

## Xamarin Forms Essentials First Steps Toward Cross Platform Le Apps

Develop native applications for multiple mobile and desktop platforms including but not limited to iOS, Android, and UWP with the Xamarin framework and Xamarin.Forms Key Features Understand .NET Core and its cross-platform development philosophy Build Android, iOS, and Windows mobile applications with C#, .NET Core, and Azure Cloud Services Bring Artificial Intelligence capabilities into your mobile applications with Azure AI Book Description .NET Core is the general umbrella term used for Microsoft's cross-platform toolset. Xamarin used for developing mobile applications, is one of the app model implementations for .NET Core infrastructure. In this book, you will learn how to design, architect, and develop highly attractive, maintainable, efficient, and robust mobile applications for multiple platforms, including iOS, Android, and UWP, with the toolset provided by Microsoft using Xamarin, .NET Core, and Azure Cloud Services. This book will take you through various phases of application development with Xamarin, from environment setup, design, and architecture to publishing, using real-world scenarios. Throughout the book, you will learn how to develop mobile apps using Xamarin, Xamarin.Forms and .NET Standard; implement a webbased backend composed of microservices with .NET Core using various Azure services including but not limited to Azure App Services, Azure Active Directory, Notification Hub, Logic Apps, and Azure Functions, Cognitive Services; create data stores using popular database technologies such as Cosmos DB, SQL and Realm. Towards the end, the book will help developers to set up an efficient and maintainable development pipeline to manage the application life cycle using Visual Studio App Center and Visual Studio Services. What you will learn Implement native applications for multiple mobile and desktop platforms Understand and use various Azure Services with .NET Core Make use of architectural patterns designed for mobile and web applications Understand the basic Cosmos DB concepts Understand how different app models can be used to create an app service Explore the Xamarin and Xamarin.Forms UI suite with .NET Core for building mobile applications Who this book is for This book is for mobile developers who wish to develop cross-platform mobile applications. Programming experience with C# is required. Some knowledge and understanding of core elements and cross-platform application development with .NET is required.

If you are a developer who wants to migrate from Selenium RC or any other automation tool to Selenium WebDriver, then this book is for you. Knowledge of automation tools is necessary to follow the examples in this book.

Learn to build a simple data-driven mobile game application using the power of Xamarin.Forms, ASP.NET, the Web API, and SignalR with this short book. In it you will build a cross-platform mobile application that targets both iOS and Android, connect your app with your database using Entity Framework, and implement real-time syncing functionality using SignalR. Understanding Game Application Development starts by giving you an overview of the development tools, an installation guide, and a list of prerequisites. You will learn how to manage application flow, create your workspace, and set up your database. Next, you will see how to access data for handling CRUD operations and define the necessary API endpoints. Further, you will build a mobile application with Xamarin.Forms, both in iOS and in Android. You will also understand the deployment and testing process as well as how to build a real-time leader board using ASP.NET MVC and SignalR. Finally, you will understand how to publish your source code on GitHub from Visual Studio 2017. What You Will Learn Understand the basic concept and fundamentals of the technologies used for building the applications Set up your development environment Create a SQL database from scratch Implement a data access layer Define REST service endpoints using the Web API Deploy, test, and debug iOS and Android applications Push your source code to GitHub Who This Book Is For .NET developers who want to jump on mobile application development with Xamarin and learn with practical examples.

A practical, hands-on guide that will help you to unleash the power of ReSharper to write better quality code. If you are a developer who is working with Visual Studio and are looking to make your work more efficient, this book is for you. It is most useful for new ReSharper users but those who are currently using it will also find many useful tips and references updated to the latest version (8.1). Prior knowledge of Visual Studio is a must.

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?

