**Android**

Android is a [Linux](http://en.wikipedia.org/wiki/Linux)-based [operating system](http://en.wikipedia.org/wiki/Mobile_operating_system) designed primarily for [touch screen](http://en.wikipedia.org/wiki/Touchscreen) mobile devices such as [smart phones](http://en.wikipedia.org/wiki/Smartphone) and [tablet computers](http://en.wikipedia.org/wiki/Tablet_computer). It is currently developed by [Google](http://en.wikipedia.org/wiki/Google) in conjunction with the [Open Handset Alliance](http://en.wikipedia.org/wiki/Open_Handset_Alliance) Initially developed by Android Inc, and backed by Google financially and later purchased in 2005, it was unveiled in 2007 along with the founding of the Open Handset Alliance, a consortium of 86 [hardware](http://en.wikipedia.org/wiki/Computer_hardware), [software](http://en.wikipedia.org/wiki/Software), and [telecommunication](http://en.wikipedia.org/wiki/Telecommunication) companies devoted to advancing [open standards](http://en.wikipedia.org/wiki/Open_standard) for mobile devices.

It consists of a [kernel](http://en.wikipedia.org/wiki/Kernel_%28software%29) based on the [Linux kernel 2.6](http://en.wikipedia.org/wiki/Linux_kernel_2.6) and Linux Kernel 3.x (Android 4.0 onwards), with [middleware](http://en.wikipedia.org/wiki/Middleware), [libraries](http://en.wikipedia.org/wiki/Software_library) and [APIs](http://en.wikipedia.org/wiki/Application_programming_interface) written in [C](http://en.wikipedia.org/wiki/C_%28programming_language%29) and [application software](http://en.wikipedia.org/wiki/Application_software) running on an [application framework](http://en.wikipedia.org/wiki/Application_framework) which includes Java-compatible libraries based on [Apache Harmony](http://en.wikipedia.org/wiki/Apache_Harmony). Android uses the [Dalvik virtual machine](http://en.wikipedia.org/wiki/Dalvik_%28software%29) with [just-in-time compilation](http://en.wikipedia.org/wiki/Just-in-time_compilation) to run Dalvik dex-code (Dalvik Executable), which is usually translated from [Java](http://en.wikipedia.org/wiki/Java_%28programming_language%29) byte code. The main hardware platform for Android is the [ARM architecture](http://en.wikipedia.org/wiki/ARM_architecture). There is support for [x86](http://en.wikipedia.org/wiki/X86) from the [Androidx86](http://en.wikipedia.org/wiki/Android_x86) project, and Google TV uses a special x86 version. It’s Linux kernel has further architecture changes by Google outside the typical Linux kernel development cycle. Android does not have a native [X Window System](http://en.wikipedia.org/wiki/X_Window_System) by default nor does it support the full set of standard [GNU](http://en.wikipedia.org/wiki/GNU) libraries, and this makes it difficult to port existing Linux applications or libraries to Android. But the support of simple C and [SDL](http://en.wikipedia.org/wiki/Simple_DirectMedia_Layer) applications is possible by injection of a small Java [shim](http://en.wikipedia.org/wiki/Shim_%28computing%29) and usage of the [JNI](http://en.wikipedia.org/wiki/JNI) like e.g. in the [Jagged Alliance 2](http://en.wikipedia.org/wiki/Jagged_Alliance_2) port for Android.

According to a recent survey, out of the total mobile phones that were sold in India in 2011-12, 54% of them were of Android OS. Why is it popular? Let us look at some of its features:

Android is an Open Source OS. So anybody can contribute it and is open for anyone to use it. Most of the devices make use of the Android original source code which is freely available and can even be redistributed with modifications to it. That is why you see Samsung and Sony Ericsson would have different looks to the Android phones they produce but with more or less same functionalities. This Open Source has made phone producers really interested in making phones using Android software. Android is also very successful because of the easy integration and performance boost with mobile phones. Android does not slow up things as it has a very sound foundation to it. It is identical to an OS for Computer. It makes your smart phone turn into a mini portable PC. With thousand of developers and millions of applications, there is hardly anything that you can’t find on android and see it somewhere else. With a one spot to sell you applications (Android Market or Play Store as it is called now) it has brought about a keen interest in developers to build apps that can fetch them good money.