

The Android Internals

abelski

Introduction to The Android Platform

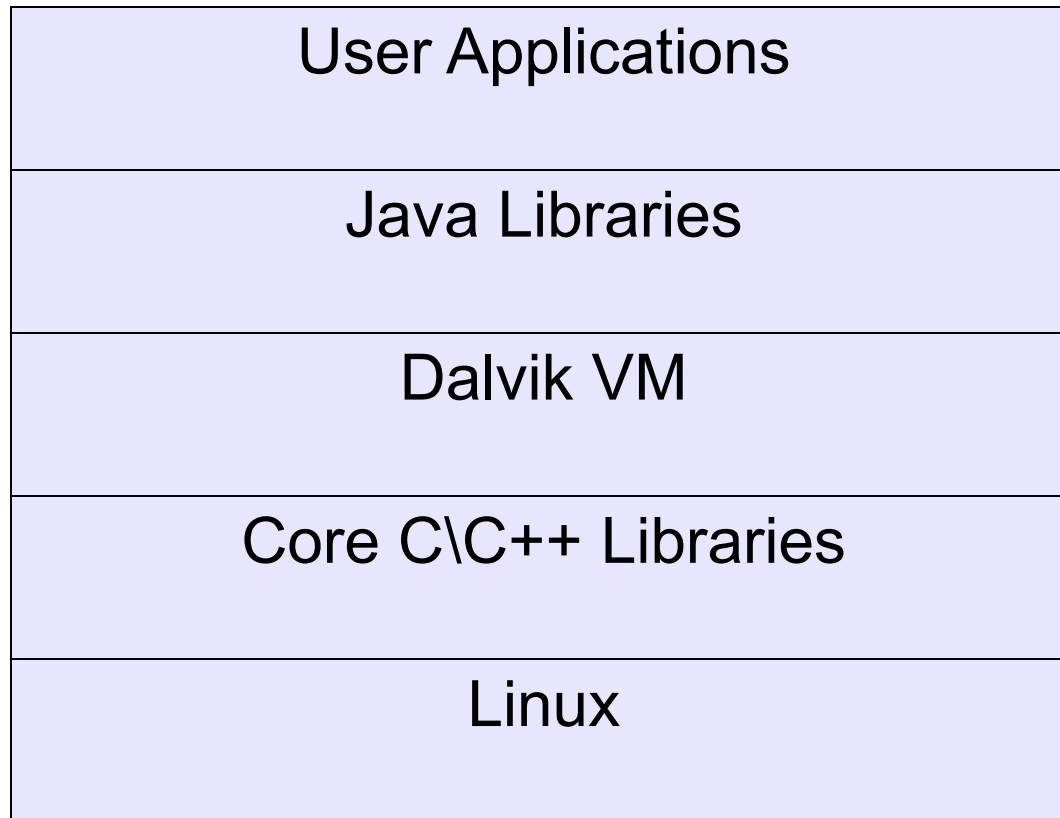
What is Android?

- ❖ “Android is a software platform that delivers a complete set of software for mobile devices, including an operating system, a middle-ware and key mobile applications” (Google).

The Android Virtual Machine

- ❖ The Android platform has its own optimized Virtual Machine, known as “Dalvik VM”.
- ❖ The code we develop in Java is compiled into Dalvik VM byte code. The Dalvik VM isn't capable of running Java Byte code.

The Android Software Stack



Separated Processes

- ❖ Each application on the android platform runs in a separated process. Each process is running with its own virtual machine.
- ❖ The isolation of each application into a separated process allows the system to allocate different priorities to each one of them.

The .apk File

- ❖ The Android Asset Packaging Tool (AAPT) compiles all resources (except for the ones within 'raw') and places them all into the .apk file. This is the equivalent file to the known 'jar' file (in Java ME).
- ❖ The .apk file contains the android application's code and resources.
- ❖ The .apk file is the one gets installed onto the android device. Its format is a simple ZIP format.

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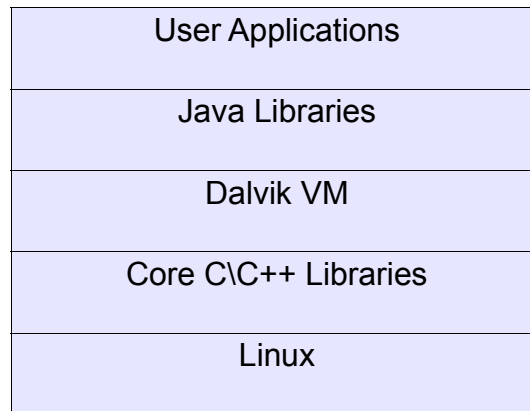
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