Pro TypeScript Application Scale JavaScript Development

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Web Development with Node and Express - Ethan Brown 2014-07
Learn how to build dynamic web applications with Express, a key component of the Node/JavaScript development stack. In this hands-on guide, author Ethan Brown teaches you the fundamentals through the development of a fictional application that exposes a public website and a RESTful API. You'll also learn web architecture best practices to help you build single-page, multi-page, and hybrid web apps with Express. Express strikes a balance between a robust framework and no framework at all, allowing you a free hand in your architecture choices. With this book, frontend and backend engineers familiar with JavaScript will discover new ways of looking at web development. Create webpage templating system for rendering dynamic data Dive into request and response objects, middleware, and URL routing Simulate a production environment for testing and development Focus on persistence with document databases, particularly MongoDB Make your resources available to other programs with RESTful APIs Build secure apps with authentication, authorization, and HTTPS Integrate with social media, geolocation, and other third-party services Implement a plan for launching and maintaining your app Learn critical debugging skills This book covers Express 4.0.
Full-Stack React Projects - Shama Hoque 2020-04-17

This book is an updated and improved project-based guide to help you extend the capabilities of React into building full-stack projects by exploring the industry-tested MERN stack. Starting from the set up for your full-stack apps, you will learn to create the front end, back end, and everything in between by building fun and engaging projects.
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

Test-Driven JavaScript Development - Christian Johansen 2010-09-09 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, contains all of the book's code listings and additional resources.

Mastering TypeScript 3 - Nathan Rozentals 2019-02-28 Master the TypeScript language and its latest features. Explore modern application frameworks and utilize industry best practices in TDD, OOP and UI Design. Key FeaturesLearn the key features of TypeScript 3 and explore advanced language features through in-depth discussions.Use TypeScript with modern frameworks including Backbone, Angular, Aurelia, React, and Node.Explore TDD practices, OOP techniques, and

industry best practices to create high-quality, modular, and adaptable applications.Book Description TypeScript is both a language and a set of tools to generate JavaScript. It was designed by Anders Hejlsberg at Microsoft to help developers write enterprise-scale JavaScript. Starting with an introduction to the TypeScript language, before moving on to basic concepts, each section builds on previous knowledge in an incremental and easy-to-understand way. Advanced and powerful language features are all covered, including asynchronous programming techniques, decorators, and generics. This book explores many modern JavaScript and TypeScript frameworks side by side in order for the reader to learn their respective strengths and weaknesses. It will also thoroughly explore unit and integration testing for each framework. Best-of-breed applications utilize well-known design patterns in order to be scalable, maintainable, and testable. This book explores some of these object-oriented techniques and patterns, and shows real-world implementations. By the end of the book, you will have built a comprehensive, end-to-end web application to show how TypeScript language features, design patterns, and industry best practices can be brought together in a real-world scenario. What you will learnGain insights into core and advanced TypeScript language featuresIntegrate existing JavaScript libraries and third-party frameworks using declaration filesTarget popular JavaScript frameworks, such as Angular, React, and moreCreate test suites for your application with Jasmine and SeleniumOrganize your application code using modules, AMD loaders, and SystemJSExplore advanced object-oriented design principlesCompare the various MVC implementations in Aurelia, Angular, React, and moreWho this book is for This guide to the TypeScript that starts with basic concepts, and then builds on this knowledge to introduce more advanced language features and frameworks. No prior knowledge of JavaScript is required, although some prior programming experience is assumed. If you are keen to learn TypeScript, this book will give you all of the necessary knowledge and skills to tackle any TypeScript project. If you are already an experienced JavaScript or TypeScript developer, then this book will take your skills to

the next level. Learn how to use TypeScript with a multitude of modern frameworks, and choose the best framework for your project requirements. Investigate techniques for Test Driven Development, explore industry-standard design patterns, and learn how to put together a full production-ready TypeScript application.

Mastering TypeScript - Nathan Rozentals 2021-04-23
This book is a guide to the TypeScript language, from basic concepts to advanced features, and will get you up and running quickly. You'll learn TypeScript programming in depth as you use popular application frameworks and utilize modern design patterns and architectural patterns to build modular, testable and enterprise-ready applications.

Pro Angular 6 - Adam Freeman 2018-10-10
Best-selling author Adam Freeman shows you how to use Angular in your projects, starting from the nuts and bolts and building up to the most advanced and sophisticated features, going in-depth to give you the knowledge you need. Chapters include common problems and how to avoid them. Additionally, this book now has accompanying online files for Angular 7; all examples in the book work without changes in Angular 7. Get the most from Angular, the leading framework for building dynamic JavaScript applications. Understand the MVC pattern and the benefits it can offer. What You'll LearnGain a solid architectural understanding of the MVC PatternCreate rich and dynamic web app clients using AngularUse the ng tools to create and build an Angular projectExtend and customize AngularTest your Angular projectsWhat's New in This EditionRevised for the features and changes in Angular 6 and 7Covers @angular/cli, ng command line tools, and WebPackIncludes HttpClient for simplified asynchronous HTTP requestsPresents updates to pipes and localized text display Who This Book Is For Web developers with a foundation knowledge of HTML and JavaScript who want to create rich client-side applications

Programming with Types - Vlad Riscutia 2019-10-31
Type-related failures are common and can be very costly. Famously, in 1999, NASA's Mars Climate Orbiter burned up in the atmosphere because of an error that could have easily been prevented with typing.

