Setup Push Notifications For Xamarin Forms With Firebase

Over 80 hands-on recipes to unleash full potential for Xamarin in development and monetization of feature-packed, real-world Android apps About This Book Create a number of Android applications using the Xamarin Android platform Extensively integrate your Android devices with other Android devices to enhance your app creation experience A comprehensive guide packed with real-world scenarios and pro-level practices and techniques to help you build successful Android apps Who This Book Is For If you are a Xamarin developer who wants to create complete Android applications with Xamarin, then this book is ideal for you. No prior knowledge of Android development is needed, however a basic knowledge of C# and .NET would be useful. What You Will Learn Install and use Xamarin.Android with Xamarin Studio and Visual Studio Design an app's user interface for multiple device configurations Store and protect data in databases, files, and on the cloud Utilize lists and collections to present data to the user Communicate across the network using NFC or Bluetooth Perform tasks in the background and update the user with notifications Capture and play multimedia, such as video and audio, with the camera Implement In-App Billing and Expansion Files and deploy to the store In Detail Xamarin is used by developers to write native iOS, Android, and Windows apps with native user interfaces and share code across multiple platforms not just on mobile devices, but on Windows, Mac OS X, and Linux. Developing apps with Xamarin.Android allows you to use and re-use your code and your skills on different platforms, making you more productive in any development. Although it's not a write-once-run-anywhere framework, Xamarin provides native platform integration and optimizations. There is no middleware; Xamarin.Android talks directly to the system, taking your C# and F# code directly to the low levels. This book will provide you with the necessary knowledge and skills to be part of the mobile development era using C#. Covering a wide range of recipes such as creating a simple application and using device features effectively, it will be your companion to the complete application development cycle. Starting with installing the necessary tools, you will be guided on everything you need to develop an application ready to be deployed. You will learn the best practices for interacting with the device hardware, such as GPS, NFC, and Bluetooth. Furthermore, you will be able to manage multimedia resources such as photos and videos captured with the device camera, and so much more! By the end of this book, you will be able to create Android apps as a result of learning and implementing pro-level practices, techniques, and solutions. This book will ascertain a seamless and successful app building experience. Style and approach This book employs a step-by-step approach to Android app creation, explained in a conversational and easy-to-follow style. A wide range of examples are listed to ensure a complete understanding of how to deploy competent apps on the Android market.

Learn everything you need to set up a full-featured, automated pipeline for Xamarin development and deployment. Automate everything from the build step through to deployment and delivery to your customer. If you thought this level of automation could be achieved only by large companies with generous funding, think again! You as a single developer, or working in a small team or company, can automate your processes

to punch heavier than your weight. What's more, you can achieve this level of automation completely for free! This hands-on guide takes you step-by-step from setting up your first automated build all the way to integrated unit testing, and finally through to delivering a high-quality app to your testers and end users. The automation presented in this book saves a lot of frustration and recurring work, providing you more time to focus on building the robust and compelling apps that delight your customers and keep you steps ahead of the competition. Not only does this book teach how to get a grip on consistent quality, but it covers the use of HockeyApp to track events and usage, and to report errors and anomalies back to home base for developers to investigate. Many times it's possible to detect and fix errors before a user even notices they are there. This book: Teaches the necessity of an automated development pipeline Helps you set up an automated pipeline for Xamarin development Integrates testing (on physical devices!) to ensure high-quality apps What You'll Learn Why you want an automated development pipeline Obtain and configure the automated tooling Continuously integrate your apps Run automated unit tests Push updates to your customers Monitor and detect errors without user intervention Who This Book Is For App developers looking for ways to ensure consistent quality of work and wanting to know how their apps are doing in actual use by customers

This book helps you use the open-source Flutter framework for building native mobile apps using Dart. You'll learn about Dart programming and add functionalities to your Android and iOS apps for truly native performance. The book also covers recipes for solving almost any issue that you may face while developing multi-platform applications.

