

Advanced Javascript Third Edition

"Build enterprise-ready web applications using TypeScript and leading JavaScript frameworks About This Book *Focus on building quality applications that are modular, scalable, maintainable, and adaptable. *Enhance your TypeScript knowledge through practical scenarios with in-depth discussions on language features, third-party libraries, declaration files, and more *Work through pragmatic examples that show you how to use TypeScript with popular JavaScript frameworks including Backbone, Angular, Node.js, RequireJS, and Marionette Who This Book Is For Whether you are a JavaScript developer who wants to learn TypeScript or an experienced TypeScript developer who wants to take your skills to the next level, this book is for you. If you are an enterprise JavaScript developer who builds web sites using Backbone, Marionette, Angular, Angular 2, Aurelia, or React.js, then this book will make you a better, more productive programmer. What You Will Learn *Gain an in-depth understanding of TypeScript's language features *Integrate any existing third-party JavaScript library into your project *Understand the level of integration that third-party libraries can achieve using the TypeScript language *Employ test-driven development techniques to build high-quality applications *Organise your application's code using modules *Work with popular JavaScript libraries, including Node.js, Backbone, Marionette, Angular, ExtJs, Angular 2, Aurelia, and React.js *Master advanced object-oriented programming techniques, including service location and dependency injection *Grasp techniques to build complete single page web applications with TypeScript In Detail Typescript is a language and a compiler that brings JavaScript development up to the enterprise level. By adding a little "syntactic sugar" to the JavaScript language, TypeScript enables developers to use strong typing, classes, interfaces, inheritance, generics, and more when writing JavaScript code. This book will bring you up to date with the new language features of TypeScript. It covers the future language features of JavaScript, as defined by the ES5, ES6, and ES7 standards that are now available through TypeScript, and shows you how the compiler takes care of generating ES3 compatible JavaScript code-even when using these new language features. Packed with practical, example-oriented scenarios, the book will give you a deeper understanding of working with classes, interfaces, and generics, along with advanced language features such as Decorators, and async/await techniques. It will show you how TypeScript works with popular and in demand frameworks such as Angular 2, Aurelia, and React.js and how to integrate third-party libraries into your applications. We'll add to your repertoire of skills with test-driven development. We will then move on to understanding of modularisation with Node.js and AMD module loaders. The book will end by teaching you how to build industrial-strength applications."

PostGIS in Action, Third Edition shows you how to solve real-world geodata problems. You'll go beyond basic mapping, and explore custom functions for your applications. Summary In PostGIS in Action, Third Edition you will learn: An introduction to spatial databases Geometry, geography, raster, and topology spatial types, functions, and queries Applying PostGIS to real-world problems Extending PostGIS to web and desktop applications Querying data from external sources using PostgreSQL Foreign Data Wrappers Optimizing queries for maximum speed Simplifying geometries for greater efficiency PostGIS in Action, Third Edition teaches readers of all levels to write spatial queries for PostgreSQL. You'll start by exploring vector-, raster-, and topology-based GIS before quickly progressing to analyzing, viewing, and mapping data. This fully updated third edition covers key changes in PostGIS 3.1 and PostgreSQL 13, including parallelization support, partitioned tables, and new JSON functions that help in creating web mapping applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology PostGIS is a spatial database extender for PostgreSQL. It offers the features and firepower you need to take on nearly any geodata task. PostGIS lets you create location-aware queries with a few lines of SQL code, then build the backend for mapping, raster analysis, or routing application with minimal effort. About the book PostGIS in Action, Third Edition shows you how to solve real-world geodata problems. You'll go beyond basic mapping, and explore custom functions for your applications. Inside this fully updated edition, you'll find coverage of new PostGIS features such as PostGIS Window functions, parallelization of queries, and outputting data for applications using JSON and Vector Tile functions. What's inside Fully revised for PostGIS version 3.1 and PostgreSQL 13 Optimize queries for maximum speed Simplify geometries for greater efficiency Extend PostGIS to web and desktop applications About the reader For readers familiar with relational databases and basic SQL. No prior geodata or GIS experience required. About the author Regina Obe and Leo Hsu are database consultants and authors. Regina is a member of the PostGIS core development team and the Project Steering Committee. Table of Contents PART 1 INTRODUCTION TO POSTGIS 1 What is a spatial database? 2 Spatial data types 3 Spatial reference systems 4 Working with real data 5 Using PostGIS on the desktop 6 Geometry and geography functions 7 Raster functions 8 Spatial relationships PART 2 PUTTING POSTGIS TO WORK 9 Proximity analysis 10 PostGIS TIGER geocoder 11 Geometry and geography processing 12 Raster processing 13 Building and using topologies 14 Organizing spatial data 15 Query performance tuning PART 3 USING POSTGIS WITH OTHER TOOLS 16 Extending PostGIS with pgRouting and procedural languages 17 Using PostGIS in web applications

