

## Typescript Design Patterns

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.

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

Build robust microservice-based applications that are distributed, fault tolerant, and always available Key Features Learn to build message-driven services for effective communication Design microservices API using Reactive programming design patterns Deploy, scale and monitor microservices for consistent high performance Book Description In the last few years or so, microservices have achieved the rock star status and right now are one of the most tangible solutions in enterprises to make quick, effective, and scalable applications. The apparent rise of Typescript and long evolution from ES5 to ES6 has seen lots of big companies move to ES6 stack. If you want to learn how to leverage the power of microservices to build robust architecture using reactive programming and Typescript in Node.js, then this book is for you. Typescript Microservices is an end-to-end guide that shows you the implementation of microservices from scratch; right from starting the project to hardening and securing your services. We will begin with a brief introduction to microservices before learning to break your monolith applications into microservices. From here, you will learn reactive programming patterns and how to build APIs for microservices. The next set of topics will take you through the microservice architecture with TypeScript and communication between services. Further, you will learn to test and deploy your TypeScript microservices using the latest tools and implement continuous integration. Finally, you will learn to secure and harden your microservice. By the end of the book, you will be able to build production-ready, scalable, and maintainable microservices using Node.js and Typescript. What you will learn Get acquainted with the fundamentals behind microservices. Explore the behavioral changes needed for moving from monolithic to microservices. Dive into reactive programming, Typescript and Node.js to learn its fundamentals in microservices Understand and design a service gateway and service registry for your microservices. Maintain the state of microservice and handle dependencies. Perfect your microservice with unit testing and Integration testing Develop a microservice, secure it, deploy it, and then scale it Who this book is for This book is for JavaScript developers seeking to utilize their Node.js and Typescript skills to build microservices and move away from the monolithic architecture. Prior knowledge of TypeScript and Node.js is assumed.

Learn proven patterns, techniques, and tricks to take full advantage of the Node.js platform. Master well-known design principles to create applications that are readable, extensible, and that can grow big. Key Features Learn how to create solid server-side applications by leveraging the full power of Node.js 14 Understand how Node.js works and learn how to take full advantage of its core components as well as the solutions offered by its ecosystem Avoid common mistakes and use proven patterns to create production grade Node.js applications Book Description In this book, we will show you how to implement a series of best practices and design patterns to help you create efficient and robust Node.js applications with ease. We kick off by exploring the basics of Node.js, analyzing its asynchronous event driven architecture and its fundamental design patterns. We then show you how to build asynchronous control flow patterns with callbacks, promises and async/await. Next, we dive into Node.js streams, unveiling their power and showing you how to use them at their full capacity. Following streams is an analysis of different creational, structural, and behavioral design patterns that take full advantage of JavaScript and Node.js. Lastly, the book dives into more advanced

concepts such as Universal JavaScript, scalability and messaging patterns to help you build enterprise-grade distributed applications. Throughout the book, you'll see Node.js in action with the help of several real-life examples leveraging technologies such as LevelDB, Redis, RabbitMQ, ZeroMQ, and many others. They will be used to demonstrate a pattern or technique, but they will also give you a great introduction to the Node.js ecosystem and its set of solutions. What you will learn

Become comfortable with writing asynchronous code by leveraging callbacks, promises, and the `async/await` syntax

Leverage Node.js streams to create data-driven asynchronous processing pipelines

Implement well-known software design patterns to create production grade applications

Share code between Node.js and the browser and take advantage of full-stack JavaScript

Build and scale microservices and distributed systems powered by Node.js

Use Node.js in conjunction with other powerful technologies such as Redis, RabbitMQ, ZeroMQ, and LevelDB

Who this book is for

This book is for developers and software architects who have some prior basic knowledge of JavaScript and Node.js and now want to get the most out of these technologies in terms of productivity, design quality, and scalability. Software professionals with intermediate experience in Node.js and JavaScript will also find valuable the more advanced patterns and techniques presented in this book. This book assumes that you have an intermediate understanding of web application development, databases, and software design principles.