Take your React Native application development to the next level with this large collection of recipesAbout This Book* Build rich and engaging user experiences in React Native while maintaining peak application performance* Leverage the best of iOS and Android for React Native development while maximizing code reuse and cohesion* Implement architecture patterns in your React Native application that support efficient data access, routing, and testingWho This Book Is ForThis book is for web developers who are familiar with React.js and know basics of UI development. You may or may not have used React Native before, but it's ideal for you if you want to develop native applications for iOS and Android using React Native. Existing knowledge of JavaScript ES2015 is highly recommended.What You Will Learn* Build simple and complex user interfaces using React Native* Create advanced animations for UI components* Build universal apps that run on phones and tablets* Leverage Redux to manage application flow and data* Expose both custom native UI components and application logic to React Native* Integrate with existing native applications on iOS and Android* Deploy our React Native application to the Google Play and Apple App Store* Add automated testing to our React Native applicationIn DetailReact has taken the web development world by storm. It is only natural that the unique architecture and its ecosystem of third-party support be applied to native application development. This book will take you through the basics of React Native development all the way through some more advanced components.In this book, we will cover topics in React Native ranging from adding basic UI components to successfully deploying for multiple target platforms. The book follows a top-down approach beginning with building rich user interfaces. These UIs will be created with both built-in and custom components that you will create, style

and animate.You will then learn about different strategies for working with data, including leveraging the popular Redux library and optimizing the performance of the application. Then you will step further into exposing native device functionality. Finally, we will discuss how to put our application into production and maintain its reliability. 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 Creat world-class mobile apps for iOS and Android using C# and XAML Build a UI decoupled from C# code and XAML 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

Use this in-depth guide to correctly design benchmarks, measure key performance metrics of .NET applications, and analyze results. This book presents dozens of case studies to help you understand complicated benchmarking topics. You will avoid common pitfalls, control the accuracy of your measurements, and improve performance of your software. Author Andrey Akinshin has maintained BenchmarkDotNet (the most popular .NET library for benchmarking) for five years and covers common mistakes that developers usually make in their benchmarks. This book includes not only .NET-specific content but also essential knowledge about performance measurements which can be applied to any language or platform (common benchmarking methodology, statistics, and low-level features of modern hardware). What You'll Learn Be aware of the best practices for writing benchmarks and performance tests Avoid the common benchmarking pitfalls Know the hardware and software factors that affect application performance Analyze performance measurements Who This Book Is For .NET developers concerned with the performance of their applications

.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 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.

Create a fully operating application and deploy it to major mobile platforms using Xamarin.Forms About This Book Create standard user interfaces on Windows Mobile, Android, and iOS and then make those interfaces look good with ease Design a full-blown application in very little time with just about the entire code being shared Learn how to access platform-specific features and still have the same core code with this handy guide Who This Book Is For This book is intended for mobile software developers who are fed up with having three different code sets for the same application. If you want to put your code on all mobile platforms with minimum fuss, and just want to develop but haven't got the time to be digging too far into a particular platform, this is the book for you. Basic knowledge of C# is assumed. What You Will Learn Create a responsive UI, modified to suit the target platform Understand the basics of designing an application, and the considerations needed for target platforms Construct a complete app using a single codebase Develop attractive user interfaces Bind information to the code behind to generate a reactive application Design an effective portable class library (PCL) Include a Windows Mobile application within your standard Xamarin.Forms application Extend your applications using the Xamarin.Forms Labs library In Detail Xamarin is an IDE used for the development of native iOS, Android, and Windows, and cross-platform mobile applications in C#. For the mobile developer, that means learning three different languages to create the same application. Even if you use the Xamarin toolchain, you still need to work with three different user interface construction sets. Xamarin is essentially a container in which developers can write any application in C# and use the Xamarin compiler to package and deploy on Android, iOS, or Windows platforms. To top this, Xamarin.Forms plays the role of a single codebase for mobile applications. This book will show you, with fully-coded examples, how to use both the Xamarin toolchain and the Xamarin.Forms library to code once for the three platforms. It goes from the concept and design of a mobile messenger application to its execution. You will be introduced to Messenger—the messaging app—which includes key features such as push notifications, UI, maps, databases, and web services. Next, you will learn to plan the UI using Xamarin.Forms for cross-mobile platform development, and move on to creating custom buttons, extending the UI, and connecting to social sites such as Facebook and Twitter. You will also learn about the limitations of PCL libraries and how they make coding easier. This will be followed by the creation of a SQLite database and a database manager, and the SQLite database's reflection within the database manager. You will then be taken through the use of hardware features with ample coverage of iOS, Android, and Windows Mobile. Finally, the book will conclude by introducing common strategies that allow you to create applications that "just work" without having to reinvent the wheel each time. Style and approach A fun and informal approach to creating a mobile application using the most up-to-date cross-platform approach. Each coding chapter includes fully working code examples available for download from the Packt Publishing website.

