Learning Javascript Design Patterns Ebook Addy Osmani

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Mastering JavaScript Design Patterns Simon Timms 2016-06-29 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 for tasks ranging from application building to code testing Rethink and revitalize your code with the use of functional patterns Improve 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 features and functions introduced in JavaScript. These

new features enhance the capabilities of JavaScript to utilize design patterns 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.

JavaScript: Best Practice James Kolce 2018-05-31 There's no doubt that the JavaScript ecosystem changes fast. Not only are new tools and frameworks introduced and developed at a rapid rate, the language itself has undergone big changes with the introduction of ES2015 (aka ES6). Understandably, many articles have been written complaining about how difficult it is to learn modern JavaScript development these days. We're aiming to minimize that confusion with this set of books on modern JavaScript. This book presents modern JavaScript best practice, utilizing the features now available in the language that enable you to write more powerful code that is clean, performant, maintainable, and resusable. It contains: The Anatomy of a Modern JavaScript Application by James Kolce Clean Code with ES6 Default Parameters & Property Shorthands by Moritz Kruger JavaScript Performance Optimization Tips: An Overview by Ivan CuriC JavaScript Design Patterns: The Singleton by Samier Saeed JavaScript Object Creation: Patterns and Best Practices by Jeff Mott Best Practices for Using Modern

JavaScript Syntax by M. David Green Flow Control in Modern JS: Callbacks to Promises to Async/Await by Craig Buckler JavaScript's New Private Class Fields, and How to Use Them by Craig Buckler This book is for all front-end developers who wish to improve their JavaScript skills. You'll need to be familiar with HTML and CSS and have a reasonable level of understanding of JavaScript in order to follow the discussion. Effective JavaScript David Herman 2012-11-26 "It's uncommon to have a programming language wonk who can speak in such comfortable and friendly language as David does. His walk through the syntax and semantics of JavaScript is both charming and hugely insightful; reminders of gotchas complement realistic use cases, paced at a comfortable curve. You'll find when you finish the book that you've gained a strong and comprehensive sense of mastery." —Paul Irish, developer advocate, Google Chrome "This is not a book for those looking for shortcuts; rather it is hard-won experience distilled into a guided tour. It's one of the few books on JS that I'll recommend without hesitation." —Alex Russell, TC39 member, software engineer, Google In order to truly master JavaScript, you

need to learn how to work effectively with the language's flexible, expressive features and how to avoid its pitfalls. No matter how long you've been writing JavaScript code, Effective JavaScript will help deepen your understanding of this powerful language, so you can build more predictable, reliable, and maintainable programs. Author David Herman, with his years of experience on Ecma's JavaScript standardization committee, illuminates the language's inner workings as never before—helping you take full advantage of JavaScript's expressiveness. Reflecting the latest versions of the JavaScript standard, the book offers well-proven techniques and best practices you'll rely on for years to come. Effective JavaScript is organized around 68 proven approaches for writing better JavaScript, backed by concrete examples. You'll learn how to choose the right programming style for each project, manage unanticipated problems, and work more successfully with every facet of JavaScript programming from data structures to concurrency. Key features include Better ways to use prototype-based object-oriented programming Subtleties and solutions for working with arrays and dictionary objects Precise and

practical explanations of JavaScript's functions and variable scoping semantics Useful JavaScript programming patterns and idioms, such as options objects and method chaining In-depth guidance on using JavaScript's unique "run-to-completion" approach to concurrency

Understanding the DOM — Document Object Model Tania Rascia 2020-10-08

TypeScript Design Patterns Vilic Vane 2016-08-29 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.

Learning JavaScript Shelley Powers 2008-12-16 If you're new to JavaScript, or an experienced web developer looking to improve your skills, Learning JavaScript provides you with complete, no-nonsense coverage of this quirky yet essential language for web development. You'll learn everything from primitive data types to complex features, including JavaScript elements involved with Ajax and dynamic page effects. By the end of the book, you'll be able to work with even the most sophisticated libraries and web applications. Complete with best practices and examples of JavaScript use, this new edition shows you how to integrate the language with the browser environment, and how to practice proper coding techniques for standards-compliant websites. This book will help you: Learn the JavaScript application structure, including basic statements and control structures Identify JavaScript objects—String, Number, Boolean, Function, and more

Use browser debugging tools and troubleshooting techniques Understand event handling, form events, and JavaScript applications with forms Develop with the Browser Object Model, the Document Object Model, and custom objects you create Learn about browser cookies and more modern client-side storage techniques Get details for using XML or JSON with Ajax applications Learning JavaScript follows proven learning principles to help you absorb the concepts at an easy pace, so you'll learn how to create powerful and responsive applications in any browser. Learning JavaScript Design Patterns Addy Osmani

2012-07-08 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, Asyncronous 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."—Andrée Hansson, Lead Front-End Developer, presis!

