



UNIT 1

ANDROID AND

IT'S TOOL'S

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Introduction to Android

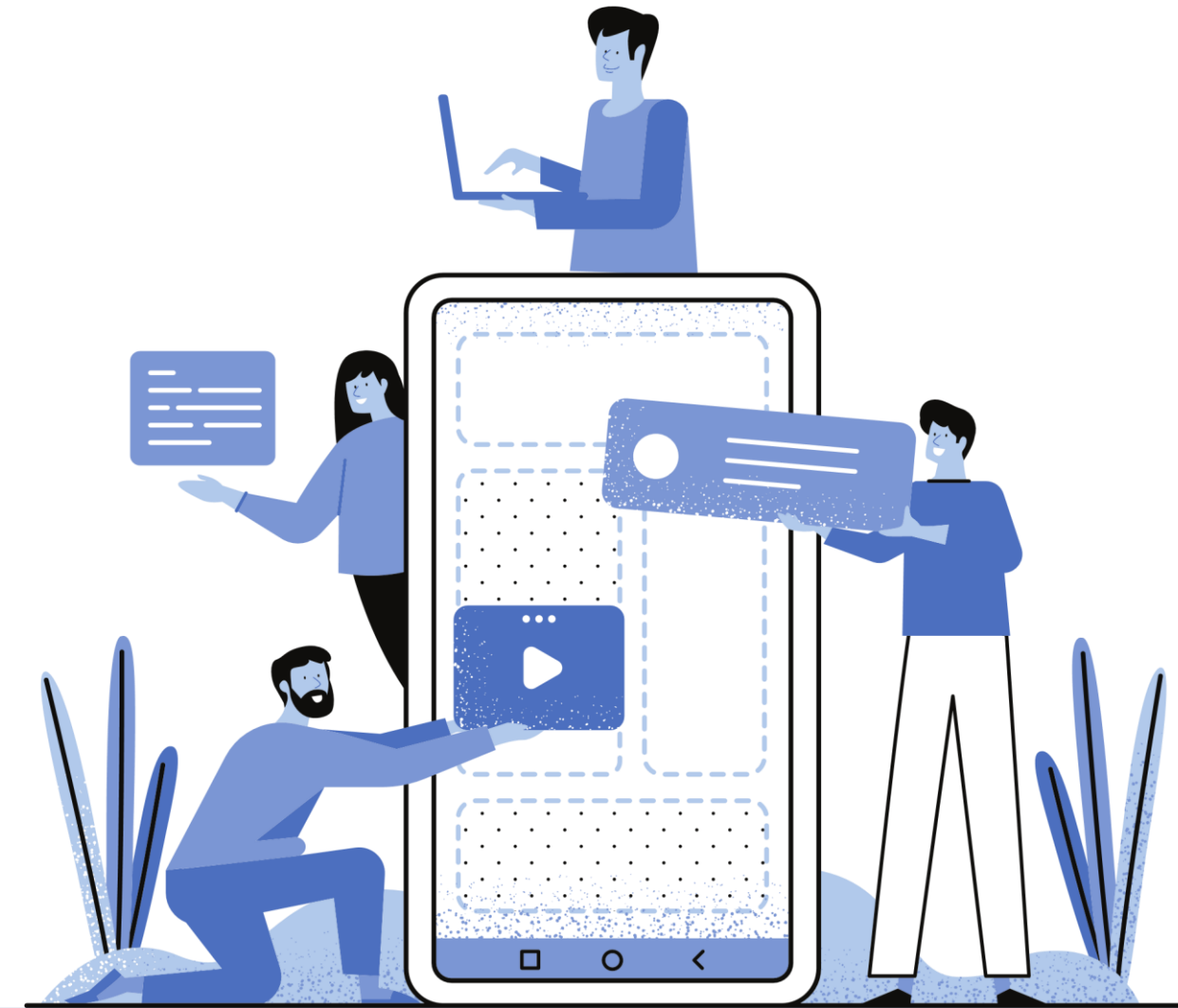
- Android is an operating system for mobile devices, and it's the brain that makes your smartphone or tablet work.
- Developed by a group of companies led by Google.
- Android is designed to run on a wide variety of devices, not just phones.

**Its Open Source.
Freely available to use for
anyone.**



What is Android?

