps, with screenshots and tips along the way to help you follow the guide and learn how to get more from Vue.js. Since it's creation in 2009, Node.js has grown into a powerful and increasingly popular asynchronous-development framework for creating highly-scalable network applications using JavaScript. Respected companies such as Dow Jones and LinkedIn are among the many organizations to have seen Node's potential and adopted it into their businesses. Pro Node.js for Developers provides a comprehensive guide to this exciting new technology. We introduce you to Node – what it is, why it matters and how to set it up – before diving deeply into the key concepts and APIs that underpin its operation. Building upon your existing JavaScript skills you'll be shown how to use Node.js to build both Web- and Network-based applications, to deal with data sources, capture events and deal with child processes to create robust applications that will work well in a wide range of circumstances. Once you've mastered these skills we'll go further, teaching you more advanced software engineering skills that will give your code a professional edge. You'll learn how to create easily reusable modules that will save you time through code reuse, to log and debug your applications quickly and effectively and to write code that will scale easily and reliably as the demand for your application grows.

Node.js is a JavaScript interpreter and runtime system which has made the use of JavaScript a feasible and attractive option for server-side programming. Its combination of an efficient interpreter with an event-driven library makes Node.js especially suitable for Web applications that deal with many requests. Express is a Web application framework built on top of Node.js that relieves developers of the burden of some of the repetitive tasks of Web development. Written for professional and student Web developers, this book provides a clear and concise introduction to the kind of JavaScript programming that will allow readers to take advantage of Node.js and Express to create Web applications. Drawing on a deep understanding of programming languages and many years of practical experience in Web application development, the authors explain functions and objects, Node.js's system of modules, and the use of callbacks in asynchronous programming. A small complete application, using Express and a relational database, is built and described in detail. The two final chapters are devoted to the important topic of testing. Clear key points summarize each section, links to relevant Web sites are included, and technical terms are defined in an 8-page glossary. Topics covered include: Functions and closures Objects and prototypes Modules Asynchronous callbacks and events Building a simple application using Express Unit testing and integration testing This is not a general introduction to JavaScript. It is assumed that readers already have some experience using JavaScript for client-side scripting and are familiar with the basic syntax, built-in data types and control structures. A short book in the "Web Development Topics" series, by the well-known authors Nigel and Jenny Chapman.

Update your skill set for ES 6 and 7 with the ultimate JavaScript guide for pros Professional JavaScript for Web Developers is the essential guide to next-level JavaScript development. Written for intermediate-to-advanced programmers, this book jumps right into the technical details to help you clean up your code and become a more sophisticated JavaScript developer. From JavaScript-specific object-oriented

programming and inheritance, to combining JavaScript with HTML and other markup languages, expert instruction walks you through the fundamentals and beyond. This new fourth edition has been updated to cover ECMAScript 6 and 7 (also known as ES2015 and ES2016) and the major re-imagining and departure from ES 5.1; new frameworks and libraries, new techniques, new testing tools, and more are explained in detail for the professional developer, with a practical focus that helps you put your new skills to work on real-world projects. The latest—and most dramatic—ES release is already being incorporated into JavaScript engines in major browsers; this, coupled with the rise in mobile web traffic increasing demand for responsive, dynamic web design, means that all web developers need to update their skills—and this book is your ideal resource for quick, relevant guidance. Get up to date with ECMAScript 6 and 7, new frameworks, and new libraries Delve into web animation, emerging APIs, and build systems Test more effectively with mocks, unit tests, functional tests, and other tools Plan your builds for future ES releases Even if you think you know JavaScript, new ES releases bring big changes that will affect the way you work. For a professional-level update that doesn't waste time on coding fundamentals, Professional JavaScript for Web Developers is the ultimate resource to bring you up to speed.

Build a Full-Stack applications that uses Microsoft Azure DocumentDB, and host everything in the cloud in an economic and agile way. This book presents the theory and practical implementation details of DocumentDB. It also shows you not just what it is and how to set it up, but also how to access it through a Node.js middle-tier layer. With Microsoft Azure DocumentDB and a Full-Stack JavaScript development stack, you can build professional applications.

Professional Node.js Building Javascript Based Scalable Software John Wiley & Sons

Pro JavaScript Techniques is the ultimate JavaScript book for today's web developer. It provides everything you need to know about modern JavaScript, and teaches you what JavaScript can do for your web sites. This book doesn't waste any time looking at things you already know, but instead concentrates on fundamental, vital topics—what modern JavaScripting is (and isn't), and pitfalls to be wary of. You will learn about the 'this' keyword, as well as new object tools. You will be able to create reusable code with encapsulation, overloading and inheritance. The most recent techniques for debugging and testing are covered comprehensively, with information on Chrome developer tools, Jasmine, PhantomJS and Protractor. This update finishes with chapters on constructing single-page web applications that dominate the modern web. The book is filled with real-world examples and case studies, as well as numerous reusable functions and classes to save you time in your development. You will learn the practical skills needed to build professional, dynamic web applications. Pro JavaScript Techniques is an indispensable reference for any professional JavaScript web developer—enhance your JavaScript development today.