Microsoft Visual Studio 2015 empowers you to write next-generation applications for any modern environment: mobile, web, cloud, universal Windows 10/8.x, database, and beyond. This end-to-end deep dive will help working developers squeeze maximum productivity out of Microsoft's powerful new toolset. The authors combine authoritative and detailed information about Microsoft's latest IDE, with extensive insights and best practices drawn from decades of development experience. Developers will quickly get comfortable with Visual Studio 2015's updated interface, master its new capabilities, leverage its extensive new support for open standards, and discover multiple opportunities to leverage its .NET 4.6 platform and language improvements. By focusing entirely on Visual Studio 2015 Professional, the authors go deeper into Microsoft's core product than ever before. You'll find expert coverage of everything from debugging through deploying to Azure, IDE extension and automation through cross-platform mobile development. Throughout, this book's focus is relentlessly practical: how to apply Microsoft's tools to build better software, faster. Detailed information on how to... Master Visual Studio 2015's updated interface and key tools: Solutions, Projects, Browsers, Explorers, Editors, and Designers to improve productivity Develop robust cross-platform mobile apps for Windows, iOS, and Android using Apache Cordova templates for Visual Studio Use the new ASP.NET 5 to build modern web solutions that run on Windows, Mac, or Linux Develop Single Page Applications (SPAs) based on HTML5 and rich client-side JavaScript frameworks such as Knockout, AngularJS, Bootstrap, and more Accelerate cloud development with the Azure SDK, QuickStart templates, and Azure management portal Create mobile service solutions using ASP.NET Web API and WCF Streamline data development across multiple platforms with Entity Framework 7 Develop modern Microsoft Office business applications Perform robust, automated unit testing as you code, increasing your confidence in changes and refactoring Extend the VS 2015 IDE and Code Editor by creating custom, productivity-enhancing solutions Download all examples and source code presented in this book from [informit.com/title/9780672337369](http://informit.com/title/9780672337369) as they become available. Start building native Android apps the modern way in Kotlin with Jetpack's expansive set of tools, libraries, and best practices. Learn how to create efficient, resilient views with Fragments and share data between the views with ViewModels. Use Room to persist valuable data quickly, and avoid NullPointerExceptions and Java's verbose expressions with Kotlin. You can even handle asynchronous web service calls elegantly with Kotlin coroutines. Achieve all of this and much more while building two full-featured apps, following detailed, step-by-step instructions. With Kotlin and Jetpack, Android development is now smoother and more enjoyable than ever before. Dive right in by developing two complete Android apps. With the first app, Penny Drop, you create a full game complete with random die rolls, customizable rules, and AI opponents. Build lightweight Fragment views with data binding, quickly and safely update data with ViewModel classes, and handle all app navigation in a single location. Use Kotlin with Android-specific Kotlin extensions to efficiently write null-safe code without all the normal boilerplate required for pre-Jetpack + Kotlin apps. Persist and retrieve data as full objects with the Room library, then display that data with ViewModels and list records in a RecyclerView. Next, you create the official app for the Android Baseball League. It's a fake league but a real app, where you use what you learn in Penny Drop and build up from there. Navigate all over the app via a Navigation Drawer, including specific locations via Android App Links. Handle asynchronous and web service calls with Kotlin Coroutines, display that data smoothly with the Paging library, and send notifications to a user's phone from your app. Come build Android apps the modern way with Kotlin and Jetpack! What You Need: You'll need the Android SDK, a text editor, and either a real Android device or emulator for testing. While not strictly required, it's assumed you're using Android Studio, which comes with the Android SDK and simplifies creating an emulator. Also, a few examples require JDK 1.8 or later, though all of these pieces can be completed in other ways when using JDK 1.6.

How do you start? How should you build a plan for cloud migration for your entire portfolio? How will your organization be affected by these changes? This book, based on real-world cloud experiences by enterprise IT teams, seeks to provide the answers to these questions. Here, you'll see what makes the cloud so compelling to enterprises; with which applications you should start your cloud journey; how your organization will change, and how skill sets will evolve; how to measure progress; how to think about security, compliance, and business buy-in; and how to exploit the ever-growing feature set that the cloud offers to gain strategic and competitive advantage.

If you are an experienced iOS and Android developer and have a desire to learn about the Xamarin platform, then you will find this tutorial to be the most efficient, interesting, and relevant path. You will find this guide to be especially useful if you wish to become proficient in creating apps using the Xamarin platform, as Xamarin Essentials teaches you the fundamentals of iOS and Android development.

.NET 5 is a unified framework from Microsoft's cross-platform toolset that includes ASP.NET Core and Xamarin for mobile development. With this book, you'll understand .NET 5 and how to develop mobile apps with Xamarin. You'll explore Microsoft Azure cloud services, advanced app features, and how to manage and maintain your mobile apps effectively.

This book is your path to getting started with Xamarin Forms. It covers a lot of hot mobile features such as augmented reality (AR) and machine learning (ML) as well as more basic topics, giving you tips and advice on what development environment to strive for. Learn the fundamentals, practical applications, and latest features of C# 8.0 and .NET Core 3.0 from expert teacher Mark J. Price. Key Features Build modern, cross-platform applications with .NET Core 3.0 Get up to speed with C#, and up to date with all the latest features of C# 8.0 Start creating professional web applications with ASP.NET Core 3.0 Book 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 learn Build cross-platform applications for Windows, macOS, Linux, iOS, and Android Explore application development with C# 8.0 and .NET Core 3.0 Explore ASP.NET Core 3.0 and create professional web applications Learn object-oriented programming and C# multitasking Query and manipulate data using LINQ Use Entity Framework Core and work with relational databases Discover Windows app development using the Universal Windows Platform and XAML Build mobile applications for iOS and Android using Xamarin.Forms Who 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.