By taking advantage of the strong type systems available in most modern programming languages, you can eliminate whole classes of errors. Programming with Types teaches you type system techniques for writing software that's safe, correct, easy to test and maintain, and that practically documents itself. Master these techniques, and you may even help prevent an interstellar catastrophe! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Angular: Up and Running - Shyam Seshadri 2018-05-31
This book will demystify Angular as a framework, as well as provide clear instructions and examples on how to get started with writing scalable Angular applications. Angular: Up & Running covers most of the major pieces of Angular, but in a structured manner that is generally used in hands-on training. Each chapter takes one concept, and use examples to cover how it works. Problems to work on (with solutions) at the end of each chapter reinforce the learnings of each chapter and allow readers to really get hands-on with Angular.

Simplifying JavaScript - Joe Morgan 2018-04-17
The best modern JavaScript is simple, readable, and predictable. Learn to write modern JavaScript not by memorizing a list of new syntax, but with practical examples of how syntax changes can make code more expressive. Starting from variable declarations that communicate intention clearly, see how modern principles can improve all parts of code. Incorporate ideas with curried functions, array methods, classes, and more to create code that does more with less while yielding fewer bugs. It's time to write JavaScript code that's clean and exprssive. Modern JavaScript is simpler and more predictable and readable than ever. Discover how to write better code with clear examples using principles that show how updated syntax can make code better with fewer bugs. Starting from the ground up, learn new syntax (or how to reuse older syntax) to transform code from clunky bug-susceptible scripts to clear and elegant programs that are easy to read and easy to extend. Create a foundation for readable code with simple variable declarations that reduce side effects and subtle bugs. Select collections

with clear goals instead of defaulting to objects or arrays. See how to simplify iterations from complex loops to single line array methods. Master techniques for writing flexible and solid code ranging from high-order functions, to reusableclasses, to patterns for architecting large web applications creating applications that will last while through rounds of refactoring and changing requirements. The best part is there's no need to read this book straight through. Jump around and incorporate new functionality at will. Most importantly, understand not just what the new syntax is, but when and how to use it. Start writing better code from the first page. What You Need: For the best experience, have the latest version of Node installed (at least version 7). You can test most examples in the console of Chrome or other modern web browser. If you'd like to run the tests, you'll also need to install the latest version of Node Package Manager (npm).

Blazor Revealed - Peter Himschoot 2019-02-04
Build web applications in Microsoft .NET that run in any modern browser, helping you to transfer your .NET experience and skills to a new environment and build browser-based applications using a robust and type-safe language and runtime. Developing a web site with rich client-side behavior means most developers need to learn a transpiled language like JavaScript or TypeScript. But today you can also develop rich browser applications using the .NET runtime and C# using Blazor. With Blazor you can use all that experience you have amassed over the years, and can use thousands of already existing libraries, right in the browser. Blazor Revealed will allow you to create a rich web site experience in no time. You will learn how to build user interfaces, and present data to a user for display and modification, capturing the user's changes via data binding. The book shows you how to access a rich library of .NET functionality such as a component model for building a composable user interface, including how to develop reusable components that can be used across many pages and web sites. Also covered is data exchange with a server, giving you access to microservices and database services. Blazor provides a fresh take on web development by eliminating the need for you to learn different languages and frameworks for client- and server-side development. Blazor allows C# and .NET to be used on all sides, providing a robust feature set that is well suited toward scalable, enterprise-level applications. Blazor Revealed gets you started in using this important new toolkit for web application development. What You'll LearnBuild user interfaces and display data for users to edit Capture the user's changes via data binding Transfer data back and forth between server and client Communicate with microservices and database services Develop reusable components and assemble them into bigger components Use routing to build single page applications (SPAs) Build Blazor libraries that are reusable across applicationsWho This Book Is For Experienced .NET developers who want to apply their existing skills to building professional quality, client-side web applications that run in any browser. The book is for web developers who want to step away from JavaScript and its complexities, and instead use a proven technology (.NET) that is robust toward creating enterprise-quality applications that scale and are reliable and that provide good user experience. The book is for intermediate to advanced .NET web developers with no experience using Blazor.

TypeScript for Javascript Programmers - Steve Fenton 2012

Effective TypeScript - Dan Vanderkam 2019-10-17
TypeScript is a typed superset of JavaScript with the potential to solve many of the headaches for which JavaScript is famous. But TypeScript has a learning curve of its own, and understanding how to use it effectively can take time. This book guides you through 62 specific ways to improve your use of TypeScript. Author Dan Vanderkam, a principal software engineer at Sidewalk Labs, shows you how to apply these ideas, following the format popularized by Effective C++ and Effective Java (both from Addison-Wesley). You'll advance from a beginning or intermediate user familiar with the basics to an advanced user who knows how to use the language well. Effective TypeScript is divided into eight chapters: Getting to Know TypeScript TypeScript's Type System Type Inference Type Design Working with any Types Declarations and @types Writing and Running Your Code Migrating to TypeScript

