



explore a full range of tips and tricks designed to make the daily life of a software maintainer easier. The Node.js ecosystem provides support for writing command line clients and has a thriving, very active community. With this book as your guide, you'll become a successful creator of your own command line clients. Make an impact in the areas you really care about using The CLI Book. What You'll Learn Become a successful creator of your own command line clients and make an impact Set your command line tool apart from others Prioritize user experience best practices to structure and architect your own clients Apply tips and tricks collected from years of developing with Node.js Who This Book Is For Those who know some JavaScript and want to deepen their knowledge, especially in the area of CLI development.

React 17 Design Patterns and Best Practices

Writing Successful Command Line Interfaces with Node.js

Professional Node.js

The Big Nerd Ranch Guide

Mastering JavaScript Design Patterns

MapReduce Design Patterns

*With Learning JavaScript Design Patterns, you'll learn how to write beautiful, structured, and maintainable JavaScript by applying classical and modern design patterns to the language. If you want to keep your code efficient, more manageable, and up-to-date with the latest best practices, this book is for you. Explore many popular design patterns, including Modules, Observers, Facades, and Mediators. Learn how modern architectural patterns—such as MVC, MVP, and MVVM—are useful from the perspective of a modern web application developer. This book also walks experienced JavaScript developers through modern module formats, how to namespace code effectively, and other essential topics. Learn the structure of design patterns and how they are written Understand different pattern categories, including creational, structural, and behavioral Walk through more than 20 classical and modern design patterns in JavaScript Use several options for writing modular code—including the Module pattern, Asynchronous Module Definition (AMD), and CommonJS Discover design patterns implemented in the jQuery library Learn popular design patterns for writing maintainable jQuery plug-ins "This book should be in every JavaScript developer's hands. It's the go-to book on JavaScript patterns that will be read and referenced many times in the future."*—Andr e Hansson, Lead Front-End Developer, presis!

*"Node: Up and Running" shows users how Node scales up to support large numbers of simultaneous connections across multiple servers, and scales down to create one-off applications with minimal infrastructure.*

*Get the best out of Node.js by mastering its most powerful components and patterns to create modular and scalable applications with ease About This Book Create reusable patterns and modules by leveraging the new features of Node.js . Understand the asynchronous single thread design of node and grasp all its features and patterns to take advantage of various functions. This unique guide will help you get the most out of Node.js and its ecosystem. Who This Book Is For The book is meant for developers and software architects with a basic working knowledge of JavaScript who are interested in acquiring a deeper understanding of how to design and develop enterprise-level Node.js applications. Basic knowledge of Node.js is also helpful to get the most out of this book. What You Will Learn Design and implement a series of server-side JavaScript patterns so you understand why and when to apply them in different use case scenarios Become comfortable with writing asynchronous code by leveraging constructs such as callbacks, promises, generators and the async-await Identify the most important concerns and apply unique tricks to achieve higher scalability and modularity in your Node.js application Untangle your modules by organizing and connecting them coherently Reuse well-known techniques to solve common design and coding issues Explore the latest trends in Universal JavaScript, learn how to write code that runs on both Node.js and the browser and leverage React and its ecosystem to implement universal applications In Detail Node.js is a massively popular software platform that lets you use JavaScript to easily create scalable server-side applications. It allows you to create efficient code, enabling a more sustainable way of writing software made of only one language across the full stack, along with extreme levels of reusability, pragmatism, simplicity, and collaboration. Node.js is revolutionizing the web and the way people and companies create their software. In this book, we will take you on a journey across various ideas and components, and the challenges you would commonly encounter while designing and developing software using the Node.js platform. You will also discover the "Node.js way" of dealing with design and coding decisions. The book kicks off by exploring the basics of Node.js describing it's asynchronous single-threaded architecture and the main design patterns. It then shows you how to master the asynchronous control flow patterns, and the stream component and it culminates into a detailed list of Node.js implementations of the most common design patterns as well as some specific design patterns that are exclusive to the Node.js world.Lastly, it dives into more advanced concepts such as Universal Javascript, and scalability' and it's meant to conclude the journey by giving the reader all the necessary concepts to be able to build an enterprise grade application using Node.js. Style and approach This book takes its intended readers through a comprehensive explanation to create a scalable and efficient real-time server-side apps.*