ASP.NET Core 5 for Beginners is a practical guide for developers for building dynamic and powerful web applications with the ASP.NET Core framework and C#. From basic ASP terminologies to creating a single-page application, and from testing and maintaining the app to deploying it on the cloud, this book covers everything you need to get started.

Build stunning, maintainable, cross-platform mobile application user interfaces with the power of XamarinAbout This Book- Create, configure, and customize stunning platform-specific features as well as cross-platform UIs with the power of Xamarin Forms.-

Maximize the testability, flexibility, and overall quality of your Xamarin apps.- Get the most out of Xamarin.Forms and create your own reusable templates with C# scripting in Xamarin.Who This Book Is ForIf you are a mobile developer with basic knowledge of Xamarin and C# coding, then this book is for you.What You Will Learn- Develop stunning native cross-platform apps using the Xamarin.Forms framework- Work with the different UI layouts to create customized layouts using the C# programming language and tweak it for a given platform- Customize the user interface using DataTemplates and CustomRenderers and the Platform Effects API to change the appearance of control elements- Build hybrid apps using the Razor Template Engine and create Razor Models that communicate with a SQLite database- Use location based features within your app to display the user's current location- Work with the Xamarin.Forms Map control to display Pin placeholders based on the stored latitude and longitude coordinates- Understand and use the MVVM pattern architecture to navigate between each of your ViewModels and implement Data Binding to display and update information- Work with the Microsoft Azure Platform to incorporate API Data Access using Microsoft Azure App Services and the RESTful API- Incorporate third-party features within your app using the Facebook SDK and the Open Graph API- Perform unit testing and profile your Xamarin.Forms applications- Deploy your apps to the Google Play Store and Apple App StoreIn DetailXamarin is the most powerful cross-platform mobile development framework. If you are interested in creating stunning user interfaces for the iOS and Android mobile platforms using the power of Xamarin and Xamarin.Forms, then this is your ticket.This book will provide you the practical skills required to develop real-world Xamarin applications. You will learn how to implement UI structures and layouts, create customized elements, and write C# scripts to customize layouts. You will create UI layouts from scratch so that you can tweak and customize a given UI layout to suit your needs by using Data Templates.Moving on, you will use third-party libraries - such as the Razor template engine that allows you to create your own HTML5 templates within the Xamarin environment - to build a book library Hybrid solution that uses the SQLite.Net library to store, update, retrieve, and delete information within a SQLite local database. You'll also implement key data-binding techniques that will make your user interfaces dynamic, and create personalized animations and visual effects within your user interfaces using Custom Renderers and the PlatformEffects API to customize and change the appearance of control elements.At the end of this book, you will test your application UI for robust and consistent behavior and then explore techniques to deploy to different platforms.Style and approachThis easy to follow guide will walk you through building a real world Xamarin.Forms mobile app from start to finish. Each chapter builds upon the app using a step-by-step methodology that applies new advanced functionalities, design patterns, and best practices.

Xamarin.Forms Projects is a project-based guide that enables you to build effective mobile applications from the ground up using seven real-world examples. Starting with simpler projects to help you get up and running with the framework, the book explores all the components of Xamarin.Forms and takes you through to building complex projects ...

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Through the authors' carefully constructed explanations and examples, you will develop an understanding of Swift grammar and the elements of effective Swift style. This book is written for Swift 3.0 and will also show you how to navigate Xcode 8 and get the most out of Apple's documentation. Throughout the book, the authors share their insights into Swift to ensure that you understand the hows and whys of Swift and can put that understanding to use in different contexts. After working through the book, you will have the knowledge and confidence to develop your own solutions to a wide range of programming challenges using Swift.

WinUI is the future of Windows application development. It is the first step in Microsoft's Project Reunion, an open source effort to unify Windows development on an SPA. This book will help developers get up to speed with WinUI quickly to build new Windows applications or modernize existing desktop applications with the power of XAML Islands.

The book covers the best practices and approaches for software architects to follow when developing .NET and C# solutions, along with the most up to date cloud environments and tools to enable effective app development, delivery, and deployment.

