Android Primer

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Building an app: Say my name.

Demo.

1:    Configuration

2:    Android at a glance

1: Configuration

Installing Android

You're on your own. Google it.

Nothing is more frustrating than not being able to get started. I've fixed a lot of Android builds. Email me if you're stuck and we'll figure it out: sudar.sam@gmail.com

Plunge into Eclipse

res/
xml
Logcat
Log.e("MainActivity", "hello");
Support Library over ABS

adb

Your friend. Put it on your PATH.

$ adb devices

$ adb shell

$ adb push

$ adb pull

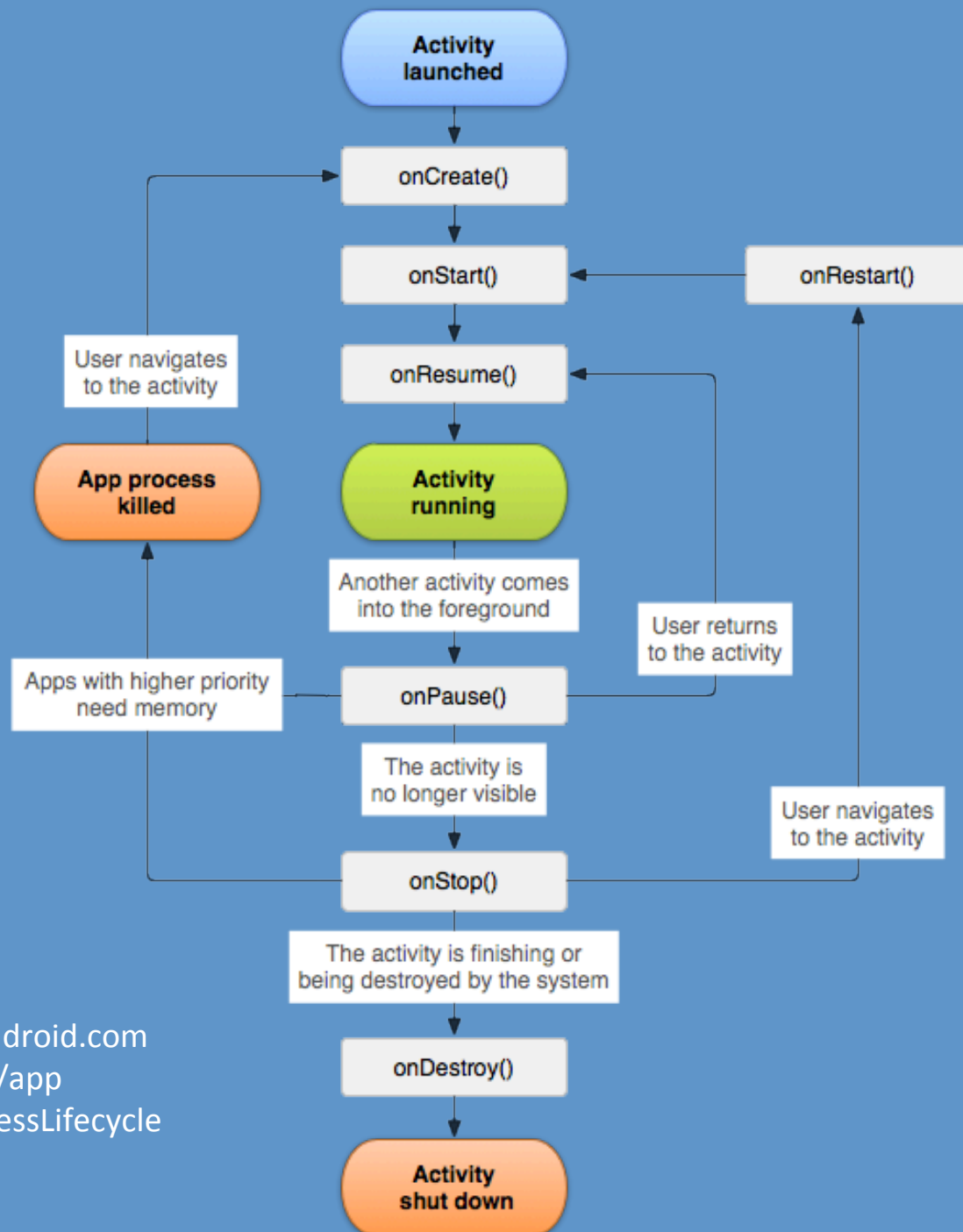# 2: Android at a glance

Activities

Views and Fragments

R.java

Intents

Activities

A unit of user interaction.