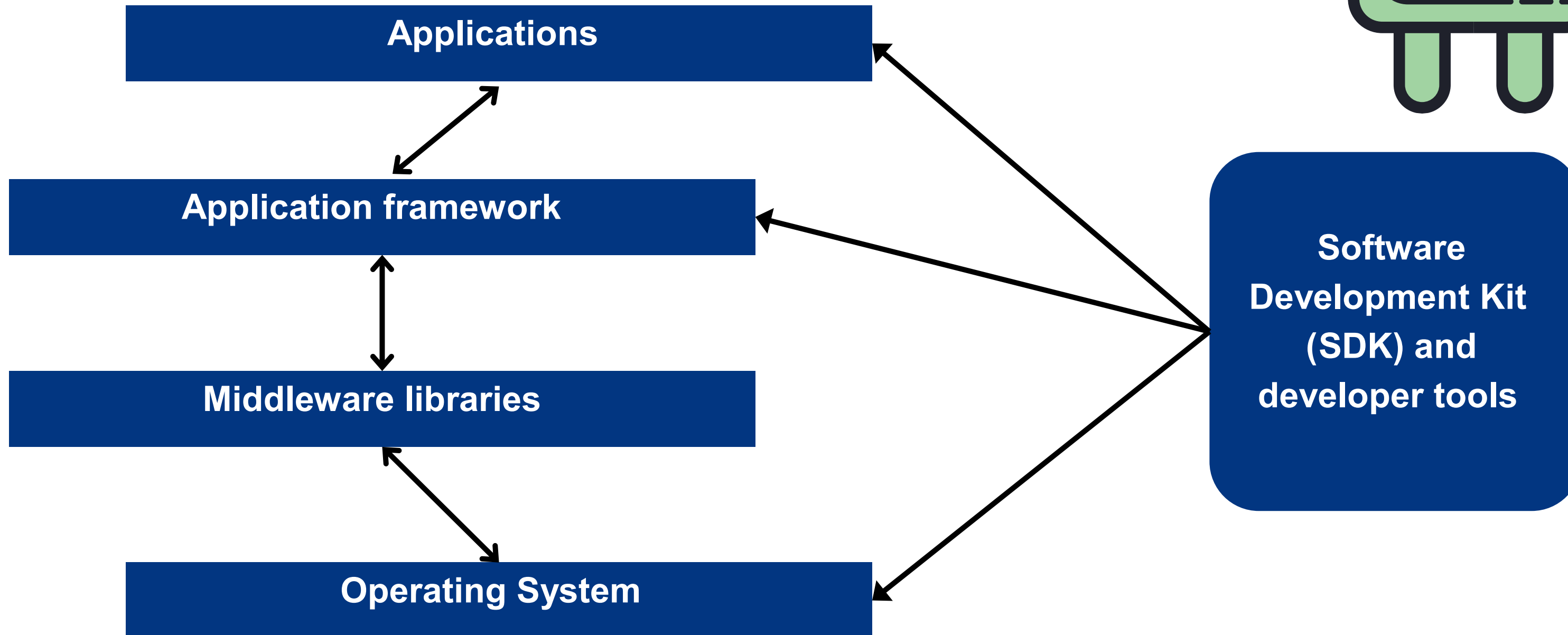
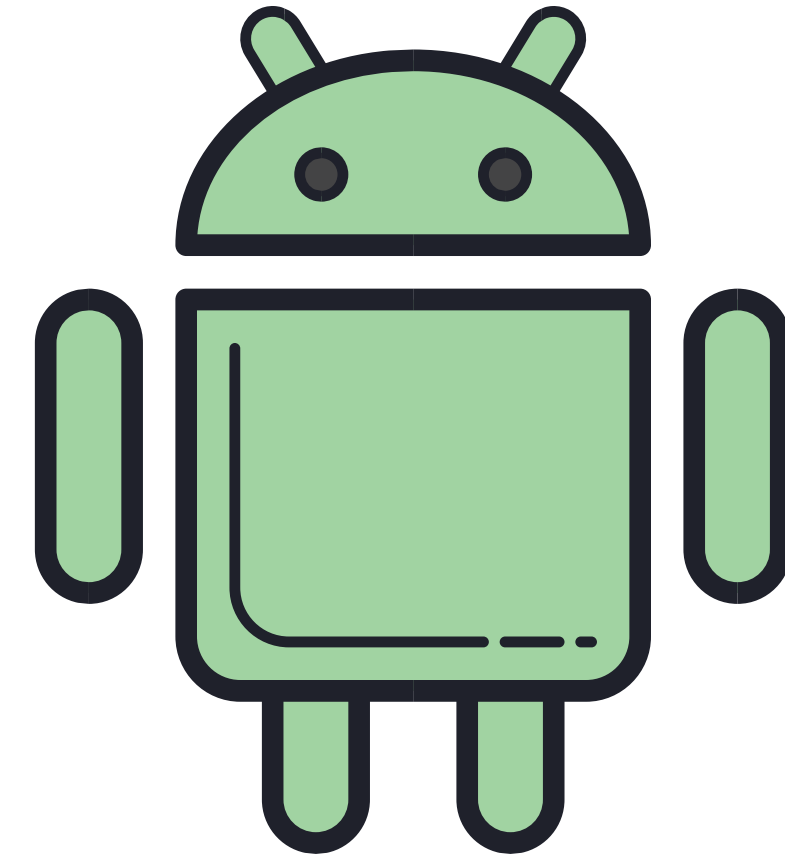
Android is a mobile operating system based on a modified version of the Linux kernel, designed primarily for touchscreen mobile devices such as smartphones and tablets.