New edition of the bestselling guide to building an effective mobile app architecture with Xamarin.Forms 4 that maximizes the overall quality of apps. Key Features Updated for Xamarin.Forms 4 Packed with real-world scenarios and solutions to help you build professional grade mobile apps with Xamarin.Forms Includes design patterns and best practice techniques that every mobile developer should know Book Description Discover how to extend and build upon the components of the most recent version of Xamarin.Forms to develop an effective, robust mobile app architecture. This new edition features Xamarin.Forms 4 updates, including CollectionView and RefreshView, new coverage of client-side validation, and updates on how to implement user authentication. Mastering Xamarin.Forms, Third Edition is one of the few Xamarin books structured around the development of a simple app from start to finish, beginning with a basic Xamarin.Forms app and going step by step through several advanced topics to create a solution architecture rich with the benefits of good design patterns and best practices. This book introduces a core separation between the app's user interface and the app's business logic by applying the MVVM pattern and data binding, and then focuses on building a layer of plugin-like services that handle platform-specific utilities such as navigation and geo-location, as well as how to loosely use these services in the app with inversion of control and dependency injection. You'll connect the app to a live web-based API and set up offline synchronization before testing the app logic through unit testing. Finally, you will learn

how to add monitoring to your Xamarin.Forms projects to track crashes and analytics and gain a proactive edge on quality. What you will learn Find out how, when, and why to use architecture patterns and best practices with Xamarin.Forms Implement the Model-View-ViewModel (MVVM) pattern and data binding in Xamarin.Forms mobile apps Incorporate client-side validation in Xamarin.Forms mobile apps Extend the Xamarin.Forms navigation API with a custom ViewModel-centric navigation service Leverage the inversion of control and dependency injection patterns in Xamarin.Forms mobile apps Work with online and offline data in Xamarin.Forms mobile apps Use platform-specific APIs to build rich custom user interfaces in Xamarin.Forms mobile apps Explore how to monitor mobile app quality using Visual Studio App Center Who this book is for This book is intended for .NET developers who are familiar with Xamarin mobile application development and the open source Xamarin.Forms toolkit. If you have already started working with Xamarin.Forms and want to take your app to the next level, making it more maintainable, testable and flexible, then this book is for you.

Summary Objective-C Fundamentals is a hands-on tutorial that leads you from your first line of Objective-C code through the process of building native apps for the iPhone using the latest version of the SDK. You'll learn to avoid the most common pitfalls, while exploring the expressive Objective-C language through numerous example projects. About the Technology The iPhone is a sophisticated device, and mastering the Objective C language is the key to unlocking its awesome potential as a mobile computing platform. Objective C's concise, rich syntax and feature set, when matched with the iPhone SDK and the powerful Xcode environment, offers a developers from any background a smooth transition into mobile app development for the iPhone. About the Book Objective-C Fundamentals guides you gradually from your first line of Objective-C code through the process of building native apps for the iPhone. Starting with chapter one, you'll dive into iPhone development by building a simple game that you can run immediately. You'll use tools like Xcode 4 and the debugger that will help you become a more efficient programmer. By working through numerous easy-to-follow examples, you'll learn practical techniques and patterns you can use to create solid and stable apps. And you'll find out how to avoid the most common pitfalls. No iOS or mobile experience is required to benefit from this book but familiarity with programming in general is helpful. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Objective-C from the ground up Developing with Xcode 4 Examples that work unmodified on iPhone Table of Contents PART 1 GETTING STARTED WITH OBJECTIVE-C Building your first iOS application Data types, variables, and constants An introduction to objects Storing data in collections PART 2 BUILDING YOUR OWN OBJECTS Creating classes Extending classes Protocols Dynamic typing and runtime type information Memory management PART 3 MAKING MAXIMUM USE OF FRAMEWORK FUNCTIONALITY Error and exception handling Key-Value Coding and NSPredicate Reading and writing application data Blocks and Grand Central Dispatch Debugging techniques

Rely on this robust and thorough guide to build and maintain successful test automation. As the software industry shifts from traditional waterfall paradigms into more agile ones, test automation becomes a highly important tool that allows your development teams to deliver software at an ever-increasing pace without compromising quality. Even though it may seem trivial to automate the repetitive tester's work, using test automation efficiently and properly is not trivial. Many test automation endeavors end up in the "graveyard" of software projects. There are many things that affect the value of test automation, and also its costs. This book aims to cover all of these aspects in great detail so you can make decisions to create the best test automation solution that will not only help your test automation project to succeed, but also allow the entire software project to thrive. One of the most important details that affects the success of the test automation is how easy it is to maintain the automated tests. Complete Guide to Test Automation provides a detailed hands-on guide for writing highly maintainable test code. What You'll Learn Know the real value to be expected from test automation Discover the key traits that will make your test automation project succeed Be aware of the different considerations to take into account when planning automated tests vs. manual tests Determine who should implement the tests and the implications of this decision Architect the test project and fit it to the architecture of the tested application Design and implement highly reliable automated tests Begin gaining value from test automation earlier Integrate test automation into the business processes of the development team Leverage test automation to improve your organization's performance and quality, even without formal authority Understand how different types of automated tests will fit into your testing strategy, including unit testing, load and performance testing, visual testing, and more Who This Book Is For Those involved with software development such as test automation leads, QA managers, test automation developers, and development managers. Some parts of the book assume hands-on experience in writing code in an object-oriented language (mainly C# or Java), although most of the content is also relevant for nonprogrammers.

