

Pro Typescript Application Scale Javascript Development

Diving deep into the JavaScript language to show you how to write beautiful, effective code, this book uses extensive examples and immerses you in code from the start, while exercises and full-chapter projects give you hands-on experience with writing your own programs. --

Writing clean, object-oriented code in JavaScript gets trickier and complex as the size of the project grows. This is where TypeScript comes into the picture; it lets you write pure object-oriented code with ease, giving it the upper hand over JavaScript. This book introduces you to basic TypeScript concepts by gradually modifying standard ...

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.

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

Vue.js is an open-source JavaScript library for building modern, interactive web applications. From basic to advanced recipes, this book arms you with practical solutions to common tasks in building complete Vue.js web applications and helps you migrate to Vue.js 3 with a practical introduction to TypeScript and its latest features.

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 Learn Gain a solid understanding of the TypeScript language and tools Use TypeScript for client- and server-side development Extend and customize TypeScript Debug 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 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

Learn to build single page web apps using Angular 5 and TypeScript by working through 70+ mini-projects. With hundreds of code examples you gain a thorough understanding of the Angular 5 ecosystem and how to work within it. You'll begin by understanding the benefits of Angular 5 vs older versions, and how this benefits your applications. You'll then move onto mini-projects that teach you JavaScript, TypeScript, how to use editors, Node, CLI, components, modules, directives, Webpack, dependency injection, widgets, routes and navigation, observers, reactive programming, and RxJS. Complete with a consistently-updated online code repository, this book is a great way to get started with Angular 5. What You'll Learn Develop single page web applications using Angular 5 Understand the web development ecosystem Use Node, JavaScript and TypeScript Who This Book Is For New or experienced developers who wish to develop single page web applications in Angular and the TypeScript language.

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 TypeScriptApplication-Scale JavaScript DevelopmentApress

Use the enormously popular React framework to build dynamic JavaScript applications that take advantage of the capabilities of modern browsers and devices. You will learn how React brings the power of strong architecture and responsive data to the client, providing the foundation for complex and rich user interfaces. Best-selling author Adam Freeman explains how to get the most from React. He begins by describing the React architecture and the benefits it offers and then shows you how to use React and its associated tools and libraries 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. Each topic is presented clearly and concisely. Chapters include common problems and how to avoid them. What You'll Learn Gain a solid understanding of the React design Create rich and dynamic web app clients using React Create data stores using Redux Consume data using REST and GraphQL Test your React projects Who This Book Is For JavaScript developers who want to use React to create dynamic client-side applications

Whether for building interactive browser-based applications or creating server-side applications in Node, JavaScript is the most widely used language for web programming. With new features, language improvements, paradigms, and potential use cases appearing regularly, there's never been a more exciting time to be a JavaScript developer. In The Joy of JavaScript, author and JavaScript expert Luis Atencio teaches you key design concepts that lead to clean, lean, modular, and easy-to-maintain code. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

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

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

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

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

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Whether for building interactive browser-based applications or creating server-side applications in Node, JavaScript is the most widely used language for web programming. With new features, language improvements, paradigms, and potential use cases appearing regularly, there's never been a more exciting time to be a JavaScript developer. In The Joy of JavaScript, author and JavaScript expert Luis Atencio teaches you key design concepts that lead to clean, lean, modular, and easy-to-maintain code. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

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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

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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

Provides information on how to write better JavaScript programs, covering such topics as functions, arrays, library and API design, and concurrency.

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.

Create a fully working multiplayer game from scratch using TypeScript, Socket.IO, and the community edition of Phaser.js. You will achieve amazing feats in the browser without having to install any software. This book teaches you how to use the Phaser game engine APIs to tap into physics, and how to utilize HUD information and fire lasers. Let's Build a Multiplayer Phaser Game dives into the details to show you how to create a multiplayer game from beginning to end. Once you have finished this book, you will be well versed in creating not only a game, but also an application that you can extend with new functionality to enjoy with your friends. What You'll Learn Discover the ins and outs of Socket.IO for real-time web communication Use TypeScript to allow your project to be typed and self-documenting See how gaming mechanics work to make a game entertaining Get a deeper understanding of how to structure your working directory and your code Scale what you have created Who This Book Is For Developers who want to know how to create and structure a complex online game

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

This book is a guide to the TypeScript language, ranging from basic concepts to advanced language features. Learn to use TypeScript with a variety of frameworks, and build applications using industry-standard best practices for design patterns and testing strategies.