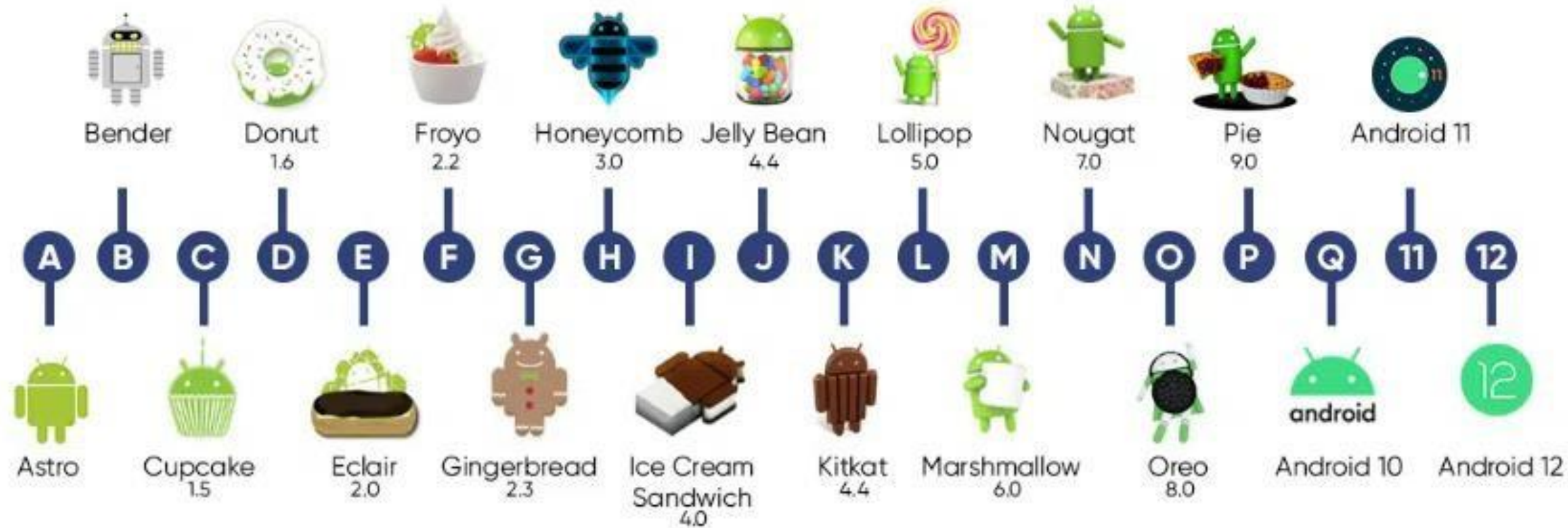
Android was originally developed by a startup named Android. It was purchased by Google in 2005, and development continued under Open Handset Alliance (OHA).



Major components of Android platform



Android versions



Do you ever realise that all the versions of Android are initially named in alphabetical order from A to P until Android Q is replaced by Android 10?

