Xamarin Mobile Application Development: Cross Platform C

Xamarin Mobile Application Development

Xamarin Mobile Application Development is a hands-on Xamarin.Forms primer and a cross-platform reference for building native Android, iOS, and Windows Phone apps using C# and .NET. This book explains how to use Xamarin.Forms, Xamarin.Android, and Xamarin.iOS to build business apps for your customers and consumer apps for Google Play and the iTunes App Store. Learn how to leverage Xamarin.Forms for cross-platform development using the most common UI pages, layouts, views, controls, and design patterns. Combine these with platform-specific UI to craft a visually stunning and highly interactive mobile user experience. Use Xamarin.Forms to data bind your UI to both data models and to view models for a Model-View-ViewModel (MVVM) implementation. Use this book to answer the important question: Is Xamarin.Forms right for my project? Platform-specific UI is a key concept in cross-platform development, and Xamarin.Android and Xamarin.iOS are the foundation of the Xamarin platform. Xamarin Mobile Application Development will cover how to build an Android app using Xamarin.Android and an iOS app using Xamarin.iOS while sharing a core code library. SQLite is the database-of-choice for many Xamarin developers. This book will explain local data access techniques using SQLite.NET and ADO.NET. Build a mobile data access layer (DAL) using SQLite and weigh your options for web services and enterprise cloud data solutions. This book will show how organize your Xamarin code into a professional-grade application architecture. Explore solution-building techniques from starter-to-enterprise to help you decouple your functional layers, manage your platform-specific code, and share your cross-platform classes for code reuse, testability, and maintainability. Also included are 250+ screenshots on iOS, Android, and Windows Phone and 200+ C# code examples with downloadable C# and XAML versions available from Apress.com. This comprehensive recipe and reference book addresses one of the most important and vexing problems in the software industry today: How do we effectively design and develop cross-platform mobile applications?

Creating Mobile Apps with Xamarin.Forms Preview Edition 2

This second Preview Edition ebook, now with 16 chapters, is about writing applications for Xamarin.Forms, the new mobile development platform for iOS, Android, and Windows phones unveiled by Xamarin in May 2014. Xamarin.Forms lets you write shared user-interface code in C# and XAML that maps to native controls on these three platforms.

Mobile Development with C#

With so many dominant players in the mobile space, each with its own stack, the thought of developing for all of them is daunting but unavoidable. Strange as it may seem, .NET developers are actually in the best position of all to do just that. While .NET is native on Windows Phone 7, products like MonoTouch and Mono for Android allow developers to leverage the .NET framework on iOS and Android as well. This book will help experienced .NET developers hit the ground running on all three platforms, showing how to build applications in C? as well as maximize the amount of code that can be reused across them.

Building Xamarin.Forms Mobile Apps Using XAML

Leverage Xamarin.Forms to build iOS and Android apps using a single, cross-platform approach. This book is the XAML companion to the C# guide Xamarin Mobile Application Development. You'll begin with an

overview of Xamarin.Forms, then move on to an in-depth XAML (eXtensible Application Markup Language) primer covering syntax, namespaces, markup extensions, constructors, and the XAML standard. XAML gives us both the power of decoupled UI development and the direct use of Xamarin.Forms elements. This book explores the core of the Xamarin.Forms mobile app UI: using layouts and FlexLayouts to position controls and views to design and build screens, formatting your UI using resource dictionaries, styles, themes and CSS, then coding user interactions with behaviors, commands, and triggers. You'll see how to use XAML to build sophisticated, robust cross-platform mobile apps and help your user get around your app using Xamarin.Forms navigation patterns.Building Xamarin.Forms Mobile Apps Using XAML explains how to bind UI to data models using data binding and using the MVVM pattern, and how to customize UI elements for each platform using industry-standard menus, effects, custom renderers, and native view declaration. What You Will Learn Create world-class mobile apps for iOS and Android using C# and XAML Build a XAML UI decoupled from the C# code behind Design UI layouts such as FrameLayout, controls, lists, and navigation patterns Style your app using resource dictionaries, styles, themes, and CSS Customize controls to have platform-specific features using effects, custom renderers, and native views Who This Book Is For XAML and C# developers, architects, and technical managers as well as many Android and iOS developers

Creating Cross-Platform C# Applications with Uno Platform

Discover how to leverage the Uno Platform to write single-codebase, cross-platform mobile, desktop, and web applications using C# and XAML Key FeaturesEnhance your Windows apps by running them on all operating systems and browsersUse tools and APIs you already know to remain productive as you target new platformsCreate realistic apps for various lines of business (LOBs) and consumer scenariosBook Description Developers are increasingly being asked to build native applications that run on multiple operating systems and in the browser. In the past, this would have meant learning new technologies and making multiple copies of an application. But the Uno Platform allows you to use tools, languages, and APIs you already know from building Windows apps to develop apps that can also run on other platforms. This book will help you to create customer-facing as well as line-of-business apps that can be used on the device, browser, or operating system of your choice. This practical guide enables developers to put their C# and XAML knowledge to work by writing cross-platform apps using the Uno Platform. Packed with tips and practical examples, this book will help you to build applications for common scenarios. You'll begin by learning about the Uno Platform through step-by-step explanations of essential concepts, before moving on to creating cross-platform apps for different lines of business. Throughout this book, you'll work with examples that will teach you how to combine your existing knowledge to manage common development environments and implement frequently needed functionality. By the end of this Uno development book, you will have learned how to write your own cross-platform apps with the Uno Platform and use additional tools and libraries to speed up your app development process. What you will learnUnderstand how and why Uno could be the right fit for your needsSet up your development environment for cross-platform app development with the Uno Platform and create your first Uno Platform appFind out how to create apps for different business scenariosDiscover how to combine technologies and controls to accelerate developmentGo beyond the basics and create 'world-ready' applicationsGain the confidence and experience to use Uno in your own projectsWho this book is for This book is for developers who are familiar with app development for Windows and want to use their existing skills to build cross-platform apps. Basic knowledge of C# and XAML is required to get started with this book. Anyone with basic experience in app development using WPF, UWP, or WinUI will be able to learn how to create cross-platform applications with the Uno Platform.