Create and animate stunning 3D browser based graphics with Three.js JavaScript library Key Features Enhance your 3D graphics with light sources, shadows, advanced materials, and textures Load models from external sources, and visualize and animate them directly from JavaScript Create your own custom WebGL shader and explore the postprocessing feature of Three.js Book Description WebGL makes it possible to create 3D graphics in the browser without having to use plugins such as Flash and Java. Programming WebGL, however, is difficult and complex. With Three.js, it is possible to create stunning 3D graphics in an intuitive manner using JavaScript, without having to learn WebGL. With this book, you'll learn how to create and animate beautiful looking 3D scenes directly in your browser-utilizing the full potential of WebGL and modern browsers. It starts with the basic concepts and building blocks used in Three.js. From there on, it will expand on these subjects using extensive examples and code samples. You will learn to create, or load, from externally created models, realistic looking 3D objects using materials and textures. You'll find out how to easily control the camera using the Three.js built-in in camera controls, which will enable you to fly or walk around the 3D scene you created. You will then use the HTML5 video and canvas elements as a material for your 3D objects and to animate your models. Finally, you will learn to use morph and skeleton-based animation, and even how to add physics, such as gravity and collision detection, to your scene. After reading this book, you'll know everything that is required to create 3D animated graphics using Three.js. What you will learn Work with the different types of materials in Three.js and see how they interact with your 3D objects and the rest of the environment Implement the different camera controls provided by Three.js to effortlessly navigate around your 3D scene Work with vertices directly to create snow, rain, and galaxy-like effects Import and animate models from external formats, such as OBJ, STL, and COLLADA Create and run animations using morph targets and bones animations

JIRA.