*Build scalable, high-traffic websites and web applications with Node.js For many .NET programmers, Node.js represents a new way to build high-traffic websites and applications. Now there's a practical, concise introduction to Node.js specifically for Microsoft developers. David Gaynes guides you through the entire Node.js development process. Using Microsoft Visual Studio examples, he addresses everything from setting up servers and authorization through delivering rich CSS pages packed with graphics and data-driven content. Gaynes clearly explains Node.js's async model, coding approach, request/response paradigm, site structure, data management, security, and more. This quick guide will help you apply your hard-won .NET skills to Node.js. Expert guidance showing you how to: Choose, organize, and configure the tools you need to build Node.js solutions in Visual Studio Apply JavaScript coding practices that help you avoid problems in Node.js Work with callback functions and the Node.js asynchronous programming model Set up a Node.js project and use what you know about MVVM and MVC patterns Control the entire Node.js request/response life cycle Establish site structure, routes, and access to static resources Manage data through caching, forms, IO techniques, and file uploads Integrate data from Microsoft SQL Server and other databases Use Passport to integrate simple, flexible authentication*

*Server-side web development made easy with Node 14 using practical examples*

*Vue.js 2 Design Patterns and Best Practices*

*RESTful Web API Design with Node.js*

*Learning Patterns*

*Proven techniques and patterns for efficient native mobile development with JavaScript*

*Beginning Node.js*

This book contains an extensive set of practical examples and an easy-to-follow approach to creating 3D objects.This book is great for anyone who already knows JavaScript and who wants to start creating 3D graphics that run in any browser. You don't need to know anything about advanced math or WebGL; all that is needed is a general knowledge of JavaScript and HTML. The required materials and examples can be freely downloaded and all tools used in this book are open source.

Take your application to the next level of high performance using the extensive capabilities of Node.js About This Book Analyze, benchmark, and profile your Node.js application to find slow spots, and push it to the limit by eliminating performance bottlenecks Learn the basis of performance analysis using Node.js Explore the high performance capabilities of Node.js, along with best practices In Detail Node.js is a tool written in C, which allows you to use JavaScript on the server-side. High performance on a platform like Node.js is knowing how to take advantage of every aspect of your hardware, helping memory management act at its best, and correctly deciding how to architect a complex application. Do not panic if your applications start consuming a lot of memory; instead spot the leak and solve it fast with Node.js by monitoring and stopping it before it becomes an issue. This book will provide you with the skills you need to analyze the performance of your application and monitor the aspects that can and should be. Starting with performance analysis concepts and their importance in helping Node.js developers eliminate performance bottlenecks, this book will take you through development patterns to avoid performance penalties. You will learn the importance of garbage collection and its behavior and discover how to profile your processor, allowing better performance and scalability. You will then learn about the different types of data storage methods. Moving on, you will get to grips with testing and benchmarking applications to avoid unknown application test zones. Lastly, you will explore the limits that external components can impose in your application in the form of bottlenecks. By following the examples in each chapter, you will discover tips to getting better performing applications by avoiding anti-patterns and stretching the limits of your environment as much as possible. What You Will Learn Develop applications using well-defined and well-tested development patterns Explore memory management and garbage collection to improve performance Monitor memory changes and analyze heap snapshots Profile the CPU and improve your code to avoid patterns that force intensive processor usage Understand the importance of data and when you should cache information. Learn to always test your code and benchmark when needed Extend your application's scope and know what other elements can influence performance Who This Book Is For This book is for Node.js developers who want a more in-depth knowledge of the platform to improve the performance of their applications. Whether you have a base Node.js background or you are an expert who knows the garbage collector and wants to leverage it to make applications more robust, the examples in this book will benefit you. Style and approach This is a practical guide to learning high performance, which even the least experienced developer will comprehend. Small and simple examples help you test concepts yourself and easily adapt them to any application, boosting its performance and preparing it for the real-world.