Android Design Patterns Greg Nudelman 2013-02-19 Master the challenges of Android user interface development with these sample patterns With Android 4, Google brings the full power of its Android OS to both smartphone and tablet computing. Designing effective user interfaces that work on multiple Android devices is extremely challenging. This book provides more than 75

patterns that you can use to create versatile user interfaces for both smartphones and tablets, saving countless hours of development time. Patterns cover the most common and yet difficult types of user interactions, and each is supported with richly illustrated, step-by-step instructions. Includes sample patterns for welcome and home screens, searches, sorting and filtering, data entry, navigation, images and thumbnails, interacting with the environment and networks, and more Features tablet-specific patterns and patterns for avoiding results you don't want Illustrated, step-by-step instructions describe what the pattern is, how it works, when and why to use it, and related patterns and anti-patterns A companion website offers additional content and a forum for interaction Android Design Patterns: Interaction Design Solutions for Developers provides extremely useful tools for developers who want to take advantage of the booming Android app development market.

JavaScript Everywhere Adam D. Scott 2020-02-06 JavaScript is the little scripting language that could. Once used chiefly to add interactivity to web browser windows, JavaScript is now a primary building block of powerful and robust

applications. In this practical book, new and experienced JavaScript developers will learn how to use this language to create APIs as well as web, mobile, and desktop applications. Author and engineering leader Adam D. Scott covers technologies such as Node.js, GraphQL, React, React Native, and Electron. Ideal for developers who want to build full stack applications and ambitious web development beginners looking to bootstrap a startup, this book shows you how to create a single CRUD-style application that will work across several platforms. Explore GraphQL's simple process for querying data Learn about shared authentication for APIs, web apps, and native applications Build performant web applications with React and Styled Components Use React Native to write cross-platform applications for iOS and Android that compile to native code Learn how to write desktop applications with Electron

JavaScript Patterns Stoyan Stefanov 2010-09-09 What's the best approach for developing an application with JavaScript? This book helps you answer that question with numerous JavaScript coding patterns and best practices. If you're an experienced developer looking to solve problems related to

objects, functions, inheritance, and other language-specific categories, the abstractions and code templates in this guide are ideal—whether you're using JavaScript to write a client-side, server-side, or desktop application. Written by JavaScript expert Stoyan Stefanov—Senior Yahoo! Technical and architect of YSlow 2.0, the web page performance optimization tool—JavaScript Patterns includes practical advice for implementing each pattern discussed, along with several hands-on examples. You'll also learn about anti-patterns: common programming approaches that cause more problems than they solve. Explore useful habits for writing high-quality JavaScript code, such as avoiding globals, using single var declarations, and more Learn why literal notation patterns are simpler alternatives to constructor functions Discover different ways to define a function in JavaScript Create objects that go beyond the basic patterns of using object literals and constructor functions Learn the options available for code reuse and inheritance in JavaScript Study sample JavaScript approaches to common design patterns such as Singleton, Factory, Decorator, and more Examine patterns that apply specifically

to the client-side browser environment

Programming JavaScript Applications Eric Elliott 2014-06-26 Take advantage of JavaScript's power to build robust web-scale or enterprise applications that are easy to extend and maintain. By applying the design patterns outlined in this practical book, experienced JavaScript developers will learn how to write flexible and resilient code that's easier—yes, easier—to work with as your code base grows. JavaScript may be the most essential web programming language, but in the real world, JavaScript applications often break when

you make changes. With this book, author Eric Elliott shows you how to add client- and server-side features to a large JavaScript application without negatively affecting the rest of your code. Examine the anatomy of a large-scale JavaScript application Build modern web apps with the capabilities of desktop applications Learn best practices for code organization, modularity, and reuse Separate your application into different layers of responsibility Build efficient, self-describing hypermedia APIs with Node.js Test, integrate, and deploy software updates in rapid cycles Control resource access with

user authentication and authorization Expand your application's reach through internationalization