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

Build large-scale, mission-critical hardened applications on the Azure cloud platform. This 2nd edition provides information on the newer features in Azure, such as Linux extensions and supporting Azure Services such as HDInsight and SQL Server on Linux. Updated with new applications Hardening Azure Applications also discusses Scale Sets (VMSS), a major upgrade that enables autoscaling and seamlessly makes machines ready for high availability. The authors take you step by step through the process of evaluating and building applications with the appropriate hardness attributes. After a small introduction to cloud computing, you will learn about various cloud and hardened cloud applications in detail. Next, you will discover service fundamentals such as instrumentation, telemetry, and monitoring followed by key application experiences. Further, you will cover availability and the economics of 9s. Towards the end, you will see how to secure your application and learn about the modernization of software organisations, a new topic in this edition. After reading this book, you will master the techniques and engineering principles that every architect and developer needs to know to harden their Azure/.NET applications to ensure maximum reliability and high availability when deployed at scale. What You Will Learn Use techniques and principles to harden Azure/.NET applications Secure your applications on Azure Create a scale set on Azure Work with service fundamentals such as instrumentation, telemetry, and monitoring Who This Book Is For Developers and IT professionals who are working on Azure applications.

Develop powerful cross-platform applications with Xamarin About This Book Write native cross-platform applications with Xamarin Design user interfaces that can be shared across Android, iOS, and Windows Phone using Xamarin.Forms Practical cross-platform development strategies Who This Book Is For If you are a developer with experience in C# and are just getting into mobile development, this is the book for you. This book will give you a head start with cross-platform development and will be the most useful to developers who have experience with desktop applications or the web. What You Will Learn Apple's MVC design pattern The Android activity lifecycle Share C# code across platforms and call native Objective-C or Java libraries from C# Create a real web service back end in Windows Azure using SQL Azure as database storage Set up third-party libraries such as NuGet and Objective Sharpie in many different ways, and port a desktop .NET library to Xamarin Use Xamarin.Mobile for camera, contacts, and location In Detail Xamarin is a leading cross-platform application development tool used by top companies such as Coca-Cola, Honeywell, and Alaska Airlines to build apps. Version 4 features significant updates to the platform including the release of

Xamarin.Forms 2.0 and improvements have been made to the iOS and Android designers. Xamarin was acquired by Microsoft so it is now a part of the Visual Studio family. This book will show you how to build applications for iOS, Android, and Windows. You will be walked through the process of creating an application that comes complete with a back-end web service and native features such as GPS location, camera, push notifications, and other core features. Additionally, you'll learn how to use external libraries with Xamarin and Xamarin.Forms to create user interfaces. This book also provides instructions for Visual Studio and Windows. This edition has been updated with new screenshots and detailed steps to provide you with a holistic overview of the new features in Xamarin 4. Style and approach This book offers a tutorial style approach to teach you the skills required to develop end-to-end cross-platform solutions with Xamarin.