Mobile Development with .NET

A mobile applications development masterclass for .NET and C# developers Key FeaturesUncover the new features and capabilities of the .NET 5 framework in this updated and improved second editionOptimize the time required to develop highly performant cross-platform applicationsUnderstand the architectural patterns and best practices for mobile application developmentBook Description Are you a .NET developer who

wishes to develop mobile solutions without delving into the complexities of a mobile development platform? If so, this book is a perfect solution to help you build professional mobile apps without leaving the .NET ecosystem. Mobile Development with .NET will show you how to design, architect, and develop robust mobile applications for multiple platforms, including iOS, Android, and UWP using Xamarin, .NET Core, and Azure. With the help of real-world scenarios, you'll explore different phases of application development using Xamarin, from environment setup, design, and architecture to publishing. Throughout the book, you'll learn how to develop mobile apps using Xamarin and .NET Standard. You'll even be able to implement a web-based backend composed of microservices with .NET Core using various Azure services including, but not limited to, Azure Active Directory, Azure Functions. As you advance, you'll create data stores using popular database technologies such as Cosmos DB and data models such as the relational model and NoSQL. By the end of this mobile application development book, you'll be able to create cross-platform mobile applications that can be deployed as cloud-based PaaS and SaaS. What you will learnDiscover the latest features of .NET 5 that can be used in mobile application developmentExplore Xamarin.Forms Shell for building cross-platform mobile UIsUnderstand the technical design requirements of a consumer mobile appGet to grips with advanced mobile development concepts such as app data management, push notifications, and graph APIsManage app data with Entity Framework CoreUse Microsoft’s Project Rome for creating cross-device experiences with XamarinBecome well-versed with implementing machine learning in your mobile appsWho this book is for This book is for ASP.NET Core developers who want to get started with mobile development using Xamarin and other Microsoft technologies. Working knowledge of C# programming is necessary to get started.

Azure and Xamarin Forms

Discover how to create cross platform apps for Android, iOS and UWP using Azure services and C# with Xamarin Forms. This book illustrates how to utilize Azure cloud storage for serving up Azure SQL DB data through Azure App Services. The book starts by setting up Xamarin and introducing Xamarin Forms and then covers the Azure Portal from a developer’s perspective and goes on to demonstrate how to build an Azure Service using Quickstart. You'll also see how to add Azure support to Xamarin Forms application. You'll review in detail how to build a Xamarin Form with Azure Client and modify an existing app to become a Xamarin Forms Client for Azure with offline synchronization. You then move on to third-party controls that speed up development. By the end of the book, you will be able to use Azure and Xamarin together and master how to use Azure Mobile Quickstarts, Azure SQL plumbing, database synchronization and Xamarin Forms. What You'll Learn Create a Xamarin Forms App and understand the Structure of a Xamarin Forms App. Navigate pages and use platform specific coding. Use images, ListView and the Azure Mobile App Quickstart to build a Service and Xamarin Forms app Modify an existing app to use Azure Client Libraries, understand offline storage with SQLite and incorporate offline synchronization Who This Book Is For Software developers new to Xamarin and/or Azure and for the developers who are familiar with both the technologies to use in mobile apps.

Professional Cross-Platform Mobile Development in C#

Develop mobile enterprise applications in a language you already know! With employees, rather than the IT department, now driving the decision of which devices to use on the job, many companies are scrambling to integrate enterprise applications. Fortunately, enterprise developers can now create apps for all major mobile devices using C#/.NET and Mono, languages most already know. A team of authors draws on their vast experiences to teach you how to create cross-platform mobile applications, while delivering the same functionality to PC's, laptops and the web from a single technology platform and code-base. Rather than reinventing the wheel with each app, this book provides you with the tools you need for cross-platform development--no new languages needed! Presents an overview of the sea change occurring with the use of enterprise mobile applications and what it means for developers Shares the criteria for evaluating and selecting the best option for application architecture Reviews tools and techniques for setting up a cross-platform development environment Offers an introduction to the MonoCross open-source project and pattern

for cross-platform development Packed with specific software design patterns, development best practices, code examples and sample applications, this must-have book gets you started developing cross-platform mobile apps today.

Xamarin.Forms Projects

Explore Xamarin.Forms to develop dynamic applications Key FeaturesExplore SQLite through Xamarin to store locations for various location-based applicationsMake a real-time serverless chat service by using Azure SignalR serviceBuild Augmented Reality application with the power of UrhoSharp together with ARKit and ARCore Book Description Xamarin.Forms is a lightweight cross-platform development toolkit for building applications with a rich user interface. In this book you'll start by building projects that explain the Xamarin.Forms ecosystem to get up and running with building cross-platform applications. We'll increase in difficulty throughout the projects, making you learn the nitty-gritty of Xamarin.Forms offerings. You'll gain insights into the architecture, how to arrange your app's design, where to begin developing, what pitfalls exist, and how to avoid them. The book contains seven real-world projects, to get you hands-on with building rich UIs and providing a truly cross-platform experience. It will also guide you on how to set up a machine for Xamarin app development. You'll build a simple to-do application that gets you going, then dive deep into building advanced apps such as messaging platform, games, and machine learning, to build a UI for an augmented reality project. By the end of the book, you'll be confident in building cross-platforms and fitting Xamarin.Forms toolkits in your app development. You'll be able to take the practice you get from this book to build applications that comply with your requirements. What you will learnSet up a machine for Xamarin developmentGet to know about MVVM and data bindings in Xamarin.FormsUnderstand how to use custom renderers to gain platform-specific accessDiscover Geolocation services through Xamarin EssentialsCreate an abstraction of ARKit and ARCore to expose as a single API for the game Learn how to train a model for imageclassification with Azure Cognitive ServicesWho this book is for This book is for mobile application developers who want to start building native mobile apps using the powerful Xamarin.Forms and C#. Working knowledge of C#, .NET, and Visual Studio is required.

C# 8.0 and .NET Core 3.0 – Modern Cross-Platform Development

Publisher's Note: Microsoft stops supporting .NET Core 3.1 in December 2022. The newer 7th edition of this book is available that covers .NET 7 (end-of-life May 2024) or .NET 6 (end-of-life November 2024), with C# 11 and EF Core 7. Key FeaturesBuild modern, cross-platform applications with .NET Core 3.0Get up to speed with C#, and up to date with all the latest features of C# 8.0Start creating professional web applications with ASP.NET Core 3.0Book Description In C# 8.0 and .NET Core 3.0 – Modern Cross-Platform Development, Fourth Edition, expert teacher Mark J. Price gives you everything you need to start programming C# applications. This latest edition uses the popular Visual Studio Code editor to work across all major operating systems. It is fully updated and expanded with new chapters on Content Management Systems (CMS) and machine learning with ML.NET. The book covers all the topics you need. Part 1 teaches the fundamentals of C#, including object-oriented programming, and new C# 8.0 features such as nullable reference types, simplified switch pattern matching, and default interface methods. Part 2 covers the .NET Standard APIs, such as managing and querying data, monitoring and improving performance, working with the filesystem, async streams, serialization, and encryption. Part 3 provides examples of cross-platform applications you can build and deploy, such as web apps using ASP.NET Core or mobile apps using Xamarin.Forms. The book introduces three technologies for building Windows desktop applications including Windows Forms, Windows Presentation Foundation (WPF), and Universal Windows Platform (UWP) apps, as well as web applications, web services, and mobile apps. What you will learnBuild cross-platform applications for Windows, macOS, Linux, iOS, and AndroidExplore application development with C# 8.0 and .NET Core 3.0Explore ASP.NET Core 3.0 and create professional web applicationsLearn object-oriented programming and C# multitaskingQuery and manipulate data using LINQUse Entity Framework Core and work with relational databasesDiscover Windows app development using the Universal Windows Platform and XAMLBuild mobile applications for iOS and Android using Xamarin.FormsWho this book is

for Readers with some prior programming experience or with a science, technology, engineering, or mathematics (STEM) background, who want to gain a solid foundation with C# 8.0 and .NET Core 3.0.