Build modular applications that are easy to scale using the most powerful components and design patterns that React can offer you right now

About This Book

Dive into the core patterns and components of React.js in order to master your application's design

Improve their debugging skills using the DevTools

This book is packed with easy-to-follow examples that can be used to create reusable code and extensible designs

Who This Book Is For

If you want to increase your understanding of React and apply it to real-life application development, then this book is for you. What You Will Learn

Write clean and maintainable code

Create reusable components applying consolidated techniques

Use React effectively in the browser and node

Choose the right styling approach according to the needs of the applications

Use server-side rendering to make applications load faster

Build high-performing applications by optimizing components

In Detail

Taking a complete journey through the most valuable design patterns in React, this book demonstrates how to apply design patterns and best practices in real-life situations, whether that's for new or already existing projects. It will help you to make your applications more flexible, perform better, and easier to maintain – giving your workflow a huge boost when it comes to speed without reducing quality. We'll begin by understanding the internals of React before gradually moving on to writing clean and maintainable code. We'll build components that are reusable across the application, structure applications, and create forms that actually work. Then we'll style React components and optimize them to make applications faster and more responsive. Finally, we'll write tests effectively and you'll learn how to contribute to React and its ecosystem. By the end of the book, you'll be saved from a lot of trial and error and developmental headaches, and you will be on the road to becoming a React expert.

Style and approach

The design patterns in the book are explained using real-world, step-by-step examples. For each design pattern, there are hints about when to use it and when to look for something more suitable. This book can also be used as a practical guide, showing you how to leverage design patterns.

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 SystemJS 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.

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

Become an expert Vue developer by understanding design patterns and the component architecture of Vue.js to write clean and maintainable code Key Features Craft highly modular applications by exploring design patterns and the component architecture of Vue.js Enforce a Flux-like application architecture in your Vue.js applications with Vuex Easy-to-follow examples that can be used to create reusable code and extensible designs Book Description Vue.js 2 Design Patterns and Best Practices starts by comparing Vue.js with other frameworks and setting up the development environment for your application, and gradually moves on to writing and styling clean, maintainable, and reusable Vue.js components that can be used across your application. Further on, you'll look at common UI patterns, Vue form submission, and various modifiers such as lazy binding, number typecasting, and string trimming to create better UIs. You will also explore best practices for integrating HTTP into Vue.js applications to create an application with dynamic data. Routing is a vitally important part of any SPA, so you will focus on the vue-router and explore routing a user between multiple pages. Next, you'll also explore state management with Vuex, write testable code for your application, and create performant, server-side rendered applications with Nuxt. Toward the end, we'll look at common antipatterns to avoid, saving you from a lot of trial and error and development headaches. By the end of this book, you'll be on your way to becoming an expert Vue developer who can leverage design patterns to efficiently architect the design of your application and write clean and maintainable code. What you will learn Understand the theory and patterns of Vue.js Build scalable and modular Vue.js applications Take advantage of Vuex for reactive state management Create single page applications with vue-router Use Nuxt for FAST server-side rendered Vue applications Convert your application to a Progressive Web App (PWA) and add ServiceWorkers and offline support Build your app with Vue.js by following best practices and explore the common anti-patterns to avoid Who this book is for This book is for Vue developers who are familiar with framework design principles and utilize commonly found design patterns in developing web applications.

This book will provide clear guidance on how to work through the most valuable design patterns effectively in Angular. You will explore some of the best ways to work with Angular to meet the performance required in the web development world. You will also learn the best practices to improve your productivity and the code base of your application.

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.

Discover various techniques to develop maintainable code and keep it in shape. Key Features Learn all about refactoring - why it is important and how to do it Discover easy ways to refactor code with examples Explore techniques that can be applied to most other programming languages Book Description Refactoring improves your code without changing its behavior. With refactoring, the best approach is to apply small targeted changes to a codebase. Instead of doing a huge sweeping change to your code, refactoring is better as a long-term and continuous enterprise. Refactoring TypeScript explains how to spot bugs and remove them from your code. You'll start by seeing how wordy conditionals, methods, and null checks make code unhealthy and unstable. Whether it is identifying messy nested conditionals or removing unnecessary methods, this book will show various techniques to avoid these pitfalls and write code that is easier to understand, maintain, and test. By the end of the book, you'll have learned some of the main causes of unhealthy code, tips to identify them and techniques to address them. What you will learn Spot and fix common code smells to create code that is easier to read and understand Discover ways to identify long methods and refactor them Create objects that keep your code flexible, maintainable, and testable Apply the Single Responsibility Principle to develop less-coupled code Discover how to combine different refactoring techniques Learn ways to solve the issues caused by overusing primitives Who this book is for This book is designed for programmers who are looking to explore various refactoring techniques to develop healthy and maintainable code. Some experience in JavaScript and TypeScript can help you easily grasp the concepts explained in this book.