Summary jQuery in Action, Third Edition, is a fast-paced and complete guide to jQuery, focused on the tasks you'll face in nearly any web dev project. Written for readers with minimal JavaScript experience, this revised edition adds new examples and exercises, along with the deep and practical coverage you expect from an In Action book. You'll learn how to traverse HTML documents, handle events, perform animations, write plugins, and even unit test your code. The unique lab pages anchor each concept with real-world code. Several new chapters teach you how to interact with other tools and frameworks to build modern single-page web applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Thanks to jQuery, no one remembers the bad old days when programmers manually managed browser inconsistencies, CSS selectors support, and DOM navigation, and when every animation was a frustrating exercise in raw JavaScript. The elegant, intuitive jQuery library beautifully manages these concerns, and jQuery 3 adds even more features to make your life as a web developer smooth and productive. About the Book jQuery in Action, Third Edition, is a fast-paced guide to jQuery, focused on the tasks you'll face in nearly any web dev project. In it, you'll learn how to traverse the DOM, handle events, perform animations, write jQuery plugins, perform Ajax requests, and even unit test your code. Its unique Lab Pages anchor each concept in real-world code. This expanded Third Edition adds new chapters that teach you how to interact with other tools and frameworks and build modern single-page web applications. What's Inside Updated for jQuery 3 DOM manipulation and event handling Animations and effects Advanced topics including Unit Testing and Promises Practical examples and labs About the Readers Readers are assumed to have only beginning-level JavaScript knowledge. About the Authors Bear Bibeault is coauthor of Secrets of the JavaScript Ninja, Ajax in Practice, and Prototype and Scriptaculous in Action. Yehuda Katz is an early contributor to jQuery and cocreator of Ember.js. Aurelio De Rosa is a full-stack web developer and a member of the jQuery content team. Table of Contents PART 1 STARTING WITH JQUERY Introducing jQuery PART 2 CORE JQUERY Selecting elements Operating on a jQuery collection Working with properties, attributes, and data Bringing pages to life with jQuery Events are where it happens! Demo: DVD discs locator Energizing pages with animations and effects Beyond the DOM with jQuery utility functions Talk to the server with Ajax 260 Demo: An Ajax-powered contact form PART 3 ADVANCED TOPICS When jQuery is not enough...plugins to the rescue! Avoiding the callback hell with Deferred Unit testing with QUnit How jQuery fits into large projects Master the TypeScript language and its latest features. Explore modern application frameworks and utilize industry best practices in TDD, OOP and UI Design. Key Features Learn the key features of TypeScript 3 and explore advanced language features through in-depth discussions. Use TypeScript with modern frameworks including Backbone, Angular, Aurelia, React, and Node. Explore TDD practices, OOP techniques, and industry best practices to create high-quality, modular, and adaptable applications. Book Description TypeScript is both a language and a set of tools to generate JavaScript. It was designed by Anders Hejlsberg at Microsoft to help developers write enterprise-scale JavaScript. Starting with an introduction to the TypeScript language, before moving on to basic concepts, each section builds on previous knowledge in an incremental and easy-to-understand way. Advanced and powerful language features are all covered, including asynchronous programming techniques, decorators, and generics. This book explores many modern JavaScript and TypeScript frameworks side by side in order for the reader to learn their respective strengths and weaknesses. It will also thoroughly explore unit and integration testing for each framework. Best-of-breed applications utilize well-known design patterns in order to be scalable, maintainable, and testable. This book explores some of these object-oriented techniques and patterns, and shows real-world implementations. By the end of the book, you will have built a comprehensive, end-to-end web application to show how TypeScript language features, design patterns, and industry best practices can be brought together in a real-world scenario. What you will learn Gain insights into core and advanced TypeScript language features Integrate existing JavaScript libraries and third-party frameworks using declaration files Target popular JavaScript frameworks, such as Angular, React, and more Create test suites for your application with Jasmine and Selenium Organize your application code using modules, AMD loaders, and SystemJS Explore advanced object-oriented design principles Compare the various MVC implementations in Aurelia, Angular, React, and more Who this book is for This guide to the TypeScript that starts with basic concepts, and then builds on this knowledge to introduce more advanced language features and frameworks. No prior knowledge of JavaScript is required, although some prior programming experience is assumed. If you are keen to learn TypeScript, this book will give you all of the necessary knowledge and skills to tackle any TypeScript project. If you are already an experienced JavaScript or TypeScript developer, then this book will take your skills to the next level. Learn how to use TypeScript with a multitude of modern frameworks, and choose the best framework for your project requirements. Investigate techniques for Test Driven Development, explore industry-standard design patterns, and learn how to put together a full production-ready TypeScript application.

Unlock the powers of functional programming hidden within JavaScript to build smarter, cleaner, and more reliable web apps About This Book- Write powerful code with the high-level functions that JavaScript offers- Discover what functional programming is, why it's effective, and how it's used in JavaScript- Understand and optimize JavaScript's hidden potential as a true functional language Who This Book Is For If you are a JavaScript developer interested in learning functional programming, looking for the quantum leap toward mastering the JavaScript language, or just want to become a better programmer in general, then this book is ideal for you. This guide is aimed at programmers, involved in developing reactive frontend apps, server-side apps that wrangle with reliability and concurrency, and everything in between. What You Will Learn- Get a run through of the basic JavaScript language constructs- Code using the powerful object-oriented feature in JavaScript- Master DOM manipulation, cross-browser strategies, and ES6- Understand the basic concurrency constructs in Javascript and best performance strategies- Harness the power of patterns for tasks ranging from application building to code testing- Build large-scale apps seamlessly with the help of reactive patterns- Explore advanced design patterns, including dependency injection- Develop more powerful applications with currying and function composition- Create more reliable code with closures and immutable data In Detail JavaScript is a high-level, dynamic, untyped, lightweight, and interpreted programming language and functional programming is a style that emphasizes and enables smarter code that minimizes complexity and increases modularity. It's a way of writing cleaner code through clever ways of mutating, combining, and using functions. And JavaScript provides an excellent medium for this approach. By learning how to expose JavaScript's true identity as a functional language, we can implement web apps that are more powerful, easier to maintain and more reliable. The JavaScript: Functional Programming for JavaScript Developers course will take you on a journey to show how functional programming when combined with other techniques makes JavaScript programming more efficient. The first module Mastering JavaScript, stress on practical aspects of Javascript development like-Functions and Closures, Runtime debugging techniques, project layout, events and DOM processing, build tools, Object-oriented patterns, isomorphism-everything that a modern Javascript project would need. The second module, Mastering JavaScript Design Patterns - Second Edition, 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. This updated edition will also delve into reactive design patterns and microservices as they are a growing phenomenon in the world of web development. It will also show you some advanced patterns, including dependency injection and live post processing. The third module, Functional Programming in JavaScript, will help you to write real-world applications by utilizing a wide range of functional techniques and styles. It explores the core concepts of functional programming common to all functional languages, with examples of their use in JavaScript. Style and approach This course will begin with providing insights and practical tips on advanced JavaScript features to build highly scalable web and mobile system and move on to some design patterns with JavaScript. Finally, the course ends with presenting the functional programming techniques and styles in JavaScript.