C# Smorgasbord

C# Smorgasbord covers a vast variety of different technologies, patterns and best practices that any C# developer should master. Looking at everything from testing strategies to compilation as a service and how to do really advance things in runtime; you get a great sense of what you as a developer can do. By taking his personal views and his personal experience, Filip digs into each subject with a personal touch and by having real world problems at hand; we can look at how these problems could be tackled. No matter if you are an experienced .NET developer, or a beginner, you will most certainly find a lot of interesting things in this book. The book covers important patterns and technologies that any developer would benefit from mastering. Explore your possibilities Improve your skills Be Inspired to challenge yourself Is there a digital version(ebook)? Yes there is! Everyone that purchases the printed copy will get the ebook for free. Instructions for how to receive the ebook is inside the printed book. Table of Contents Introduction to Parallel Extensions Productivity and Quality with Unit Testing Is upgrading your code a productive step? Creating a challenge out of the trivial tasks Asynchronous programming with async and await Dynamic programming Increase readability with anonymous types and methods Exploring Reflection Creating things at runtime Introducing Roslyn Adapting to Inversion of Control Are you Mocking me? Who this book is for This book is for those developers that find themselves wanting to explore C# but do not know how or where to start looking. Each chapter contains hands on code examples that can be compiled and tested on your machine. Although each chapter has code samples, you do not need to use a computer to appreciate the content of this book. The code samples are divided into smaller portions of code, so that you can follow each example and the thoughts around it in an easy way. No matter if you are an experienced .NET developer or a beginner, you will most certainly find a lot of interesting things in this book. The book covers important patterns and technologies that any developer would benefit from mastering. It is not required that you have worked with C# before but being familiar to the fundamentals in any of the .NET programming languages will help you on the way. If you are just now starting to learn C#, this can be a great way for you to learn about different techniques, best practices, patterns and how to think in certain scenarios. But if you have worked with C# development for many years, this book can give you a refreshing view on how to always improve and challenge yourself into becoming a better software engineer.

Beginning Visual Studio for Mac

Quickly learn how to get the most out of the Visual Studio for Mac integrated development environment (IDE). Microsoft has invested heavily to deliver their very best development tools and platforms to other operating systems. Visual Studio for Mac is a powerful developer tool that reinforces Microsoft’s “mobile-first”, “cloud-first”, and “any developer, any platform, any device” strategy. With the author's guided expertise and extensive code samples, you will understand how to leverage the most useful tools in Visual Studio for Mac, the code editor, and the powerful debugger. You also will appreciate the author's guidance on collaborating with other team members using integrated tooling for the Git source control engine. Whether you are a Mac developer interested in cross-platform development or a Windows developer using a Mac, Beginning Visual Studio for Mac will quickly get you up to speed! What You'll Learn Prepare, configure, and debug in the Mac development environment Create cross-platform mobile apps for Android, iOS, and Windows with Xamarin and C# in Visual Studio for Mac Build cross-platform Web applications with .NET Core using Visual Studio for Mac Customize your productive and collaborative development environment Who This Book Is For Software developers using a Mac computer who want to build mobile or web applications that run on multiple operating systems

Xamarin: Cross-Platform Mobile Application Development

Master the skills required to develop cross-platform applications from drawing board to app store(s) using

Xamarin About This Book Learn to deliver high-performance native apps that leverage platform specific acceleration, complied for native performance Learn development techniques that will allow you to use and create custom layouts for cross-platform UI Gain the knowledge needed to become more efficient in testing, deploying, and monitoring your applications Implement application life cycle management concepts to manage cross-platform projects Who This Book Is For Mobile application developers wanting to develop skills required to steer cross-platform applications using Xamarin. What You Will Learn Share C# code across platforms and call native Objective-C or Java libraries from C# Submit your app to the Apple App Store and Google Play Use the out-of-the-box services to support third-party libraries Find out how to get feedback while your application is used by your users Create shared data access using a local SQLite database and a REST service Test and monitor your applications Gain memory management skills to avoid memory leaks and premature code cycles while decreasing the memory print of your applications Integrate network resources with cross-platform applications Design and implement eye-catching and reusable UI components without compromising on nativity in mobile applications In Detail Developing a mobile application for just one platform is becoming a thing of the past. Companies expect their apps to be supported on iOS, Android and Windows Phone, while leveraging the best native features on all three platforms. Xamarin's tools help ease this problem by giving developers a single toolset to target all three platforms. The main goal of this course is to equip you with knowledge to successfully analyze, develop, and manage Xamarin cross-platform projects using the most efficient, robust, and scalable implementation patterns. Module 1 is a step-by-step guide to building real-world applications for iOS and Android. The module walks you through building a chat application, complete with a backend web service and native features such as GPS location, camera, and push notifications. Additionally, you'll learn how to use external libraries with Xamarin and Xamarin.Forms. Module 2 provide you recipes on how to create an architecture that will be maintainable, extendable, use Xamarin.Forms plugins to boost productivity. We start with a simple creation of a Xamarin.Forms solution, customize the style and behavior of views for each platform. Further on, we demonstrate the power of architecting a cross-platform solution. Next, you will utilize and access hardware features that vary from platform to platform with cross-platform techniques. You will master the steps of getting the app ready and publishing it in the app store. The last module starts with general topics such as memory management, asynchronous programming, local storage, networking, and platform-specific features. You will learn about key tools to leverage the pattern and advanced implementation strategies. Finally, we show you the toolset for application lifecycle management to help you prepare the development pipeline to manage and see cross-platform projects through to public or private release. After the completion of this course, you will learn a path that will get you up and running with developing cross-platform mobile applications and help you become the go-to person when it comes to Xamarin. Style and approach This course will serve as comprehensive guide for developing cross-platform applications with Xamarin with a unique approach that will engage you like never before as you create real-world cross-platform apps on your own.

