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YOUR COURSE, YOUR WAY - MORE EFFECTIVE IT TRAINING

Xamarin for C# Developers

Duration: 5 days

Overview:

C# is one of the most popular development languages in the world but we write the majority of mobile apps in Java, Swift or Objective-C.

Now using Xamarin, we can now write apps, which run on Android and iOS devices natively using C#. This way, C# allows us to target billions of extra devices using the language we all love. The experiences, which users get from Xamarin-base apps, are fully native and offer the full functionality of the platform they target.

We can now build architecture with this cross-platform functionality in mind and construct it so that most of our code can be re-used in Windows Phone, iOS and Android apps.

In this course, you'll learn about the Xamarin environment. You'll learn about cross-platform development, Xamarin.Android and Xamarin.iOS. All this using the knowledge you already have: C#!

Prerequisites:

Delegates should have experience developing applications or websites using C#; the course assumes you are familiar with the C# language. XAML knowledge is useful but is not essential

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Topics:

1 - C# Review

Value and Reference Types under the hood

Classes, Encapsulation and Properties

Inheritance and Polymorphism

Interfaces and Decoupling

Dependency Injection

Inversion of Control

Generics

Delegates

Anonymous Delegates and Lambdas

Tasks and async

Useful Design Patterns

2 - Xamarin Introduction

What is Xamarin

Bit of History

Benefits and Disadvantages of using Xamarin

Mobile Development Challenges

Where does it fit in?

How does it work?

What you need to get started

Getting started with Xamarin Studio

3 - Getting Started with Xamarin.android

android Projects

API Versions

Resources and Images

Layouts

App Architecture

Creating Activities

Accessing Views

Working with Intents

Launching Activities

Passing data between activities

Working with an activities lifecycle

4 - Designing your android UI with Layouts

Creating the UI with the Designer

Designing Layouts and working with

Linear

Relative

Table

Grid layouts

Working with some of the built in views including

Date and time picker

Standard Views

Spinner

CardView

ScrollView

5 - Lists, Tabs and Fragments in android

ListViews and ListAdapters

Custom ListAdapters

Built in and Custom Row Layouts

Working with Fragments

Using fragments declaratively and programmatically

The FragmentManager

Fragment Lifecycle

State Management

Tabs and the Action Bar

6 - Additional android Issues

Activity Lifecycle

State Management

Rotation and managing alternate layouts

Drawables and resolution

7 - Cross Platform Code Sharing

Why Code Share

Code sharing Options

Shared Projects

Portable Class Libraries

Ramping up code reuse across platforms

Cross Platform Data Access

Abstracting device specificity

Dependency Injection

Inversion of Control Containers

MVVM Pattern

MVVM Light

MVVMCross

8 - Getting Started With iOS Development in Xamarin

iOS Development in Xamarin

Solutions, Projects and Files

Intro to Storyboards, Scenes and Segues

MVC and View Controllers

Linking Scenes to View Controllers

Working with Multiple View Controllers

Modal Display

Navigation Controllers

Transferring Data between Scenes

Loading Storyboards from Code

9 - Designing an iOS Layout

Xamarin iOS Designer Intro

Designing a View

Using Auto Layout

Working with Constraints

Understanding and Exploiting Size Classes

iOS UI Controls

Unwind Segues

10 - Working with Table Views

Table Views

Types of Table View

Building a Table View

Static Table Views

Dynamic Table Views

Table View Controllers

Table View Cells

Headers and Footers

Editing Cells

Collection Views

11 - Controlling iOS Navigation and Storage

Manual Storyboards

Navigation Controllers

Tab Bar Controllers

Modal View Controllers

Split View Controllers

Settings and plists

Working with files

User Defaults Database

12 - App Deployment for android and iOS

Preparing and app for deployment

Configuration

Building

Deploying to the app store

13 - Xamarin.Forms

What are Xamarin Forms

Getting started withâ€¦

How it works

Basic elements

Pages

Layouts

Sizing and Positioning

Views

Hooking up to Code

Alerts

Navigation

14 - Forms, ListViews and Data Binding with Xamarin.Forms

Data Binding Overview

Page Binding

Change Notification

Field Binding

Field to Field Binding

Displaying Lists with the ListView

Making life easier with Resources and Styles

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