TypeScript: Modern JavaScript Development - Remo H. Jansen 2016-12-22
Leverage the features of TypeScript to boost your development skills and create captivating applications About This Book Learn how to develop modular, scalable, maintainable, and adaptable web applications by taking advantage of TypeScript Explore techniques to use TypeScript alongside other leading tools such as Angular 2, React, and Node.js Focusing on design patterns in TypeScript, this step-by-step guide demonstrates all the important design patterns in practice Who This Book Is For This Learning Path is for intermediate-level JavaScript developers who want to use TypeScript to build beautiful web applications and fun projects. No prior knowledge of TypeScript is required, but a basic understanding of jQuery is expected. This Learning Path is also for experienced TypeScript developers who want to take their skills to the next level, and also for web developers who wish to make the most of TypeScript. What You Will Learn Understand the key TypeScript language features and runtime Install and configure the necessary tools in order to start developing an application Create object-oriented code that adheres to the SOLID principles Develop robust applications with testing (Mocha, Chai, and SinonJS) Apply GoF patterns in an application with a testing approach Identify the challenges when developing an application Migrate JavaScript codebases to TypeScript to improve your workflow Utilize System.JS and Webpack to load scripts and their dependencies Develop high performance server-side applications to run within Node.js In Detail TypeScript is an open source and cross-platform typed superset of JavaScript that compiles to plain JavaScript that runs in any browser or any host. TypeScript adds optional static types, classes, and modules to JavaScript, to enable great tooling and better structuring of large JavaScript applications. Through this three-module learning path, you'll learn the ins-and-outs of TypeScript for building more robust software. The first module gets you started with TypeScript and helps you understand the basics of TypeScript and automation tools. Get a detailed description of function, generics, callbacks, and promises, and discover the object-oriented features and memory management functionality of TypeScript. The next module 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. You will be introduced to low-level programming concepts to help you write TypeScript code, as well as working with software architecture, best practices, and design aspects. The final module will help you build a complete single page app with Angular 2, create a neat mobile app using NativeScript, and even build a Pac Man game with TypeScript. As if the fun wasn't enough, you'll also find out how to migrate your legacy codebase from JavaScript to TypeScript. By the end of this Learning Path, you will be able to take your skills up a notch and develop full-fledged web applications using the latest features of the TypeScript. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Learning TypeScript by Remo H. Jansen TypeScript Design Patterns by Vilic Vane TypeScript Blueprints by Ivo Gabe de Wolff Style and approach This is a step-by-step, practical guide covering the fundamentals of TypeScript with practical examples. The end-to-end projects included in this book will give you ready-to-implement solutions for your business scenario, showcasing the depth and robustness of TypeScript.

The Design of Web APIs - Arnaud Lauret 2019-10-08
Web APIs are everywhere, giving developers an efficient way to interact with applications, services, and data. Well-designed APIs are a joy to use; poorly-designed APIs are cumbersome, confusing, and frustrating. The Design of Web APIs is a practical, example packed guide to crafting extraordinary web APIs. Author Arnaud Lauret demonstrates fantastic design principles and techniques you can apply to both public and private web APIs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

How To Code in Node.js - David Landup 2020-12-14

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

Learn TypeScript 3 by Building Web Applications - Sebastien Dubois 2019-11-22
Learn TypeScript and many of its features by building state of art web applications from scratch with the help of modern tooling, frameworks, and libraries Key Features Create modern Web applications to help businesses around the world benefit from better quality applications Learn the latest features of TypeScript 3 and use them wisely Explore TDD practices, OOP techniques, and industry best practices to create high-quality and modular apps Book Description TypeScript is a superset of the JavaScript programming language, giving developers a tool to help them write faster, cleaner JavaScript. With the help of its powerful static type system and other powerful tools and techniques it allows developers to write modern JavaScript applications. This book is a practical guide to learn the TypeScript programming language. It covers from the very basics to the more advanced concepts, while explaining many design patterns, techniques, frameworks, libraries and tools along the way. You will also learn a ton about modern web frameworks like Angular, Vue.js and React, and you will build cool web applications using those. This book also covers modern front-end development tooling such as Node.js,

npm, yarn, Webpack, Parcel, Jest, and many others. Throughout the book, you will also discover and make use of the most recent additions of the language introduced by TypeScript 3 such as new types enforcing explicit checks, flexible and scalable ways of project structuring, and many more breaking changes. By the end of this book, you will be ready to use TypeScript in your own projects and will also have a concrete view of the current frontend software development landscape. What you will learn Understand and take advantage of TypeScript's powerful Type System Grasp the key concepts and features of Angular, React, Vue.js, and NestJS Handle asynchronous processes using Promises, async/await, Fetch, RxJS, and more Delve into REST, GraphQL and create APIs using Apollo Discover testing concepts, techniques, and tools like TDD, BDD, E2E, Jest Learn Object-Oriented and Functional Programming concepts and leverage those with TypeScript Explore design practices and patterns such as SOLID, MVC, DI and IoC, LoD, AOP, and more Who this book is for This book is for software developers who are willing to discover what TypeScript is and how to leverage it to write great quality software. Developers that are already familiar with TypeScript will find this book useful by learning the languages featured introduced by most recent releases. Basic knowledge of the JavaScript programming is expected.