.NET MAUI Cross-Platform Application Development

Build apps for Android, iOS, macOS, and Windows using Microsoft's .NET Multi-platform App UI and Blazor Key FeaturesGet familiar with Microsoft's UI toolkit to build amazing interfaces for iOS, Android, Windows, and macOSBuild a cross-platform password manager based on the famous Windows app, KeePassExplore .NET MAUI development and Hybrid app development using BlazorBook Description An evolution of Xamarin.Forms, .NET Multi-platform App UI (.NET MAUI) is a cross-platform framework for creating native mobile and desktop apps with C# and XAML. Using .NET MAUI, you can develop apps that'll run on Android, iOS, macOS, and Windows from a single shared code-base. This step-by-step guide provides a comprehensive introduction to those who are new to .NET MAUI that will have you up to speed with app development using .NET MAUI in no time. The book begins by showing you how to develop a cross-platform application using .NET MAUI and then helps you build an app throughout the chapters. You'll gain all the knowledge needed to create a cross-platform application for Android, iOS, the mac OS, and Windows from a single shared code-base using .NET MAUI. As you advance, you'll get to grips with the entire application development lifecycle, from design and implementation through to deployment to the app

store through the development of a password manager app using KeePassLib. The concluding chapters will teach you how to integrate the latest frontend technology into your app through .NET MAUI Blazor. By the end of this book, you'll have learned how to develop your own cross-platform applications using .NET MAUI. What you will learnDiscover the latest features of .NET 6 that can be used in mobile and desktop app developmentFind out how to build cross-platform apps with .NET MAUI and BlazorImplement device-specific features using .NET MAUI EssentialsIntegrate third-party libraries and add your own device-specific featuresDiscover .NET class unit test using xUnit.net and Razor components unit test using bUnitDeploy apps in different app stores on mobile as well as desktopWho this book is for This book is an entry-level .NET MAUI book for mobile developers interested in cross-platform application development with working experience of the .NET Core framework, as well as fresh or junior engineers who've just begun their career in mobile app development. Native application developers (desktop) or Xamarin developers who want to migrate to .NET MAUI will also benefit from this book. Basic knowledge of modern object-oriented programming language, such as C#, Java or Kotlin, is assumed.

Cross-Platform Development in C++

Cross-Platform Development in C++ is the definitive guide to developing portable C/C++ application code that will run natively on Windows, Macintosh, and Linux/Unix platforms without compromising functionality, usability, or quality. Long-time Mozilla and Netscape developer Syd Logan systematically addresses all the technical and management challenges associated with software portability from planning and design through coding, testing, and deployment. Drawing on his extensive experience with cross-platform development, Logan thoroughly covers issues ranging from the use of native APIs to the latest strategies for portable GUI development. Along the way, he demonstrates how to achieve feature parity while avoiding the problems inherent to traditional cross-platform development approaches. This book will be an indispensable resource for every software professional and technical manager who is building new cross-platform software, porting existing C/C++ software, or planning software that may someday require cross-platform support. Build Cross-Platform Applications without Compromise Throughout the book, Logan illuminates his techniques with realistic scenarios and extensive, downloadable code examples, including a complete cross-platform GUI toolkit based on Mozilla’s XUL that you can download, modify, and learn from. Coverage includes Policies and procedures used by Netscape, enabling them to ship Web browsers to millions of users on Windows, Mac OS, and Linux Delivering functionality and interfaces that are consistent on all platforms Understanding key similarities and differences among leading platform-specific GUI APIs, including Win32/.NET, Cocoa, and Gtk+ Determining when and when not to use native IDEs and how to limit their impact on portability Leveraging standards-based APIs, including POSIX and STL Avoiding hidden portability pitfalls associated with floating point, char types, data serialization, and types in C++ Utilizing platform abstraction libraries such as the Netscape Portable Runtime (NSPR) Establishing an effective cross-platform bug reporting and tracking system Creating builds for multiple platforms and detecting build failures across platforms when they occur Understanding the native runtime environment and its impact on installation Utilizing wxWidgets to create multi-platform GUI applications from a single code base Thoroughly testing application portability Understanding cross-platform GUI toolkit design with Trixul

Wrox Cross Platform Android and iOS Mobile Development Three-Pack

A bundle of 3 best-selling and respected mobile development e-books from Wrox form a complete library on the key tools and techniques for developing apps across the hottest platforms including Android and iOS. This collection includes the full content of these three books, at a special price: Professional Android Programming with Mono for Android and .NET/C#, ISBN: 9781118026434, by Wallace B. McClure, Nathan Blevins, John J. Croft, IV, Jonathan Dick, and Chris Hardy Professional iPhone Programming with MonoTouch and .NET/C#, ISBN: 9780470637821, by Wallace B. McClure, Rory Blyth, Craig Dunn, Chris Hardy, and Martin Bowling Professional Cross-Platform Mobile Development in C#, ISBN: 9781118157701, by Scott Olson, John Hunter, Ben Horgen, and Kenny Goers

React Native in Action

Summary React Native in Action gives iOS, Android, and web developers the knowledge and confidence they need to begin building high-quality iOS and Android apps using the React Native framework. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology React Native gives mobile and web developers the power of \"and.\" Write your app once and easily deploy it to iOS and Android and the web. React Native apps compile into platform-specific code, reducing development time, effort, and cost! And because you're using JavaScript and the React framework, you benefit from a huge ecosystem of tools, expertise, and support. About the Book React Native in Action teaches you to build high-quality cross-platform mobile and web apps. In this hands-on guide, you'll jump right into building a complete app with the help ofclear, easy-to-follow instructions. As you build your skills, you'll drill down to more-advanced topics like styling, APIs, animations, data architecture, and more! You'll also learn how to maximize code reuse without sacrificing native platform look-and-feel. What's Inside Building cross-platform mobile and web apps Routing, Redux, and animations Cross-network data requests Storing and retrieving data locally Managing data and state About the Reader Written for beginner-to-intermediate web, Android, and iOS developers. About the Authors Nader Dabit is a developer advocate at AWS Mobile, where he works on tools and services to allow developers to build full-stack web and mobile applications using their existing skillset. He is also the founder of React Native Training and the host of the \"React Native Radio\" podcast. Table of Contents PART 1 Getting started with React Native Getting started with React Native Understanding React Building your first React Native app PART 2 Developing applications in React Native Introduction to styling Styling in depth Navigation Animations Using the Redux data architecture library PART 3 API reference Implementing cross-platform APIs Implementing iOS-specific components and APIs Implementing Android-specific components and APIs PART 4 Bringing it all together Building a Star Wars app using cross-platform components

C++ and C

Master C++ and C# with Practical, Real-World Techniques to Build High-Performance Applications Are you ready to take your C++ and C# skills to the next level? Whether you're an aspiring developer or an experienced programmer, C++ and C#: The Complete Developer’s Toolkit provides the essential techniques, best practices, and real-world applications to help you write efficient, scalable, and high-performance code. What You’ll Learn Inside: ? Modern Programming Mastery – Write clean, efficient, and optimized code in both C++ and C#. ? Object-Oriented Design Principles – Implement robust architectures for maintainable and scalable software. ? Advanced Data Structures & Algorithms – Boost performance with cutting-edge programming techniques. ? Multithreading & Parallel Computing – Harness the power of concurrency for faster execution. ? Game & App Development Insights – Learn industry-level practices for software and game development. ? Debugging & Optimization – Identify bottlenecks and optimize code for maximum efficiency. Why This Book? ? Hands-on Examples & Real-World Projects – Learn by doing with practical coding exercises. ? Expert Insights from a Former Adobe & Google Engineer – Get insider knowledge from an industry veteran. ? Perfect for Developers of All Levels – Whether you’re a beginner or an expert, this book is designed to enhance your skills. Don’t waste time on outdated tutorials—unlock the power of C++ and C# today! ? Get your copy now and start building powerful, high-performance applications!