API Design Patterns lays out a set of design principles for building internal and public-facing APIs. Summary A collection of best practices and design standards for web and internal APIs. In API Design Patterns you will learn: Guiding principles for API patterns Fundamentals of resource layout and naming Handling data types for any programming language Standard methods that ensure predictability Field masks for targeted partial updates Authentication and validation methods for secure APIs Collective operations for moving, managing, and deleting data Advanced patterns for special interactions and data transformations API Design Patterns reveals best practices for building stable, user-friendly APIs. These design patterns can be applied to solve common API problems and flexibly altered to fit your specific needs. Hands-on examples and relevant use-cases illustrate patterns for API fundamentals, advanced functionalities, and even uncommon scenarios.

Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology APIs are contracts that define how applications, services, and components communicate. API design patterns provide a shared set of best practices, specifications and standards that ensure APIs are reliable and simple for other developers to use. This book collects and explains the most important patterns from both the API design community and the experts at Google. About the book API Design Patterns lays out a set of design principles for building internal and public-facing APIs. Google API expert JJ Geewax presents patterns that ensure your APIs are consistent, scalable, and flexible. You'll improve the design of the most common APIs, plus discover techniques for tricky edge cases. Precise illustrations, relevant examples, and detailed scenarios make every pattern clear and easy to understand. What's inside Guiding principles for API patterns Fundamentals of resource layout and naming Advanced patterns for special interactions and data transformations A detailed case-study on building an API and adding features About the reader For developers building web and internal APIs in any language. About the author JJ Geewax is a software engineer at Google, focusing on Google Cloud Platform, API design, and real-time payment systems. He is also the author of Manning's Google Cloud Platform in Action. Table of Contents PART 1 INTRODUCTION 1 Introduction to APIs 2 Introduction to API design patterns PART 2 DESIGN PRINCIPLES 3 Naming 4 Resource scope and hierarchy 5 Data types and defaults PART 3 FUNDAMENTALS 6 Resource identification 7 Standard methods 8 Partial updates and retrievals 9 Custom methods 10 Long-running operations 11 Rerunnable jobs PART 4 RESOURCE RELATIONSHIPS 12 Singleton sub-resources 13 Cross references 14 Association resources 15 Add and remove custom methods 16 Polymorphism PART 5 COLLECTIVE OPERATIONS 17 Copy and move 18 Batch operations 19 Criteria-based deletion 20 Anonymous writes 21 Pagination 22 Filtering 23 Importing and exporting PART 6 SAFETY AND SECURITY 24 Versioning and compatibility 25 Soft deletion 26 Request deduplication 27 Request validation 28 Resource revisions 29 Request retrial 30 Request authentication

This book is about the 23 common GoF (Gang of Four) Design Patterns implemented and in Python. A Design Pattern is a description or template that can be repeatedly applied to a commonly recurring problem in software design. You will find a familiarity with Design Patterns very useful when planning, discussing, developing, managing and documenting your applications from now on and into the future. You will learn these Design Patterns. Creational - Factory - Abstract Factory - Builder - Prototype - Singleton Structural - Decorator - Adapter - Facade - Bridge - Composite - Flyweight - Proxy Behavioral - Command - Chain of Responsibility - Observer Pattern - Interpreter - Iterator - Mediator