Get to grips with the AWS Amplify framework and use it to build scalable cloud-native progressive web apps with React and cross-platform mobile apps with React Native in TypeScript Key Features Explore the capabilities of AWS Amplify with popular app frameworks for both web and mobile app platforms Build your first cloud-native web and mobile applications using AWS Amplify Leverage AWS Amplify to design GraphQL APIs for your web and mobile applications Book Description AWS Amplify is a modern toolkit that includes a command line interface (CLI); libraries for JS, iOS, and Android programming; UI component libraries for frameworks like React, Angular, and Vue.js for web development, and React Native and Flutter for mobile development. You'll begin by learning how to build AWS Amplify solutions with React and React Native with TypeScript from scratch, along with integrating it with existing solutions. This book will show you the fastest way to build a production-ready minimum viable product (MVP) within days instead of years. You'll also discover how to increase development speed without compromising on quality by adopting behavior-driven development (BDD) and Cypress for end-to-end test automation, as well as the Amplify build pipeline (DevOps or CI/CD pipeline) to ensure optimal quality throughout continuous test automation and continuous delivery. As you advance, you'll work with React to determine how to build progressive web apps (PWAs) with Amplify and React Native for cross-platform mobile apps. In addition to this, you'll find out how to set up a custom domain name for your new website and set up the AWS Amplify Admin UI for managing the content of your app effectively. By the end of this AWS book, you'll be able to build a full-stack AWS Amplify solution all by yourself. What you will learn Build React and React Native apps with Amplify and TypeScript Explore pre-built Amplify UI components for rapid prototyping Add user management with Amplify authentication to your app Use Amplify GraphQL to create a blog post Discover how to upload photos to Amplify Storage Enable DevOps with the Amplify pipeline for your app Get to grips with BDD and test automation with Cypress and Cucumber Set up a custom domain name for your website and manage app content with the Amplify Admin UI Who this book is for This book is for developers and tech companies looking to develop cloud-native products rapidly with the AWS ecosystem. Web and mobile developers with little-to-no experience in TypeScript programming will also find this book helpful. Although no prior experience with AWS or TypeScript is required, basic familiarity with modern frameworks such as React and React Native is useful.

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? Discover high-value Azure security insights, tips, and operational optimizations This book presents comprehensive Azure Security Center techniques for safeguarding cloud and hybrid environments. Leading Microsoft security and cloud experts Yuri Diogenes and Dr. Thomas Shinder show how to apply Azure Security Center's full spectrum of features and capabilities to address protection, detection, and response in key operational scenarios. You'll learn how to secure any Azure workload, and optimize virtually all facets of modern security, from policies and identity to incident response and risk management. Whatever your role in Azure security, you'll learn how to save hours, days, or even weeks by solving problems in most efficient, reliable ways possible. Two of Microsoft's leading cloud security experts show how to: • Assess the impact of cloud and hybrid environments on security, compliance, operations, data protection, and risk management • Master a new security paradigm for a world without traditional perimeters • Gain visibility and control to secure compute, network, storage, and application workloads • Incorporate Azure Security Center into your security operations center • Integrate Azure Security Center with Azure AD Identity Protection Center and third-party solutions • Adapt Azure Security Center's built-in policies and definitions for your organization • Perform security assessments and implement Azure Security Center recommendations • Use incident response features to detect, investigate, and address threats • Create high-fidelity fusion alerts to focus attention on your most urgent security issues • Implement application whitelisting and just-in-time VM access • Monitor user behavior and access, and investigate compromised or

misused credentials • Customize and perform operating system security baseline assessments • Leverage integrated threat intelligence to identify known bad actors 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 MYP, 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://jimbobbennett.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 This book constitutes the refereed proceedings of the 13th International Conference on Mobile Web and Intelligent Information Systems, MobiWIS 2016, held in Vienna, Austria, in August 2016. The 36 papers presented in this volume were carefully reviewed and selected from 98 submissions. They were organization in topical sections named: mobile Web - practice and experience; advanced Web and mobile systems; security of mobile applications; mobile and wireless networking; mobile applications and wearable devices; mobile Web and applications; personalization and social networks.
MQ Telemetry Transport (MQTT) is a messaging protocol that is lightweight enough to be supported by the smallest devices, yet robust enough to ensure that important messages get to their destinations every time. With MQTT devices such as smart energy meters, cars, trains, satellite receivers, and personal health care devices can communicate with each other and

with other systems or applications. This IBM® Redbooks® publication introduces MQTT and takes a scenario-based approach to demonstrate its capabilities. It provides a quick guide to getting started and then shows how to grow to an enterprise scale MQTT server using IBM WebSphere® MQ Telemetry. Scenarios demonstrate how to integrate MQTT with other IBM products, including WebSphere Message Broker. This book also provides typical usage patterns and guidance on scaling a solution. The intended audience for this book ranges from new users of MQTT and telemetry to those readers who are looking for in-depth knowledge and advanced topics.