C# 7.1 and .NET Core 2.0 – Modern Cross-Platform Development

C# 7.1 and .NET Core 2.0 – Modern Cross-Platform Development, Third Edition is a practical guide to creating powerful cross-platform applications with C# 7 and .NET Core 2.0. About This Book Build modern, cross-platform applications with .NET Core 2.0 Get up to speed with C#, and up to date with all the latest features of C# 7.1 Start creating professional web applications with ASP.NET Core 2.0 Who This Book Is For This book is targeted towards readers who have some prior programming experience or have a science, technology, engineering, or mathematics (STEM) background, and want to gain a solid foundation with C# and to be introduced to the types of applications they could build and will work cross-platform on Windows, Linux, and macOS. What You Will Learn Build cross-platform applications using C# 7.1 and .NET Core 2.0

Explore ASP.NET Core 2.0 and learn how to create professional websites, services, and applications Improve your application's performance using multitasking Use Entity Framework Core and LINQ to query and manipulate data Master object-oriented programming with C# to increase code reuse and efficiency Familiarize yourself with cross-device app development using the Universal Windows Platform Protect and manage your files and data with encryption, streams, and serialization Get started with mobile app development using Xamarin.Forms Preview the nullable reference type feature of C# 8 In Detail C# 7.1 and .NET Core 2.0 – Modern Cross-Platform Development, Third Edition, is a practical guide to creating powerful cross-platform applications with C# 7.1 and .NET Core 2.0. It gives readers of any experience level a solid foundation in C# and .NET. The first part of the book runs you through the basics of C#, as well as debugging functions and object-oriented programming, before taking a quick tour through the latest features of C# 7.1 such as default literals, tuples, inferred tuple names, pattern matching, out variables, and more. After quickly taking you through C# and how .NET works, this book dives into the .NET Standard 2.0 class libraries, covering topics such as packaging and deploying your own libraries, and using common libraries for working with collections, performance, monitoring, serialization, files, databases, and encryption. The final section of the book demonstrates the major types of application that you can build and deploy cross-device and cross-platform. In this section, you'll learn about websites, web applications, web services, Universal Windows Platform (UWP) apps, and mobile apps. By the end of the book, you'll be armed with all the knowledge you need to build modern, cross-platform applications using C# and .NET. Style and approach This book takes a step-by-step approach and is filled with exciting projects and fascinating theory. It uses three high-impact sections to equip you with all the tools you'll need to build modern, cross-platform applications using C# and .NET Core 2.0.

C# 9 and .NET 5 – Modern Cross-Platform Development

Publisher’s Note: Microsoft stopped supporting .NET 5 in May 2022. The newer 8th edition of the book is available that covers .NET 8 (end-of-life November 2026) with C# 12 and EF Core 8. Purchase of the print or Kindle book includes a free PDF eBook Key Features Explore the newest additions to C# 9, the .NET 5 class library, Entity Framework Core and Blazor Strengthen your command of ASP.NET Core 5.0 and create professional websites and services Build cross-platform apps for Windows, macOS, Linux, iOS, and Android Book DescriptionIn C# 9 and .NET 5 – Modern Cross-Platform Development, Fifth Edition, expert teacher Mark J. Price gives you everything you need to start programming C# applications. This latest edition uses the popular Visual Studio Code editor to work across all major operating systems. It is fully updated and expanded with a new chapter on the Microsoft Blazor framework. The book’s first part teaches the fundamentals of C#, including object-oriented programming and new C# 9 features such as top-level programs, target-typed new object instantiation, and immutable types using the record keyword. Part 2 covers the .NET APIs, for performing tasks like managing and querying data, monitoring and improving performance, and working with the file system, async streams, serialization, and encryption. Part 3 provides examples of cross-platform apps you can build and deploy, such as websites and services using ASP.NET Core or mobile apps using Xamarin.Forms. The best type of application for learning the C# language constructs and many of the .NET libraries is one that does not distract with unnecessary application code. For that reason, the C# and .NET topics covered in Chapters 1 to 13 feature console applications. In Chapters 14 to 20, having mastered the basics of the language and libraries, you will build practical applications using ASP.NET Core, Model-View-Controller (MVC), and Blazor. By the end of the book, you will have acquired the understanding and skills you need to use C# 9 and .NET 5 to create websites, services, and mobile apps.What you will learn Build your own types with object-oriented programming Query and manipulate data using LINQ Build websites and services using ASP.NET Core 5 Create intelligent apps using machine learning Use Entity Framework Core and work with relational databases Discover Windows app development using the Universal Windows Platform and XAML Build rich web experiences using the Blazor framework Build mobile applications for iOS and Android using Xamarin.Forms Who this book is forThis book is best for C# and .NET beginners, or programmers who have worked with C# in the past but feel left behind by the changes in the past few years. This book doesn’t expect you to have any C# or .NET experience; however, you should have a general understanding of programming. Students and professionals

with a science, technology, engineering, or mathematics (STEM) background can certainly benefit from this book.

Mastering Xamarin UI Development

Learn how to build stunning, maintainable, cross-platform mobile application user interfaces using C# 7 with the power of both the Xamarin and Xamarin.Forms frameworks. Key Features Build effective native and cross-platform user interfaces using the Xamarin frameworks for iOS and Android, as well as Xamarin.Forms Maximize the testability, flexibility, and overall quality of your Xamarin mobile apps Step-by-Steps guide that is packed with real-world scenarios and solutions, to build professional grade mobile apps and games for the iOS and Android platforms, using C# 7 Book Description This book will provide you with the knowledge and practical skills that are required to develop real-world Xamarin and Xamarin.Forms applications. You'll learn how to create native Android app that will interact with the device camera and photo gallery, and then create a native iOS sliding tiles game. You will learn how to implement complex UI layouts and create customizable control elements based on the platform, using XAML and C# 7 code to interact with control elements within your XAML ContentPages. You'll learn how to add location-based features by to your apps by creating a LocationService class and using the Xam.Plugin.Geolocator cross-platform library, that will be used to obtain the current device location. Next, you'll learn how to work with and implement animations and visual effects within your UI using the PlatformEffects API, using C# code. At the end of this book, you'll learn how to integrate Microsoft Azure App Services and use the Twitter APIs within your app. You will work with the Razor Templating Engine to build a book library HTML5 solution that will use a SQLite.net library to store, update, retrieve, and delete information within a local SQLite database. Finally, you will learn how to write unit tests using the NUnit and UITest frameworks. What you will learn Downloading and Installing the Visual Studio for Mac IDE Overview and Understanding of the Xamarin Mobile Platform Understand the MVVM architectural pattern and how to implement this with your apps Build a NavigationService class to enable navigation between your ViewModels Implement Data-Binding to control elements within your XAML pages and ViewModels Create and Implement Xamarin.Forms Animations within your applications Work with the Microsoft Azure App Services Platform and the Facebook SDK Who this book is for This book is intended for readers who have experience using at least the C# 6.0 programming language and interested in learning how to create stunning native, and cross-platform user interfaces for the iOS and Android platforms using the Xamarin and Xamarin.Forms frameworks using C# 7.