- Lifecycle

- Android Manifest

- Actionbar

- Views and Fragments

http://developer.android.com
/reference/android/app
/Activity.html#ProcessLifecycle

Activity Gotchas

- Didn't add to AndroidManifest.xml

- Respect the lifecycle!
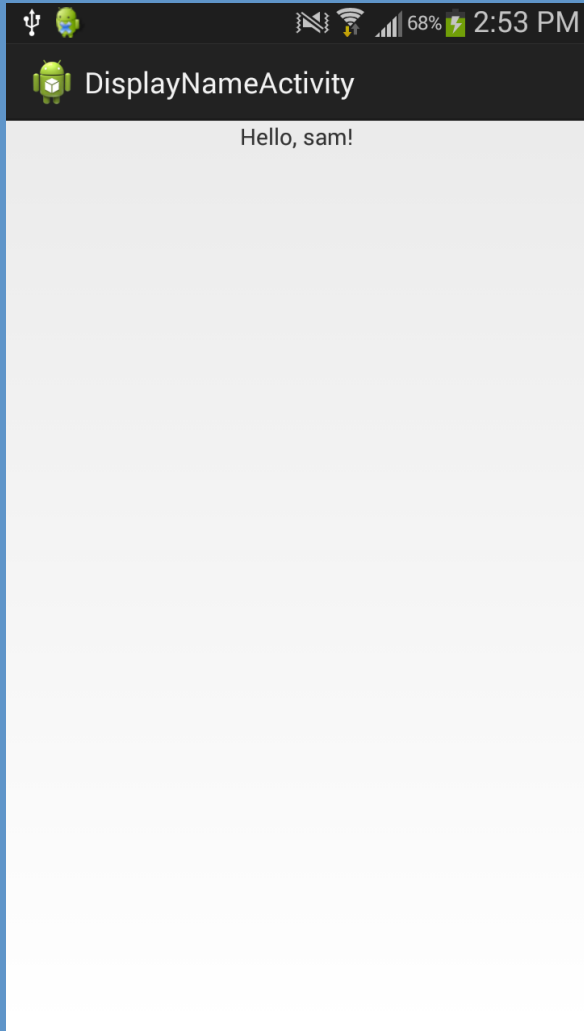
- Rotation / Lock / Phonecall

Views

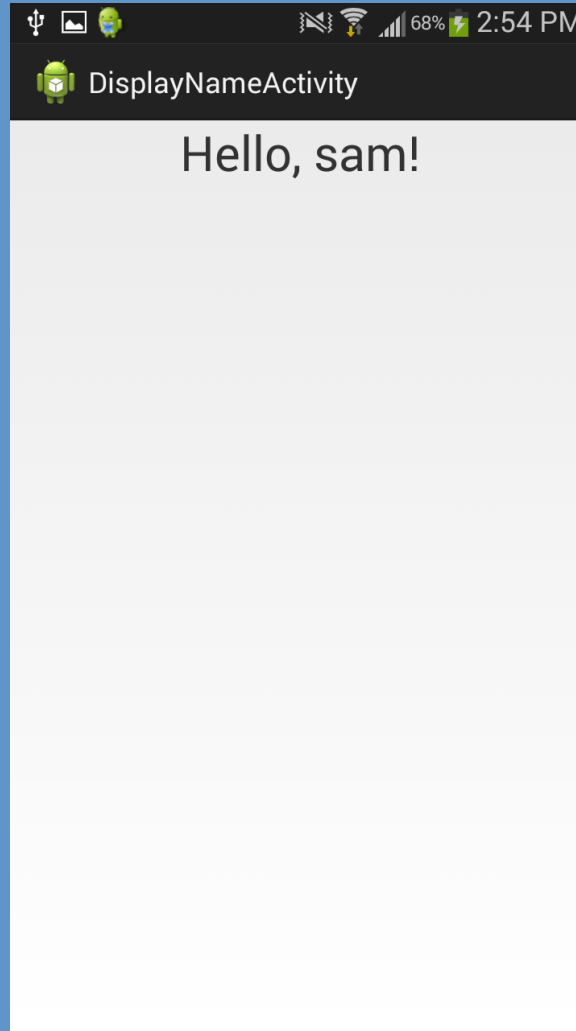Something that is displayed to the user.

