



Article Side

Android SDK – Changing the world of Mobile Application Development [By](#) [Bhadeep Hunka](#)

Article published on April 27th 2012 | [Mobile Phones](#)

About Android Mobile Application Development Platform

Android is an operating system based on Linux. Java is the programming language that is used to develop apps and games using Android Software Development Kit. Other development tools are also available but Android SDK is the most popular tool used for developmental purposes.

Android SDK and Dalvik

Android Software Development Kit that enables developers to create applications for Android platforms. The Android SDK consists of sample projects with source code, development tools, an emulator and libraries for building android applications. To build android applications one needs to learn programming language Java. The android applications run on dalvik which is a customized virtual machine. The dalvik machine is especially made for embedded use and runs on a linux kernel base. Dalvik has its own bytecode format which is different from Java bytecode. Hence, java classes cannot directly run on Android. It has to be first converted into Dalvik bytecode format.

The Android SDK runs on Linux, Mac OS X (10.4.9) or later and Windows XP or later. Eclipse is the officially supported integrated environment (IDE) for android applications. Other editors can also be used for editing java and xml files. The android development tools (ADT) plugin is used with the SDK. The android SDK has tools to create, build and debug android applications. These tools are called command tools. Java Development kit or Apache Ant can be used as command tools.

Android Components

There are seven android components heavily used for android application development. The android components include- Activity, Views and View Groups, Intents, Services, Content Provider, Broadcast Receiver and Home Screen (widgets).

Activity – It represents the presentation layer of the Android application. An activity can be represented as a dialogue or it may be transparent. At a low level an activity can be understood as a screen.

Views and view groups – Views are user interface widgets and include buttons or text-fields. The base class for all views is android.view.View.Views.

ViewGroup- A ViewGroup provides a format for display of views. The base class for ViewGroup is android.view.ViewGroups. ViewGroup also extends View.

Intents- An asynchronous message that allows the application to request functionality from other components of android system is called intent. The components from which functionality can be requested are Activities or Services. There are two types of intents- Explicit intent and implicit intent. When an application calls intent directly, it is called an explicit intent. When an application requests the Android System to evaluate a component for certain content, it is called as Implicit Intent.

Services- Services are used to perform background tasks. They do not provide a user interface. Services notify the users via the notification framework in Android.

Content Provider- Content Provider helps to share data with other applications. Android contains SQLite database which is used with the Content Provider to maintain the data of the content provider.

Broadcast Receiver- Broadcast Receiver is used to receive system messages and intents. The android system notifies the broadcast receiver when a particular situation happens.

HomeScreen (Widgets) - Widgets are interactive components that are primarily used on the homescreen. Widgets allow some action to be performed. Example- A widget may display a short summary of messages and when the user goes on to that widget, it would open his message inbox.

Google Play

Google has provided a platform to host android applications and android games. The market developed by Google is named as Google Play. Earlier it was named as the "Android Market". The Google Play has more than 200,000+ applications uploaded on it and has more than 3 billion downloads.

Article Source:

<http://www.articleside.com/mobile-phones-articles/android-sdk-changing-the-world-of-mobile-application-development.htm> - [Article Side](#)

[Pradeep Hunka](#) - About Author:

Hunka Technologies is on one of the leading mobile applications development company based in India. Hunka specializes in Apple iphone application development, android application development, windows mobile application development and HTML 5. Hunka also has a specialized team for iphone game development, ipod & ipad game development and android game development. For more information please check our website: <http://hunkatech.com>

Article Keywords:

Android application development, android development, android game development, android sdk, how to develop applications in android, android mobile application development, android os information, android game development, android development framework, a

You can find more [free articles](#) on [Article Side](#). Sign up today and share your knowledge to the community! It is completely FREE!