C# 10 and .NET 6 – Modern Cross-Platform Development

Publisher’s Note: Microsoft will stop supporting .NET 6 from November 2024. The newer 8th edition of the book is available that covers .NET 8 (end-of-life November 2026) with C# 12 and EF Core 8. Purchase of the print or Kindle book includes a free PDF eBook Key Features Explore the newest additions to C# 10, the .NET 6 class library, and Entity Framework Core 6 Create professional websites and services with ASP.NET Core 6 and Blazor Build cross-platform apps for Windows, macOS, Linux, iOS, and Android Book DescriptionExtensively revised to accommodate all the latest features that come with C# 10 and .NET 6, this latest edition of our comprehensive guide will get you coding in C# with confidence. You’ll learn object-oriented programming, writing, testing, and debugging functions, implementing interfaces, and inheriting classes. The book covers the .NET APIs for performing tasks like managing and querying data, monitoring and improving performance, and working with the filesystem, async streams, and serialization. You’ll build and deploy cross-platform apps, such as websites and services using ASP.NET Core. Instead of distracting you with unnecessary application code, the first twelve chapters will teach you about C# language constructs and many of the .NET libraries through simple console applications. In later chapters, having mastered the basics, you’ll then build practical applications and services using ASP.NET Core, the Model-View-Controller (MVC) pattern, and Blazor.What you will learn Build rich web experiences using Blazor, Razor Pages, the Model-View-Controller (MVC) pattern, and other features of ASP.NET Core Build your own types with object-oriented programming Write, test, and debug functions Query and manipulate data using

LINQ Integrate and update databases in your apps using Entity Framework Core, Microsoft SQL Server, and SQLite Build and consume powerful services using the latest technologies, including gRPC and GraphQL Build cross-platform apps using XAML Who this book is forDesigned for both beginners and C# and .NET programmers who have worked with C# in the past and want to catch up with the changes made in the past few years, this book doesn’t need you to have any C# or .NET experience. However, you should have a general understanding of programming before you jump in.

Learn Microsoft Visual Studio App Center

Use Visual Studio App Center with Xamarin Forms to set up a DevOps CI/CD pipeline, set up your mobile builds on either iOS or Android, set up Android and Apple certificates and provisioning profiles, distribute your app to your developers and testers, capture analytics and crashes from your users, communicate to your users with push notifications, and run UI tests on the Microsoft cloud. You will see how to automate and manage the life cycle of your apps through Microsoft's Cloud Service, with a focus on integrating App Center into your Xamarin Forms apps with clear, practical examples. As you follow along with the sample app, you will see how easy it is to configure your builds, to test the sample app on various iOS and Android devices on the App Center cloud, and to distribute your app to real devices. Whether you are a developer on a small team or a startup or an architect in a large organization curious about the benefits of Visual Studio App Center, after finishing this book, you will be confident in setting up App Center on your next mobile project. Come join me on this journey through Visual Studio App Center with Xamarin Forms. What You Will Learn Create a DevOps CI/CD pipeline for your mobile app on both iOS and Android devices Save money without buying multiple iOS and Android devices and instead run cloud UI tests Stay informed about build successes and failures by integrating App Center with Slack Set up groups and add team members to your groups on App Center Distribute your app to your team on either iOS or Android devices Capture important user events in your code and report to App Center Give a friendly user experience by handling crashes gracefully and reporting to App Center Keep and analyze your user’s data on Azure by setting up automatic data export to Azure Communicate with your users using iOS and Android notification services from App Center Give your users a better experience by sending silent push notifications Include custom data in your push notifications Who This Book Is For Xamarin Forms mobile developers with previous experience using the Xamarin framework.

C# 7 and .NET Core 2.0 Blueprints

Leverage the features of C# 7 and .NET core 2.0 to build real-world .NET core applications Key Features Easy-to-follow real-world projects that get you up and running with the new features of C# 7 and .NET Core 2.0 The practical applications will assist you with concepts such as Entity Framework Core, serverless computing, and more in .NET Core 2.0 Explore OAuth concepts and build ASP.NET Core applications using MongoDB Book Description .NET Core is a general purpose, modular, cross-platform, and open source implementation of .NET. With the latest release of .NET Core, many more APIs are expected to show up, which will make APIs consistent across .Net Framework, .NET Core, and Xamarin. This step-by-step guide will teach you the essential .NET Core and C# concepts with the help of real-world projects. The book starts with a brief introduction to the latest features of C# 7 and .NET Core 2.0 before moving on to explain how C# 7 can be implemented using the object-oriented paradigm. You'll learn to work with relational data using Entity Framework and see how to use ASP.NET Core practically. This book will show you how .NET Core allows the creations of cross-platform applications. You'll also learn about SignalR to add real-time functionality to your application. Then you will see how to use MongoDB and how to implement MongoDB into your applications. You'll learn about serverless computing and OAuth concepts, along with running ASP.NET Core applications with Docker Compose. This project-based guide uses practical applications to demonstrate these concepts. By the end of the book, you'll be proficient in developing applications using .NET Core 2.0. What you will learn How to incorporate Entity Framework Core to build ASP .NET Core MVC applications Get hands-on experience with SignalR, and NuGet packages Working with MongoDB in your ASP.NET Core MVC application Get hands-on experience with .NET Core MVC, Middleware,

Controllers, Views, Layouts, Routing, and OAuth Implementing Azure Functions and learn what Serverless computing means See how .NET Core enables cross-platform applications that run on Windows, macOS and Linux Running a .NET Core MVC application with Docker Compose Who this book is for This book is for .NET developers who would like to master and implement C# 7 and .NET Core 2.0 with practical projects. Basic knowledge of .NET Core and C# is assumed.

Xamarin Mobile Application Development for Android

A stepbystep tutorial that follows the development of a simple Android app from end to end, through troubleshooting, and then distribution. The language used assumes a knowledge of basic C#.If you are a C# developer with a desire to develop Android apps and want to enhance your existing skill set, then this book is for you. It is assumed that you have a good working knowledge of C#, .NET, and objectoriented software development. Familiarity with rich client technologies such as WPF or Silverlight is also helpful, but not required.