- Memento - State - Strategy - Template - Visitor. If you want a break from your computer and read from a book for a while, then this book is for you. \*\*\* Book also provides you FREE Access to Online Instructional Videos. See video codes in the book \*\*\* Thanks, Sean Bradley  
This book is about the 23 common GoF (Gang of Four) Design Patterns implemented in TypeScript. A Design Pattern is a description or template that can be repeatedly applied to a commonly recurring problem in software design. You will find a familiarity with Design Patterns very useful when planning, discussing, developing, managing and documenting your applications from now on and into the future. You will learn these Design Patterns. Creational Factory - Abstract Factory - Builder - Prototype - Singleton Structural Decorator - Adapter - Facade - Bridge - Composite - Flyweight - Proxy Behavioral Command - Chain of Responsibility - Observer Pattern - Interpreter - Iterator - Mediator - Memento - State - Strategy - Template - Visitor. If you want a break from your computer and read from a book for a while, then this book is for you. Thanks, Sean Bradley

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

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.

React is an open-source JavaScript library that is used for building user interfaces or UI components. This React book is designed to take you through the most valuable design patterns in React, helping you learn how to apply design patterns and best practices in real-world scenarios.

Learn everything you need to build highly scalable, robust web applications using Angular release 4 About This Book Apply best practices and design patterns to achieve higher scalability in your Angular applications Understand the latest features of Angular and create your own components Get acquainted with powerful, advanced techniques in Angular to build professional web applications Who This Book Is For This book is for JavaScript developers with some prior exposure to Angular, at least through basic examples. We assume that you've got working knowledge of HTML, CSS, and JavaScript. What You Will Learn Implement asynchronous programming using Angular Beautify your application with the UI components built to the material design specification Secure your web application from unauthorized users Create complex forms, taking full advantage of 2-way data binding Test your Angular applications using the Jasmine and Protractor frameworks for better efficiency Learn how to integrate Angular with Bootstrap to create compelling web applications Use Angular built-in classes to apply animation in your app In Detail Got some experience of Angular under your belt? Want to learn everything about using advanced features for developing websites? This book is everything you need for the deep understanding of Angular that will set you apart from the developer crowd. Angular has introduced a new way to build applications. Creating complex and rich web applications, with a lighter resource footprint, has never been easier or faster. Angular is now at release 4, with significant changes through previous versions. This book has been written and tested for Angular release 4. Angular is a mature technology, and you'll likely have applications built with earlier versions. This book starts by showing you best practices and approaches to migrating your existing Angular applications so that you can be immediately up-to-date. You will take an in-depth look at components and see how to control the user journey in your applications by implementing routing and navigation. You will learn how to work with asynchronous programming by using Observables. To easily build applications that look great, you will learn all about template syntax and how to beautify applications with Material Design. Mastering forms and data binding will further speed up your application development time. Learning about managing services and animations will help you to progressively enhance your applications. Next you'll use native directives to integrate Bootstrap with Angular. You will see the best ways to test your application with the leading options such as Jasmine and Protractor. At the end of the book, you'll learn how to apply design patterns in Angular, and see the benefits they will bring to your development. Style and approach This book provides comprehensive coverage of all aspects of development with Angular. You will learn about all the most powerful Angular concepts, with examples and best practices. This book is everything you need for the deep understanding of Angular that will set you apart from the developer crowd.

Build modular React web apps that are scalable, maintainable and powerful using design patterns and insightful practices Key Features Get familiar with design patterns in React like Render props and Controlled/uncontrolled inputs Learn about class/ functional, style and high order components with React Work through examples that can be used to create reusable code and extensible designs Book Description React is an adaptable JavaScript library for building complex UIs from small, detached bits called components. This book is designed to take you through the most valuable design patterns in React, helping you learn how to apply design patterns and best practices in real-life situations. You'll get started by understanding the internals of React, in addition to covering Babel 7 and Create React App 2.0, which will help you write clean and maintainable code. To build on your skills, you will focus on concepts such as class components, stateless components, and pure components. You'll learn about new React features, such as the context API and React Hooks that will enable you to build components, which will be reusable across your applications. The book will then provide insights into the techniques of styling React components and optimizing them to make applications faster and more responsive. In the concluding chapters, you'll discover ways to write tests more effectively and learn how to contribute to React and its ecosystem. By the end of this book, you will be equipped with the skills you need to tackle any developmental setbacks when working with React. You'll be able to make your applications more flexible, efficient, and easy to maintain, thereby giving your workflow a boost when it comes to speed, without reducing quality. What you will learn Get familiar with the new React features, like context API and React Hooks Learn the techniques of styling and optimizing React components Make components communicate with each other by applying consolidate patterns Use server-side rendering to make applications load faster Write a comprehensive set of tests to create robust and maintainable code Build high-performing applications by optimizing components Who this book is for This book is for web developers who want to increase their understanding of React and apply it to real-life application development. Prior experience with React and JavaScript is assumed.