Pro TypeScript - Steve Fenton 2017-11-26
Explore the features of this innovative open source language in depth, from working with the type system through object-orientation to understanding the runtime and the TypeScript compiler. This fully revised and updated second edition of Steve Fenton's popular book covers everything you need to discover this fascinating language and transform your experience of JavaScript development. What's New in This Edition Coverage of major changes to modules, namespaces, and module loading New guidance on how to use inference to reduce the effort of using TypeScript Recommendations on compiler options A wide range of feature updates from intersections and tuples to async/await and the new approach to mixins What You'll Learn Understand the TypeScript type system, and how to use it effectively Apply object-

oriented design using TypeScript Use modules effectively to manage large programs Integrate existing frameworks and libraries into your TypeScript program Who This Book Is For Web developers looking for a modern approach to JavaScript development

TypeScript Quickly - Anton Moiseev 2020-02-10
Summary TypeScript is JavaScript with an important upgrade! By adding a strong type system to JavaScript, TypeScript can help you eliminate entire categories of runtime errors. In TypeScript Quickly, you'll learn to build rock-solid apps through practical examples and hands-on projects under the expert instruction of experienced web developers Yakov Fain and Anton Moiseev. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Strong typing can eliminate nearly all errors caused by unanticipated data values. With TypeScript, an enhanced version of JavaScript, you can specify types and type annotations so your code is easier to read and far less likely to fail at runtime. And because the core of TypeScript is standard JavaScript, it runs on all major browsers and can be used with frameworks like Angular, Vue, and React. About the book TypeScript Quickly teaches you to exploit the benefits of types in browser-based and standalone applications. In this practical guide, you'll build a fascinating blockchain service app that takes you through a range of type-sensitive programming techniques. As you go, you'll also pick up valuable techniques for object-oriented programming with classes, interfaces, and advanced features such as decorators and conditional types. What's inside Mastering TypeScript syntax Using TypeScript with JavaScript libraries Tooling with Babel and Webpack Developing TypeScript apps using Angular, React, and Vue About the reader For web developers comfortable with JavaScript and HTML. About the author Yakov Fain and Anton Moiseev are experienced web developers. They have authored two editions of Manning's Angular Development with TypeScript. Table of Contents: PART 1 MASTERING THE TYPESCRIPT SYNTAX 1 ¦ Getting familiar with TypeScript 2 ¦ Basic and custom types 3 ¦ Object-oriented programming with classes and interfaces 4 ¦ Using enums and generics 5 ¦ Decorators and advanced types 6 ¦ Tooling 7 ¦ Using TypeScript and JavaScript in the same project PART 2 APPLYING TYPESCRIPT IN A BLOCKCHAIN APP 8 ¦ Developing your own blockchain app 9 ¦ Developing a browser-based blockchain node 10 ¦ Client-server communications using Node.js, TypeScript, and WebSockets 11 ¦ Developing Angular apps with TypeScript 12 ¦ Developing the blockchain client in Angular 13 ¦ Developing React.js apps with TypeScript 14 ¦ Developing a blockchain client in React.js 15 ¦ Developing Vue.js apps with TypeScript 16 ¦ Developing the blockchain client in Vue.js

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!

Programming TypeScript - Boris Cherny 2019-05-10
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

Pro Angular 9 - Adam Freeman 2020-06-12
This book has accompanying online files for Angular 9, 10 and 11; all examples in the book work without changes in Angular 10 or 11. Welcome to this one-stop-shop for learning Angular. Pro Angular is the most concise and comprehensive guide available, giving you the knowledge you need to take full advantage of this popular framework for building your own dynamic JavaScript applications. The fourth edition of this full-color guide explains how to get the most from Angular, starting with an in-depth overview of the MVC pattern and presenting the range of benefits it can offer. From there, you will begin learning how to use Angular in your projects, starting with the nuts-and-bolts concepts, and progressing on to more advanced and sophisticated features. Each topic provides you with precisely enough learning and detail to be effective. In true Adam Freeman style, the most important features are given full court press treatment, while also addressing common problems and how to avoid them. What You Will Learn:Get access to accompanying online files for Angular 9, 10 and 11; book examples work without changes in Angular 10 or 11Gain a solid architectural understanding of the MVC

PatternCreate rich and dynamic web app clients using Angular Use the ng tools to create and build an Angular projectExtend and customize AngularAcquire skills to unit test your Angular projects Who This Book Is For:This book is for web developers who want to create rich client-side applications. Foundational knowledge of HTML and JavaScript is recommended. "Adam's books provide a finely tuned blend of architectural overview, technical depth, and experience-born wisdom. His clear, concise writing style, coupled with project driven real world examples, make me comfortable recommending his books to a broad audience, ranging from developers working with a technology for the first time to seasoned professionals who need to learn a new skill quickly." Keith Dublin, Solution Principal, Slalom Consulting "Adam's books are the print version of a chat bot. His investment in learning how developers learn pays off in dividends, making this one of the most comprehensive resources available. Novices and experienced professionals alike will gain knowledge from the accessible and insightful material."Mark Donile, Software Engineer, MS CS

Beginning Angular with Typescript - Greg Lim 2020-09
Angular is one of the leading frameworks to develop apps across all platforms. Reuse your code and build fast and high performing apps for any platform be it web, mobile web, native mobile and native desktop. You use small manageable components to build a large powerful app. No more wasting time hunting for DOM nodes! In this book, we take you on a fun, hands-on and pragmatic journey to master Angular from a web development point of view. You'll start building Angular apps within minutes. Every section is written in a bite-sized manner and straight to the point as I don't want to waste your time (and most certainly mine) on the content you don't need. In the end, you will have what it takes to develop a real-life app. About the Reader This book is for developers with basic familiarity with HTML, CSS, Javascript and object-oriented programming. No TypeScript or AngularJS experience needed. About the Author Greg Lim is a technologist and author of several programming books. Greg has many years in teaching programming in tertiary institutions and he places special emphasis on learning by doing. Table of

