

Introduction to Android

Chapter – 1

What is Android

- ◉ Android is Mobile Operating System based on the linux kernel.
- ◉ Android Mobile OS developed by Google.
- ◉ Android Is Open Source.
- ◉ Android Inc, was founded in Palo Alto, California in October 2003 by Andy Rubin, Rich Miner, Nick sears, and Chris White.

- ◉ In July 2005, Google acquired Android Inc.
- ◉ On November 5, 2007, the OHA(Open Handset Alliance).
- ◉ And then initial release September 23, 2008
- ◉ 7 years ago

Developer	Google, OHA
Written in	C(Core), C++, Java(UI)
OS Family	Unix like
Working state	Current
Source	Open Source
Initial Release	Sept-23 , 2008
Latest Release	6.0 Marshmallow (oct 5, 2015)
Package Manager	Google play , .APK

1.1 (The Open Handset Alliance)

- The Open Handset Alliance is a group of mobile and technology leaders who share this vision for changing the mobile experience for consumers.
- The OHA was established on 6 November 2007, led by Google with 47 members including
 - Mobile Handset makers
 - Application developers
 - Mobile carriers and
 - Chip makers.

1.1 OHA

- ◉ Mobile Operators
 - ◉ -> T Mobile
 - ◉ -> Softbank
 - ◉ -> Vodafone
- ◉ Software Companies
 - ◉ -> Google
 - ◉ -> eBay
 - ◉ -> Wind River Systems

1.1 OHA

- Semiconductor Companies
 - -> Audience
 - -> Intel Corporation
 - -> Nvidia Corporation
 - -> Media Tek
- Handset Manufactures
 - -> HTC
 - -> LG
 - -> Sony
 - -> Acer
 - -> Lenovo

1.2 (The Android Platform)

- The Android Platform was launched in 2007 by the Open Handset Alliance, an alliance of famous companies that includes Google, HTC, Motorola and others.
- Although most of the applications that run on the Android Platform are written in Java, there is no Java Virtual Machine.
- Instead, the Java classes are first compiled into what are known as Dalvik Executable and run on the Dalvik Virtual Machine.

1.2 (The Android Platform) Version List

- ◉ Pre-commercial release versions
- ◉ Alpha
- ◉ -> Release November 2007
- ◉ Beta
- ◉ -> Release Nov 5, 2007

1.2 (The Android Platform)

Version History By API Level

API Level	Name	Version	Release Date
1	-	1.0	September 23, 2008
2	-	1.1	Feb 9, 2009
3	Cupcake	1.5	April 27, 2009
4	Donut	1.6	Sept 15, 2009
5	Eclair	2.0	Oct 26,2009
6	Éclair	2.0.1	Dec 3,2009
7	Éclair	2.1	Jan 12, 2010
8	Froyo	2.2	May 20, 2010
8	Froyo	2.2.1	Jan 18, 2011
8	Froyo	2.2.2	Jan 22, 2011
8	Froyo	2.2.3	Nov 21, 2011

1.2 (The Android Platform)

API Level	Name	Version	Release Date
9	Gingerbread	2.3	Dec 6, 2010
9	Gingerbread	2.3.1	Dec 2010
9	Gingerbread	2.3.2	Jan 2011
10	Gingerbread	2.3.3	Feb 9, 2011
10	Gingerbread	2.3.4	April 28, 2011
10	Gingerbread	2.3.5	July 25, 2011
10	Gingerbread	2.3.6	Sept 2, 2011
10	Gingerbread	2.3.7	Sept 21, 2011
11	Honeycomb	3.0	Feb 22, 2011
12	Honeycomb	3.1	May 10, 2011

1.2 (The Android Platform)

API Level	Name	Version	Release Date
13	Honeycomb	3.2	July 15, 2011
13	Honeycomb	3.2.1	Sept 20, 2011
13	Honeycomb	3.2.2	Aug 30, 2011
13	Honeycomb	3.2.3	-
13	Honeycomb	3.2.4	Dec 2011
13	Honeycomb	3.2.5	Jan 2012
13	Honeycomb	3.2.6	Feb 2012
14	Ice cream Sandwich	4.0	Oct 18,2011
14	Ice cream Sandwich	4.0.1	Oct 21, 2011
14	Ice cream Sandwich	4.0.2	Nov 28, 2011

1.2 (The Android Platform)

API Level	Name	Version	Release Date
16	Jelly Bean	4.1	July 9, 2012
16	Jelly Bean	4.1.1	July 11, 2012
16	Jelly Bean	4.1.2	Oct 9, 2012
17	Jelly Bean	4.2	Nov 13, 2012
17	Jelly Bean	4.2.1	Nov 27, 2012
17	Jelly Bean	4.2.2	Feb 11, 2013
18	Jelly Bean	4.3	July 24, 2013
18	Jelly Bean	4.3.1	Oct 3, 2013
19	KitKat	4.4	Oct 31, 2013
19	KitKat	4.4.1	Dec 5, 2013
19	KitKat	4.4.2	Dec 9, 2013
19	KitKat	4.4.3	June 2, 2014
19	KitKat	4.4.4	June 10, 2014

1.2 (The Android Platform)

API Level	Name	Version	Release Date
20	KitKat	4.4W	June 25, 2014
20	KitKat	4.4W.1	Sept 6, 2014
20	KitKat	4.4W.2	Oct 21, 2014
21	Lollipop	5.0	Nov 12, 2014
21	Lollipop	5.0.1	Dec 2, 2014
21	Lollipop	5.0.2	Dec 2, 2014
22	Lollipop	5.1	March 9, 2015
22	Lollipop	5.1.1	April 21, 2015
23	Marshmallow	6.0	Oct 5, 2015

1.3 (Android SDK)

- The Android Software development kit (SDK) includes a comprehensive set of development tools.
- These include a debugger, libraries, a handset emulator based on Quick Emulator, documentation, sample code, and tutorials.
- The officially supported integrated development environment (IDE) is Eclipse using the Android Development Tools (ADT) Plugin.

1.3 (Android SDK)

- ◉ Step to Download and Install Android SDK
- ◉ Note : You must install java 1.6 or latter in order to work on android
- ◉ Step to Download
- ◉ <https://developer.android.com/sdk/index.html>
- ◉ Then click to Download SDK

1.4) Building a sample Android Application

- Create your first android application in your Lab.