Hello Android

"I have always wished that my computer would be as easy to use as my phone.

My wish has come true.

I no longer know how to use my phone"

What is android

- First complete, open and free mobile platform.

- Biggest contributor: Google.

- Software stack includes

  - Operating System

  - Middleware

  - Key applications

  - Rich set of API

What is android

- Based on Linux kernel (2.6)

  - No native windowing system

- Uses java language.

- Implements part / most of J2SE specs.
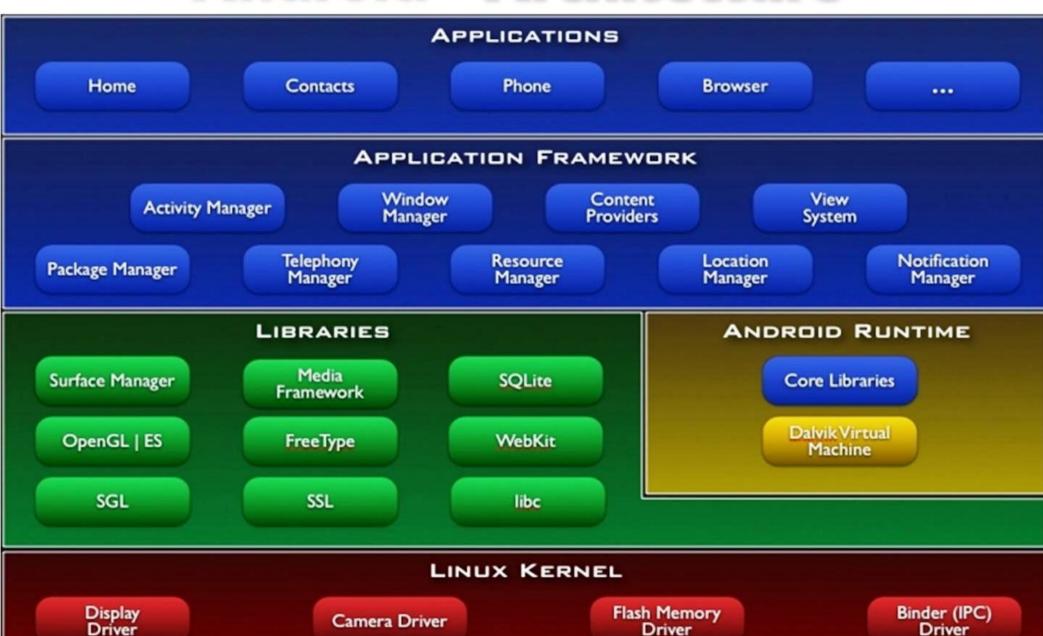
- Runs on dalvik VM instead of JVM.

Android Linux kernel

- Security.

- Memory management.

- Process management.

- Network process.

- Abstraction layer.

- Low Memory Killer (no swap)

- Logger.

Unique platform characteristics

- Open source.

  - Anyone can use and change

- All applications are equal model.

- Application framework enables reuse of components.

- Integrated browser based on webkit.

- 3D graphics based on OpenGL ES.

- SQLite for structured data storage.

- Media support for common audio/video.

Android™ Architecture

APPLICATIONS

| Home | Contacts | Phone | Browser | ... |

APPLICATION FRAMEWORK

| Activity Manager | Window Manager | Content Providers | View System |

| Package Manager | Telephony Manager | Resource Manager | Location Manager | Notification Manager |

LIBRARIES

Surface Manager	Media Framework	SQLite
OpenGL	ES	FreeType	WebKit
SGL	SSL	libc

ANDROID RUNTIME

Core Libraries

Dalvik Virtual Machine

LINUX KERNEL

| Display Driver | Camera Driver | Flash Memory Driver | Binder (IPC) Driver |

| Keypad Driver | WiFi Driver | Audio Drivers | Power Management |