7+ Hours of Video Instruction Get started with React.js for front-end web development Overview React.js Fundamentals LiveLessons, Third Edition, covers vanilla React and presents a refresher on some advanced JavaScript topics and essential ES6 features. You first learn how to create a modern React toolchain. Next, the training covers the advanced JavaScript concepts that regularly pop up in React and the modern ES6 features you'll need to write more idiomatic React code. Next, the training covers a conceptual understanding of React and takes an in-depth look at how React's virtual DOM works. Starting in Lesson 6, you dive into writing React code using the original create class syntax and begin to look at the JSX. Next, you see how to rewrite your earlier code using modern es6 features. From there, you learn the remaining vanilla React topics, such as component lifecycle and state management. The training wraps up with a discussion of how you can tweak performance in React apps, use styling, and create functional components. About the Instructor Charles Crawford III has more than ten years of software experience and five years of experience in software education. He is currently a lead instructor at Code Fellows, where he teaches full-stack web programming. He is also an active software and writing consultant and the director of marketing for Hack The People, a distributed nonprofit organization focused on fostering mentor-mentee relationships in software development. Additionally, Charles is an active blog contributor at The New Stack, a site featuring news about and analysis of an ever-changing software development ecosystem. Prior to this, Charles was a developer evangelist for Shippable, a SaaS that leverages Docker to provide continuous integration services. He was also a software engineer at Amazon Web Services on the Elastic Beanstalk team, where he worked on things such as the Elastic Beanstalk Ruby container, Nodejs container, and the Docker container. Skill Level Intermediate Learn How To Utilize the React toolchain Understand the advanced JavaScript features used with React Use ES6 features with React Understand basic React concepts Utilize React's virtual DOM Code a React app with traditional and ES6 Optimize React performance Utilize libraries to make React a complete front-end solution Use React router Use Flux Use Redux Test React applications Use React functional components Who Should Take This Course Intermediate t...

Master the TypeScript language and its latest features. Explore modern application frameworks and utilize industry best practices in TDD, OOP and UI Design. Key Features Learn the key features of TypeScript 3 and explore advanced language features through in-depth discussions. Use TypeScript with modern frameworks including Backbone, Angular, Aurelia, React, and Node. Explore TDD practices, OOP techniques, and industry best practices to create high-quality, modular, and adaptable applications. Book Description TypeScript is both a language and a set of tools to generate JavaScript. It was designed by Anders Hejlsberg at Microsoft to help developers write enterprise-scale JavaScript. Starting with an introduction to the TypeScript language, before moving on to basic concepts, each section builds on previous knowledge in an incremental and easy-to-understand way. Advanced and powerful language features are all covered, including asynchronous programming techniques, decorators, and generics. This book explores many modern JavaScript and TypeScript frameworks side by side in order for the reader to learn their respective strengths and weaknesses. It will also thoroughly explore unit and integration testing for each framework. Best-of-breed applications utilize well-known design patterns in order to be scalable, maintainable, and testable. This book explores some of these object-oriented techniques and patterns, and shows real-world implementations. By the end of the book, you will have built a comprehensive, end-to-end web application to show how TypeScript language features, design patterns, and industry best practices can be brought together in a real-world scenario. What you will learn Gain insights into core and advanced TypeScript language features Integrate existing JavaScript libraries and third-party frameworks using declaration files Target popular JavaScript frameworks, such as Angular, React, and more Create test suites for your application with Jasmine and Selenium Organize your application code using modules, AMD loaders, and SystemJS Explore advanced object-oriented design principles Compare the various MVC implementations in Aurelia, Angular, React, and more Who this book is for This guide to the TypeScript that starts with basic concepts, and then builds on this knowledge to introduce more advanced language features and frameworks. No prior knowledge of JavaScript is required, although some prior programming experience is assumed. ...

