Introduction to Mobile Development
With Xamarin

Overview

"Smartphones" have been around since the late 1990's, but it was the introduction of the Apple iPhone running iOS in mid-2007 that brought mobile computing into the public eye. Since that time, the demand for personal mobile devices has expanded exponentially. The choices available to the consumer and to business have also increased.

Smartphones powered by Google Android operating system appeared in late 2008, and the first smartphone powered by Microsoft's Windows Phone operating system appeared in early 2010. As well, the mobile has evolved to include both tablets and smartphones in a bewildering range of size and capability. This provides a very diverse and extensive environment for new applications and business opportunities.

The size of this new environment might prove overwhelming to software developers. Applications for iOS are written in Objective-C, Android applications required Java, and Windows Phone applications require C#. It appears that to thrive in this new mobile environment developers must be proficient in three different programming languages.

Xamarin helps developers tackle the issue of multiple languages and frameworks by providing a single framework and single programming language that will allow mobile applications. Based on Mono, Xamarin's tools allow developers to write truly native cross platform that target iOS, Android, and Windows Phone leveraging the native frameworks of each platform. Xamarin consists of two products:

➔ **Xamarin.iOS** allows developers to create rich, diverse applications for iOS that will compile down to machine code for iOS devices.

➔ **Xamarin.Android** is used to create applications targeting Android.

➔ **Windows Phone** applications are already written C#.

Because mobile applications that are powered by Xamarin shared a common, familiar language, programmers are allowed to focus on writing great applications that will delight users, and do so in less time.

The *Xamarin Certified Mobile Developer* curriculum designed to prepare developers so that they have the knowledge and skills to write these cross platform applications. The curriculum is comprised of two courses, described below:

➔ **Xamarin Certified Android Developer** – Shows how to build Android applications, using Xamarin.Android and tools such MonoDevelop, Visual Studio, and Mono

➔ **Xamarin Certified iOS Developer** – This shows how to iPhone and iPad applications using MonoDevelop, XCode, and Mono.

Each course is broken down into two modules, a beginner and an advanced module. At the end of each beginner module, the student will have the knowledge and skills to build core applications for each mobile platform. Each course will

start with the student developing a very simple application and then gradually progress to more advanced topics. By the time a student has completed both courses they will have a solid foundation in cross platform mobile application development.