Summary Xamarin in Action teaches you to build cross-platform mobile apps using Xamarin and C#. You'll explore all the layers of a Xamarin app, from design to deployment. By the end, you'll be able to build a quality, production-ready Xamarin app on iOS and Android from scratch with a high level of code reuse. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Rewriting the same app for iOS and Android is tedious, error-prone, and expensive. Microsoft's Xamarin drastically reduces dev time by reusing most application code—typically 70% or more. The core of your iOS and Android app is shared; you write platform-specific code only for the UI layer. And because Xamarin uses C#, your apps benefit from everything this modern language and the .NET ecosystem have to offer. About the Book Xamarin in Action teaches you to build cross-platform mobile apps using Xamarin and C#. You'll explore all the layers of a Xamarin app, from design to deployment. Xamarin expert Jim Bennett teaches you design practices that maximize code reuse and isolate device-specific code, making it a snap to incorporate the unique features of each OS. What's Inside Understanding MVVM to maximize code reuse and testability Creating cross-platform model and UI logic layers Building device-specific UIs Unit and automated UI testing Preparing apps for publication with user tracking and crash analytics About the Reader Readers should have some experience with C#. Mobile development experience is helpful, but not assumed. About the Author Jim Bennett is a Xamarin MVP, Microsoft MVP, and Senior Cloud Developer Advocate at Microsoft, specializing in Xamarin mobile apps. He's a frequent speaker at events all around the world, including Xamarin user groups and Xamarin and Microsoft conferences. He regularly blogs about Xamarin development at <https://jimbo Bennett.io>. Table of Contents PART 1 - GETTING STARTED WITH XAMARIN Introducing native cross-platform applications with Xamarin Hello MVVM—creating a simple cross-platform app using MVVM MVVM—the model-view-view model design pattern Hello again, MVVM—understanding and enhancing our simple MVVM app What are we (a)waiting for? An introduction to multithreading for Xamarin apps PART 2 - BUILDING APPS Designing MVVM cross-platform apps Building cross-platform models Building cross-platform view models Building simple Android views Building more advanced Android views

Building simple iOS views Building more advanced iOS views PART 3 - FROM WORKING CODE TO THE STORE Running mobile apps on physical devices Testing mobile apps using Xamarin UITest Using App Center to build, test, and monitor apps Deploying apps to beta testers and the stores

An example-driven guide to building reusable UI components and web frontends—all with Blazor, C#, and .NET. Blazor in Action is a practical guide to building stunning UIs and client-side applications using C# and .NET. Written to the most recent stable build of Blazor, this example-driven book shows how to build a complete end-to-end hiking route web application that's full of easily reusable code. You'll create your own custom Blazor components, including handy UI elements like form controls, and learn how to implement access controls and other important security features. Finally, you'll learn how you can use Blazor components inside your existing ASP.NET applications, and get essential tips and tricks on tuning your app's performance. By the time you're done, you'll be ready to develop beautiful sites and apps that seamlessly execute your C# code natively in the browser. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

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.

Develop Windows 10 applications faster and more efficiently using the Universal Windows Platform. You will use Xamarin to create apps for macOS, iOS, and Android devices. Building Apps for the Universal Windows Platform is a complete guide covering PCs, tablets, phones, and other devices such as HoloLens. You will use Windows 10 to develop apps for desktop, mobile, holographic, wearable, and IoT devices. You will reuse code to easily create cross-platform apps. What You Will Learn Design and develop apps using Visual Studio and Blend Create Cortana-enabled apps for a hands-free experience Build IoT apps and apps for wearables such as the Microsoft HoloLens Monitor apps post-publication to gain insights from actionable data using Windows Store Analytics and Azure Who This Book Is For Professional developers working independently or in a team on Windows 10 applications, and students coming into the world of software development

What will you learn from this book? Dive into C# and create apps, user interfaces, games, and more using this fun and highly visual introduction to C#, .NET Core, and Visual Studio. With this completely updated guide, which covers C# 8.0 and Visual Studio 2019, beginning programmers like you will build a fully functional game in the opening chapter. Then you'll learn how to use classes and object-oriented programming, create 3D games in Unity, and query data with LINQ. And you'll do it all by solving puzzles, doing hands-on exercises, and building real-world applications. By the time you're done, you'll be a solid C# programmer--and you'll have a great time along the way! What's so special about this book? Based on the latest research in cognitive science and learning theory, Head First C# uses a visually rich format to engage your mind rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multisensory learning experience is designed for the way your brain really works.