Contents Introduction Creating and Using Components Bindings Working with Components Conditional Rendering, Pipes and Ng-Content Template Driven Forms Model Driven Forms Introduction to Observables Getting Data From RESTful APIs with Observables Routing Structuring Large Apps With Modules C.R.U.D. with Firebase/Firestore Authentication with Firebase/Firestore Implementing for Multiple Users

Essential TypeScript 4 - Adam Freeman 2021-05-24
Learn the essentials and more of TypeScript, 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 typing errors and providing an easier path to JavaScript development. Author Adam Freeman explains how to get the most from TypeScript 4 in this second edition of his best-selling book. He begins by describing the TypeScript language and the benefits it offers and then shows you how to use TypeScript in real-world scenarios, including development with the DOM API, and popular frameworks such as Angular and React. He starts from the nuts-and-bolts and builds up to the most advanced and sophisticated features. Each topic is covered clearly and concisely, and is packed with the details you need to be effective. The most important features are given a no-nonsense, in-depth treatment and chapters include common problems and teach you how to avoid them. What You Will Learn Gain a solid understanding of the TypeScript language and tools Use TypeScript for client- and server-side development Extend and customize TypeScript Test your TypeScript code Apply TypeScript with the DOM API, Angular, React, and Vue.js Who This Book Is For JavaScript developers who want to use TypeScript to create client-side or server-side applications

Mastering JavaScript Functional Programming - Federico Kereki 2017-11-29
Master Functional Programming techniques with this comprehensive guide for writing cleaner, safer, high-performing JavaScript codes About This Book Become proficient and skilled with Functional Programming in JavaScript to solve real-world development problems Successfully apply Functional Programming concepts and techniques to everyday JavaScript programming Bring modularity, reusability, testability, and performance to your web apps Who This Book Is For If you are a JavaScript developer and want to apply functional programming techniques, then this book is for you. Only a basic knowledge of the concepts of functional programming is required for this book. What You Will Learn Create more reliable code with closures and immutable data Convert existing methods into pure functions, and loops into recursive methods Develop more powerful applications with currying and function composition Separate the logic of your system from implementation details Implement composition and chaining techniques to simplify coding Use functional programming techniques where it makes the most sense In Detail Functional programming is a programming paradigm for developing software using functions. Learning to use functional programming is a good way to write more concise code, with greater concurrency and performance. The JavaScript language is particularly suited to functional programming. This book provides comprehensive coverage of the major topics in functional programming with JavaScript to produce shorter, clearer, and testable programs. You'll delve into functional programming; including writing and testing pure functions, reducing side-effects, and other features to make your applications functional in nature. Specifically, we'll explore techniques to simplify coding, apply recursion for loopless coding, learn ways to achieve immutability, implement design patterns, and work with data types. By the end of this book, you'll have developed the JavaScript skills you need to program functional applications with confidence. Style and approach This book takes an easy-to-follow, step-by-step tutorial approach. You will make the most of JavaScript programming with a focus on the progression of functional programming techniques, styles, and detailed information about JavaScript libraries.

The Pragmatic Programmer - Andrew Hunt 1999-10-20
What others in the trenches say about The Pragmatic Programmer...
"The cool thing about this book is that it's great for keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there." —Kent Beck, author of

Extreme Programming Explained: Embrace Change "I found this book to be a great mix of solid advice and wonderful analogies!" —Martin Fowler, author of Refactoring and UML Distilled "I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost." —Kevin Ruland, Management Science, MSG-Logistics "The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful.... By far its greatest strength for me has been the outstanding analogies—tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike." —John Lakos, author of Large-Scale C++ Software Design "This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients." —Eric Vought, Software Engineer "Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book." —Pete McBreen, Independent Consultant "Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should be a desktop reference for everyone who works with code for a living." —Jared Richardson, Senior Software Developer, iRenaissance, Inc. "I would like to see this issued to every new employee at my company...." —Chris Cleeland, Senior Software Engineer, Object Computing, Inc. "If I'm putting together a project, it's the authors of this book that I want. . . . And failing that I'd settle for people who've read their book." —Ward Cunningham Straight from the programming trenches, The Pragmatic Programmer cuts through the increasing specialization and technicalities of modern software development to examine the core process--taking a requirement and producing working, maintainable code that delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge; Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, The Pragmatic Programmer illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