Use the two popular web development stacks, Node.js and MongoDB, to build full-featured web applications About This Book Learn the new ECMAScript along with Node 8 and MongoDB to make your application more effective. Get the up-to-date information required to launch your first application prototype using the latest versions of Node.js and MongoDB. A practical guide with clear instructions to designing and developing a complete web application from start to finish using trending frameworks such as angular4 and hapi Who This Book Is For The book is designed for JavaScript developers of any skill level who want to get up-and-running using Node.js and MongoDB to build full-featured web applications. A basic understanding of JavaScript and HTML is the only prerequisite for this book. What You Will Learn Work with Node.js building blocks Write and configure a web server using Node.js powered by the Express.js framework Build dynamic HTML pages using the Handlebars template engine Persist application data using MongoDB and Mongoose ODM Test your code using automated testing tools such as the Mocha framework Automate test cases using Gulp Reduce your web development time by integrating third-party tools for web interaction. Deploy a development environment to the cloud using services such as Heroku, Amazon Web Services, and Microsoft Azure Explore single-page application frameworks to take your web applications to the next level In Detail Node.js builds fast, scalable network applications while MongoDB is the perfect fit as a high-performance, open source NoSQL database solution. The combination of these two technologies offers high performance and scalability and helps in building fast, scalable network applications. Together they provide the power for manage any form of data as well as speed of delivery. This book will help you to get these two technologies working together to build web applications quickly and easily, with effortless deployment to the cloud. You will also learn about angular 4, which consumes pure JSON APOIs from a hapi server. The book begins by setting up your development environment, running you through the steps necessary to get the main application server up-and-running. Then you will see how to use Node.js to connect to a MongoDB database and perform data manipulations. From here on, the book will take you through integration with third-party tools to interact with web apps. You will see how to use controllers and view models to generate reusable code that will reduce development time. Toward the end, the book supplies tests to properly execute your code and take your skills to the next level with the most popular frameworks for developing web applications. By the end of the book, you will have a running web application developed with MongoDB, Node.js, and some of the most powerful and popular frameworks. Style and approach A practical guide with clear instructions to designing and developing a complete web application from start to finish You Are About To Start Your Journey To Becoming The JavaScript Professional That You've Always Wanted To Become JavaScript is the language of the web. As such, if you want to understand the web in the internet driven world that we live in today, you need to learn JavaScript. Whether you want to learn the language as a hobby or want to become a JavaScript professional who can build a career out of your knowledge of the programming language, this book will help you with all that. The following are some of the features that make JavaScript popular and a programming language every programmer should learn: It is used in web and mobile application development, It is a scripting language interpreted by an engine, It is an Object Oriented Programming language, It helps create beautiful and fast web applications, It offers Standard implementation, It is dynamic and fast, JavaScript is cross platform, Used to create both front-end and back-end applications The following are some of JavaScript programming language features we shall be discussing in this guide and using hands-on projects, show you how to use JavaScript to create dynamic, responsive web pages and web applications: It supports Server-Side Programming - In programming, we normally use frameworks such as Node.js to deploy complex JavaScript server applications. Asynchronous back-end - JavaScript provides frameworks such as Ajax to help with back-end data loading while performing other tasks. HTML manipulation - JavaScript aids the process of manipulating HTML web pages. Input Validation - Programmers and web developers normally use JavaScript to verify the user inputs in the browser before submitting. In this JavaScript guide for beginners and intermediates, you

shall learn everything you need to learn to go from having very little knowledge of how to use JavaScript, to being someone who can use JavaScript to create a dynamic, web-based game that has two levels of difficulty: easy and difficult.

This book will teach you how to work with Typescript, and how to get the most from this versatile open source language. Author Adam Freeman begins by describing Typescript and the benefits it offers, and goes on to show how to use TypeScript in real-world scenarios, going in-depth to give you the knowledge you need. Starting from the nuts-and-bolts and building up to the most advanced and sophisticated features, you will learn how to use Typescript for various purposes, including for server-side development with Node.js and ASP.NET Core MVC and client-side development with the DOM API, Angular and React. What you'll learn: Gain a solid understanding of the TypeScript language and tools Learn how to create use TypeScript for client- and server-side development Learn how to extend and customize TypeScript Learn how to test your TypeScript code Each topic is covered clearly and concisely and is packed with the details you need to learn to be truly effective. The most important features are given a no-nonsense in-depth treatment and chapters include common problems and details of how to avoid them. About Typescript:TypeScript is a popular superset of the JavaScript language that adds support for static typing. TypeScript combines the typing features of C# or Java with the flexibility of JavaScript, reducing type errors and providing an easier path to JavaScript development. Who This Book Is For:Developers who want to start using TypeScript, for example to create client-side or server-side applications

Kickstart your learning with this hands-on guide to programming with TypeScript. By learning how to quickly transition from JavaScript, leverage features such as types and decorators, and incorporate React with TypeScript, you can gain new skills, advance your knowledge, and make some new additions to your software development toolkit.

This book reports on new theories and applications in the field of intelligent systems and computing. It covers computational and artificial intelligence methods, as well as advances in computer vision, current issues in big data and cloud computing, computation linguistics, and cyber-physical systems. It also reports on data mining and knowledge extraction technologies, as well as central issues in intelligent information management. Written by active researchers, the respective chapters are based on papers presented at the International Conference on Computer Science and Information Technologies (CSIT 2018), held on September 11–14, 2018, in Lviv, Ukraine, and jointly organized by the Lviv Polytechnic National University, Ukraine, the Kharkiv National University of Radio Electronics, Ukraine, and the Technical University of Lodz, Poland, under patronage of Ministry of Education and Science of Ukraine. Given its breadth of coverage, the book provides academics and professionals with extensive information and a timely snapshot of the field of intelligent systems, and is sure to foster new discussions and collaborations among different groups.

