
Unit 1- Android and its Tools

Course Outcome:

Interpret features of Android operating system.

Unit Outcomes:

- 1a. Explain the given basic terms related to Android system.
 - 1b. Explain with sketches Android architecture for the given application.
 - 1c. Identify tools and software required for developing the given Android application with justification.
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Contents:

- 1.1 Introduction to android, Open Handset Alliance, Android Ecosystem
 - 1.2 Need of Android, Features of Android
 - 1.3 Tools and software required for developing an Android Application
 - 1.4 Android Architecture
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1.1 Introduction to android, Open Handset Alliance, Android Ecosystem

Introduction to android

- **Android** is an open source operating system based on Linux with a Java programming interface for mobile devices such as Smartphone (Touch Screen Devices who supports Android OS) as well for Tablets too.
- The operating system has developed a lot in last 15 years starting from black and white phones to recent smart phones or mini computers. One of the most widely used mobile OS these days is android.
- The android is a powerful operating system and it supports large number of applications in Smartphones.

What is Android?

Android is a stack of software for mobile devices that are an Operating System, Middleware and Key Applications.

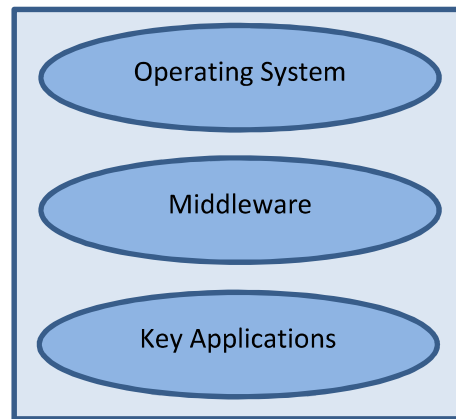


Figure 1.1: Android Operating System

- Android is a Linux-based operating system which is designed for touchscreen mobile devices like smartphones and tablet computers.
- It is an open source technology that allows the software to be freely modified and distributed by device manufacturers, wireless carriers and developers.
- Android was unveiled during 2007 along with the founding of the Open Handset Alliance.

Open Handset Alliance

The Open Handset Alliance (OHA) is a association whose goal is to develop open standards for mobile devices, promote innovation in mobile phones and provide a better experience for consumers at a lower cost.

The OHA is the group that is in charge of the Android smartphones operating system. It was created by Google.

The **Open Handset Alliance** (OHA) is consortium of multiple companies like Samsung, Sony, Intel and many more to provide services and deploy handsets using android platform.

Android Ecosystem

Ecosystem in Market terminology refers to the inter-dependence between demand and supply.

In the Android ecosystem this translates to inter-dependence between users, developers, and equipment makers. One cannot exist without the other:

- Users- buy devices and applications
- Equipment makers- sell devices, sometimes bundled with applications
- Developers- buy devices, then make and sell applications