If you are a developer interested in building systems for Microsoft Azure, with an understanding of efficient cloud-based application development, then this is the book for you. Build advanced authentication solutions for any cloud or web environment Active Directory has been transformed to reflect the cloud revolution, modern protocols, and today's newest SaaS paradigms. This is an authoritative, deep-dive guide to building Active Directory authentication solutions for these new environments. Author Vittorio Bertocci drove these technologies from initial concept to general availability, playing key roles in everything from technical design to documentation. In this book, he delivers comprehensive guidance for building complete solutions. For each app type, Bertocci presents high-level scenarios and quick implementation steps, illuminates key concepts in greater depth, and helps you refine your solution to improve performance and reliability. He helps you make sense of highly abstract architectural diagrams and nitty-gritty protocol and implementation details. This is the book for people motivated to become experts. Active Directory Program Manager Vittorio Bertocci shows you how to: Address authentication challenges in the cloud or on-premises Systematically protect apps with Azure AD and AD Federation Services Power sign-in flows with OpenID Connect, Azure AD, and AD libraries Make the most of OpenID Connect's middleware and supporting classes Work with the Azure AD representation of apps and their relationships Provide fine-grained app access control via roles, groups, and permissions Consume and expose Web APIs protected by Azure AD Understand new authentication protocols without reading complex spec documents

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.

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.

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.

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. Patterns of Enterprise Application Architecture is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology--from Smalltalk to CORBA to Java to .NET--the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include · Dividing an enterprise application into layers · The major approaches to organizing business logic · An in-depth treatment of mapping between objects and relational databases · Using Model-View-Controller to organize a Web presentation · Handling concurrency for data that spans multiple transactions · Designing distributed object interfaces

Create Modern, Enterprise Mobile Apps with Oracle Mobile Cloud Service Create and deploy high-performance enterprise mobile applications using the hands-on information contained in this Oracle Press guide. Written by a director of product management within Oracle's platform-as-a-service group, Oracle Mobile Cloud Service Developer's Guide features a start-to-finish case study application that clearly demonstrates key techniques and features. Learn how to set up mobile back ends, work with native SDKs, build custom APIs, and deliver best-in-class mobile services with Oracle Mobile Cloud Service. Oracle Mobile Application Accelerator and enterprise mobile solutions are fully covered in this comprehensive resource. •Explore the features and benefits of Oracle Mobile Cloud Service •Work from the command line, within

Oracle Mobile Cloud Service, and native platform IDEs •Visually describe business objects using REST API for Oracle Mobile Cloud Service •Perform CRUD operations on the back end and client side •Develop mobile applications using SDKs for iOS and Android •Build a cross-platform client with Oracle Mobile Application Accelerator •Monitor and administer Oracle Mobile Cloud Service in enterprises of all sizes

Develop lean iOS and Android apps using industry standard techniques and lean development practices. About This Book Build ready-to-deploy apps with less iterations and shorter development times Adopt the lean startup methodologies to develop iOS and Android apps that shine in the App Store This hands-on guide puts continuous innovation into practice to develop successful mobile apps Who This Book Is For This book is for developers, CTOs, and architects working for a startup or another kind of lean startup environment, such as start-up within a cooperation. It is is ideal for any iOS and Android developer who wants to build successful mobile apps by adopting the lean startup methodology. What You Will Learn Apply the lean startup methodology to real Android and iOS development Define what your hypotheses are by creating an Minimal Viable Product Validate your idea against the Business Model Canvas Gather feedback through statistics and by getting user comments, learn from it, and adapt your app accordingly Develop skills and devise strategies to build versatile and flexible apps that meet changing business requirements Investigate the possibilities when you need to pivot your start-up idea whether in a startup or an established business. Create a successful app and get tips on how to boostconversion and how to optimize the on boardingprocess. In Detail Lean is the ultimate methodology for creating a startup that succeeds. Sounds great from a theoretical point of view, but what does that mean for you as an a technical co-founder or mobile developer? By applying the Lean Start-up methodology to your mobile App development, it will become so much easier to build apps that take Google Play or the App Store by storm. This book shows you how to bring together smarter business processes with technical know-how. It makes no sense to develop a brilliant app for six months or longer only to find out later that nobody is interested in it. Build a Minimum Viable Product (MVP) first. Validate your hypotheses early and often. Discover effective product development strategies that let you put Facebook's famous axiom "move fast and break things" into practice. A great app without visibility and marketing clout is nothing, so use this book to market your app, making use of effective metrics that help you track and iterate all aspects of project performance. Style and approach This book takes a hands-on approach to developing apps through the Lean Start-up Methodology. Following a 50% business and 50% tech approach, this book is filled with practical examples and real-world experiments.