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.

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.

Broaden your skill set by learning TypeScript and applying your knowledge to build real-world applications Key Features Quickly get started writing TypeScript code with hands-on exercises and activities Develop new skills that can be applied at work or in your own side projects Build your understanding, boost your confidence, and advance your programming career Book 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 learn Configure a professional TypeScript development environment Explore how to use primitive and complex data types Incorporate types into popular npm (Node package manager) libraries Design systems that use asynchronous behavior Implement object-oriented programming to model real-world scenarios Get to grips with modern UI design by combining React with TypeScript Who 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.

The biggest challenge facing many game programmers is completing their game. Most game projects fizzle out, overwhelmed by the complexity of their own code. Game Programming Patterns tackles that exact problem. Based on years of experience in shipped AAA titles, this book collects proven patterns to untangle and optimize your game, organized as independent recipes so you can pick just the patterns you need. You will learn how to write a robust game loop, how to organize your entities using components, and take advantage of the CPUs cache to improve your performance. You'll dive deep into how scripting engines encode behavior, how quadrees and other spatial partitions optimize your engine, and how other classic design patterns can be used in games.

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

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

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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 Implement robust applications by applying efficient Design Patterns with .NET 5 and C# KEY FEATURES ? Detailed theoretical concepts covered, including the use of encapsulation, interfaces, and inheritance. ? Access to solutions applied for software strategy and final product output. ? Simplified demonstration of real applications implementing numerous design patterns. DESCRIPTION This book covers detailed aspects of Design Patterns and Object-Oriented Programming concepts using the most modern version of the C# language and .NET platform, including many real-world examples and good practice guidelines that help developers in building robust and extensible applications. The book begins with the essential concepts of C# programming and the .NET platform. You get your foundation strong by understanding SOLID Principles and the actual implementation of reliable applications. You will be working on most common Design Patterns such as Abstract Factory, Adapter, Composite, Proxy, Command, Strategy, Observer, Factory Method, Singleton, Builder, Interpreter, Mediator, and many other patterns that will help you to create solid enterprise applications. You will also witness the performance of these design patterns in a real software development environment with the help of practical examples. After learning the most common Design Patterns practiced in .NET enterprise applications, the reader will be able to understand and apply good practices of software development based on the object-oriented paradigm to develop complex enterprise applications efficiently and simply. WHAT YOU WILL LEARN ? Fine-tune your knowledge about interfaces, polymorphism, and encapsulation. ? Learn to practice implementing design patterns in enterprise applications. ? Implement rich design patterns: Observer, Strategy, Command, Proxy, and more. ? Get to learn the latest additional design patterns such as Builder, Bridge, and Decorator. ? Includes illustrations, examples, and real use-cases of .NET 5.0 applications. WHO THIS BOOK IS FOR This book is for .NET developers, application developers, and software engineers who want to develop .NET applications with proven techniques and build error-free applications. This book also attracts fresh graduates and entry-level developers as long as basic knowledge about .NET is known to them. TABLE OF CONTENTS 1. C# Fundamentals 2. Introduction to .NET 5 3. Basic Concepts of Object-Oriented Programming 4. Interfaces in C# 5. Encapsulation and Polymorphism in C# 6. SOLID Principles in C# 7. Abstract Factory 8. Abstract Factory 9. Prototype 10. Factory Method 11. Adapter 12. Composite 13. Proxy 14. Command 15. Strategy 16. Observer 17. Good Practices and Additional Design Patterns

Learn each of the original gang of four design patterns, and how they are relevant to modern PHP and Laravel development. Written by a working developer who uses these patterns every day, you will easily be able to implement each pattern into your workflow and improve your development. Each pattern is covered with full examples of how it can be used. Too often design patterns are explained using tricky concepts, when in fact they are easy to use and can enrich your everyday development. Design Patterns in PHP and Laravel aims to break down tricky concepts into humorous and easy-to-recall details, so that you can begin using design patterns easily in your everyday work with PHP and Laravel. This book teaches you design patterns in PHP and Laravel using real-world examples and plenty of humor. What You Will Learn Use the original gang of four design patterns in your PHP and Laravel development How each pattern should be used Solve problems when using the patterns Remember each pattern using mnemonics Who This Book Is For People using Laravel and PHP to do their job and want to improve their understanding of design patterns.