JavaScript Data Structures and Algorithms Sammie Bae 2019-01-23 Explore data structures and algorithm concepts and their relation to everyday JavaScript development. A basic understanding of these ideas is essential to any JavaScript developer wishing to analyze and build great software solutions. You'll discover how to implement data structures such as hash tables, linked lists, stacks, queues, trees, and graphs. You'll also learn how a URL shortener, such as bit.ly, is developed and what is happening to the data as a PDF is uploaded to a webpage. This book covers the practical applications of data structures and algorithms to encryption, searching, sorting, and pattern matching. It is crucial for JavaScript developers to understand how data structures work and how to design algorithms. This book and the accompanying code provide that essential foundation for doing so. With JavaScript Data Structures and Algorithms you can start developing your knowledge and applying it to your JavaScript projects today. What You'll Learn Review core data structure fundamentals:

arrays, linked-lists, trees, heaps, graphs, and hash-tableReview core algorithm fundamentals: search, sort, recursion, breadth/depth first search, dynamic programming, bitwise operators Examine how the core data structure and algorithms knowledge fits into context of JavaScript explained using prototypical inheritance and native JavaScript objects/data types Take a high-level look at commonly used design patterns in JavaScript Who This Book Is For Existing web developers and software engineers seeking to develop or revisit their fundamental data structures knowledge; beginners and students studying

JavaScript independently or via a course or coding bootcamp. JavaScript for Impatient Programmers Axel Rauschmayer 2019-08-30 This book makes JavaScript less challenging to learn for newcomers, by offering a modern view that is as consistent as possible. Highlights: Get started quickly, by initially focusing on modern features. Test-driven exercises and quizzes available for most chapters (sold separately). Covers all essential features of JavaScript, up to and including ES2019. Optional advanced sections let you dig deeper. No prior knowledge of JavaScript is required, but you should know

how to program.

You Don't Know JS: Async &
Performance Kyle Simpson
2015-02-23 No matter how
much experience you have with
JavaScript, odds are you don't
fully understand the language.
As part of the "You Don't Know
JS" series, this concise yet in-
depth guide focuses on new
asynchronous features and
performance
techniques—including Promises,
generators, and Web
Workers—that let you create
sophisticated single-page web
applications and escape
callback hell in the process.
Like other books in this series,
You Don't Know JS: Async &
Performance dives into trickier

parts of the language that many
JavaScript programmers simply
avoid. Armed with this
knowledge, you can become a
true JavaScript master. With
this book you will: Explore old
and new JavaScript methods for
handling asynchronous
programming Understand how
callbacks let third parties control
your program's execution
Address the "inversion of
control" issue with JavaScript
Promises Use generators to
express async flow in a
sequential, synchronous-looking
fashion Tackle program-level
performance with Web Workers,
SIMD, and asm.js Learn
valuable resources and
techniques for benchmarking

and tuning your expressions and statements

Data Structures and Algorithms with JavaScript Michael McMillan 2014-03-10 As an experienced JavaScript developer moving to server-side programming, you need to implement classic data structures and algorithms associated with conventional object-oriented languages like C# and Java. This practical guide shows you how to work hands-on with a variety of storage mechanisms—including linked lists, stacks, queues, and graphs—within the constraints of the JavaScript environment. Determine which data structures and algorithms are most appropriate for the problems you're trying to solve, and understand the tradeoffs when using them in a JavaScript program. An overview of the JavaScript features used throughout the book is also included. This book covers: Arrays and lists: the most common data structures Stacks and queues: more complex list-like data structures Linked lists: how they overcome the shortcomings of arrays Dictionaries: storing data as key-value pairs Hashing: good for quick insertion and retrieval Sets: useful for storing unique elements that appear only once Binary Trees: storing data in a hierarchical manner Graphs and

graph algorithms: ideal for modeling networks Algorithms: including those that help you sort or search data Advanced algorithms: dynamic programming and greedy algorithms

Pro JavaScript Design Patterns Dustin Diaz 2008-03-11 With Pro JavaScript Design Patterns, you'll start with the basics of object-oriented programming in JavaScript applicable to design patterns, including making JavaScript more expressive, inheritance, encapsulation, information hiding, and more. The book then details how to implement and take advantage of several design patterns in JavaScript. Each chapter is packed with real-world examples of how the design patterns are best used and expert advice on writing better code, as well as what to watch out for. Along the way you'll discover how to create your own libraries and APIs for even more efficient coding.