Over 40 recipes to help you create real-time JavaScript applications using the robust Socket.IO framework About This Book Create secure WebSocket connections and real-time mobile applications using Socket.IO Devise efficient messaging systems between the server side and the client side A step-by-step implementation guide to help you create elements of Socket.IO application Who This Book Is For If you have some knowledge of JavaScript and Node.js and want to create awe-inspiring application experiences using real time communication, then this book is for you.

Developers with knowledge of other scripting languages should also be able to easily follow along. What You Will Learn Build rich and interactive real-time dashboards using Socket.IO to pipe in data as it becomes available Design chat and multiple-person interfaces that leverage Socket.IO for communication Segment conversations to rooms and namespaces so that every socket doesn't have to receive every message Secure your data by implementing various authentication techniques, locking down the HTTP referrer and using secure WebSockets Load balance across multiple server-side nodes and keep your WebSockets in sync using Redis, RabbitMQ or Memcached Stream binary data such as audio and video in real-time over a Socket.IO connection Create real-time experiences outside of the browser by integrating Socket.IO with hybrid mobile applications In Detail Socket.IO is a JavaScript library that provides you with the ability to implement real-time analytics, binary streaming, instant messaging, and document collaboration. It has two parts: a client-side library that runs in the browser, and a server-side library for node.js. Socket.IO is event-driven and primarily uses the WebSocket protocol that allows us to emit data bi-directionally from the server and the client. Socket.IO This book is a complete resource, covering topics from webSocket security to scaling the server-side of a Socket.IO application and everything in between. This book will provide real-world examples of how secure bi-directional, full-duplex connections that can be created using Socket.IO for different environments. It will also explain how the connection vulnerabilities can be resolved for large numbers of users and huge amounts of data/messages. By the end of the book, you will be a competent Socket.IO developer. With the help of the examples and real-world solutions,you will learn to create fast, scalable, and dynamic real-time apps by creating efficient messaging systems between the server side and the client side using Socket.IO. Style and approach This book is written in a cookbook-style format and provides practical, immediately usable task-based recipes that show you how to create the elements of a Socket.IO application.

Learning Node.js, Second Edition A clear, practical introduction to the important new web development technology for creating web server applications in JavaScript Description Learning Node.js LiveLessons provides developers with a practical introduction to Node.js, an important platform for developing web and network applications. Marc Wandschneider has more than 20 years of experience as a developer and is the author of two programming books and one other LiveLessons video training. In this video training, Marc starts by introducing Node.js, installing, and running it. The video then moves into writing JSON servers, web applications, client-side templates, and continues by covering database access to both SQL and NoSQL database servers. After watching this video, developers will begin to understand why Node.js inspires so much passion, and they will be able to write fast, compact, and reliable applications and web server. What's New The second edition updates coverage of Node.js to reflect changes in the technology and

how it is used in the three years since the first edition was published: Explanation of Node's new versioning scheme Updated coverage of Streams New coverage of installation using pre-build installers rather than from source code New coverage of Mongoose in the section on MongoDB New information about deploying Node on Heroku and Azure Expansion of coverage on testing About the Instructor Marc Wandschneider has worked extensively with open source and web development platforms. He travels the globe, consulting as a lead manager for software projects and teams. He is the author of the book *Learning Node.js* (Addison-Wesley) and the video courses *Learning AngularJS* and *Learning Node.js LiveLessons*. A graduate of the McGill University School of Computer Science, he spent five years working for Microsoft, where he developed and managed developers on the Visual Basic, Visual J++, and .NET Windows Forms teams. Skill Level Beginner Intermediate What You Will Learn: Why Node is really exciting How Node is hugely innovative and new How not to be afraid of JavaScript and indeed how to embrace it How to write fast, compact, and reliable application and web servers How to stay up to date with the latest in web application design and techniques Who Should Take This Course Web developers and instructors who want to quickly get up to speed with the fundamentals of Node.js Course Requirements Basic understanding of JavaScript and...

For JavaScript developers working on increasingly large and complex projects, effective automated testing is crucial to success. *Test-Driven JavaScript Development* is a complete, best-practice guide to agile JavaScript testing and quality assurance with the test-driven development (TDD) methodology. Leading agile JavaScript developer Christian Johansen covers all aspects of applying state-of-the-art automated testing in JavaScript environments, walking readers through the entire development lifecycle, from project launch to application deployment, and beyond. Using real-life examples driven by unit tests, Johansen shows how to use TDD to gain greater confidence in your code base, so you can fearlessly refactor and build more robust, maintainable, and reliable JavaScript code at lower cost. Throughout, he addresses crucial issues ranging from code design to performance optimization, offering realistic solutions for developers, QA specialists, and testers. Coverage includes • Understanding automated testing and TDD • Building effective automated testing workflows • Testing code for both browsers and servers (using Node.js) • Using TDD to build cleaner APIs, better modularized code, and more robust software • Writing testable code • Using test stubs and mocks to test units in isolation • Continuously improving code through refactoring • Walking through the construction and automated testing of fully functional software The accompanying Web site, [tddjs.com](http://tddjs.com), contains all of the book's code listings and additional resources.