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

communication Package the app with Webpack for optimized delivery Take a completed app and wrap it up with Docker for easy distribution Review 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.

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 Contents Chapter 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

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.

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. 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.

Summary Elm is more than just a cutting-edge programming language, it's a chance to upgrade the way you think about building web applications. Once you get comfortable with Elm's refreshingly different approach to application development, you'll be working with a clean syntax, dependable libraries, and a delightful compiler that essentially eliminates runtime exceptions. Elm compiles to JavaScript, so your code runs in any browser, and Elm's best-in-class rendering speed will knock your socks off. Let's get started! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the technology Simply put, the Elm programming language transforms the way you think about frontend web development. Elm's legendary compiler is an incredible assistant, giving you the precise and user-friendly support you need to work efficiently. Elm applications have small bundle sizes that run faster than JavaScript frameworks and are famously easy to maintain as they grow. The catch? Elm isn't JavaScript, so you'll have some new skills to learn.

About the book Elm in Action teaches you the Elm language along with a new approach to coding frontend applications. Chapter by chapter, you'll create a full-featured photo-browsing app, learning as you go about Elm's modular architecture, Elm testing, and how to work seamlessly with your favorite JavaScript libraries. You'll especially appreciate author and Elm core team member Richard Feldman's unique insights, based on his thousands of hours writing production code in Elm. When you're done, you'll have a toolbox of new development skills and a stunning web app for your portfolio.

What's inside Scalable design for production web applications

Single-page applications in Elm

Data modeling in Elm

Accessing JavaScript from Elm

About the reader For web developers with no prior experience in Elm or functional programming.

About the author Richard Feldman is a software engineer at NoRedInk and a well-known member of the Elm community.

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Gain in-depth knowledge of TypeScript and the latest ECMAScript standards by building robust web applications across different domains

Key Features

- Apply the cutting-edge features of TypeScript 3.0 to build high-performance, maintainable applications
- Learn through practical examples of using TypeScript with popular frameworks, such as Angular and React
- Focus on building high-quality applications that are modular, scalable and adaptable

Book Description

With the demand for ever more complex websites, the need to write robust, standard-compliant JavaScript has never been greater. TypeScript is modern JavaScript with the support of a first-class type system, which makes it simpler to write complex web systems. With this book, you'll explore core concepts and learn by building a series of websites and TypeScript apps. You'll start with an introduction to TypeScript features that are often overlooked in other books, before moving on to creating a simple markdown parser. You'll then explore React and get up to speed with creating a client-side contacts manager. Next, the book will help you discover the Angular framework and use the MEAN stack to create a photo gallery. Later sections will assist you in creating a GraphQL Angular Todo app and then writing a Socket.IO chatroom. The book will also lead you through developing your final Angular project which is a mapping app. As you progress, you'll gain insights into React with Docker and microservices. You'll even focus on how to build an image classification program with machine learning using TensorFlow. Finally, you'll learn to combine TypeScript and C# to create an ASP.NET Core-based music library app. By the end of this book, you'll be able to confidently use TypeScript 3.0 and different JavaScript frameworks to build high-quality apps. What you will learn

- Discover how to use TypeScript to write code using common patterns
- Get to grips with using popular frameworks and libraries with TypeScript
- Leverage the power of both server and client using TypeScript
- Learn how to apply exciting new paradigms such as GraphQL and TensorFlow
- Use popular cloud-based authenticated services
- Combine TypeScript with C# to create ASP.NET Core applications

Who this book is for This book is for programmers and web developers who are familiar with TypeScript and want to put their knowledge to work by building real-world complex applications. Prior experience with any other web framework is not required.

LEARN REACT TODAY The up-to-date, in-depth, complete guide to React and friends. Become a ReactJS expert today JavaScript Robotics is on the rise. Rick Waldron, the lead author of this book and creator of the Johnny-Five platform, is at the forefront of this movement. Johnny-Five is an open source JavaScript Arduino programming framework for robotics. This book brings together fifteen innovative programmers, each creating a unique Johnny-Five robot step-by-step, and offering tips and tricks along the way. Experience with JavaScript is a prerequisite.

