Windows Phone 7 Adv Development Using Visual Studio 2010

Meet the expert: Bret Stateham is the owner of Net Connex, a technical training and consulting company. He has been both working and teaching on Microsoft platforms since the DOS days, has over 20 years of experience in the IT field, and has over a decade of experience as a trainer. Bret has contributed to multiple technical books and is a frequent speaker at regional events.

Prerequisites: This course assumes that you have some programming background and experience using Visual Studio 2010. In addition, the course assumes knowledge of C# in the Windows environment. Some basic knowledge of Silverlight 4 is helpful, as well. A very basic understanding of XML is also required.

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Course description: This Windows Phone 7 course takes a deeper look at the mobile OS from Microsoft. Starting with the use of MVVM and why you need to use MVVM. The course then moves in to unit testing so you as the developer can test your code right away. The exchange and storage of data is covered next including how to use LINQ to SQL for the phone OS. As part of any data exchange there needs to be a network, how to use WCF or OData services for this exchange is covered. Next the course moves on to tiles and notifications then search integration. Next graphics for applications and games from Silverlight and XNA are covered for application development. The final subject is on background operations and how it effects an application.

Course outline:

Introduction to MVVM
• Introduction
• Introduction to MVVM
• What MVVM Is / Is not
• MVVM Foundations
• MVVM Visualization
• When you need MVVM
• Summary

Creating a View Mode
• Introduction
• Creating A Model
• Accessing Model Instances
• The Chicken or the Egg
• Creating a ViewModel
• ViewModel Requirements
• Demo: Creating a ViewModel
• Summary

Creating a View
• Introduction
• Creating a View
• To Code Behind or Not
• Demo: Creating a View
• Summary

Creating Commands
• Introduction
• Creating Commands
• Controls That Support ICommand
• Passing Parameters to Commands

• ICommand.CanExecute() Method
• ICommand.Execute() Method
• Demo: Creating a Command
• Review
• What was cool in the demos
• What was not cool
• What can be done?
• MVVM Frameworks
• Summary

Simplifying View Models
• Introduction
• A Quick Review of MVVM
• What MVVM Is / Is not
• What is Good About MVVM
• What is difficult about MVVM
• Easing the pain
• Simplyfying ViewModel Creation
• INotifyPropertyChanged
• Visual Studio Code Snippets
• Demo: View Model and Snippets
• Summary

Simplifying Commands
• Introduction
• Simplifying Command Creation
• Creating the DelegateCommand
• Demo: DelegateCommand
• Summary

View Model Assignment
• Introduction

• Simplifying ViewModel
• Creating a Service Locator
• Demo: Service Locator
• Summary

Third Party Frameworks
• Introduction
• Using Third Party Frameworks
• Framework Choices
• MVVMLight Introduction
• Getting & Installing MVVMLight
• Demo: MVVMLight
• Summary

Unit Test Introduction
• Introduction
• Introduction to Unit Testing
• WP7(+) Unit Testing Frameworks
• Silverlight Unit Testing Framework
• Demo: Unit Testing
• Summary

Unit Test Projects
• Introduction
• Creating a WP7 Unit Test Project
• Customize the MainPage.xaml.cs
• To Run the Test Project
• Demo: Unit Test Project
• Summary

Creating Unit Tests
• Introduction
• Creating and Running Tests

• How Many Tests?
• Creating Basic Tests
• Making Assertions
• Assert Methods
• Unit Test UI
• When Tests Fail
• Demo: Writing Unit Tests
• Summary

Additional Test Scenarios
• Introduction
• Additional Test Scenarios
• Expecting Exceptions
• Accessing Internal Members
• Testing Asynchronous Methods
• Running a Subset of Tests
• Demo: Test Subsets
• Summary

Local Database Introduction
• Introduction
• Local Database Introduction
• Limitations
• LINQ to SQL on the Phone
• Database Storage
• Database Creation Options
• Demo: Database Application
• Summary

Creating the Data Context
• Introduction

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