Explore the Underscore.js library by example using a test-driven development approach About This Book Understand and learn to apply functional programming principles using the built-in functions of Underscore.js Leverage and reuse Underscore.js-based code to create code that targets client, server, or database contexts Take Underscore.js further by reusing code between client and server and by learning about other closely related libraries Who This Book Is For If you are a developer with fundamental JavaScript knowledge and want to use modern JavaScript libraries to extend your functional programming skills, then Underscore.js is an important library you should be familiar with. What You Will Learn Reference and call Underscore.js functions using a modern JavaScript development workflow Apply Underscore.js to JavaScript arrays, objects, and functions Take advantage of object-oriented or functional programming techniques with Underscore.js Leverage Underscore.js to create code that targets client, server, or database contexts Extend Underscore.js functionality with other closely related libraries Reuse Underscore.js-based code between client and server applications Prepare for the upcoming JavaScript standard ECMAScript 6 and support older browsers In Detail Underscore.js is one of the most popular modern JavaScript libraries used for functional programming. It can be used as a base for building complex JavaScript applications in a sustainable manner and for building other JavaScript libraries. It embraces functional programming principles but is not opinionated and can be used with imperative, object-oriented, functional, or other programming styles. This book explores how to use Underscore.js to power your code and understand modern JavaScript development concepts while applying a lightweight and efficient workflow to build applications. The book starts with an incremental Underscore.js introduction by exploring key JavaScript concepts. You will then explore the basic features of Underscore.js in action and establish a lightweight development workflow that allows the provided examples to be guided by tests. The book then covers the functionality of Underscore.js with in-depth examples and explanations for understanding and applying the Underscore.js API. You'll also learn how to use Underscore.js as a base for your own modules and libraries within an object-oriented or functional programming style, and will be able to explore Underscore.js use cases in different environments. Eventually, you'll learn about libraries that are closely related with Underscore.js, how to share code between client and server, and how to prepare for the upcoming JavaScript standard ECMAScript 6. Style and approach This book takes an example-driven approach to describing some of the essential JavaScript concepts and practices that are useful for building sustainable applications.

Use the two popular web development stacks, Node.js and MongoDB, to build full-featured web applications About This Book\* Learn the new ECMAScript along with Node 8 and MongoDB to make your application more effective.\* Get the up-to-date information required to launch your first application prototype using the latest versions of Node.js and MongoDB.\* A practical guide with clear instructions to designing and developing a complete web application from start to finish using trending frameworks such as angular4 and hapiWho This Book Is ForThe book is designed for JavaScript developers of any skill level who want to get up-and-running using Node.js and MongoDB to build full-featured web applications. A basic understanding of JavaScript and HTML is the only prerequisite for this book.What You Will Learn\* Work with Node.js building blocks\* Write and configure a web server using Node.js powered by the Express.js framework\* Build dynamic HTML pages using the Handlebars template engine\* Persist application data using MongoDB and Mongoose ODM\* Test your code using automated testing tools such as the Mocha framework\* Automate test cases using Gulp\* Reduce your web development time by integrating third-party tools for web interaction.\* Deploy a development environment to the cloud using services such as Heroku, Amazon Web Services, and Microsoft Azure\* Explore single-page application frameworks to take your web applications to the next levelIn DetailNode.js builds fast, scalable network applications while MongoDB is the perfect fit as a high-performance, open source NoSQL database solution. The combination of these two technologies offers high performance and scalability and helps in building fast, scalable

network applications. Together they provide the power for manage any form of data as well as speed of delivery. This book will help you to get these two technologies working together to build web applications quickly and easily, with effortless deployment to the cloud. You will also learn about angular 4, which consumes pure JSON APOIs from a hapi server. The book begins by setting up your development environment, running you through the steps necessary to get the main application server up-and-running. Then you will see how to use Node.js to connect to a MongoDB database and perform data manipulations. From here on, the book will take you through integration with third-party tools to interact with web apps. You will see how to use controllers and view models to generate reusable code that will reduce development time. Toward the end, the book supplies tests to properly execute your code and take your skills to the next level with the most popular frameworks for developing web applications. By the end of the book, you will have a running web application developed with MongoDB, Node.js, and some of the most powerful and popular frameworks. Style and approach A practical guide with clear instructions to designing and developing a complete web application from start to finish

Discover what you need to learn to thrive and master online course creation and other income generating strategies that really work. This short book is the story of what worked and what didn't for author Azat Mardan, giving you the best tools and inspiration to achieve your monetary, career, creative, or contributorship goals. Are you happy with your current level of passive income? Do your products or businesses make you money while you're asleep? When it comes to money and passive income, the only person you can rely on is yourself. Using Your Web Skills To Make Money will navigate you past any obstacles you may face in generating multiple income streams... especially if you're doing it for the first time. What You'll Learn Create online courses in your spare time Review apprenticeships Master one-on-one coaching Understand the value of membership communities Who This Book Is For