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.

Learn the bare essentials needed to begin developing cross-platform, mobile apps using Xamarin.Forms. Apps can be easily deployed to Google Play or to the Apple App Store. You will gain insight on architecture and how to arrange your app's design, where to begin developing, what pitfalls exist, and how to avoid them. Also covered are expected new features in Xamarin.Forms 3.0, so you may be prepared ahead of time for what the next release brings. Xamarin.Forms Essentials provides a brief history of Xamarin as a company, including how their product has become one of the most-used, cross-platform technologies for enterprise applications and app development across the world. Examples in the book are built around a real-life example that is an actual app in Google Play and in the Apple App Store, and has thousands of downloads between iOS and Android. You will learn how an application is set up from scratch, and you will benefit from the author's hard-won experience and tips in addressing various development challenges. What You'll Learn Create cross-platform user interfaces from one code base for both iOS and Android See how a commercial application is built and then deployed for sale in the app stores Integrate your Xamarin.Forms applications with third-party, RESTful APIs Arrange application architecture to avoid pitfalls and optimize your design Get a heads-up on new features released as part of Xamarin.Forms 3.0 Choose appropriately between Xamarin.Forms and traditional Xamarin, depending upon your application needs and its goals Who This Book Is For Mobile app developers who are producing software for multiple platforms, including Google Android and Apple iOS. Readers should be familiar with Visual Studio either on Mac OS X or Windows, and have a working knowledge of C#.

By failing to consider those with needs different to ourselves, we are telling these people they are not welcome in our app, and therefore that technology as a whole, is not for them. This is not hyperbole—23% of people in the US with a registered disability aren't online at all, that's three times more likely than the general population. When asked why they're not online, disabled respondents say their disability prevents them or that using the internet is too hard. To help your apps combat the issue of digital exclusion, this book covers considerations and tools mobile developers, or anyone creating mobile experiences, can use to make mobile work better for those with disabilities—mental or physical—and how to create a better experience for everyone. Software is not made up of cold, unthinking algorithms. Software is a craft in the truest sense of the word, and one of the greatest tools you can have as a craftsman is empathy for the people who will be using your app. Each one of whom is an individual with different abilities, experiences, knowledge, and circumstances. What You'll Learn Create mobile experiences that work for as many people as possible Incorporate a worldview of accessibility and customer service into your design Work with accessibility tools and techniques commonly available for developers Who This Book Is For Mobile developers working solo or as part of a team. UX designers, quality engineers, product owners, and anybody working in mobile.

“Welcome to one of the greatest collaborations you could dream of in the world of C# books—and probably far beyond!” —From the Foreword by Mads Torgersen, C# Program Manager, Microsoft Essential C# 6.0 is a well-organized, no-fluff guide to the latest versions of C# for programmers at all levels of experience. Fully updated to reflect new C# 6.0 and .NET 4.6 features and patterns, it will help you write C# code that's simple, powerful, robust, secure, and maintainable. This book's authors are world-class C# experts: long-time Microsoft MVP and Regional Director Mark Michaelis and Eric Lippert, formerly principal developer on Microsoft's C# compiler team. Together, they cover the entire language, illustrating key constructs with succinct examples and offering a complete foundation for successful C# development. Essential C# 6.0 makes it easy to program with any version of C#, whether you're creating new code or maintaining existing systems. Separate indexes for C# versions 4, 5, and 6 help you quickly find version-specific answers with accompanying visual indicators that help you identify which language innovations will work when. This edition also includes a set of best-practice C# Coding Guidelines updated to leverage C# 6.0 constructs. Coverage includes Mastering C# data types, operators, control flow, methods, and parameters Using C# object-oriented constructs, including classes, inheritance, interfaces, and more—all with the significantly simplified syntax of C# 6.0 Working with well-formed value and reference types Implementing reliable, effective exception handling Reducing code complexity with generics, delegates, lambda expressions, and events (including a simplified C# 6.0 syntax for triggering events) Learning dynamic programming with reflection and attributes Querying diverse data collections using LINQ with query expressions Creating custom collections that operate against business objects Using collection interfaces and standard query operators to access .NET collections Understanding the Common Language Infrastructure and C# in the context of .NET 4.6 Taking advantage of declarative programming, embedded metadata, reflection, and attributes Mastering multithreading and synchronization, including the new async/await paradigm Using P/Invoke, pointers, and direct memory manipulation to interoperate with other languages Understanding how C# programs relate to the underlying runtime For Qualified Instructors An instructor's guide, exercises, and a slide deck are available to support your courses.