TypeScript Revealed - Dan Maharry 2013-01-28
TypeScript Revealed is a quick 100-page guide to Anders Hejlsberg's new take on JavaScript. With this brief, fast-paced introduction to TypeScript, .NET, Web and Windows 8 application developers who are already familiar with JavaScript will easily get up to speed with TypeScript and decide whether or not to start incorporating it into their own development. TypeScript is 'JavaScript for Application-scale development'; a superset of JavaScript that brings to it an additional object-oriented-like syntax familiar to .NET programmers that compiles down into simple, clean JavaScript that any browser can run today. It's also tied to the next version of the JavaScript standard, which means that TypeScript will continue to evolve over time to keep in step with that standard and with the capabilities of the engines that will execute JavaScript applications. If you are a .NET developer, Web designer or developer, or a programmer with a keen interest in scalable applications, TypeScript Revealed is a great way to get started with the language,

learn how it compiles into JavaScript, and how easy it is to learn from a .NET/Java developer's perspective. Takes you through the language features in Typescript additional to those in JavaScript Describes the tooling and community support for TypeScript development Discusses how TypeScript can be included in ASP.NET, Windows 8, and node.js application development projects. What you'll learn Why you should care about TypeScript What it does and what it doesn't do The current toolset and levels of support The new syntax features of TypeScript How to build your own TypeScript declaration files How to incorporate TypeScript into your projects Who this book is for TypeScript Revealed is aimed at the early adopter developer who is already familiar with Microsoft tools and .NET and/or JavaScript development that wants a flavor of TypeScript distilled, culled, and organized in one place. Table of ContentsChapter 1: What is TypeScript? Why TypeScript? Chapter 2: New Syntax Static Typing & Type Inference Tooling Interfaces Classes Derived classes using the 'extends' keyword. Arrow functions Modules Enforcing the Intention of some features. Typescript vs EcmaScript6 Chapter 3: Working with TypeScript Tools & Resources

Modern Full-Stack Development - Frank Zammetti 2020-03-29
Explore what React, Node, TypeScript, Webpack, and Docker have to offer individually, and how they all fit together in modern app development. React is one of the most popular web development tools available today, and Node.js is extremely popular for server-side development. The fact that both utilize JavaScript is a big selling point, but as developers use the language more, they begin to recognize the shortcomings, and that's where TypeScript comes in and why it's gaining in popularity quickly. Add Webpack and Docker to the mix, and you've got a potent full development stack on which to build applications. You'll begin by building a solid foundation of knowledge and quickly expand it by constructing two different real-world apps. These aren't just simple, contrived examples but real apps that you can choose to install on your servers and use for real. By the end, you will have a solid grasp of building apps with React, Node.js, and TypeScript and a good grasp on how Webpack can be used to optimize and organize your code for

deployment. You'll also understand how Docker can be used to run the apps you build in a clear and well-defined way, all of which will be able to springboard you into creating more advanced apps on your own. What You'll Learn Get a project started and logically structure it Construct a user interface with React and Material-UI Use WebSockets for real-time communication between client and server Build a REST API with Node and Express as another approach to client-server communicationPackage the app with Webpack for optimized deliveryTake a completed app and wrap it up with Docker for easy distributionReview a host of other ancillary topics including NPM, Semantic versioning, Babel, NoSQL, and more Who This Book Is For Web developers with basic knowledge of HTML, JavaScript, CSS, and CLI tools who are interested in and in all aspects of application development, and using TypeScript instead of straight JavaScript.

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.

The TypeScript Workshop - Ben Grynhaus 2021-07-29
Broaden your skill set by learning TypeScript and applying your knowledge to build real-world applications Key FeaturesQuickly get started writing TypeScript code with hands-on exercises and activitiesDevelop new skills that can be applied at work or in your own side projectsBuild your understanding, boost your confidence, and advance your programming careerBook Description By learning TypeScript, you can start writing cleaner, more readable code that's easier to understand and less likely to contain bugs. What's not to like? It's certainly an appealing prospect, but learning a new language can be

challenging, and it's not always easy to know where to begin. This book is the perfect place to start. It provides the ideal platform for JavaScript programmers to practice writing eloquent, productive TypeScript code. Unlike many theory-heavy books, The TypeScript Workshop balances clear explanations with opportunities for hands-on practice. You'll quickly be up and running building functional websites, without having to wade through pages and pages of history and dull, dry fluff. Guided exercises clearly demonstrate how key concepts are used in the real world, and each chapter is rounded off with an activity that challenges you to apply your new knowledge in the context of a realistic scenario. Whether you're a hobbyist eager to get cracking on your next project, or a professional developer looking to unlock your next promotion, pick up a copy and make a start! Whatever your motivation, by the end of this book, you'll have the confidence and understanding to make it happen with TypeScript. What you will learnConfigure a professional TypeScript development environmentExplore how to use primitive and complex data typesIncorporate types into popular npm (Node package manager) librariesDesign systems that use asynchronous behaviorImplement object-oriented programming to model real-world scenariosGet to grips with modern UI design by combining React with TypeScriptWho this book is for The TypeScript Workshop is for software developers who want to broaden their skill set by learning the TypeScript programming language. To get the most from this TypeScript book, you should have basic knowledge of JavaScript or experience using another similar programming language.

Essential TypeScript - Adam Freeman 2019-08-14
Work with Typescript and get the most from this versatile open source language. Author Adam Freeman begins this book by describing Typescript and the benefits it offers, and goes on to show you how to use TypeScript in realistic 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 TypeScript builds on the JavaScript type system to create a safer and more productive development experience and understand how

TypeScript can be used to create applications using popular frameworks, including Node.js, Angular, React, and Vue.js. 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. What You Will LearnGain a solid understanding of the TypeScript language and toolsUse TypeScript for client- and server-side developmentExtend and customize TypeScriptDebug and unit test your TypeScript code Who This Book Is For Developers who want to start using TypeScript, for example to create rich web applications using Angular, React, or Vue.js Adam Freeman is an experienced IT professional who has held senior positions in a range of companies, most recently serving as chief technology officer and chief operating officer of a global bank. Now retired, he spends his time writing and long-distance running.