Write reliable code to create powerful applications by mastering advanced JavaScript design patterns About This Book Learn how to use tried and true software design methodologies to enhance your JavaScript code Discover robust JavaScript implementations of classic and advanced design patterns Packed with easy-to-follow examples that can be used to create reusable code and extensible designs Who This Book Is For This book is ideal for JavaScript developers who want to gain expertise in object-oriented programming with JavaScript and the new capabilities of ES-2015 to improve their web development skills and build professional-quality web applications. What You Will Learn Harness the power of patterns and tasks ranging from application bundling to code testing Rethink and revitalize your code with the use of functional patterns Implement the way you organize your code Build large-scale apps seamlessly with the help of reactive patterns Identify the best use cases for microservices Get to grips with creational, behavioral, and structural design patterns Explore advanced design patterns including dependency injection In Detail With the recent release of ES-2015, there are several new object-oriented patterns and functions introduced in JavaScript. These new features enhance the capabilities of JavaScript and software design methodologies to write powerful code. Through this book, you will explore how design patterns can help you improve and organize your JavaScript code. You'll get to grips with creational, structural and behavioral patterns as you discover how to put them to work in different scenarios. Then, you'll get a deeper look at patterns used in functional programming, as well as model view patterns and patterns to build web applications. This updated edition will also delve into reactive design patterns and microservices as they are a growing phenomenon in the world of web development. You will also find patterns to improve the testability of your code using mock objects, mocking frameworks, and monkey patching. We'll also show you some advanced patterns including dependency injection and live post processing. By the end of the book, you'll be saved of a lot of trial and error and developmental headaches, and you will be on the road to becoming a JavaScript expert. Style and approach Packed with several real-world use cases, this book shows you through step-by-step instructions how to implement the advanced object-oriented programming features to build sophisticated web applications that promote scalability and reusability.

Boost your development efficiency by learning about design patterns in TypeScript About This Book This step-by-step guide will would demonstrate all the important design patterns in practice This book is the only documentation on the market focusing on design patterns in TypeScript This book is packed with rich examples that will improve your efficiency and encourage code reuse Who This Book Is For If you are a TypeScript developer, this book is for you. No knowledge of design patterns is required to read this book. What You Will Learn Understand the challenges and implications of developing an enterprise application install and configure the necessary tools in order to start developing an application Identify the challenges when developing an application Apply GoF patterns in an application with a testing approach Use and utilize design patterns while developing a TypeScript application or during JavaScript application development Reference to SOLID principles and what their benefits do to your projects Apply various principles in a TypeScript application Improve code quality and development speed In Detail In programming, there are several problems that occur frequently. To solve these problems, there are various repeatable solutions that are known as design patterns. Design patterns are a great way to improve the efficiency of your programs and improve your productivity. This book is a collection of the most important patterns you need to improve your applications' performance and your productivity. The journey starts by explaining the current challenges when designing and developing an application and how you can solve these challenges by applying the correct design pattern and best practices. Each pattern is accompanied with rich examples that demonstrate the power of patterns for a range of tasks, from building an application to code testing. We'll introduce low-level programming concepts to help you write TypeScript code, as well as work with software architecture, best practices, and design aspects. Style and approach In this book, design patterns are explained in a step-by-step manner. All the major patterns covered will improve your understanding of TypeScript and the patterns associated with TypeScript.