This is an advanced, practical guide to harnessing the power of Node.js by creating 6 full-scale real-world projects, from creating a chat application to an eLearning system. Key Features Develop scalable and lightweight applications using Node.js Learn how to interface Node.js with other popular technologies such as MongoDB, MySQL, and more Your companion to master the Node ecosystem through six real-world projects Book Description With its event-driven architecture and efficient web services capabilities, more and more companies are building their entire infrastructure around Node.js. Node has become a de facto part of web development that any serious developer needs to master. This book includes six Node.js projects that gradually increase in complexity. You'll start by building a simple web server and create a basic website. You will then move to create the login system, blog system, chat system, and e-learning system. By creating and following the example projects in this book, you'll improve your Node.js skills through practical working projects, and you'll learn how to use Node.js with many other useful technologies, such as ExpressJS, Kickstart, and Heroku. What you will learn Create powerful applications using Node.js Build scalable and lightweight web applications Use the Express Framework to build web applications Understand the coding principles behind practical web applications Understand the concepts of network programming Use Node.js with other technologies including Kickstart and Heroku Use Node with database technologies Cassandra and MongoDB Who this book is for If you are a web developer or a student who wants to learn about Node.js in a hands-on manner, this book will be perfect for you. A basic understanding of HTML, JavaScript, and some front-end programming experience is required.

This book discusses online engineering and virtual instrumentation, typical working areas for today's engineers and inseparably connected with areas such as Internet of Things, cyber-physical systems, collaborative networks and grids, cyber cloud technologies, and service architectures, to name just a few. It presents the outcomes of the 14th International Conference on Remote Engineering and Virtual Instrumentation (REV2017), held at Columbia University in New York from 15 to 17 March 2017. The conference addressed fundamentals, applications and experiences in the field of online engineering and virtual instrumentation in the light of growing interest in and need for teleworking, remote services and collaborative working environments as a result of the globalization of education. The book also discusses guidelines for education in university-level courses for these topics.

Learn everything you need to get up and running with cutting-edge API development using JavaScript and Node.js; ideal for data-intensive real-time applications that run across multiple platforms. Key Features Build web APIs from start to finish using JavaScript across the development stack Explore advanced concepts such as authentication with JWT, and running tests against your APIs Implement over 20 practical activities and exercises across 9 topics to reinforce your learning Book Description Using the same framework to build both server and client-side applications saves you time and money. This book teaches you how you can use JavaScript and Node.js to build highly scalable APIs that work well with lightweight cross-platform client applications. It begins with the basics of Node.js in the context of backend development, and quickly leads you through the creation of an example client that pairs up with a fully authenticated API implementation. By the end of the book, you'll have the skills and exposure required to get hands-on with your own API development project. What you will learn Understand how Node.js works, its trends, and where it is being used now Learn about application modularization and built-in Node.js modules Use the npm third-party module registry to extend your application Gain an understanding of asynchronous programming with Node.js Develop scalable and high-performing APIs using hapi.js and Knex.js Write unit tests for your APIs to ensure reliability and maintainability Who this book is for This book is ideal for developers who already understand JavaScript and are looking for a quick no-frills introduction to API development with Node.js. Though prior experience with other server-side technologies such as Python, PHP, ASP.NET, Ruby will help, it's not essential to have a background in backend development before getting started.

Build an interactive and full-featured web application from scratch using Node.js and MongoDB About This Book Configure your development environment to use Node.js and MongoDB Use Node.js to connect to a MongoDB database and perform data manipulations A practical guide with clear instructions to design and develop a complete web application from start to finish Who This Book Is For This book is designed for JavaScript developers of any skill level that want to get up and running using Node.js and MongoDB to build full-featured web applications. A basic understanding of JavaScript and HTML is the only requirement for this book. What You Will Learn Configure your development environment to use Node.js and MongoDB Write and configure a web server using Node.js powered by the Express.js framework Build dynamic HTML pages using the Handlebars template engine Persist application data using MongoDB and Mongoose ODM Test your code using automated testing tools such as the Mocha framework Deploy the development environment to the cloud using services such as Heroku, Amazon Web Services, and Microsoft Azure Explore Single-Page application frameworks to take your web applications to the next level In Detail Node.js and MongoDB are quickly becoming one of the most popular tech stacks for the web. Powered by Google's V8 engine, Node.js caters



shows you in practical hands-on terms how you can: Master the performance, reliability, stability, and code manageability of your JavaScript Understand and write efficient object-oriented and prototypal code, including full understanding of the 'this' keyword Boost the performance of your JavaScript code Architect large web applications using common design patterns Write high quality JavaScript code and avoid the pitfalls most likely to cause errors Manage code dependencies with AMD and RequireJS Develop for mobile, build games, and set up a real-time video chat using modern APIs such as Geolocation, Canvas and WebRTC Document your code as the professionals do Write command-line and web server applications in JavaScript with Node.js, Use build tools, such as Grunt and Gulp, to automate repetitive tasks and improve your development workflow Using real-world examples and applications that you'll build yourself, Pro JavaScript Development has unique, practical content that will make you a better JavaScript developer. Become a master of the latest JavaScript coding techniques and tools, and harness its best capabilities today.