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.

A step-by-step guide to learning Flutter and Dart 2 for creating Android and iOS mobile applications Key Features Get up to speed with the basics of Dart programming and delve into Flutter development Understand native SDK and third-party libraries for building Android and iOS applications using Flutter Package and deploy your Flutter apps to achieve native-like performance Book Description Google Flutter is a cross-platform mobile framework that makes it easy to write high-performance apps for Android and iOS. This book will help you get to grips with the basics of the Flutter framework and the Dart programming language. Starting from setting up your development environment, you'll learn to design the UI and add user input functions. You'll explore the navigator widget to manage app routes and learn to add transitions between screens. The book will even guide you through developing your own plugin and later, you'll discover how to structure good plugin code. Using the Google Places API, you'll also understand how to display a map in the app and add markers and interactions to it. You'll then learn to improve the user experience with features such as map integrations, platform-specific code with native languages, and personalized animation options for designing intuitive UIs. The book follows a practical approach and gives you access to all relevant code files hosted at [github.com/PacktPublishing/Flutter-for-Beginners](https://github.com/PacktPublishing/Flutter-for-Beginners). This will help you access a variety of examples and prepare your own bug-free apps, ready to deploy on the App Store and Google Play Store. By the end of this book, you'll be well-versed with Dart programming and have the skills to develop your own mobile apps or build a career as a Dart and Flutter app developer. What you will learn Understand the fundamentals of the Dart programming language Explore the core concepts of the Flutter UI and how it compiles for multiple platforms Develop Flutter plugins and widgets and understand how to structure plugin code appropriately Style your Android and iOS apps with widgets and learn the difference between stateful and stateless widgets Add animation to your UI using Flutter's `AnimatedBuilder` component Integrate your native code into your Flutter codebase for native app

performance Who this book is for This book is for developers looking to learn Google's revolutionary framework Flutter from scratch. No prior knowledge of Flutter or Dart is required; however, basic knowledge of any programming language will be helpful. Design and deliver an optimal user experience for all devices About This Book Get to grips with the core functionality of RWD through examples Discover how to make layouts, content and media flexible, and explore why a content-first approach is more effective Maximize the performance of your web pages so that they work across all browsers and devices irrespective of the screen size Who This Book Is For This book is for web designers who are familiar with HTML and CSS, and want to begin with responsive web design. Web development experience and knowledge of HTML5, CSS3 is assumed. What You Will Learn Explore various layout options Understand what can be achieved in the browser, without the use of third-party tools Executing media queries to benefit responsive designs Understand the basics of responsive workflow and boilerplate frameworks Improve performance of responsive web design Maintain compatibility across various browsers In Detail Responsive web design (RWD) is a web design approach aimed at crafting sites to provide an optimal viewing and interaction experience—providing easy reading and navigation with minimum resizing, panning, and scrolling—and all of this across a wide range of devices from desktop computer monitors to mobile phones. Responsive web design is becoming more important as the amount of mobile traffic now accounts for more than half of the Internet's total traffic. This book will give you in depth knowledge about the basics of responsive web design. You will embark on a journey of building effective responsive web pages that work across a range of devices, from mobile phones to smart TVs, with nothing more than standard markup and styling techniques. You'll begin by getting an understanding of what RWD is and its significance to the modern web. Building on the basics, you'll learn about layouts and media queries. Following this, we'll dive into creating layouts using grid based templates. We'll also cover the important topic of performance management, and discover how to tackle cross-browser challenges. Style and approach This is a practical example-based book which will delve into various elements and benefits of a responsive web design. It will help you understand the essential skills needed to create responsive web sites and guide you through the basics of building responsive web pages for any device. The topics are a blend of theoretical and practical essentials which will assist you to explore more about responsive web design.

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.