Practical Software Architecture Solutions from the Legendary Robert C. Martin ("Uncle Bob") By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books Clean Code and The Clean Coder, legendary software craftsman Robert C. Martin ("Uncle Bob") reveals those rules and helps you apply them. Martin's Clean Architecture doesn't merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you've come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you'll face—the ones that will make or break your projects. Learn what software architects need to achieve—and core disciplines and practices for achieving it Master essential software design principles for addressing function, component separation, and data management See how programming paradigms impose discipline by restricting what developers can do Understand what's critically important and what's merely a "detail" Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications Define appropriate boundaries and layers, and organize components and services See why designs and architectures go wrong, and how to prevent (or fix) these failures Clean Architecture is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager—and for every programmer who must execute someone else's designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

This book constitutes the refereed proceedings of the 13th International Conference entitled Beyond Databases, Architectures and Structures, BDAS 2017, held in Ustro?, 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.

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

The TypeScript language, compiler, and open source development toolset brings JavaScript development up to the enterprise level. It allows you to use ES5, ES6, and ES7 JavaScript language features today, including classes, interfaces, generics, modules, and more. Its simple typing syntax enables building large, robust applications using ... 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.

Most programming languages contain good and bad parts, but JavaScript has more than its share of the bad, having been developed and released in a hurry before it could be refined. This authoritative book scrapes away these bad features to reveal a subset of JavaScript that's more reliable, readable, and maintainable than the language as a whole—a subset you can use to create truly extensible and efficient code. Considered the JavaScript expert by many people in the development community, author Douglas Crockford identifies the abundance of good ideas that make JavaScript an outstanding object-oriented programming language—ideas such as functions, loose typing, dynamic objects, and an expressive object literal notation. Unfortunately, these good ideas are mixed in with bad and downright awful ideas, like a programming model based on global variables. When Java applets failed, JavaScript became the language of the Web

by default, making its popularity almost completely independent of its qualities as a programming language. In JavaScript: The Good Parts, Crockford finally digs through the steaming pile of good intentions and blunders to give you a detailed look at all the genuinely elegant parts of JavaScript, including: Syntax Objects Functions Inheritance Arrays Regular expressions Methods Style Beautiful features The real beauty? As you move ahead with the subset of JavaScript that this book presents, you'll also sidestep the need to unlearn all the bad parts. Of course, if you want to find out more about the bad parts and how to use them badly, simply consult any other JavaScript book. With JavaScript: The Good Parts, you'll discover a beautiful, elegant, lightweight and highly expressive language that lets you create effective code, whether you're managing object libraries or just trying to get Ajax to run fast. If you develop sites or applications for the Web, this book is an absolute must.

JavaScript is everywhere, both as a pure language and in popular libraries like Angular, jQuery and Knockout, but users of modern object-oriented languages like Java and C# often find JavaScript frustrating to use and hard to extend to large-scale applications. TypeScript is an innovative open source language from Microsoft that combines powerful language features and enhanced tooling support with the key attractions of JavaScript as a flexible, dynamic language that can run in any browser and on any operating system. Pro TypeScript tells you everything you need to know about this exciting new language and how to use it in your applications. Starting with an introduction to the language and its features, the book takes you through some of the major features of TypeScript in depth, from working with the type system through object-orientation to understanding the runtime and the TypeScript compiler. The book then covers some of the factors you need to consider when running a TypeScript application in the browser, including interacting with the DOM, making asynchronous requests, and working with useful browser APIs, followed by a demonstration of server-side TypeScript using the popular Node.js framework. Because TypeScript compiles to plain JavaScript, exception handling, memory management and garbage collection can differ depending on where you run your program, so these topics get a chapter to themselves. You'll also find out how to include popular JavaScript frameworks in your applications, so you can combine the benefits of TypeScript with some of the best JavaScript code that's already out there waiting to be used. The final chapter gives an overview of automated testing for TypeScript applications. Pro TypeScript offers a balanced and practical guide to a language that will transform your experience of JavaScript development.

TypeScript is among the fastest-growing languages, helping developers build full-stack apps by integrating with powerful frameworks such as React and Node.js. With this book, you'll get started with TypeScript and build an SPA with React and middleware using Node.js and Express. Finally, you'll be able to package your web app and deploy it on AWS.

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