Functional programming is a very powerful programming paradigm that can help us to write better code. This book presents essential functional and reactive programming concepts in a simplified manner using Typescript.

"One of the great things about the book is the way the authors explain concepts very simply using analogies rather than programming examples—this has been very inspiring for a product I'm working on: an audio-only introduction to OOP and software development." —Bruce Eckel "...I would expect that readers with a basic understanding of object-oriented programming and design would find this book useful, before approaching design patterns completely. Design Patterns Explained complements the existing design patterns texts and may perform a very useful role, fitting between introductory texts such as UML Distilled and the more advanced patterns books." —James Noble Leverage the quality and productivity benefits of patterns—without the complexity! Design Patterns Explained, Second Edition is the field's simplest, clearest, most practical introduction to patterns. Using dozens of updated Java examples, it shows programmers and architects exactly how to use patterns to design, develop, and deliver software far more effectively. You'll start with a complete overview of the fundamental principles of patterns, and the role of object-oriented analysis and design in contemporary software development. Then, using easy-to-understand sample code, Alan Shalloway and James Trott illuminate dozens of today's most useful patterns: their underlying concepts, advantages, tradeoffs, implementation techniques, and pitfalls to avoid. Many patterns are accompanied by UML diagrams. Building on their best-selling First Edition, Shalloway and Trott have thoroughly updated this book to reflect new software design trends, patterns, and implementation techniques. Reflecting extensive reader feedback, they have deepened and clarified coverage throughout, and reorganized content for even greater ease of understanding. New and revamped coverage in this edition includes Better ways to start "thinking in patterns" How design patterns can facilitate agile development using eXtreme Programming and other methods How to use commonality and variability analysis to design application architectures The key role of testing into a patterns-driven development process How to use factories to instantiate and manage objects more effectively The Object-Pool Pattern—a new pattern not identified by the "Gang of Four" New study/practice questions at the end of every chapter Gentle yet thorough, this book assumes no patterns experience whatsoever. It's the ideal "first book" on patterns, and a perfect complement to Gamma's classic Design Patterns. If you're a programmer or architect who wants the clearest possible understanding of design patterns—or if you've struggled to make them work for you—read this book.

Get the best out of Node.js by mastering its most powerful components and patterns to create modular and scalable applications with ease About This Book Create reusable patterns and modules by leveraging the new features of Node.js . Understand the asynchronous single thread design of node and grasp all its features and patterns to take advantage of various functions. This unique guide will help you get the most out of Node.js and its ecosystem. Who This Book Is For The book is meant for developers and software architects with a basic working knowledge of JavaScript who are interested in acquiring a deeper understanding of how to design and develop enterprise-level Node.js applications. Basic knowledge of Node.js is also helpful to get the most out of this book. What You Will Learn Design and implement a series of server-side JavaScript patterns so you understand why and

when to apply them in different use case scenarios Become comfortable with writing asynchronous code by leveraging constructs such as callbacks, promises, generators and the `async-await` syntax Identify the most important concerns and apply unique tricks to achieve higher scalability and modularity in your Node.js application Untangle your modules by organizing and connecting them coherently Reuse well-known techniques to solve common design and coding issues Explore the latest trends in Universal JavaScript, learn how to write code that runs on both Node.js and the browser and leverage React and its ecosystem to implement universal applications In Detail Node.js is a massively popular software platform that lets you use JavaScript to easily create scalable server-side applications. It allows you to create efficient code, enabling a more sustainable way of writing software made of only one language across the full stack, along with extreme levels of reusability, pragmatism, simplicity, and collaboration. Node.js is revolutionizing the web and the way people and companies create their software. In this book, we will take you on a journey across various ideas and components, and the challenges you would commonly encounter while designing and developing software using the Node.js platform. You will also discover the "Node.js way" of dealing with design and coding decisions. The book kicks off by exploring the basics of Node.js describing its asynchronous single-threaded architecture and the main design patterns. It then shows you how to master the asynchronous control flow patterns, and the stream component and it culminates into a detailed list of Node.js implementations of the most common design patterns as well as some specific design patterns that are exclusive to the Node.js world. Lastly, it dives into more advanced concepts such as Universal Javascript, and scalability' and it's meant to conclude the journey by giving the reader all the necessary concepts to be able to build an enterprise grade application using Node.js. Style and approach This book takes its intended readers through a comprehensive explanation to create a scalable and efficient real-time server-side apps.