Get a 65% discount starting today until 31 December 2020. Only for the 100 buyers. Use this code DNSPSSKULJNSP to redeem. Take advantage of this limited opportunity. This book learns about developing web services based on REST architecture using Deno. Deno is the latest server runtime environment for typescript and javascript in addition to node.js which is well known to date. Yes, deno was created by Ryan Dahl who created node.js itself, will deno be the next node.js successor? Of course there are reasons behind developing a new runtime for executing typescript and javascript. Architecturally, for deno runtime javascript it still uses Google Engine V8 just like the previous node.js, but this time the deno was built using Rust and TypeScript languages, while node.js was built with C ++ and JavaScript. For asynchronous runtime and event driven deno use the open source library, Tokio. Deno support typescript built-in or out of the box in the sense can be used directly without having to first configure settings, unlike node.js. The use of javascript is also supported in addition to typescript. Deno is more secure than node.js, because by default deno cannot access files, environment access, network, without explicit declaration. What is discussed in this book? Here are the points: - Introduction and installation of deno along with visual studio code as a code editor - Use standard modules for http servers - Use of third party modules such as oak to handle requests, responses, and routing - Creating a controller and routing for CRUD functionality for the postgresql database - Using Denon to automate the compilation and deno project running - Implementation of middleware for authentication - Implement bcrypt module for password hashing - Implementation of authentication using JWT - Implementation of https server - Refactoring module - Repository pattern - Access user defined functions and stored procedures in postgresql - Bundling project - The use of PM2 as monitoring tools - The use of denoDB ORM Hopefully this book can be another alternative as a source of learning exercises, tutorials, or references for those who want to learn Deno programming.

Develop your JavaScript programming skills by learning strategies and techniques commonly used in modern full-stack application development Key Features Write and deploy full-stack applications efficiently with JavaScript Delve into JavaScript's multiple programming paradigms Get up to speed with core concepts such as modularity and functional programming to write efficient code Book Description In depth knowledge of JavaScript makes it easier to learn a variety of other frameworks, including React, Angular, and related tools and libraries. This book is designed to help you cover the core JavaScript concepts you need to build modern applications. You'll start by learning how to represent an HTML document in the Document Object Model (DOM). Then, you'll combine your knowledge of the DOM and Node.js to create a web scraper for practical situations. As you read through further lessons, you'll create a Node.js-based RESTful API using the Express library for Node.js. You'll also understand how modular designs can be used for better reusability and collaboration with multiple developers on a single project. Later lessons will guide you through building unit tests, which ensure that the core functionality of your program is not affected over time. The book will also demonstrate how constructors, async/await, and events can load your applications quickly and efficiently. Finally, you'll gain useful insights into functional programming concepts such as immutability, pure functions, and higher-order functions. By the end of this book, you'll have the skills you need to tackle any real-world JavaScript development problem using a modern JavaScript approach, both for the client and server sides. What you will learn Apply the core concepts of functional programming Build a Node.js project that uses the Express.js library to host an API Create unit tests for a Node.js project to validate it Use the Cheerio library with Node.js to create a basic web scraper Develop a React interface to build processing flows Use callbacks as a basic way to bring control back Who this book is for If you want to advance from being a frontend developer to a full-stack developer and learn how Node.js can be used for hosting full-stack applications, this is an ideal book for you. After reading this book, you'll be able to write better JavaScript code and learn about the latest trends in the language. To easily grasp the concepts explained here, you should know the basic syntax of JavaScript and should've worked with popular frontend libraries such as jQuery. You should have also used JavaScript with HTML and CSS but not necessarily Node.js.

With Pro iOS and Android Apps for Business, you can take your web development experience and apply it toward creating a full-featured business app, from soup to nuts. Frank Zammetti shows you how to create a client app using jQuery Mobile wrapped in PhoneGap, and how to create a node.js-based server that uses MongoDB as its data store. You never have to deal with learning Objective-C, Java or any other difficult-to-learn language. Instead, you can build on your existing HTML5, JavaScript and CSS experience to quickly and effectively build any app your business needs. You can apply this knowledge to iOS and Android apps as well as other mobile platforms since the technologies used support most modern mobile platforms as well. You'll learn: How to design a full-featured app, including requirements like offline access How to build the client-side of the app using jQuery Mobile, including adding stub code for calling the node.js server How to create a simple server with node.js and interact with it using REST How to use MongoDB with node.js for data storage How to use PhoneGap to ready your app for mobile deployment How to test and debug your app on iOS and Android Pro iOS and Android Apps for Business is for experienced web developers who need to get up to speed quickly in building iOS and Android apps for business. Are you ready to join the mobile revolution using the same technologies you already use to build great web applications? If so, this is the book for you! What you'll learn How to design a full-featured app, including requirements like offline access How to build the client-side of the app using jQuery Mobile, including adding stub code for calling the node.js server How to create a simple server with node.js and interact with it using REST How to use MongoDB with node.js for data storage How to use PhoneGap to ready your app for mobile deployment How to test and debug your app on iOS and Android Who this book is for Experienced web devs who need to get up to speed quickly in building iOS and Android apps for business. HTML/CSS/JavaScript experience highly recommended. Table of ContentsPart I: The Client Chapter 1 – Designing My Mobile Organizer Chapter 2 - Introducing jQuery and jQuery Mobile Chapter 3 - Writing the Application with jQuery Mobile, Part I Chapter 4 - Writing the Application with jQuery Mobile, Part II Part II: The Server Chapter 5 - Introducing node.js Chapter 6 - Introducing MongoDB Chapter 7 - Writing the Server with node.js and MongoDB, Part I Chapter 8 - Writing the Server with node.js and MongoDB, Part II Part III: Putting It All Together Chapter 9 - Introducing Phonegap Chapter 10 - The Final Build: Going Mobile With Phonegap