Common GoF (Gang of Four) Design Patterns Implemented in TypeScript

Node.js 8 the Right Way

Angular Design Patterns

Elements of Reusable Object-Oriented Software

The CLI Book

Node.js High Performance

Learn proven patterns, techniques, and tricks to take full advantage of the Node.js platform. Master well-known design principles to create applications that are readable, extensible, and that can grow big. Key FeaturesLearn how to create solid server-side applications by leveraging the full power of Node.js 14Understand how Node.js works and learn how to take full advantage of its core components as well as the solutions offered by its ecosystemAvoid common mistakes and use proven patterns to create production grade Node.js applicationsBook Description In this book, we will show you how to implement a series of best practices and design patterns to help you create efficient and robust Node.js applications with ease. We kick off by exploring the basics of Node.js, analyzing its asynchronous event driven architecture and its fundamental design patterns. We then show you how to build asynchronous control flow patterns with callbacks, promises and async/await. Next, we dive into Node.js streams, unveiling their power and showing you how to use them at their full capacity. Following streams is an analysis of different creational, structural, and behavioral design patterns that take full advantage of JavaScript and Node.js. Lastly, the book dives into more advanced concepts such as Universal JavaScript, scalability and messaging patterns to help you build enterprise-grade distributed applications. Throughout the book, you'll see Node.js in action with the help of several real-life examples Leveraging technologies such as LevelDB, Redis, RabbitMQ, ZeroMQ, and many others. They will be used to demonstrate a pattern or technique, but they will also give you a great introduction to the Node.js ecosystem and its set of solutions. What you will learnBecome comfortable with writing asynchronous code by leveraging callbacks, promises, and the async/await syntaxLeverage Node.js streams to create data-driven asynchronous processing pipelinesImplement well-known software design patterns to create production grade applicationsShare code between Node.js and the browser and take advantage of full-stack JavaScriptBuild and scale microservices and distributed systems powered by Node.jsUse Node.js in conjunction with other powerful technologies such as Redis, RabbitMQ, ZeroMQ, and LevelDBWho this book is for This book is for developers and software architects who have some prior basic knowledge of JavaScript and Node.js and now want to get the most out of these technologies in terms of productivity, design quality, and scalability. Software professionals with intermediate experience in Node.js and JavaScript will also find valuable the more advanced patterns and techniques presented in this book. This book assumes that you have an intermediate understanding of web application development, databases, and software design principles.

Design and implement efficient RESTful solutions with this practical hands-on guide About This Book Create a fully featured RESTful API solution from scratch. Learn how to leverage Node.js, Express, MongoDB and NoSQL datastores to give an extra edge to your REST API design. Use this practical guide to integrate MongoDB in your Node.js application. Who This Book Is For The ideal target audience for this book is web developers who have some experience with RESTful services. Familiarity with basic JavaScript programming techniques is required. No prior experience with Node.js or Express.js is required. What You Will Learn Install, develop, and test your own Node.js user modules Comprehend the differences between an HTTP and a RESTful application Optimize RESTful service URI routing with best practices Eliminate third-party dependencies in your tests with mocking Learn about NoSQL data stores and integrate MongoDB in your Node.js application with Mongoose Secure your services with NoSQL database integration within Node.js applications Enrich your development skills to create scalable, server-side, RESTful applications based on the Node.js platform In Detail In this era of cloud computing, every data provisioning solution is built in a scalable and fail-safe way. Thus, when building RESTful services, the right choice for the underlying platform is vital. Node.js, with its asynchronous, event-driven architecture, is exactly the right choice to build RESTful APIs. This book will help you enrich your development skills to create scalable, server-side, RESTful applications based on the Node.js platform. Starting with the fundamentals of REST, you will understand why RESTful web services are better data provisioning solution than other technologies. You will start setting up a development environment by installing Node.js, Express.js, and other modules. Next, you will write a simple HTTP request handler and create and test Node.js modules using automated tests and mock objects. You will then have to choose the most appropriate data storage type, having options between a key/value or document data store, and also you will implement automated tests for it. This module will evolve chapter by chapter until it turns into a full-fledged and secure Restful service. Style and approach Create state of the art RESTful API solutions leveraging Node.js 4.x.