Open Handset Alliance (OHA)

In November 2007

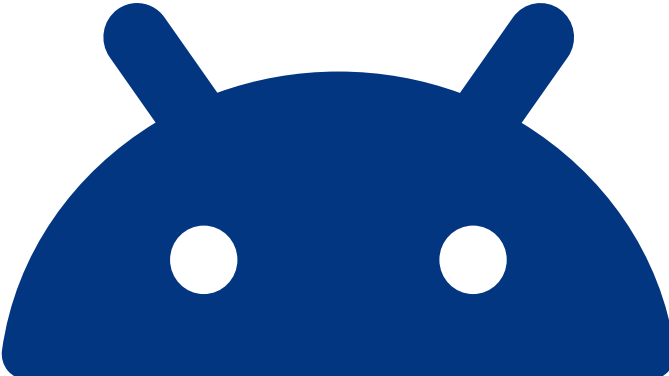



Google formed Open Handset Alliance (OHA)

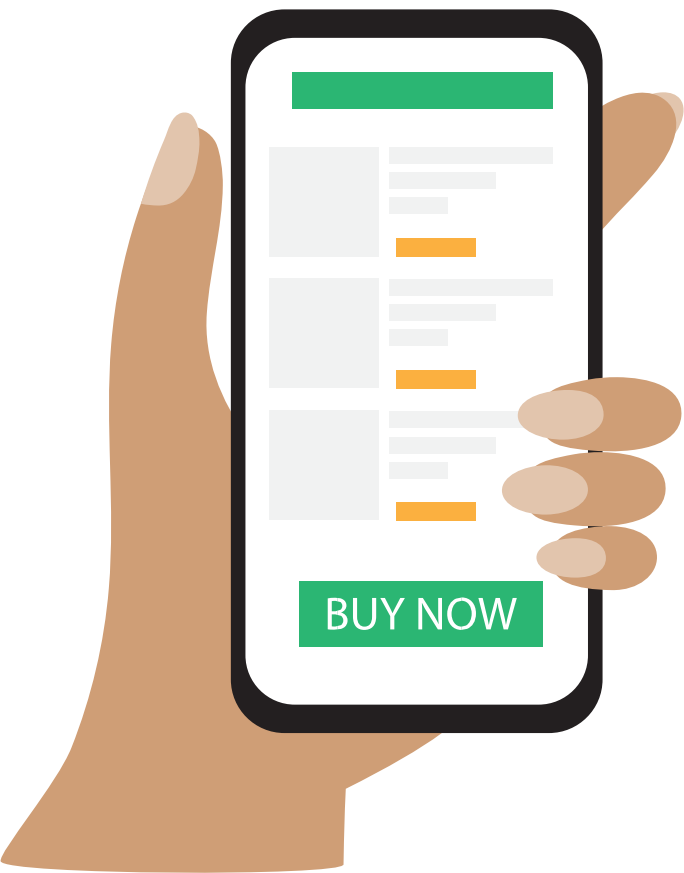


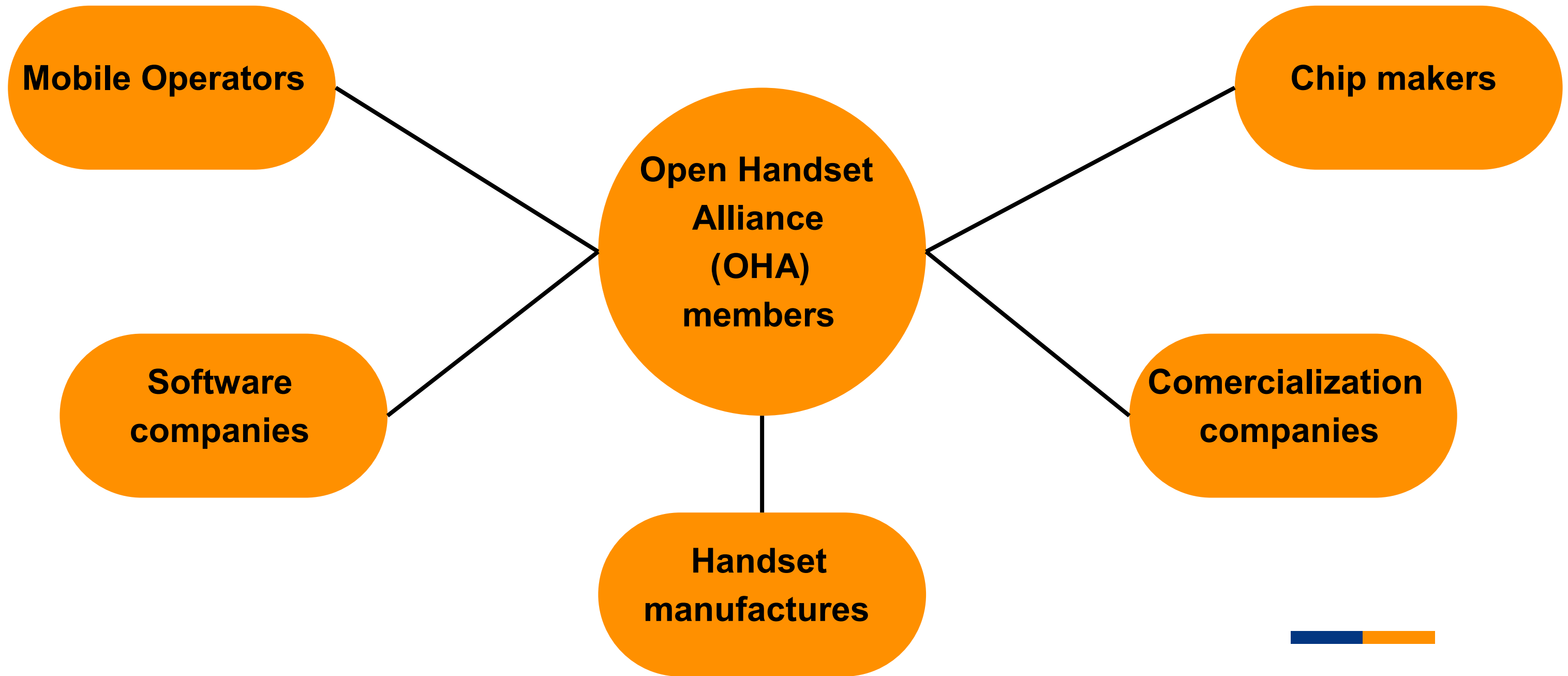
The Open Handset Alliance (OHA) is a consortium whose goal is to develop open standards for mobile devices, promote innovation in mobile phones and provide a better experience for consumers at a lower cost.

The primary objective of these companies is to develop open standards for mobile devices.



The Open Handset Alliance integrates contributed software and other intellectual property from its member companies and makes it available to developers through the open source community. 





Android ecosystem

One can't exist without the other

The ecosystem of mobile applications enables the enterprises and the independent developers



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.