Assemble the complete stack required to build a modern web app using MongoDB, Express, React, and Node. This book also covers many other complementary tools: React Router, GraphQL, React-Bootstrap, Babel, and Webpack. This new edition will use the latest version of React (React 16) and the latest React Router (React Router 4), which has a significantly different approach to routing compared to React Router 2 which was used in the first edition of the book. Though the primary focus of Pro MERN Stack is to equip you with all that is required to build a full-fledged web application, a large portion of the book will be devoted to React 16. The popular MEAN (MongoDB, Express, AngularJS, Node) stack introduced Single Page Apps (SPAs) and front-end Model-View-Controller (MVC) as new and efficient paradigms. Facebook's React is a technology that competes indirectly with AngularJS. It is not a full-fledged MVC framework. It is a JavaScript library for building user interfaces (in some sense the View part). Yet, it is possible to build a web app by replacing AngularJS with React – hence the term MERN stack. What You Will Learn Discover the features of React 16 to get the maximum out of this library Gain the basics of MongoDB, Express, and Node to build a web app Work with other libraries complementary to React, including React-Bootstrap, React Router, and GraphQL Use tools such as Babel and Webpack required to build JavaScript-based SPAs Tie all the components together to build a complete web app. Who This Book Is For Developers and architects who have prior experience in any web app stack other than the MERN stack will find the book useful to learn about this modern stack. Prior knowledge of JavaScript, HTML, and CSS is required.

Gain a deeper understanding of JavaScript and apply it to build small applications in backend, frontend, and mobile frameworks. Key Features Explore the new ES6 syntax, the event loop, and asynchronous programming Learn the test-driven development approach when building apps Master advanced JavaScript concepts to enhance your web developments skill Book Description If you are looking for a programming language to develop flexible and efficient applications, JavaScript is an obvious choice. Advanced JavaScript is a hands-on guide that takes you through JavaScript and its many features, one step at a time. You'll begin by learning how to use the new JavaScript syntax in ES6, and then work through the many other features that modern JavaScript has to offer. As you progress through the chapters, you'll use asynchronous programming with callbacks and promises, handle browser events, and perform Document Object Model (DOM) manipulation. You'll also explore various methods of testing JavaScript projects. In the concluding chapters, you'll discover functional programming and learn to use it to build your apps. With this book as your guide, you'll also be able to develop APIs using Node.js and Express, create front-ends using React/Redux, and build mobile apps using React/Expo. By the end of Advanced JavaScript, you will have explored the features and benefits of JavaScript to build small applications. What you will learn Examine major features in ES6 and implement those features to build applications Create promise and callback handlers to work with asynchronous processes Develop asynchronous flows using Promise chaining and async/await syntax Manipulate the DOM with JavaScript Handle JavaScript browser events Explore Test Driven Development and build code tests with JavaScript code testing frameworks. List the benefits and drawbacks of functional programming compared to other styles Construct applications with the Node.js backend framework and the React frontend framework Who this book is for This book is designed to target anyone who wants to write JavaScript in a professional environment. We expect the audience to have used JavaScript in some capacity and be familiar with the basic syntax. This book would be good for a tech enthusiast wondering when to use generators or how to use Promises and Callbacks effectively, or a novice developer who wants to deepen their knowledge on JavaScript and understand TDD.

Takes you through creating your own API, building a full real-time web app, securing your Node systems, and practical applications of the latest Async and Await technologies. It maps out everything in a comprehensive, easy-to-follow package designed to get you up and running quickly. Key Features Entirely project-based and practical Explains the "why" of Node.js features, not just the "how", providing with a deep understanding and enabling you to easily apply concepts in your own applications Covers the full range of technologies around Node.js - npm, MongoDB, version control with Git, and many more Book Description Advanced Node.js Development is a practical, project-based book that provides you with all you need to progress as a Node.js developer. Node is a ubiquitous technology on the modern web, and an essential part of any web developer's toolkit. If you're looking to create real-world Node applications, or you want to switch careers or launch a side-project to generate some extra income, then you're in the right place. This book was written around a single goal: turning you into a professional Node developer capable of developing, testing, and deploying real-world production applications. There's no better time to dive in. According to the 2018 Stack Overflow Survey, Node is in the top ten for back-end popularity and back-end salary. This book is built from the ground up around the latest version of Node.js (version 9.x.x). You'll be learning all the cutting-edge features available only in the latest software versions. This book delivers advanced skills that you need to become a professional Node developer. Along this journey you'll create your own API, you'll build a full real-time web app and create projects that apply the latest Async and Await technologies. Andrew Mead maps everything out for you in this book so that you can learn how to build powerful Node.js projects in a comprehensive, easy-to-follow package designed to get you up and running quickly. What you will learn Develop, test, and deploy real-world Node.js applications Master Node.js by building practical, working examples Use awesome third-party Node modules such as MongoDB, Mongoose, Socket.io, and Express Create real-time web applications Explore async and await in ES7 Who this book is for This book is for anyone looking to launch their own Node applications, switch careers, or freelance as a Node developer. You should have a basic understanding of JavaScript in order to follow this book. This book follows directly on from Learning Node.js Development, but more advanced readers can benefit from this book without having read the first part.