Clean Code in JavaScript James Padolsey 2020-01-20 Get the most out of JavaScript for building web applications through a series of patterns, techniques, and case studies for clean coding Key FeaturesWrite maintainable JS code using internal abstraction, well-written tests, and well-documented codeUnderstand the agents of clean coding like

SOLID principles, OOP, and functional programmingExplore solutions to tackle common JavaScript challenges in building UIs, managing APIs, and writing statesBook Description Building robust apps starts with creating clean code. In this book, you'll explore techniques for doing this by learning everything from the basics of JavaScript through to the practices of clean code. You'll write functional, intuitive, and maintainable code while also understanding how your code affects the end user and the wider community. The book starts with popular clean-coding principles such as SOLID, and the Law of Demeter (LoD), along with highlighting the enemies of writing clean code such as cargo culting and over-management. You'll then delve into JavaScript, understanding the more complex aspects of the language. Next, you'll create meaningful abstractions using design patterns, such as the Class Pattern and the Revealing Module Pattern. You'll explore real-world challenges such as DOM reconciliation, state management, dependency management, and security, both within browser and server environments. Later, you'll cover tooling and testing methodologies and the importance of documenting

code. Finally, the book will focus on advocacy and good communication for improving code cleanliness within teams or workplaces, along with covering a case study for clean coding. By the end of this book, you'll be well-versed with JavaScript and have learned how to create clean abstractions, test them, and communicate about them via documentation. What you will learnUnderstand the true purpose of code and the problems it solves for your end-users and colleaguesDiscover the tenets and enemies of clean code considering the effects of cultural and syntactic conventionsUse modern JavaScript syntax and design patterns to craft intuitive abstractionsMaintain code quality within your team via wise adoption of tooling and advocating best practicesLearn the modern ecosystem of JavaScript and its challenges like DOM reconciliation and state managementExpress the behavior of your code both within tests and via various forms of documentationWho this book is for This book is for anyone who writes JavaScript, professionally or otherwise. As this book does not relate specifically to any particular framework or environment, no prior experience of any JavaScript web framework is

required. Some knowledge of programming is assumed to understand the concepts covered in the book more effectively.

Speaking JavaScript Axel Rauschmayer 2014-02-25 Like it or not, JavaScript is everywhere these days—from browser to server to mobile—and now you, too, need to learn the language or dive deeper than you have. This concise book guides you into and through JavaScript, written by a veteran programmer who once found himself in the same position. Speaking JavaScript helps you approach the language with four standalone sections. First, a quick-start guide teaches you just enough of the language to help you be productive right away. More experienced JavaScript programmers will find a complete and easy-to-read reference that covers each language feature in depth. Complete contents include: JavaScript quick start: Familiar with object-oriented programming? This part helps you learn JavaScript quickly and properly. JavaScript in depth: Learn details of ECMAScript 5, from syntax, variables, functions, and object-oriented programming to regular expressions and JSON with lots of examples. Pick a topic and jump in. Background:

Understand JavaScript's history and its relationship with other programming languages. Tips, tools, and libraries: Survey existing style guides, best practices, advanced techniques, module systems, package managers, build tools, and learning resources.

JavaScript Application Design Nicolas Bevacqua 2015-01-29 Summary JavaScript Application Design: A Build First Approach introduces JavaScript developers to techniques that will improve the quality of their software as well as their web development workflow. You'll begin by learning how to establish build processes that are appropriate for JavaScript-driven development. Then, you'll walk through best practices for productive day-to-day development, like running tasks when your code changes, deploying applications with a single command, and monitoring the state of your application once it's in production. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book The fate of most applications is often sealed before a single line of code has been written. How is that possible? Simply, bad design assures bad results. Good design and effective processes are the foundation on

which maintainable applications are built, scaled, and improved. For JavaScript developers, this means discovering the tooling, modern libraries, and architectural patterns that enable those improvements. JavaScript Application Design: A Build First Approach introduces techniques to improve software quality and development workflow. You'll begin by learning how to establish processes designed to optimize the quality of your work. You'll execute tasks whenever your code changes, run tests on every commit, and deploy in an automated fashion. Then you'll focus on designing modular components and composing them together to build robust applications. This book assumes readers understand the basics of JavaScript. What's Inside Automated development, testing, and deployment processes JavaScript fundamentals and modularity best practices Modular, maintainable, and well-tested applications Master asynchronous flows, embrace MVC, and design a REST API About the Author Nicolas Bevacqua is a freelance developer with a focus on modular JavaScript, build processes, and sharp design. He maintains a blog at ponyfoo.com. Table of Contents