Summary Node.js in Practice is a collection of fully tested examples that offer solutions to the common and not-so-common issues you face when you roll out Node. You'll dig into important topics like the ins and outs of event-based programming, how and why to use closures, how to structure applications to take advantage of end-to-end JavaScript apps, and more. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book You've decided to use Node.js for your next project and you need the skills to implement Node in production. It would be great to have Node experts Alex Young and Marc Harter at your side to help you tackle those day-to-day challenges. With this book, you can! Node.js in Practice is a collection of 115 thoroughly tested examples and instantly useful techniques guaranteed to make any Node application go more smoothly. Following a common-sense Problem/Solution format, these experience-fueled techniques cover important topics like event-based programming, streams, integrating external applications, and deployment. The abundantly annotated code makes the examples easy to follow, and techniques are organized into logical clusters, so it's a snap to find what you're looking for. Written for readers who have a practical knowledge of JavaScript and the basics of Node.js. What's Inside Common usage examples, from basic to advanced Designing and writing modules Testing and debugging Node apps Integrating Node into existing systems About the Authors Alex Young is a seasoned JavaScript developer who blogs regularly at DailyJS. Marc Harter works daily on large-scale projects including high-availability real-time applications, streaming interfaces, and other data-intensive systems. Table of Contents PART 1 NODE FUNDAMENTALS Getting started Globals: Node's environment Buffers: Working with bits, bytes, and encodings Events: Mastering EventEmitter and beyond Streams: Node's most powerful and misunderstood feature File system: Synchronous and asynchronous approaches Networking: Node's true "Hello, World" Child processes: Integrating external applications with Node PART 2 REAL-WORLD RECIPES The Web: Build leaner and meaner web applications Tests: The key to confident code Debugging: Designing for introspection and resolving issues Node in production: Deploying applications safely PART 3 WRITING MODULES Writing modules: Mastering what Node is all about

Node.js is the platform of choice for creating modern web services. This fast-paced book gets you up to speed on server-side programming with Node.js 8, as you develop real programs that are small, fast, low-profile, and useful. Take JavaScript beyond the browser, explore dynamic language features, and embrace evented programming.Harness the power of the event loop and non-blocking I/O to create highly parallel microservices and applications. This expanded and updated second edition showcases the latest ECMAScript features, current best practices, and modern development techniques. JavaScript is the backbone of the modern web, powering nearly every web app's user interface. Node.js is JavaScript for the server. This greatly expanded second edition introduces new language features while dramatically increasing coverage of core topics. Each hands-on chapter offers progressively more challenging topics and techniques, broadening your skill set and enabling you to think in Node.js. Write asynchronous, non-blocking code using Node.js's style and patterns. Cluster and load balance services with Node.js core features and third-party tools. Harness the power of databases such as Elasticsearch and Redis. Work with many protocols, create RESTful web services, TCP socket clients and servers, and more. Test your code's functionality with Mocha, and manage its life cycle with npm. Discover how Node.js pairs a server-side event loop with a JavaScript runtime to produce screaming fast, non-blocking concurrency. Through a series of practical programming domains, use the latest available ECMAScript features and harness key Node.js classes and popular modules. Create rich command-line tools and a web-based UI using modern web development techniques. Join the smart and diverse community that's rapidly advancing the state of the art in JavaScript development. What You Need: Node.js 8.x Operating system with bash-like shell OMQ (pronounced "Zero-M-Q") library, version 3.2 or higher Elasticsearch version 5.0 or higher jx version 1.5 or higher Redis version 3.2 or higher

TypeScript Design Patterns

Learning JavaScript Design Patterns

Design Patterns in TypeScript

Scalable Server-Side Code with JavaScript

Node.js Web Development

Go Design Patterns