TypeScript 4 Design Patterns and Best Practices - Theo Despoudis 2021-09-15
A detailed and easy-to-follow guide to learning design patterns and modern best practices for improving your TypeScript development skills Key Features • Understand, analyze, and develop classical design patterns in TypeScript • Explore advanced design patterns taken from functional programming and reactive programming • Discover useful techniques and gotchas when developing large-scale TypeScript applications Book Description TypeScript is a superset language on top of JavaScript that introduces type safety and enhanced developer tooling. TypeScript 4 Design Patterns and Best Practices will assist with understanding design patterns and learning best practices for producing scalable TypeScript applications. It will also serve as handy documentation for future maintainers. This book takes a hands-on approach to helping you get up and running with the implementation of TypeScript design patterns and associated methodologies for writing testable code. You'll start by exploring the practical aspects of TypeScript 4 and its new features. The book will then take you through traditional gang of four (GOF) design patterns, such as behavioral,

creational, and structural in their classic and alternative forms, and show you how you can use them in real-world development projects. Once you've got to grips with traditional design patterns, you'll advance to learning about their functional programming and reactive programming counterparts and how they can be coupled to deliver better and more idiomatic TypeScript code. By the end of this TypeScript book, you'll be able to efficiently recognize when and how to use the right design patterns in any practical use case and gain the confidence to work on scalable and maintainable TypeScript projects of any size. What you will learn • Understand the role of design patterns and their significance • Explore all significant design patterns within the context of TypeScript • Find out how design patterns differ from design concepts • Understand how to put the principles of design patterns into practice • Discover additional patterns that stem from functional and reactive programming • Recognize common gotchas and antipatterns when developing TypeScript applications and understand how to avoid them Who this book is for If you're a developer looking to learn how to apply established design patterns to solve common programming problems instead of reinventing solutions, you'll find this book useful. You're not expected to have prior knowledge of design patterns. Basic TypeScript knowledge is all you need to get started with this book. Table of Contents • Getting Started With Typescript 4 • Typescript Principles and Use Cases • Creational Design Patterns • Structural Design Patterns • Behavioral Design Patterns • Functional Programming Design Concepts • Reactive Design Patterns • Developing Robust and Modern Typescript Applications • Anti Patterns and Workarounds

Angular Development with TypeScript - Anton Moiseev 2018-12-05 Summary Angular Development with TypeScript, Second Edition is an intermediate-level tutorial that introduces Angular and TypeScript to developers comfortable with building web applications using other frameworks and tools. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Whether you're building lightweight web clients or full-featured SPAs, Angular is a clear choice. The Angular framework is fast, efficient, and widely adopted. Add the benefits of developing in the statically typed, fully integrated TypeScript language, and you get a programming experience other JavaScript frameworks just can't match. About the Book Angular Development with TypeScript, Second Edition teaches you how to build web applications with Angular and TypeScript. Written in an accessible, lively style, this illuminating guide covers core concerns like state management, data, forms, and server communication as you build a full-featured online auction app. You'll get the skills you need to write type-aware classes, interfaces, and generics with TypeScript, and discover time-saving best practices to use in your own work. What's inside Code samples for Angular 5, 6, and 7 Dependency injection Reactive programming The Angular Forms API About the Reader Written for intermediate web developers familiar with HTML, CSS, and JavaScript. About the Author Yakov Fain and Anton Moiseev are experienced trainers and web application developers. They have coauthored several books on software development. Table of Contents Introducing Angular The main artifacts of an Angular app Router basics Router advanced Dependency injection in Angular Reactive programming in Angular Laying out pages with Flex Layout Implementing component communications Change detection and component lifecycle Introducing the Forms API Validating forms Interacting with servers using HTTP Interacting with servers using the WebSocket protocol Testing Angular applications Maintaining app state with ngrx

Learning AngularJS - Ken Williamson 2015-03-18 With AngularJS, you can quickly build client-side applications that run well on any desktop or mobile platform, using REST web services for backend processes. You may have heard that the learning curve for this JavaScript MVC framework is too steep, but that's not the case. This practical guide provides a hands-on approach to learning AngularJS that will have you building high-quality applications and websites in no time. Along with a conceptual understanding of the framework, you'll also gain direct experience with AngularJS by building a sample application throughout the book. If you're familiar with JavaScript, web development, and software design concepts and patterns, this book is the

perfect way to get started. Understand how AngularJS differs from other MVC frameworks Learn about AngularJS controllers, views, and models by diving into the book's sample project Connect your working application to public REST services Build the application's security layer with non-REST AngularJS services Explore the basics of building and testing AngularJS directives Use AngularJS as part of the MEAN stack (MongoDB, ExpressJS, AngularJS, and Node.js) Discover how search engine optimization relates to AngularJS applications and sites