PART 1 BUILD PROCESSES Introduction to Build First Composing build tasks and flows Mastering environments and the development workflow Release, deployment, and monitoring PART 2 MANAGING COMPLEXITY Embracing modularity and dependency management Understanding asynchronous flow control methods in JavaScript Leveraging the Model-View-Controller Testing JavaScript components REST API design and layered service architectures

Full Stack JavaScript Azat Mardan 2015-12-30 This is a hands-on book which introduces you to agile JavaScript web and mobile software development using the latest cutting-edge front-end and back-end technologies including: Node.js, MongoDB, Backbone.js, Parse.com, Heroku and Windows Azure. Practical examples include building multiple versions of the Chat app:•jQuery + Parse.com JS REST API•Backbone and Parse.com JS SDK•Backbone and Node.js•Backbone and Node.js + MongoDB The Chat application has all the foundation of a typical web/mobile application: fetching data, displaying it, submitting new data. Other examples in the book are as follows:•jQuery + Twitter RESP API "Tweet

Analyzer"•Parse.com "Save John"•MongoDB "Print Collections"•Backbone.js "Apple Database"•Monk + Express.js "REST API Server" This book will save you many hours by providing a hand-picked and tested collection of quick start guides. RPJS has practical examples that allow to spend less time learning and more time building your own applications. Prototype fast and ship code that matters! What You will Learn: You should expect a basic understanding from a collection of quick start guides, tutorials and suggestions for the devel0pment apps discussed in this book. In addition to coding examples, the book covers virtually all setup and deployment step-by-step. You'll learn from the examples of Chat web/mobile applications starting with front-end components and by the end we'll put front-end and back-end together and deploy to the production environment. Who This Book is For: The typical programmer who wants to learn more about effective JavaScript coding. Node.js Design Patterns Mario Casciaro 2020-07-29 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.

Object-Oriented JavaScript - Second Edition Stoyan Stefanov 2013-01-01 You will first be introduced to object-oriented programming, then to the basics of objects in JavaScript. This book takes a do-it-yourself approach when it comes to writing code, because the best way to really learn a programming language is by writing code. You are encouraged to type code into Firebug's console, see how it works and then tweak it and play around with it. There are practice questions at the end of each chapter to help you review what you have learned. For new to intermediate JavaScript developer who wants to prepare themselves for web development problems solved by smart JavaSc.

Progressive Web Apps Dean Hume 2017-12-03 Summary Progressive Web Apps teaches you PWA design and the skills you need to build fast, reliable websites by taking you step-by-step through real world examples in this practical

tutorial. Foreword by Addy Osmani, Google. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Offline websites that work. Near-instant load times. Smooth transitions between high/low/no bandwidth. Fantasy, right? Not with progressive web applications. PWAs use modern browser features like push notifications, smart caching, and Service Workers to manage data, minimize server usage, and allow for unstable connections, giving you better control and happier customers. Better still, all you need to build PWAs are JavaScript, HTML, and the easy-to-master techniques you'll find in this book. About the Book Progressive Web Apps teaches you PWA design and the skills you need to build fast, reliable websites. There are lots of ways you can use PWA techniques, and this practical tutorial presents interesting, standalone examples so you can jump to the parts that interest you most. You'll discover how Web Service Workers vastly improve site loading, how to effectively use push notifications, and how to create sites with a no-compromise offline mode. What's Inside Improved caching with Service Workers Using

manifest files and HTML markup Push notifications Offline-first web designs Techniques for data synchronization About the Reader Written for readers with experience developing websites using HTML, CSS, and JavaScript. About the Author Dean Alan Hume is a coder, author, and Google Developer Expert. He's passionate about web performance and user experience. Table of Contents PART 1 - DEFINING PROGRESSIVE WEB APPS Understanding Progressive Web Apps First steps to building a Progressive Web App PART 2 - FASTER WEB APPS Caching Intercepting network requests PART 3 - ENGAGING WEB APPS Look and feel Push notifications PART 4 - RESILIENT WEB APPLICATIONS Offline browsing Building more resilient applications Keeping your data synchronized PART 5 - THE FUTURE OF PROGRESSIVE WEB APPS Streaming data Progressive Web App troubleshooting The future is looking good **Learning JavaScript** Ethan Brown 2016-03-11 This is an exciting time to learn JavaScript. Now that the latest JavaScript specification ECMAScript 6.0 (ES6) has been finalized, learning how to develop high-quality

