

# **Xamarin Fundamentals**

#### **Audience Xamarin Fundamentals**

The course Xamarin Fundamentals is intended for developers who want to use the Xamarin Framework for the creation of cross-platform mobile apps for iOS en Android.

#### **Prerequisites Course Xamarin Fundamentals**

To participate in this course knowledge and experience with programming in C# or Java is required. Experience with Visual Studio and Mono for Android is desirable.

### **Realization Training Xamarin Fundamentals**

The theory is discussed on the basis of presentation slides and is interspersed with exercises. Illustrative demos are used to clarify the concepts. The course material is in English.

#### **Xamarin Certification**

After successful completion of the course, participants receive an official certificate Xamarin Fundamentals.



# **Content Course Xamarin Fundamentals**

In the course Xamarin Fundamentals participants learn to create cross platform mobile apps with the Xamarin Framework. With Xamarin the same code base can be used to develop apps that work on iPad and iPhone devices as well as Android devices. Visual Studio .NET is used as development environment and C# as programming language.

#### **Xamarin Intro**

The course Xamarin Fundamentals starts with a discussion of setting up the Xamarin development environment, the structure of Xamarin projects and the available Xamarin Tools.

#### **Cross Platform Development**

Subsequently the general characteristics of cross platform development such as the use of shared projects and portable class libraries are treated. Attention is paid to Mono for Android which has become a great platform for creating apps for Android.

## **User Interfaces**

Attention is also paid to the creation of the User Interfaces for apps in both iOS and Android, in which Xamarin Forms plays an important role.

#### **Activities and View Controllers**

Working with Activities in Android and View Controllers in iOS is also covered. And the lifecycle methods in iOS and Android apps are treated as well.

#### **REST APIs**

Then the focus is set to how you can deal with REST Web Services and the different data formats such as XML and JSON in Xamarin. Asynchronous calls and asynchronous handling with async and await is next on the program of the course Xamarin Fundamentals.

#### **Database Access**

Finally attention is paid to how you can access databases from apps and to the use of location services and the camera.



# **Modules Course Xamarin Fundamentals**

Module 1 : Xamarin Intro	Module 2 : Cross Platform Development	Module 3 : User Interfaces
Cross Platform Development	Cross-platform development	AXML markup
Xamarin background	Local storage	Android coded UI approach
Xamarin tools	App navigation techniques	iOS Interface Builder
Installation	Native or HTML	iOS coded UI
Device emulators	Xamarin.Forms	MonoTouch Dialog framework
GenyMotion virtual Android devices	Visual Studio Setup	HTML WebView control
XCODE iPad/IPhone emulators	Linked files in Visual Studio.	HTML UIWebView control
Mono, MonoTouch and Mono.Android	Compiler directives	Xamarin.Forms in detail
Visual Studio Integration	Portable Class libraries	Shared Projects
Module 4 : Activities and View Controllers	Module 5 : Using REST	Module 6 : Data Access
Android Activities	Public REST API.	Using SQLite in Android
Activities Lifecycle	Data contracts	Using SQLite in iOS
ListActivity and ListAdapter	Building proxies	SQLite and ORM
iOS Controllers	Asynchronous patterns	Using external storage
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iOS ViewController lifecycle	Async en await	Synchronisation to cloud
iOS ViewController lifecycle iOS NavigationController.	Async en await REST in Android	iOS location Manager Classes
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OS NavigationController.	REST in Android	iOS location Manager Classes