- View
  - TextView
  - Button
  - EditText (text entry)
  - Spinner (dropdown)
  - etc
- ViewGroup: holds views
  - LinearLayout
  - ScrollView
  - RelativeLayout
  - etc

- Can configure statically (xml) or programmatically (java)

- Usually specified in res/layout

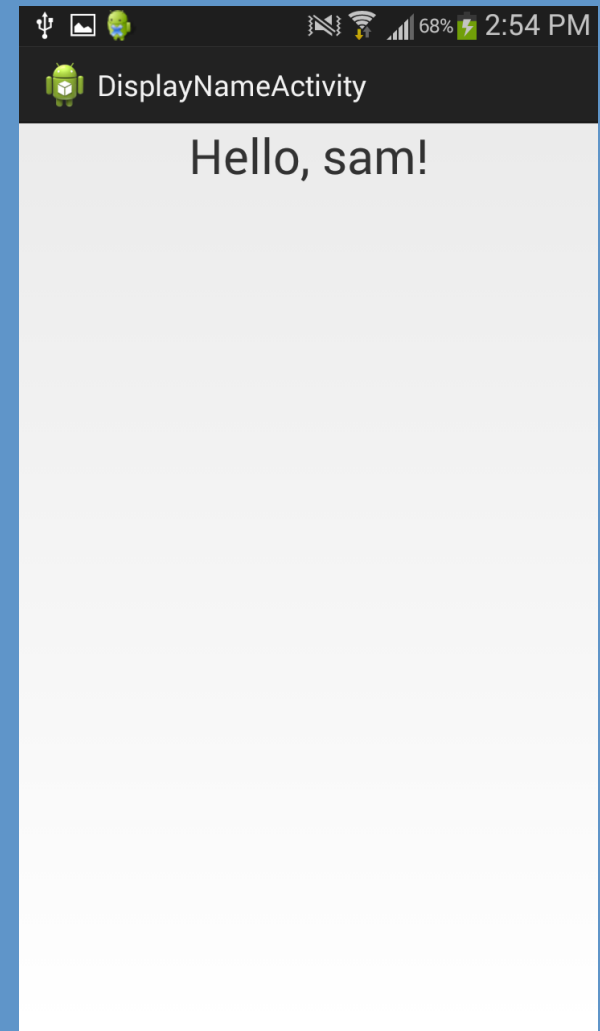- Redrawn on rotation, those with ids are saved by the system

default

Java
mNameView.setTextSize(30)

xml
android:textSize="30sp"

View Gotchas

- .findViewById() must follow view tree
- Some attributes required (e.g. layout_width)
- Wrap everything in a ScrollView or else you can't scroll
- match_parent vs wrap_content
- Let eclipse suggest things

Fragments

A mini activity inside an activity.

Lets you resize for big screens easily.

Not talked about here for time reasons, but you should use them.

Fragment Gotchas

- They have their own life cycle!

- Activity doesn't attach immediately, so getActivity() will return null through the first few lifecycle methods

- TWO CLASSES—support and standard, for all Fragment-related things.

R.java

A bunch of int ids.

Built automatically!!! Don't edit it.

R.Java Gotchas

- DO NOT edit it. Overwritten.
- Cannot find R.java—not your main problem.
- Two R.java files—yours and Android's
- Using the wrong id.

Intents

How you launch other apps and activities.

How activities communicate.

- A Bundle is a map

- An intent (may) have a Bundle

- Can return information as well
  – startActivityForResult()

If we have time

Protected vs external storage

adb backup

ContentProvider—imagine a web endpoint