C# 7 and .NET Core: Modern Cross-Platform Development

Modern Cross-Platform Development About This Book Build modern, cross-platform applications with .NET Core Get up to speed with C#, and up to date with all the latest features of C# 7 Start creating professional web applications with ASP.NET Core Who This Book Is For This book is targeted towards readers who have some prior programming experience or have a science, technology, engineering, or mathematics (STEM) background, and want to gain a solid foundation with C# and to be introduced to the types of applications they could build and will work cross-platform on Windows, Linux, and macOS. What You Will Learn Build cross-platform applications using C# 7 and .NET Core Explore ASP.NET Core and learn how to create professional web applications Improve your application's performance using multitasking Use Entity Framework Core and find out how to build code-first databases Master object-oriented programming with C# to increase code reuse and efficiency Familiarize yourself with cross-device app development using the Universal Windows Platform and XAML Query and manipulate data using LINQ Protect your data by using encryption and hashing In Detail If you want to build powerful cross-platform applications with C# 7 and .NET Core, then this book is for you. First, we'll run you through the basics of C#, as well as object-oriented programming, before taking a quick tour through the latest features of C# 7 such as tuples, pattern matching, out variables, and so on. After quickly taking you through C# and how .NET works, we'll dive into the .NET Standard 1.6 class libraries, covering topics such as performance, monitoring, debugging, serialization and encryption. The final section will demonstrate the major types of application that you can build and deploy cross-device and cross-platform. In this section, we'll cover Universal Windows Platform (UWP) apps, web applications, mobile apps, and web services. Lastly, we'll look at how you can package and deploy your applications so that they can be hosted on all of today's most popular platforms, including Linux and Docker. By the end of the book, you'll be armed with all the knowledge you need to build modern, cross-platform applications using C# and .NET Core. Style and approach This book takes a step-by-step approach and is filled with exciting projects and fascinating theory. It uses three high-impact sections to equip you with all the tools you'll need to build modern, cross-platform applications using C# and .NET Core.

Designing Platform Independent Mobile Apps and Services

Stellt Strategien für die Entwicklung plattformunabhängiger mobiler Apps vor, die mit cloud-basierten Diensten verbunden sind. Mit diesen Diensten lassen sich riesige Mengen an modernen Computing-Anwendungen ausführen. - Bietet Entwicklungsmuster für die Entwicklung plattformunabhängiger Apps und Technologien. - Präsentiert empfohlene Standards und Strukturen, die einfach übernommen werden können. - Beschäftigt sich auch mit mobilen und modularen Backend-Architekturen zur Unterstützung von Serviceagilität und schnellen Entwicklungszyklen.

Professional Cross-Platform Mobile Development in C#

Provides information on building enterprise mobile applications in CÄ, .NET, and Mono for all platforms.

Scalable Android Applications in Kotlin

DESCRIPTION Kotlin, a modern and expressive language, has revolutionized Android app development. As the app complexity grows, building scalable and maintainable Android apps becomes crucial. This book is a complete guide to modern Android app development using Kotlin. It covers key concepts like clean architecture and dependency injection for building strong, maintainable apps. This book will also help you learn how to use Kotlin DSL for build configuration and Jetpack Compose for creating user interfaces. It also covers testing, debugging, networking, and API integration. With best practices and real-world examples, this book will help developers create high-quality Android apps using Kotlin. By the end of this book, you will be equipped with the knowledge and skills to architect, develop, and deploy scalable Android apps using Kotlin. You will confidently tackle complex app development challenges, write clean, efficient, and testable code, and become a proficient Android developer. KEY FEATURES ? Learn Kotlin and Jetpack Compose essentials. ? Understand how to apply feature-oriented separation of concerns. ? Use cross-platform technologies to achieve a clean code architecture. ? Perfect control of Jetpack Compose UI with unidirectional flow. ? Discover how to engineer an application from inception to release. WHAT YOU WILL LEARN ? Kotlin and Jetpack Compose fundamentals. ? Feature-oriented separation of concerns. ? Clean-code architecture in Android. ? Kotlin-specific test-driven development. ? Multi-module project organization. ? Tips and techniques for debugging. ? Continuous integration and releasing applications. WHO THIS BOOK IS FOR This book can be understood by novice developers but will also benefit intermediate/seasoned professionals in the Android space. This book is a must-have for Android developers, software engineers, and mobile app developers striving to create exceptional applications. TABLE OF CONTENTS 1. Introduction to Kotlin for Android 2. Breaking Down App Code with Separation of Concerns 3. Feature-Oriented Development in Android 4. Clean Code Architecture 5. Cross-Platform App Development 6. Dependency Injection 7. Introduction to Jetpack Compose 8. Presentation Layer Evolution in Compose 9. Test-Driven Development with Mocking Libraries for Android 10. Kotlin DSL and Multimodule Apps 11. Creating the Module Hierarchy 12. Networking and APIs in Kotlin 13. Creating UI with Jetpack Compose 14. Debugging in Kotlin 15. Test Automation 16. Building and Distributing Applications

ICT Innovations 2013

Information communication technologies have become the necessity in everyday life enabling increased level of communication, processing and information exchange to extent that one could not imagine only a decade ago. Innovations in these technologies open new fields in areas such as: language processing, biology, medicine, robotics, security, urban planning, networking, governance and many others. The applications of these innovations are used to define services that not only ease, but also increase the quality of life. Good education is essential for establishing solid basis of individual development and performance. ICT is integrated part of education at every level and type. Therefore, the special focus should be given to possible deployment of the novel technologies in order to achieve educational paradigms adapted to possible educational consumer specific and individual needs. This book offers a collection of papers presented at the Fifth International Conference on ICT Innovations held in September 2013, in Ohrid, Macedonia. The conference gathered academics, professionals and practitioners in developing solutions and systems in the industrial and business arena especially innovative commercial implementations, novel applications of technology, and experience in applying recent ICT research advances to practical solutions.

Coders at Work

Peter Seibel interviews 15 of the most interesting computer programmers alive today in Coders at Work,

offering a companion volume to Apress's highly acclaimed best-seller Founders at Work by Jessica Livingston. As the words "at work" suggest, Peter Seibel focuses on how his interviewees tackle the day-to-day work of programming, while revealing much more, like how they became great programmers, how they recognize programming talent in others, and what kinds of problems they find most interesting. Hundreds of people have suggested names of programmers to interview on the Coders at Work web site: www.codersatwork.com. The complete list was 284 names. Having digested everyone's feedback, we selected 15 folks who've been kind enough to agree to be interviewed: Frances Allen: Pioneer in optimizing compilers, first woman to win the Turing Award (2006) and first female IBM fellow Joe Armstrong: Inventor of Erlang Joshua Bloch: Author of the Java collections framework, now at Google Bernie Cosell: One of the main software guys behind the original ARPANET IMPs and a master debugger Douglas Crockford: JSON founder, JavaScript architect at Yahoo! L. Peter Deutsch: Author of Ghostscript, implementer of Smalltalk-80 at Xerox PARC and Lisp 1.5 on PDP-1 Brendan Eich: Inventor of JavaScript, CTO of the Mozilla Corporation Brad Fitzpatrick: Writer of LiveJournal, OpenID, memcached, and Perlbal Dan Ingalls: Smalltalk implementor and designer Simon Peyton Jones: Coinventor of Haskell and lead designer of Glasgow Haskell Compiler Donald Knuth: Author of The Art of Computer Programming and creator of TeX Peter Norvig: Director of Research at Google and author of the standard text on AI Guy Steele: Coinventor of Scheme and part of the Common Lisp Gang of Five, currently working on Fortress Ken Thompson: Inventor of UNIX Jamie Zawinski: Author of XEmacs and early Netscape/Mozilla hacker