applications with this language is easier and more satisfying than ever. This practical book takes programmers (amateurs and pros alike) on a no-nonsense tour of ES6, along with some related tools and techniques. Author Ethan Brown ("Web Development with Node and Express") not only guides you through simple and straightforward topics (variables, control flow, arrays), but also covers complex concepts such as functional and asynchronous programming. You ll learn how to create powerful and responsive web applications on the client, or with Node.js on the server.Use ES6 today and transcompile code to portable ES5Translate data into a format that JavaScript can useUnderstand the basic usage and mechanics of JavaScript functionsExplore objects and object-oriented programmingTackle new concepts such as iterators, generators, and proxiesGrasp the complexities of asynchronous programmingWork with the Document Object Model for browser-based appsLearn Node.js fundamentals for developing server-side applications"

JavaScript Enlightenment Cody Lindley 2013 "From library user to JavaScript developer"--Cover. JQuery Design Patterns

Thodoris Greasidis 2016-02-23 Learn the best practices on writing efficient jQuery applications to maximize performance in large-scale deploymentsAbout This Book-Learn about the observer pattern and the deferred observer pattern, two of the most popular design patterns that handle custom events-Advance your jQuery skills by learning about patterns such as divide and conquer, facade, and builder and factory to handle complex results- This step-by-step guide to applying micro-patterns and optimizing jQuery applications will help you get the best performance in a production environmentWho

This Book Is ForThis book is for existing jQuery Developers or new developers who want to get an understanding of the "correct way" to build jQuery applications, using best practices and industry standard patterns.What You Will Learn-Respond to user actions-Achieve greater flexibility and code decoupling- Have a central point for emitting and receiving application level events- Structure the application into small independent modules- Abstract complex APIs- Isolate the procedure of generating complex parts of the application- Efficiently orchestrate asynchronous procedures using jQuery

Deferred and Promises- Utilize the most widely-used client-side templating libraries for more complex use casesIn DetailjQuery is a feature-rich JavaScript library that makes HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a variety of browsers. With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.jQuery solves the problems of DOM manipulation, event detection, AJAX calls, element selection and document queries, element attribute and data management, as well as object management utilities. This book addresses these problems and shows you how to make the best of jQuery through the various design patterns available.The book starts off with a refresher to jQuery and will then take you through the different design patterns such as facade, observer, publisher/subscriber, and so on. We will also go into client-side templating techniques and libraries, as well as some plugin development patterns. Finally, we will look into some best practices that you can use to make the best of jQuery.Style and approachThe example-oriented guide covers the best and most

widely used patterns to help you improve your development with jQuery.

Animation in HTML, CSS, and JavaScript Kirupa Chinnathambi 2014-09-28 This book will help you create practical / usable / wickedly-cool animations in HTML, CSS, and JavaScript. Each chapter is filled with cleanly explained concepts, beautifully illustrated diagrams, colorific code snippets, and cringeworthy one-liners guaranteed to make your friend who laughs at everything groan. You will start by learning how to create animations and transitions in CSS. Towards the end, you will learn how to create animations in JavaScript by manipulating DOM elements as well as pushing pixels on the canvas. Along the way, you will see numerous small and large examples explaining how what you are learning applies to what is done in the real world. If you ever get stuck or need a group of friendly people to help you out with your animation-related issues, get free online support, demos, video tutorials, and other good stuff at: http://www.kirupa.com

The Smashing Book 2011 These eBooks are the long-awaited digital version of our bestselling printed book about best practices in modern Web design. They share valuable practical insight into design,

usability and coding, provide professional advice for designing mobile applications and building successful e-commerce websites, and explain common coding mistakes and how to avoid them. You'll explore the principles of professional design thinking and graphic design and learn how to apply psychology and game theory to create engaging user experiences. Design Patterns Erich Gamma 1995 Software -- Software Engineering. **Learning React** Kirupa Chinnathambi 2018-04-26 Learning React A hands-on guide to building web applications using React and Redux As far as new web frameworks and libraries go, React is quite the runaway success. It not only deals with the most common problems developers face when building complex apps, it throws in a few additional tricks that make building the visuals for such apps much, much easier. What React isn't, though, is beginner-friendly and approachable. Until now. In Learning React , author Kirupa Chinnathambi brings his fresh, clear, and very personable writing style to help web developers new to React understand its fundamentals and how to use it to build really performant (and awesome) apps. The only book on the