to develop attractive, feature -rich and unique mobile applications which will perform rapidly and can essentially garner the attention of the



Android ecosystem is all about the interdependence between android developers(Google), Equipment Manufacturers, and users, as this is an ecosystem one cannot exist without the

market. other.

Need of Android



Open Source

Google integration



Security

Cost efficiency

App ecosystem

Global accessibility

Multitasking capabilities

Customization options

Device variety

Download the app

Development platform

Regular updates



Android features



Multiple user profiles

Open app ecosystem

File system access

Widgets

Third-party app stores

Device customization at core



Intents system

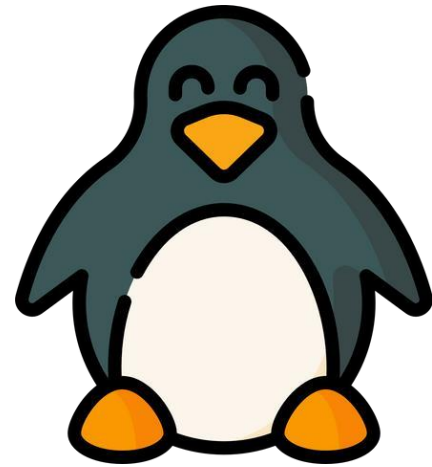
Back button

Alternative keyboards

Deep google services integration

Wider range of price points

Tools and software required for building an Android app.



