Exploring Mobile Development

Meet the expert: Ken Getz is a featured instructor for several of our Visual Studio courses. He is a Visual Basic and Visual C# expert and has been recognized multiple times as a Microsoft MVP. Ken is a seasoned instructor, successful consultant, and the author or co-author of several best-selling books. He is a frequent speaker at technical conferences like Tech-Ed, VSLive, and DevConnections and he has written for several of the industry's most-respected publications including Visual Studio Magazine, CoDe Magazine, and MSDN Magazine.

Prerequisites: This course assumes that you are comfortable developing applications using Visual Studio 2010 and C#. Mono Android requires Visual Studio 2010 Professional or higher (and will not work with Visual Studio Express editions).

Runtime: 10:00:36

Course description: Although each of the major mobile platforms (The Apple iOS, Microsoft Windows Phone 7, and the Google Android) has its own native development language and platform, developing for all three would require mastering a different language and set of tools for each. You can take advantage of a language you already know (C#) and even share code between your development projects on the three platforms with careful planning. Taking advantage of MonoTouch (for iOS) and Mono Android (for Android), you can create applications for all three platforms using C#. In this course, you will get started developing a common, simple mobile application for each of the three platforms-you will learn to interact with the Yahoo Flickr web service, retrieving lists of photo sets, then selecting and displaying a single photo. Along the way, you will learn what you need to install to build applications for each platform. You will learn about calling REST services and how to work with the service asynchronously on each platform. You will learn to create simple applications that allow users to navigate from one view to another, and you will learn enough about coding for each platform to get started.

Course outline:

Intro to Mobile Apps
- Introduction
- The Goal
- Development Tools
- Sample Application
- Working with Services
- Demo: Flickr API
- Working with Flickr API
- Try API Explorer
- Calling REST/Flickr API
- Using Flickr Libraries
- Requests and Results
- Retrieving Results
- Demo: Building App with VS
- Demo: Running Visual Studio App
- Summary

Building the Demo Apps
- Introduction
- Building Demo Apps
- Demo: Building App with Silverlight
- Demo: Silverlight Dispatcher
- Demo: Procedure Review
- Demo: PhotoSet and Multi-Threading
- Demo: Photo Class and Sets
- Demo: User Interface
- Selection Changed Event Code

- Summary

What is Android?
- Introduction
- What is Android?
- Demo: Android Developer Site
- Android Applications
- To Build Android Application
- Demo: Android Markets
- Pick Development Platform
- Mono for Android
- What You Need
- SDK Includes Emulator
- Demo: Emulator
- Learning Android and Mono
- Design Tools?
- Demo: DroidDraw
- Summary

Hello World for Android
- Introduction
- Create Hello, World!
- Demo: Create Hello, World
- Android Application Components
- Android Oddity
- Activities
- Demo: Activities
- Views
- Widgets

- Creating TextView
- Finishing Up
- Running the App
- No UI Designer?
- Revisit H, W using XML
- Demo: Using XML
- Investigate Layout XML
- Demo: Sample
- Summary

Android Information
- Introduction
- Getting More Info
- More Complex Demo
- Measurements
- Demo: Intro to App
- Demo: Running App
- Form Stuff Demo
- Demo: Custom Button
- Demo: Toast
- Demo: Check Box
- Demo: Radio Buttons
- Demo: Rating Bar
- ListView
- Demo: ListView
- Summary

S-A Resource, Image View, Activities
- Introduction

- Avoiding Hard-Coded Strings
- Demo: ListView
- Working with Images
- Demo: ImageView
- Load Image from URL
- Demo: Image from URL
- Navigation Between Activities
- Starting Activities
- Starting a New Activity
- Demo: Switching Activities
- Summary

The Flickr Demo
- Introduction
- The Flickr Demo
- Demo: Building Flickr Demo
- Demo: Running Flickr Demo
- Demo: Listing Photos
- Demo: Running Demo
- Demo: Setting Final Activity
- Demo: Final Demo
- Summary
- Summary

iOS Introduction
- Introduction
- iOS Apps
- What You Need
- MonoTouch/MonoDevelop

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