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`

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

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!*

Boost your development efficiency by learning about design patterns in TypeScript About This Book This step-by-step guide will demonstrate all the important design patterns in practice This book is the only documentation on the market focusing on design patterns in TypeScript This book is packed with rich examples that will improve your efficiency and encourage code reuse Who This Book Is For If you are a TypeScript developer, this book is for you. No knowledge of design patterns is required to read this book. What You Will Learn Understand the challenges and implications of developing an enterprise application Install and configure the necessary tools in order to start developing an application Identify the challenges when developing an application Apply GoF patterns in an application with a testing approach Use and utilize design patterns while developing a TypeScript application or during JavaScript application development Reference to SOLID principles and what their benefits do to your projects Apply various principles in a TypeScript application Improve code quality and development speed In Detail In programming, there are several problems that occur frequently. To solve these problems, there are various repeatable solutions that are known as design patterns. Design patterns are a great way to improve the efficiency of your programs and improve your productivity. This book is a collection of the most important patterns you need to improve your applications' performance and your productivity. The journey starts by explaining the current challenges when designing and developing an application and how you can solve these

challenges by applying the correct design pattern and best practices. Each pattern is accompanied with rich examples that demonstrate the power of patterns for a range of tasks, from building an application to code testing. We'll introduce low-level programming concepts to help you write TypeScript code, as well as work with software architecture, best practices, and design aspects. Style and approach In this book, design patterns are explained in a step-by-step manner. All the major patterns covered will improve your understanding of TypeScript and the patterns associated with TypeScript.

Using research in neurobiology, cognitive science and learning theory, this text loads patterns into your brain in a way that lets you put them to work immediately, makes you better at solving software design problems, and improves your ability to speak the language of patterns with others on your team.

TypeScript Design Patterns Packt Publishing Ltd

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.

Design and develop high-performance, reusable, and maintainable applications using traditional and modern Julia patterns with this comprehensive guide Key Features Explore useful design patterns along with object-oriented programming in Julia 1.0 Implement macros and metaprogramming techniques to make your code faster, concise, and efficient Develop the skills necessary to implement design patterns for creating robust and maintainable applications Book Description Design patterns are fundamental techniques for developing reusable and maintainable code. They provide a set of proven solutions that allow developers to solve problems in software development quickly. This book will demonstrate how to leverage design patterns with real-world applications. Starting with an overview of design patterns and best practices in application design, you'll learn about some of the most fundamental Julia features such as modules, data types, functions/interfaces, and metaprogramming. You'll then get to grips with the modern Julia design patterns for building large-scale applications with a focus on performance, reusability, robustness, and maintainability. The book also covers anti-patterns and how to avoid common mistakes and pitfalls in development. You'll see how traditional object-oriented patterns can be implemented differently and more effectively in Julia. Finally, you'll explore various use cases and examples, such as how expert Julia developers use design patterns in their open source packages. By the end of this Julia programming book, you'll have learned methods to improve software design, extensibility, and reusability, and be able to use design patterns efficiently to overcome common challenges in software development. What you will learn Master the Julia language features that are key to developing large-scale software applications Discover design patterns to improve overall application architecture and design Develop reusable programs that are modular, extendable, performant, and easy to maintain Weigh up the pros and cons of using different design patterns for use cases Explore methods for transitioning from object-oriented programming to using equivalent or more advanced Julia techniques Who this book is for This book is for beginner to intermediate-level Julia programmers who want to enhance their skills in designing and developing large-scale applications.