market that helps you get your first React app up and running in just minutes, Learning React is chock-full of colorful illustrations to help you visualize difficult concepts and practical step-by-step examples to show you how to apply what you learn. Build your first React app Create components to define parts of your UI Combine components into other components to build more complex UIs Use JSX to specify visuals without writing full-fledged JavaScript Deal with maintaining state Work with React's way of styling content Make sense of the mysterious component lifecycle Build multi-page apps using routing and views Optimize your React workflow using tools such as Node, Babel, webpack, and others Use Redux to make managing your app data and state easy Contents at a Glance 1 Introducing React 2 Building Your First React App 3 Components in React 4 Styling in React 5 Creating Complex Components 6 Transferring Properties 7 Meet JSX... Again! 8 Dealing with State in React 9 Going from Data to UI in React 10 Events in React 11 The Component Lifecycle 12 Accessing DOM Elements in React 13 Setting Up Your React Dev Environment 14 Working with External Data in React 15 Building an Awesome Todo List

App in React 16 Creating a Sliding Menu in React 17 Avoiding Unnecessary Renders in React 18 Creating a Single-Page App in React Using React Router 19 Introduction to Redux 20 Using Redux with React **JSON at Work** Tom Marrs 2017-06-19 JSON is becoming the backbone for meaningful data interchange over the internet. This format is now supported by an entire ecosystem of standards, tools, and technologies for building truly elegant, useful, and efficient applications. With this hands-on guide, author and architect Tom Marrs shows you how to build enterprise-class applications and services by leveraging JSON tooling and message/document design. JSON at Work provides application architects and developers with guidelines, best practices, and use cases, along with lots of real-world examples and code samples. You'll start with a comprehensive JSON overview, explore the JSON ecosystem, and then dive into JSON's use in the enterprise. Get acquainted with JSON basics and learn how to model JSON data Learn how to use JSON with Node.js, Ruby on Rails, and Java Structure JSON documents with JSON Schema to design and test APIs Search the contents of JSON documents with JSON Search

tools Convert JSON documents to other data formats with JSON Transform tools Compare JSON-based hypermedia formats, including HAL and jsonapi Leverage MongoDB to store and access JSON documents Use Apache Kafka to exchange JSON-based messages between services **You Don't Know JS: this & Object Prototypes** Kyle Simpson 2014-07-11 No matter how much experience you have with JavaScript, odds are you don't fully understand the language. This concise, in-depth guide takes you inside JavaScript's this structure and object prototypes. You'll learn how they work and why they're integral to behavior delegation—a design pattern in which objects are linked, rather than cloned. Like other books in the "You Don't Know JS" series, this and Object Prototypes dives into trickier parts of the language that many JavaScript programmers simply avoid. Armed with this knowledge, you can become a true JavaScript master. With this book you will: Explore how the this binding points to objects based on how the function is called Look into the nature of JS objects and why you'd need to point to them Learn how developers use the mixin pattern to fake classes in JS Examine how JS's prototype

mechanism forms links between objects Learn how to move from class/inheritance design to behavior delegation Understand how the OLOO (objects-linked-to-other-objects) coding style naturally implements behavior delegation

Node.js Design Patterns Mario Casciaro 2016-07-18 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 syntax 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. Programming TypeScript Boris Cherny 2019-04-25 Any programmer working with a dynamically typed language will tell you how hard it is to scale to more lines of code and more engineers. That's why Facebook, Google, and Microsoft invented gradual static

type layers for their dynamically typed JavaScript and Python code. This practical book shows you how one such type layer, TypeScript, is unique among them: it makes programming fun with its powerful static type system. If you're a programmer with intermediate JavaScript experience, author Boris Cherny will teach you how to master the TypeScript language. You'll understand how TypeScript can help you eliminate bugs in your code and enable you to scale your code across more engineers than you could before. In this book, you'll: Start with the basics: Learn about TypeScript's different types and type operators, including what they're for and how they're used Explore advanced topics: Understand TypeScript's sophisticated type system, including how to safely handle errors and build asynchronous programs Dive in hands-on: Use TypeScript with your favorite frontend and backend frameworks, migrate your existing JavaScript project to TypeScript, and run your TypeScript application in production

Learning Node Shelley Powers 2012-10-03 Provides information on writing scalable network applications using the JavaScript-based platform.