TypeScript Revealed - Dan Maharry 2013-01-28
TypeScript Revealed is a quick 100-page guide to Anders Hejlsberg's new take on JavaScript. With this brief, fast-paced introduction to TypeScript, .NET, Web and Windows 8 application developers who are already familiar with JavaScript will easily get up to speed with TypeScript and decide whether or not to start incorporating it into their own development. TypeScript is 'JavaScript for Application-scale development'; a superset of JavaScript that brings to it an additional object-oriented-like syntax familiar to .NET programmers that compiles down into simple, clean JavaScript that any browser can run today. It's also tied to the next version of the JavaScript standard, which means that TypeScript will continue to evolve over time to keep in step with that standard and with the capabilities of the engines that will execute JavaScript applications. If you are a .NET developer, Web designer or developer, or a programmer with a keen interest in scalable applications, TypeScript Revealed is a great way to get started with the language, learn how it compiles into JavaScript, and how easy it is to learn from a .NET/Java developer's perspective. Takes you through the language features in Typescript additional to those in JavaScript Describes the tooling and community support for TypeScript development Discusses how TypeScript can be included in ASP.NET, Windows 8, and node.js application development projects. What you'll learn Why you should care about TypeScript What it does and what it doesn't do The current toolset and levels of support The new syntax features of TypeScript How to build your own TypeScript declaration files How to incorporate TypeScript into your projects Who this book is for TypeScript Revealed is aimed at the early adopter developer who is already familiar with Microsoft tools and .NET and/or JavaScript development that wants a flavor of TypeScript distilled, culled, and organized in one place. Table of ContentsChapter 1: What is TypeScript? Why TypeScript? Chapter 2: New Syntax Static Typing & Type Inference Tooling Interfaces Classes Derived classes using the 'extends' keyword. Arrow functions Modules Enforcing the Intention of some features. Typescript vs EcmaScript6 Chapter 3: Working with TypeScript Tools & Resources

TypeScript Essentials - Christopher Nance 2014-10-21
The book introduces the TypeScript language and its features to anyone looking to develop rich web applications. Whether you are new to web development or are an experienced engineer with strong JavaScript skills, this book will get you writing code quickly. A basic understanding of JavaScript and its language features are necessary for this book.

Pro TypeScript - Steve Fenton 2017-11-24
Explore the features of this innovative open source language in depth, from working with the type system through object-orientation to understanding the runtime and the TypeScript compiler. This fully revised and updated second edition of Steve Fenton's popular book covers everything you need to discover this fascinating language and transform your experience of JavaScript development. What's New in This Edition Coverage of major changes to modules, namespaces, and module loading New guidance on how to use inference to reduce the effort of using TypeScript Recommendations on compiler options A wide range of feature updates from intersections and tuples to async/await and the new approach to mixins What You'll Learn Understand the TypeScript type system, and how to use it effectively Apply object-oriented design using TypeScript Use modules effectively to manage large programs Integrate existing frameworks and libraries into your TypeScript program Who This Book Is For Web developers looking for a modern approach to JavaScript development

Beyond Databases, Architectures and Structures. Towards Efficient Solutions for Data Analysis and Knowledge Representation - Stanisław Kozielski 2017-05-16

This book constitutes the refereed proceedings of the 13th International Conference entitled Beyond Databases, Architectures and Structures, BDAS 2017, held in Ustroń, Poland, in May/June 2017. It consists of 44 carefully reviewed papers selected from 118 submissions. The papers are organized in topical sections, namely big data and cloud computing; artificial intelligence, data mining and knowledge discovery; architectures, structures and algorithms for efficient data processing; text mining, natural language processing, ontologies and semantic web; bioinformatics and biological data analysis; industrial applications; data mining tools, optimization and compression.

Learn React with TypeScript 3 - Carl Rippon 2018-11-29
Start developing modern day component based web apps using React 16, Redux and TypeScript 3 with this easy to follow guide filled with practical examples. Key FeaturesLearn the latest and core features of React such as components, React Router, and suspenseDive into TypeScript 3 and it`s core components such as interfaces, types aliases, tuples, generics and much more.Build small-to-large scale single page applications with React, Redux, GraphQL and TypeScriptBook Description React today is one of the most preferred choices for frontend development. Using React with TypeScript enhances development experience and offers a powerful combination to develop high performing web apps. In this book, you'll learn how to create well structured and reusable react components that are easy to read and maintain by leveraging modern web development techniques. We will start with learning core TypeScript programming concepts before moving on to building reusable React components. You'll learn how to ensure all your components are type-safe by leveraging TypeScript's capabilities, including the latest on Project references, Tuples in rest parameters, and much more. You'll then be introduced to core features of React such as React Router, managing state with Redux and applying logic in lifecycle methods. Further on, you'll discover the latest features of React such as hooks and suspense which will enable you to create powerful function-based components. You'll get to grips with GraphQL web API using Apollo client to make your app more interactive. Finally, you'll learn how to write robust unit tests for React components using Jest. By the end of the book, you'll be well versed with all you need to develop fully featured web apps with React and TypeScript. What you will learnGain a first-hand experience of TypeScript and its productivity features Transpile your TypeScript code into JavaScript for it to run in a browser Learn relevant advanced types in TypeScript for creating strongly typed and reusable components.Create stateful function-based components that handle lifecycle events using hooks Get to know what GraphQL is and how to work with it by executing basic queries to get familiar with the syntaxBecome confident in getting good unit testing coverage on your components using JestWho this book is for The ideal target audience for this book are web developers who want to get started with creating modern day web apps with React and TypeScript.You are expected to have a basic understanding of JavaScript and HTML programming. No prior knowledge of TypeScript and React is needed.