Learn how to write cross platform React Native code by using effective design patterns in the JavaScript world. Get to know industry standard patterns as well as situational patterns. Decouple your application with these set of "Idea patterns". Key Features Mobile development in React Native should be done in a reusable way. Learn how to build scalable applications using JavaScript patterns that are battle tested. Try effective techniques on your own using over 80 standalone examples. Book Description React Native helps developers reuse code across different mobile platforms like iOS and Android. This book will show you effective design patterns in the React Native world and will make you ready for professional development in big teams. The book will focus only on the patterns that are relevant to JavaScript, ECMAScript, React and React Native. However, you can successfully transfer a lot of the skills and techniques to other languages. I call them "Idea patterns". This book will start with the most standard development patterns in React like component building patterns, styling patterns in React Native and then extend these patterns to your mobile application using real world practical examples. Each chapter comes with full, separate source code of applications that you can build and run on your phone. The book is also diving into architectural patterns. Especially how to adapt MVC to React environment. You will learn Flux architecture and how Redux is implementing it. Each approach will be presented with its pros and cons. You will learn how to work with external data sources using libraries like Redux thunk and Redux Saga. The end goal is the ability to recognize the best solution for a given problem for your next mobile application. What you will learn Explore the design Patterns in React Native Learn the best practices for React Native development Explore common React patterns that are highly used within React Native development Learn to decouple components and use dependency injection in your applications Explore the best ways of fetching data from the backend systems Learn the styling patterns and how to implement custom mobile designs Explore the best ways to organize your application code in big codebases Who this book is for The ideal target audience for this book are people eager to learn React Native design patterns who already know the basics of JavaScript. We can assume that the target audience already knows how to write Hello World in JavaScript and know what are the functions, recursive functions, JavaScript types and loops.

A catalog of solutions to commonly occurring design problems, presenting 23 patterns that allow designers to create flexible and reusable designs for object-oriented software. Describes the circumstances in which each pattern is applicable, and discusses the consequences and trade-offs of using the pattern within a larger design. Patterns are compiled from real systems, and include code for implementation in object-oriented programming languages like C++ and Smalltalk. Includes a bibliography. Annotation copyright by Book News, Inc., Portland, OR

Easy Learning Design Patterns JavaScript coding patterns and best practices. If you're an experienced developer looking to solve



problems related to objects, functions, inheritance, and other language-specific categories, the abstractions and code templates in this guide are idea that includes practical advice for implementing each pattern discussed, along with several hands-on examples. ECMAScript 6 (ES6). This book provides a highly practical look at ES6, This book takes a user-friendly approach to covering ES6 Javascript design patterns. Its concise presentation means that in a short space of time, you will get a good introduction to various design patterns and actual application case examples.

1. Strategy Pattern Principle
2. Strategy Pattern Case
3. Composition Pattern Principle
4. Composition Pattern Case
5. Singleton Pattern Principle
6. Singleton Pattern Case
7. Template Pattern Principle
8. Template Pattern Case
9. Factory Pattern Principle
10. Factory Pattern Case
11. Builder Pattern Principle
12. Builder Pattern Case
13. Adapter Pattern Principle
14. Adapter Pattern Case
15. Facade Pattern Principle
16. Facade Pattern Case
17. Decorator Pattern Principle
18. Decorator Pattern Case
19. Shallow Clone Pattern Principle
20. Clone Pattern Case
21. Bridge Pattern Principle
22. Bridge Pattern Case
23. FlyWeight Pattern Principle
24. FlyWeight Pattern Case
25. Chain Pattern Principle
26. Chain Pattern Case
27. Command Pattern Principle
28. Command Pattern Case
29. Iterator Pattern Principle
30. Iterator Pattern Case
31. Mediator Pattern Principle
32. Mediator Pattern Case
33. Memento Pattern Principle
34. Memento Pattern Case
35. Observer Pattern Principle
36. Observer Pattern Case
37. Visitor Pattern Principle
38. Visitor Pattern Case
39. State Pattern Principle
40. State Pattern Case
41. Proxy Pattern Principle
42. Proxy Pattern Case

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