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.

Prepare for Microsoft Exam 70-532—and help demonstrate your real-world mastery of the skills needed to develop Microsoft Azure solutions. Designed for experienced IT professionals ready to advance their status, Exam Ref focuses on the critical thinking and decision-making acumen needed for job success. Focus on the expertise measured by these objectives: Create and manage Azure Resource Manager Virtual Machines Design and implement a storage and data strategy Manage identity, application, and network services Design and implement Azure PaaS compute, web, and mo bile services This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Assumes you have experience designing, programming, implementing, automating, and monitoring Microsoft Azure solutions, and are proficient with tools, techniques, and approaches for building scalable, resilient solutions About the Exam Exam 70-532 focuses on skills and knowledge for building highly available solutions in the Microsoft Azure cloud. About Microsoft Certification This exam is for candidates who are experienced in designing, programming, implementing, automating, and monitoring Microsoft Azure solutions. Candidates are also proficient with development tools, techniques, and approaches used to build scalable and resilient solutions. See full details at: microsoft.com/learning

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.

The professional's guide to C# 7, with expert guidance on the newest features Professional C# 7 and .NET Core 2.0 provides experienced programmers with the information they need to

work effectively with the world's leading programming language. The latest C# update added many new features that help you get more done in less time, and this book is your ideal guide for getting up to speed quickly. C# 7 focuses on data consumption, code simplification, and performance, with new support for local functions, tuple types, record types, pattern matching, non-nullable reference types, immutable types, and better support for variables. Improvements to Visual Studio will bring significant changes to the way C# developers interact with the space, bringing .NET to non-Microsoft platforms and incorporating tools from other platforms like Docker, Gulp, and NPM. Guided by a leading .NET expert and steeped in real-world practicality, this guide is designed to get you up to date and back to work. With Microsoft speeding up its release cadence while offering more significant improvement with each update, it has never been more important to get a handle on new tools and features quickly. This book is designed to do just that, and more—everything you need to know about C# is right here, in the single-volume resource on every developer's shelf. Tour the many new and enhanced features packed into C# 7 and .NET Core 2.0 Learn how the latest Visual Studio update makes developers' jobs easier Streamline your workflow with a new focus on code simplification and performance enhancement Delve into improvements made for localization, networking, diagnostics, deployments, and more Whether you're entirely new to C# or just transitioning to C# 7, having a solid grasp of the latest features allows you to exploit the language's full functionality to create robust, high -quality apps. Professional C# 7 and .NET Core 2.0 is the one-stop guide to everything you need to know.

The book Lifehack calls "The Bible of business and personal productivity." "A completely revised and updated edition of the blockbuster bestseller from 'the personal productivity guru'"—Fast Company Since it was first published almost fifteen years ago, David Allen's Getting Things Done has become one of the most influential business books of its era, and the ultimate book on personal organization. "GTD" is now shorthand for an entire way of approaching professional and personal tasks, and has spawned an entire culture of websites, organizational tools, seminars, and offshoots. Allen has rewritten the book from start to finish, tweaking his classic text with important perspectives on the new workplace, and adding material that will make the book fresh and relevant for years to come. This new edition of Getting Things Done will be welcomed not only by its hundreds of thousands of existing fans but also by a whole new generation eager to adopt its proven principles.