Essential Skills--Made Easy! Create dynamic Web pages complete with special effects using today's leading Web development language. JavaScript: A Beginner's Guide, Third Edition gives you step-by-step coverage of the fundamentals, including variables, functions, operators, event handlers, objects, arrays, strings, forms, and frames. You'll also learn about more advanced techniques, including debugging and security. This hands-on guide explains how JavaScript works with XHTML Transitional and covers the new features available in JavaScript. Get started using JavaScript right away with help from this fast-paced tutorial. Designed for Easy Learning: Key Skills & Concepts--Chapter-opening lists of specific skills covered in the chapter Ask the Expert--Q & A sections filled with bonus information and helpful tips Try This--Hands-on exercises that show you how to apply your skills Notes--Extra information related to the topic being covered Tips--Helpful reminders or alternate ways of doing things Self Tests--End-of-chapter reviews to test your knowledge Annotated syntax--Example code with commentary that describes the programming techniques being illustrated

Build customized solutions for your business using the latest features of Odoo 12 and Python Key Features Get up to speed with Odoo 12 to create custom and reusable modules Interconnect your application with other systems by implementing web APIs Understand the mechanisms powering the Odoo framework and Odoo.sh to build robust enterprises Book Description Odoo is a powerful framework known for rapid application development. Its latest release, Odoo 12, introduces tons of new features. With this book, you'll learn how to develop powerful Odoo applications from scratch, using all the latest features. This Odoo cookbook starts by covering Odoo installation and deployment on the server. Next, you'll explore the Odoo framework with real-world examples. You'll create a new Odoo module from the ground up and progress to advanced framework concepts. You'll also learn how to modify existing applications, including Point of Sale (POS). This book is not just limited to backend development; the advanced JavaScript recipes for creating new views and widgets will help you build beautiful UI elements. As you move forward, you'll gain insights into website development and become a quality Odoo developer by studying performance optimization, debugging, and automated tests. Finally, you'll learn the latest concepts like multi-website, In-App Purchasing (IAP), Odoo.sh, and IoT Box. By the end of the book, you'll have all the knowledge you need to build powerful Odoo applications. The development best practices used in this book will undoubtedly come handy when you are working with the Odoo framework. What you will learn Develop a module in the Odoo framework and modify the existing flow of any application Build dynamic websites with Odoo CMS Create and modify backend JavaScript components in Odoo and POS Connect and access any object in Odoo via Remote Procedure Calls (RPC) Illustrate the different tools available in Odoo to implement business processes for your records Implement in-app purchase services Manage, deploy, and test an Odoo instance with the PaaS Odoo.sh Configure IoT Box to add and upgrade Point of Sale (POS) hardware Who this book is for If you're a Python developer who wants to develop highly efficient business applications with the latest Odoo framework, or if you just want a solution guide for all your Odoo development issues, this book is for you. Some JavaScript programming and web development experience is necessary to get the most out of th...