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

This book covers Android app design fundamentals in Android Studio using Java programming language. The author assumes you have no experience in app development. The book starts with the installation of the required development environment and setting up the emulators. Then, the simplest "Hello World" app is developed step by step. In the next chapter, basics of the Java programming language are given with practical examples. Screenshots and code snippets are clearly given in the book to guide the reader. After the Java lecture, 6 complete Android apps are developed again by step by step instructions. Each code line is explained. As the reader follows the development of the example apps, he/she will learn designing user interfaces, connecting interface objects to code, developing efficient Java code and testing the app on emulators and real devices. The sample apps developed in this book are as follows: 1. Headlight app: Learn the basics of app development and use buttons in your code. 2. Body mass index (BMI) calculator app: Using input boxes, performing calculations and displaying the results on the screen. 3. Simple dice roller app: Using random number generator functions, including images in your project, displaying images on the screen and changing the displayed image programmatically. 4. The compass app: Accessing the magnetic field sensor, setting required permissions, extracting the direction angle and animating a compass figure. 5. Show my location app: Creating a map project, setting required permissions, accessing GPS device and showing real time location on the map. 6. S.O.S. sender app: Adding SMS functionality, setting required permissions and sending real time location using SMS. This book includes 146 figures and 114 code snippets that are used to explain app development concepts clearly. Full resolution colour figures and project files can be viewed and downloaded from the the book's website: [www.android-java.website](http://www.android-java.website).

Leverage the power of Xamarin to create stunning cross-platform and native apps About This Book Helps you get a clear practical understanding of creating professional-grade apps with Xamarin Covers Xamarin.Forms, Xamarin Android, and Xamarin iOS If you want to transform yourself from an amateur mobile developer into a professional app developer across multiple platforms, then this is the ideal book for you Who This Book Is For If you are a mobile developer looking to create interesting and fully featured apps for different platforms, then this book is the ideal solution for you. A basic knowledge of Xamarin and C# programming is assumed What You Will Learn Discover eight different ways to create your own Xamarin applications Improve app performance by using SQLite for data-intensive applications Set up a simple web service to feed JSON data into mobile applications Store files locally with Xamarin.Forms using dependency services Use Xamarin extension libraries to create effective applications with less coding In Detail Do you want to create powerful, efficient, and independent apps from scratch that will leverage the Xamarin framework and code with C#? Well, look no further; you've come to the right place! This is a learn-as-you-build practical guide to building eight full-fledged applications using Xamarin.Forms, Xamarin Android, and Xamarin iOS. Each chapter includes a project,

takes you through the process of building applications (such as a gallery Application, a text-to-speech service app, a GPS locator app, and a stock market app), and will show you how to deploy the application's source code to a Google Cloud Source Repository. Other practical projects include a chat and a media-editing app, as well as other examples fit to adorn any developer's utility belt. In the course of building applications, this book will teach you how to design and prototype professional-grade applications implementing performance and security considerations. Style and approach A project-based approach that will solve all your needs when it comes to creating native Android, iOS, and cross-platform apps efficiently and effectively.

Use the solutions provided in this book to handle common challenges in Xamarin.Forms that are encountered on a daily basis. Working examples and techniques are presented that you can modify and drop directly into your own projects. You will be able to deliver working code faster than ever. Examples are made available through GitHub, maximizing the convenience and value this book provides to Xamarin.Forms developers. Solutions in the book are organized broadly into problem domains such as user interface for applications, data and security, connectivity and external services, and more. Within each domain the book presents specific solutions addressing challenges that are commonly faced. Under data and security, for example, you'll find specific solutions around storing login credentials, local data caching, and sending authorization tokens in HTTP requests. Not only do the solutions in the book solve specific problems, they also present best practices that can inform and improve the quality of the code that you write. Xamarin.Forms Solutions is chock full of practical advice and code examples that no Xamarin.Forms programmer will want to be without. The basics of Xamarin.Forms are provided for beginning developers. What You'll Learn Know the in-depth basics of Xamarin.Forms and the inner workings Create custom renderers and dependency services Manage the appearance of user interfaces through styling and theming, layout options, rotation, and animation Build sophisticated user interfaces using a variety of controls that allow for PDF viewing, barcode interpretation, searching and finding, and other controls Secure your applications, and communicate securely with services via HTTP requests Sign and deploy your apps and optimize the binary file size Who This Book Is For Those building mobile applications on the Xamarin platform for iOS and Android. By mixing together the solutions and a thorough explanation of the basics of Xamarin.Forms, the book spans the needs of beginning through intermediate Xamarin.Forms developers. Even experts will find a few gems to improve the quality and speed of their application development work.

If you have a good understanding of Unity's core functionality and a decent grasp of C# scripting in Unity (although not essential if you are just using the Editor with the new UI), you'll be well placed to take advantage of the new UI feature set.

Xamarin.Forms Essentials First Steps Toward Cross-Platform Mobile Apps Apress

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