C# 8 and .NET Core 3 Projects Using Azure

Get up to speed with using C# 8 and .NET Core 3.0 features to build real-world .NET Core applications Key FeaturesLearn the core concepts of web applications, serverless computing, and microservicesCreate an ASP.NET Core MVC application using controllers, routing, middleware and authenticationBuild modern applications using cutting-edge services from Microsoft AzureBook Description .NET Core is a general-purpose, modular, cross-platform, and opensource implementation of .NET. The latest release of .NET Core 3 comes with improved performance and security features, along with support for desktop applications. .NET Core 3 is not only useful for new developers looking to start learning the framework, but also for legacy developers interested in migrating their apps. Updated with the latest features and enhancements, this updated second edition is a step-by-step, project-based guide. The book starts with a brief introduction to the key features of C# 8 and .NET Core 3. You'll learn to work with relational data using Entity Framework Core 3, before understanding how to use ASP.NET Core. As you progress, you'll discover how you can use .NET Core to create cross-platform applications. Later, the book will show you how to upgrade your old WinForms apps to .NET Core 3. The concluding chapters will then help you use SignalR effectively to add real-time functionality to your applications, before demonstrating how to implement MongoDB in your apps. Finally, you'll delve into serverless computing and how to build microservices using Docker and Kubernetes. By the end of this book, you'll be proficient in developing applications using .NET Core 3. What you will learnUnderstand how to incorporate the Entity Framework Core 3 to build ASP.NET Core MVC applicationsCreate a real-time chat application using Azure's SignalR serviceGain hands-on experience of working with Cosmos DBDevelop an Azure Function and interface it with an Azure Logic AppExplore user authentication with Identity Server and OAuth2Understand how to use Azure Cognitive Services to add advanced functionalities with minimal codeGet to grips with running a .NET Core application with KubernetesWho this book is for This book is for developers and programmers of all levels who want to build real-world projects and explore the new features of .NET Core 3. Developers working on legacy desktop software who are looking to migrate to .NET Core 3 will also find this book useful. Basic knowledge of .NET Core and C# is assumed.

Software Engineering Perspectives in Systems

The study of software engineering and its applications to system engineering is critical in computer science research. Modern research methodologies, as well as the use of machine and statistical learning in software engineering research, are covered in this book. This book contains the refereed proceedings of the Software

Engineering Perspectives in Systems part of the 11th Computer Science On-line Conference 2022 (CSOC 2022), which was held in April 2022 online.

Languages, Compilers, and Tools for Embedded Systems

This book constitutes the strictly refereed post-workshop proceedings of the ACM SIGPLAN Workshop on Languages, Compilers, and Tools for Embedded Systems, LCTES '98, held in Montreal, Canada, in June 1998. The 19 revised papers presented were carefully reviewed and selected from a total of 54 submissions for inclusion in the book; also included are one full paper and an abstract of an invited contribution. The papers address all current aspects of research and development in the rapidly growing area of embedded systems and real-time computing.

Mobile DevOps

Today's world is all about perfection, and there are hundreds of applications that are released each day out of which only a few succeed. Making sure that the app looks, performs, and behaves as expected is one of the biggest challenge developers face today.

Understanding C#12 Coding Standards, Best Practices, and Standards in the Industry: DEVELOPING ROBUST AND MAINTAINABLE CODE IN TODAY'S DEVELOPMENT ENVIRONMENT

A comprehensive guide to navigating the ever-evolving world of C# programming awaits seasoned developers and newcomers alike in \"Understanding C#12 Coding Standards, Best Practices, and Standards in the Industry.\" This book is more than just a technical manual; it's a roadmap to excellence, ensuring that your code works flawlessly as well as stands the test of time. The journey begins with an insightful introduction, exploring the significance of coding standards, best practices, and the dynamic landscape of the C# language and industry standards. In addition to selecting the right IDE, configuring tools, and integrating version control systems, readers are also guided through the process of setting up the development environment. A foundational chapter covers everything from naming conventions and formatting guidelines to best practices for coding organization and documentation. Then readers move on to advanced techniques and patterns, including object-oriented design principles, error handling, asynchronous programming, and unit testing. Besides technical proficiency, the book also discusses how to integrate with industry standards, ensure compliance with regulations like GDPR and HIPAA, and embrace accessibility guidelines. We examine tools and automation in detail, including code analysis, continuous integration/continuous delivery pipelines, code reviews, and automated testing frameworks. A focus is placed on collaborative development practices, such as version control, code review, pair programming, and agile development. Case studies and examples provide valuable insights into both exemplary and problematic coding practices while refactoring exercises and performance optimization case studies provide hands-on learning opportunities. With an eye toward the future, the book examines emerging technologies in the C# ecosystem, possible changes in coding standards, and strategies for adapting to emerging trends. Finally, a comprehensive conclusion recaps key takeaways and offers resources for further learning, ensuring that readers leave with the knowledge and tools to achieve unparalleled code quality. \"Understanding C#12 Coding Standards, Best Practices, and Standards in the Industry\" is the essential guide to crafting code that's not just functional, but exceptional, whether you're a beginner or a seasoned pro. Take this course, and improve your coding skills.

C# 7.0 in a Nutshell

When you have questions about C# 7.0 or the .NET CLR and its core Framework assemblies, this bestselling guide has the answers you need. Since its debut in 2000, C# has become a language of unusual flexibility and breadth, but its continual growth means there’s always more to learn. Organized around concepts and use

cases, this updated edition provides intermediate and advanced programmers with a concise map of C# and .NET knowledge. Dive in and discover why this Nutshell guide is considered the definitive reference on C#. Get up to speed on the C# language, from the basics of syntax and variables to advanced topics such as pointers, operator overloading, and dynamic binding Dig deep into LINQ via three chapters dedicated to the topic Explore concurrency and asynchrony, advanced threading, and parallel programming Work with .NET features, including XML, regular expressions, networking, serialization, reflection, application domains, and security Delve into Roslyn, the modular C# 7.0 compiler-as-a-service

The Ring Programming Language

Innovative and practical general-purpose multi-paradigm language.

A Journey to Machine Learning

A Journey to Machine Learning provides a guide to building both real-life and artificial A.I. systems. The text follows a comprehensive approach consisting of concepts, methodologies, and practical examples. With this book, readers learn how to grasp the basics of Machine Learning and solve complex problems utilizing a data-driven approach. This book provides you with an introduction to machine learning which includes numerous case studies and applications so that you will also learn how to apply learning algorithms to building smart robots, text & command understanding applications and web browsers, medical informatics, audio, database mining, and other areas. As machine learning becomes more popular, its use will increase. Companies like Google, Microsoft, Amazon, etc., have been launching their cloud-based machine learning platforms, which has ignited a huge popularity surge for these techniques worldwide.