Application Fundamentals

Core Application Concepts

This section provides a guide on some of the more common things tasks or concepts that developers need to be aware of when developing Android applications.

Activity Lifecycle

Activities are a fundamental building block of Android Applications and they can exist in a number of different states. The activity lifecycle begins with instantiation and ends with destruction, and includes many states in between. When an activity changes state, the appropriate lifecycle event method is called, notifying the activity of the impending state change and allowing it to execute code in order to adapt to that change. This article examines the lifecycle of activities and explains the responsibility that an activity has during each of these state changes in order to be part of a well-behaved, reliable application.

Handling Rotation

This article describes how to handle device orientation changes in Xamarin.Android. It covers how to work with the Android resource system to automatically load resources for a particular device orientation as well as how to programmatically handle orientation changes. Then it describes techniques for maintaining state when a device is rotated.

Resources in Android

This article introduces the concept of Android resources in Xamarin.Android and will document how to use them. It covers how to use resources in your Android application to support application localization, and multiple devices including varying screen sizes and densities.

Services

This article covers Android services, which are Android components that allow work to be done in the background. It explains the different scenarios that services are suited for and shows how to implement them both for performing long-running background tasks as well as to provide an interface for remote procedure calls.