

Android Fundamentals

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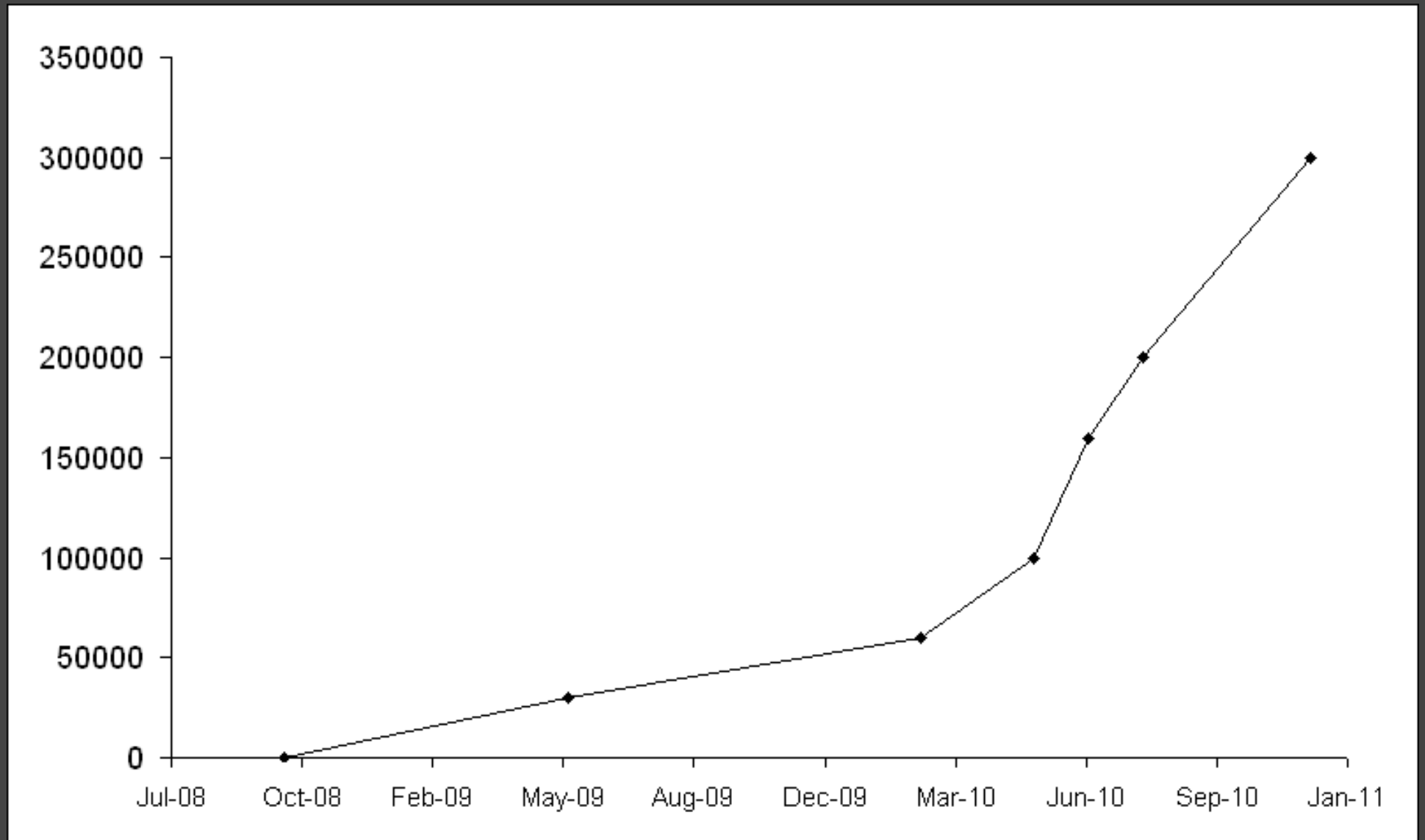
Agenda

- Android overview
- Getting started
- Writing Android apps
- Resources
- Caveats
- Hello World tutorial
- Questions/Discussion

Android

- Mobile operating system
- Acquired by Google in 2005
- ~900% growth in 2010

Activations per day



Getting started

- <http://developer.android.com>
- Download Android SDK
 - Eclipse plugin
- Read the "Dev Guide"
- Start coding!

Writing Android apps

- Large Java libraries
 - UI widgets
 - Access to hardware
 - Ability to create complex applications
- XML resource files
 - Separate programming logic from UI components
 - Localize applications

Java for Android devs

- Automatic Garbage collection
 - Never worry about pointers
 - Garbage collector can be slow
- Objects passed by value
- Soft and Weak references

XML for Android devs

- Web markup language
- Android namespace
- CSS-like formatting

Writing Android apps - framework

- Activities (Java)
 - Views
 - Gmail app: inbox, view email, compose
- Services (Java)
 - Long-running task
 - Not connected to GUI
- Resources (XML, PNG, WAV, etc...)

Caveats

- Multi-device support
 - Unknown hardware
- Fast release cycle
 - Differing versions
- Poor documentation?

Resources

- Stack Overflow
 - <http://stackoverflow.com/questions/tagged/android>
- Android Developer's Blog
 - <http://android-developers.blogspot.com/>
- Android Videos
 - <http://developer.android.com/videos>
- CommonsWare
 - <http://commonsware.com/>
- Reference
 - <http://developer.android.com/reference/packages.html>

Hello World

Activity lifecycle