A first book for C programmers transitioning to C++, an object-oriented enhancement of the C programming language. Designed to get readers up to speed quickly, this book thoroughly explains the important concepts and features and gives brief overviews of the rest of the language. Covers features common to all C++ compilers, including those on UNIX, Windows NT, Windows, DOS, and Macs

This book constitutes the proceedings of the 20th International Conference on Computer Information Systems and Industrial Management Applications, CISIM 2021, held in E?k, Poland, September 24–26, 2021. The 38 papers presented together with 1 invited speech and 3 abstracts of keynotes were carefully reviewed and selected from 69 submissions. The main topics covered by the chapters in this book are mobile and pervasive computing, machine learning, high performance computing, image processing, industrial management. Additionally, the

reader will find interesting papers on computer information systems, biometrics, security systems, and sensor network service. The contributions are organized in the following topical sections: biometrics and pattern recognition applications; computer information systems and security; industrial management and other applications; machine learning and artificial neural networks; modelling and optimization, and others. Chapter 24 "A first step towards automated species recognition from camera trap images of mammals using AI in a European temperate forest" is published open access under a CC BY license (Creative Commons Attribution 4.0 International License).

Master key features of Go, including advanced concepts like concurrency and working with JSON, to create and optimize real-world services, network servers, and clients

Key Features* Third edition of the bestselling guide to advanced Go programming, expanded to cover RESTful servers, the WebSocket protocol, and Go generics* Use real-world exercises to build high-performance network servers and powerful command line utilities* Packed with practical examples and utilities to apply to your own development work and administrative tasks* Clearly explains Go nuances and features to simplify Go development

Book DescriptionGo is the language of the future for high-performance systems due to its simplicity and clear principles. Mastering Go shows you how to put Go to work on real production systems. This new edition has been updated to include topics like creating RESTful servers and clients, understanding Go generics, and developing gRPC servers and clients. Mastering Go, Third Edition explores the capabilities of Go in practice. You will become confident with advanced concepts, including concurrency and the operation of the Go Garbage Collector, using Go with Docker, writing powerful command-line utilities, working with JavaScript Object Notation (JSON) data, and interacting with databases. You will also improve your understanding of Go internals to optimize Go code and use data types and data structures in new and unexpected ways. This Go programming book also covers the nuances and idioms of Go with exercises and resources to fully embed your newly acquired knowledge. Become an expert Go programmer by building Go systems and implementing advanced Go techniques in your projects.

What you will learn* Use Go in production* Write reliable, high-performance concurrent code* Manipulate data structures including slices, arrays, maps, and pointers* Develop reusable packages with reflection and interfaces* Become familiar with generics for effective Go programming* Create concurrent RESTful servers, and build gRPC clients and servers* Define Go structures for working with JSON data

Who this book is for This book is for Go programmers with previous coding experience, who are familiar with the basics of the language and want to become expert Go practitioners.

What chance is there for a new desktop operating system to succeed in these days of Microsoft dominance? How about when that operating system is positioned as an alternative to the Macintosh, itself an endangered platform? Actually, the chances are pretty good! Just as Linux quickly established itself as the OS of choice for the independent UNIX developer community, the BeOS, available for both PowerPCs and Intel systems, provides exciting new features for independent multimedia developers. Anyone who has seen the BeOS in action experiences immediate techno-lust. Here is an operating system that speaks multimedia, threading, and multiprocessing as one who was raised speaking them from birth rather than as languages painfully acquired through second-rate schooling. This is the ideal platform for high-end graphics and multimedia, featuring Silicon Graphics performance and more on commodity desktop hardware. Be Advanced Topics picks up where the Be Developer's Guide leaves off. It's the official programmer's reference manual to advanced topics for this revolutionary new operating system. Much as Inside Macintosh galvanized the Mac developer community nearly 15 years ago with its under-the-hood access to the new art of GUI programming, Be Advanced Topics provides developers with access to the internals of the first really new operating system in many years. Describing the less commonly used kits in the operating system -- the kits that don't pertain to every application -- Be Advanced Topics shows you when and how to use them. Anyone who wants to design specialized applications for the BeOS will find this book invaluable. Topics covered include: The Media Kit: Real-time processing of audio and video data The Midi Kit: MIDI data generation and processing, including Headspace® General MIDI synthesizer The Game Kit: Lets your game take over the machine The OpenGL Kit: An implementation of the OpenGL® 3D graphics interface The Network Kit: An interface to the network and mail Also included in Be Advanced Topics is a third-party CD-ROM containing tools, applications, and other freeware designed specifically for the BeOS.

A step by step guide with detailed examples. Experienced Flash AS3 programmers who are making the switch to Javascript and HTML5.

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