The Road to GraphQL is your personal journey to master pragmatic GraphQL in JavaScript. The book is full with applications you are going to build along the way with React.js and Node.js. Afterward, you will be able to implement full-

stack JavaScript applications. I wrote the *The Road to GraphQL* over the last year, while building several GraphQL applications for my clients and for myself. During this time, I came to understand the practical genius of GraphQL, and how it dramatically improves communication in client-server architectures. Not only does it improve the interface between the client and the server, it also enhances client-side state management by eliminating remote data management. Sophisticated GraphQL libraries like Apollo Client provide powerful features like caching, optimistic UI, and data prefetching for free. This book covers the fundamentals of GraphQL itself, as well as its ecosystem. I applied the same principles as my other books: Stay pragmatic Keep it simple Answer the why, not just the how Experience a problem, solve a problem This book is not intended to be an end-all reference for GraphQL APIs, nor an in-depth guide about the internals of the GraphQL specification. Instead, its purpose is to journey through learning GraphQL with JavaScript the pragmatic way, building client and server applications yourself. The book covers lots of facets about GraphQL in JavaScript that are important for building modern applications, without just throwing the libraries like Apollo at problems before experiencing them. It starts with the basic HTTP requests to perform GraphQL queries first, then moves on to using dedicated GraphQL libraries for it. You will even get the chance to implement your own GraphQL client library, so you understand how these libraries work under the hood. There are no hidden abstractions in this book, just plenty of fundamentals for JavaScript, React.js, Node.js, and GraphQL. Requirements To get the most out of this book, you should be familiar with the basics of web development, which includes some knowledge of HTML, CSS and JavaScript. You will also need to be familiar with the term API, because they are discussed frequently. I encourage you to join the official Slack Group for the book, help or get help from others. React On the client-side, this book uses React to teach about GraphQL in JavaScript. My other book called *The Road to learn React* teaches you all the fundamentals about React. It also teaches you to make the transition from JavaScript ES5 to JavaScript ES6. The book is available for free and after having read the *Road to learn React*, you should possess all the knowledge to implement the GraphQL client-side application with this book. Node On the server-side, this book uses Node with Express as library to teach about GraphQL in JavaScript. You don't need to know much about those technologies before using them for your first GraphQL powered applications. The book will guide you through the process of setting up a Node application with Express and shows you how to weave GraphQL into the mix. Afterward, you should be able to consume the GraphQL API provided by your server-side application in your client-side application.

Learn to build fast and scalable software in JavaScript with Node.js Node.js is a powerful and popular new framework for writing scalable network programs using JavaScript. This no nonsense book begins with an overview of Node.js and then quickly dives into the code, core concepts, and APIs. In-depth coverage pares down the essentials to cover debugging, unit testing, and flow control so that you can start building and testing your own modules right away. Covers node and asynchronous programming main concepts Addresses the basics: modules, buffers, events, and timers Explores streams, file systems, networking, and automated unit testing Goes beyond the basics, and shares techniques and tools for debugging, unit testing, and flow control If you already know JavaScript and are curious about the power of Node.js, then this is the ideal book for you.

Expert techniques for building fast servers and scalable, real-time network applications with minimal effort; rewritten for Node.js 8 and Node.js 9 About This Book Packed with practical examples and explanations, *Mastering Node.js* contains everything you need to take your applications to the next level. Unleash the full potential of Node.js 9 to build real-time and scalable applications. Gain in-depth knowledge of asynchronous programming, event loops, and parallel data processing. Explore Node's innovative event-non-blocking design, and build professional applications with the help of detailed examples. Who This Book Is For This book is targeted at JavaScript developers who want to take an in-depth look at the latest Node.js framework to create faster, scalable, real-time backend applications. Basic JavaScript programming knowledge—and also some previous Node.js development experience—are mandatory to get the best out of this book What You Will Learn Build an Electron desktop app using Node that manages a filesystem Explore Streams and understand how they apply to building networked services Develop and deploy an SMS-driven customer service application Use WebSockets for rapid bi-directional communication Construct serverless applications with Amazon Lambda Test and debug with headless browsers, CPU profiling, Mocha, Sinon, and more Scale applications vertically and horizontally across multiple cores and web services In Detail Node.js, a modern development environment that enables developers to write server- and client-side code with JavaScript, thus becoming a popular choice among developers. This book covers the features of Node that are especially helpful to developers creating highly concurrent real-time applications. It takes you on a tour of Node's innovative event non-blocking design, showing you how to build professional applications. This edition has been updated to cover the latest features of Node 9 and ES6. All code examples and demo applications have been completely rewritten using the latest techniques, introducing Promises, functional programming, `async/await`, and other cutting-edge patterns for writing JavaScript code. Learn how to use microservices to simplify the design and composition of distributed systems. From building serverless cloud functions to native C++ plugins, from chatbots to massively scalable SMS-driven applications, you'll be prepared for building the next generation of distributed software. By the end of thi...

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