Learning Patterns Lydia Hallie 2021-10-31 In this book, you

will learn design patterns, performance and rendering patterns for building high-quality web applications using modern JavaScript and React. Patterns are time-tested templates for writing code. They can be really powerful, whether you're a seasoned developer or beginner, bringing a valuable level of resilience and flexibility to your codebase. Whether it's better user-experience, developer-experience or just smarter architecture, the patterns in "Learning Patterns" can be a valuable consideration for any modern web application. Design Patterns For Dummies Steve Holzner 2006-07-28 There's a pattern here, and here's how to use it! Find out how the 23 leading design patterns can save you time and trouble Ever feel as if you've solved this programming problem before? You -- or someone -- probably did, and that's why there's a design pattern to help this time around. This book shows you how (and when) to use the famous patterns developed by the "Gang of Four," plus some new ones, all designed to make your programming life easier. Discover how to: * Simplify the programming process with design patterns * Make the most of the Decorator, Factory, and Adapter patterns * Identify which pattern applies * Reduce

the amount of code needed for a task * Create your own patterns

JavaScript Cookbook Shelley Powers 2010-07-07 Why reinvent the wheel every time you run into a problem with JavaScript? This cookbook is chock-full of code recipes that address common programming tasks, as well as techniques for building web apps that work in any browser. Just copy and paste the code samples into your project—you'll get the job done faster and learn more about JavaScript in the process. You'll also learn how to take advantage of the latest features in ECMAScript 5 and HTML5, including the new cross-domain widget communication technique, HTML5's video and audio elements, and the drawing canvas. You'll find recipes for using these features with JavaScript to build high-quality application interfaces. Create interactive web and desktop applications Work with JavaScript objects, such as String, Array, Number, and Math Use JavaScript with Scalable Vector Graphics (SVG) and the canvas element Store data in various ways, from the simple to the complex Program the new HTML5 audio and video elements Implement concurrent programming with Web Workers Use and create jQuery plug-ins Use ARIA and

JavaScript to create fully accessible rich internet applications

Developing Backbone.js Applications Addy Osmani 2013-05-10 If you want to build your site's frontend with the single-page application (SPA) model, this hands-on book shows you how to get the job done with Backbone.js. You'll learn how to create structured JavaScript applications, using Backbone's own flavor of model-view-controller (MVC) architecture. Start with the basics of MVC, SPA, and Backbone, then get your hands dirty building sample applications—a simple Todo list app, a RESTful book library app, and a modular app with Backbone and RequireJS. Author Addy Osmani, an engineer for Google's Chrome team, also demonstrates advanced uses of the framework. Learn how Backbone.js brings MVC benefits to the client-side Write code that can be easily read, structured, and extended Work with the Backbone.Marionette and Thorax extension frameworks Solve common problems you'll encounter when using Backbone.js Organize your code into modules with AMD and RequireJS Paginate data for your Collections with the Backbone.Paginator plugin Bootstrap a new Backbone.js

application with boilerplate code Use Backbone with jQuery Mobile and resolve routing problems between the two Unit-test your Backbone apps with Jasmine, QUnit, and SinonJS Eloquent JavaScript Marijn Haverbeke 2011-01-15 JavaScript is at the heart of almost every modern Web application, whether it's Google Apps, Twitter, or the newest browser-based game. Though it's simple for beginners to pick up and play with, JavaScript is not a toy—it's a flexible and complex language that can be used to build full-scale applications. Eloquent JavaScript dives into this flourishing language and teaches you to write code that's beautiful and effective. By immersing you in example code and encouraging experimentation right from the start, the author quickly gives you the tools you need to build your own programs. As you follow along with examples like an artificial life simulation and a version of the classic game Sokoban, you'll learn to: –Understand the essential elements of programming: syntax, control, and data –Use object-oriented and functional programming techniques to organize and clarify your programs –Script the browser and make basic Web applications –Work with tools

like regular expressions and XMLHttpRequest objects And since programming is an art that's best learned by doing, all example code is available online in an interactive sandbox for you to experiment with. With Eloquent JavaScript as your guide, you can tweak, expand, and modify the author's code, or throw it away and build your own creations from scratch. Before you know it, you'll be fluent in the language of the Web.