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. 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.

Prepare for Microsoft Exam 70-532--and help demonstrate your real-world mastery of Microsoft Azure solution development. Designed for experienced developers ready to advance their status, Exam Ref focuses on the critical-thinking and decision-making acumen needed for success at the Microsoft Specialist level. Focus on the expertise measured by these objectives: Design and implement Websites Create and manage Virtual Machines Design and implement Cloud Services Design and implement a storage strategy Manage application and network services This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Will be valuable for Microsoft Azure developers, solution architects, DevOps engineers, and QA engineers Assumes you have experience designing, programming, implementing, automating, and monitoring Microsoft Azure solutions and that you are proficient with tools, techniques, and approaches for building scalable, resilient solutions Developing Microsoft Azure Solutions About the Exam Exam 70-532 focuses on the skills and knowledge needed to develop Microsoft Azure solutions that include websites, virtual machines, cloud services, storage, application services, and network services. About Microsoft Certification Passing this exam earns you a Microsoft Specialist certification in Microsoft Azure, demonstrating your expertise with the Microsoft Azure enterprise-grade cloud platform. You can earn this certification by passing Exam 70-532, Developing Microsoft Azure Solutions; or Exam 70-533, Implementing Microsoft Azure Infrastructure Solutions; or Exam 70-534, Architecting Microsoft Azure Solutions. See full details at: microsoft.com/learning

If you are a developer with experience in C# and are just getting into mobile development, this is the book for you. If you have experience with desktop applications or the Web, this book will give you a head start on cross-platform development.

Learn how to use Xamarin.Forms and Azure Notifications Hubs to configure push notification services for iOS, Android, and Windows.

A fast-paced guide to develop, test, and deliver real-time communication in your .Net applications using SignalR About This Book Build and test real-time apps in .Net using the new features of SignalR Explore the fundamentals and the new methods and functions in the latest version of SignalR along with developing a complete application from scratch A progressive, hands-on guide to gain an understanding of the SignalR framework Who This Book Is For If you are a .Net developer with good understanding of the .Net platform then this is an ideal book for you to learn how to build real-time apps using the SignalR framework. What You Will Learn Explore the basic knowledge and understanding of SignalR Get to know how to connect client to the server Connecting a client with a server and setting a hub Creating group connections together Understand how to have state in the client to have specific operations Securing SignalR connections How to scale SignalR across multiple servers Building a client for WPF Building a client using Xamarin targeting Windows, iPhone and Android Get to grips with monitoring the traffic in SignalR using Fiddler for Windows and Charles for OSX Setting up code to host SignalR using OWIN In Detail With technology trends, demands on software have changed with more and more skilled users. Over the past few years, with services such as Facebook, Twitter and push notifications on smartphones, users are now getting used to being

up to date with everything that happens all the time. With SignalR, the applications stay connected and will generate notifications when something happens either from the system or by other users thus giving new opportunities to enter into this new, exciting world of real-time application development. This is a step-by-step guide that follows a practical approach helping you as a developer getting to get started with SignalR by learning its fundamentals. It will help you through building real-time applications using the new methods and functions in the SignalR framework. Starting from getting persistent connections with the server, you will learn the basics of connecting a client to the server and how the messaging works. This will be followed by setting up a hub on the server and consuming it from a JavaScript client. Next you will be taught how you can group connections together to send messages. We will then go on to know how you can have state in the client to handle specific operations like connecting or disconnecting. Then, moving on you will learn how to secure your SignalR connections using OWIN and scaling SignalR across multiple servers. Next you will learn building a client for WPF and building a client using Xamarin that targets Windows Phone, iPhone and Android. Lastly, you will learn how to monitor the traffic in SignalR using Fiddler, Charles and hosting SignalR using OWIN. Style and approach This is an example- oriented and comprehensive guide to learning the fundamentals of SignalR to build real-time applications. It will help you build real-time applications on the .Net platform in a step-by-step manner along with giving teaching techniques to deal with possible performance bottlenecks and other key topics.
Mastering Xamarin.Forms Development: 7 Push Notifications
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.
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