IDE (ANDROID STUDIO/ELLIPSE)



ANDROID SDK



ANDROID



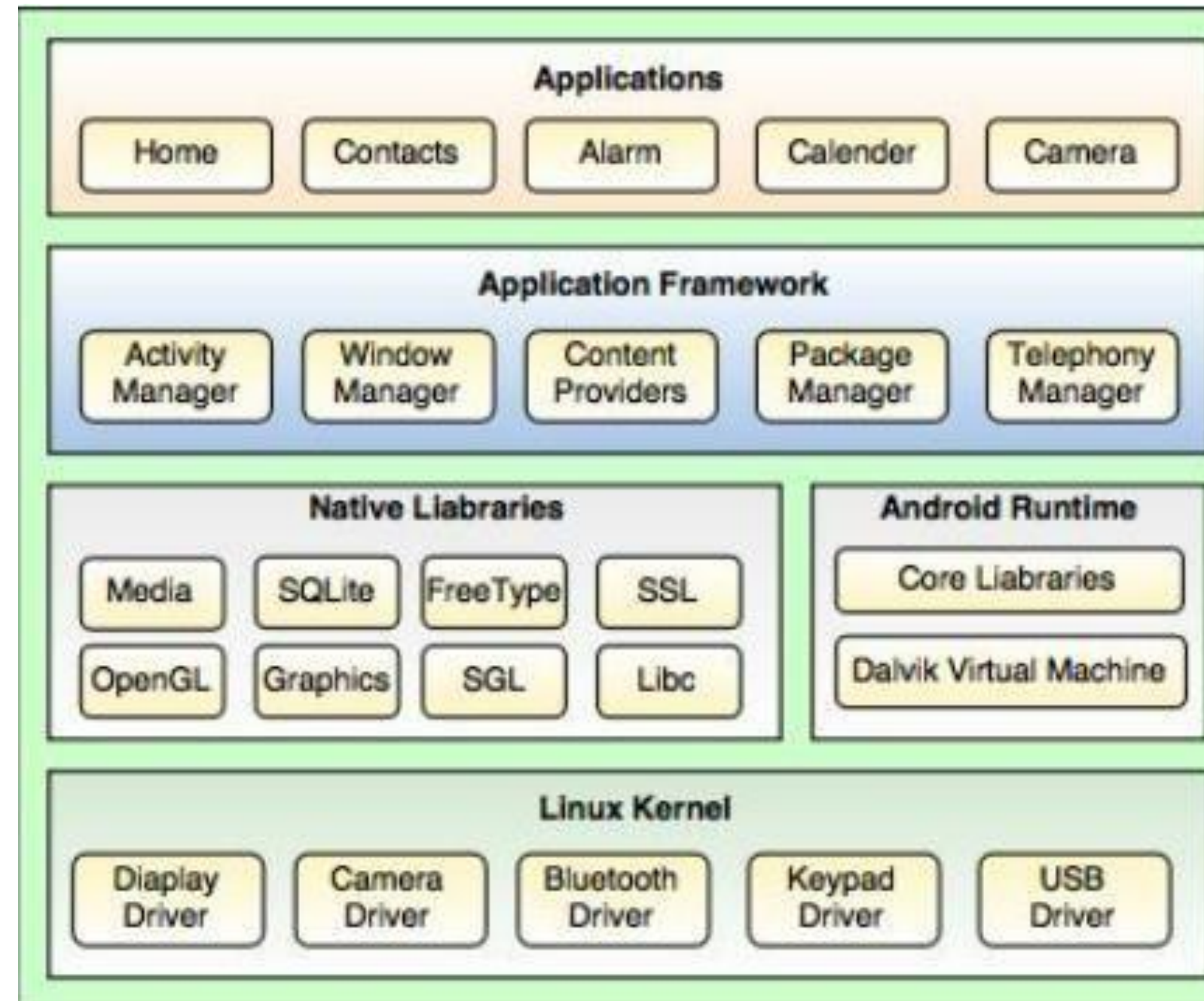
Android architecture

Android architecture is a software stack of components to support a mobile device needs.



The native and third party applications like Contacts, Email, Music, Gallery, Clock, Games, etc. whatever we will build those will be installed on Application layer only.

The Native Libraries includes various C/C++ core libraries and Java based libraries to provide a support for android development.



Provides the services through which we can create the particular class and make that class helpful for the Applications creation.

The Android run time is the engine that powers our applications along with the libraries and it forms the basis for the application framework.

Linux Kernel is a bottom layer and heart of the android architecture. It is heart of Android architecture that exists at the root of android architecture and contains all the low-level device drivers for the various hardware components of an Android device.





THANK YOU