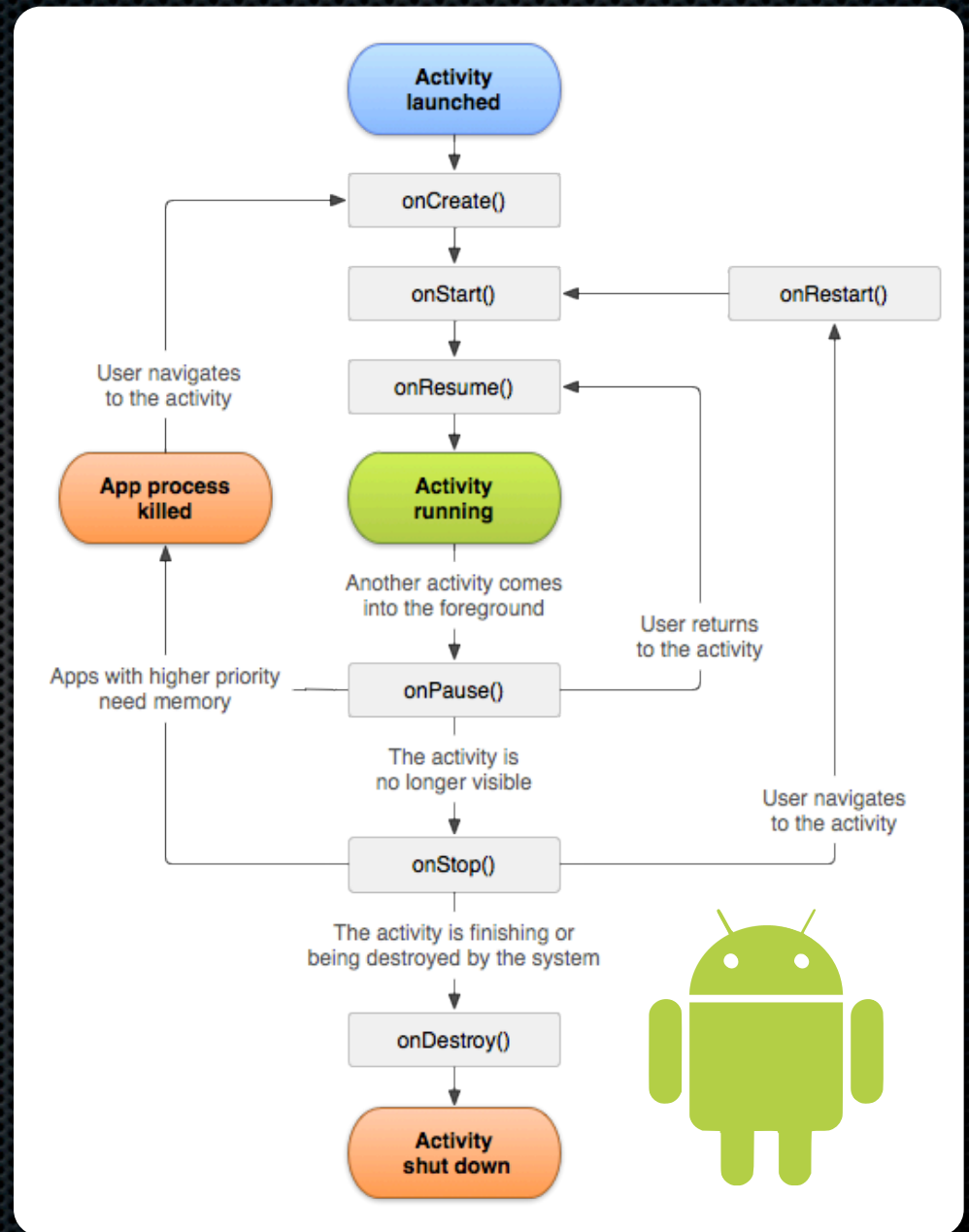# Mobile Application Programing: Android
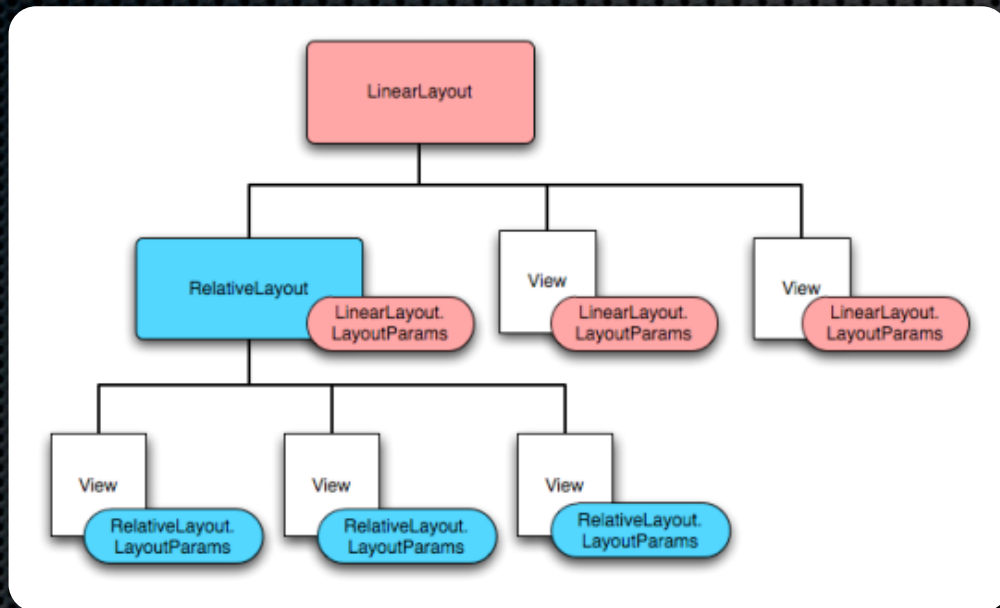
Custom Control Measurement

Activities
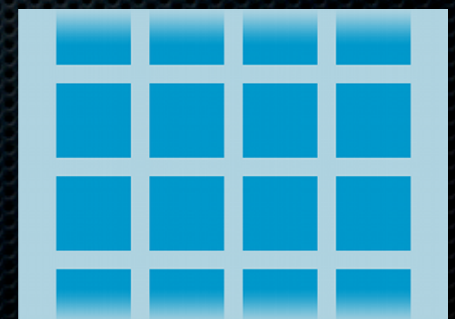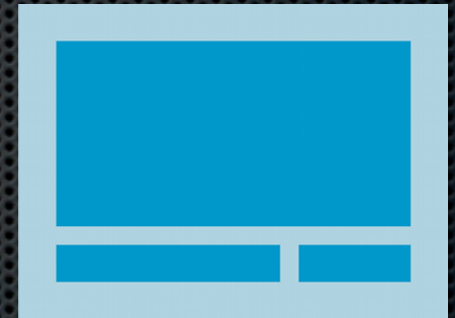
- Apps are composed of activities

- Activities are self-contained tasks made up of one screen-full of information

- Activities start one another and are destroyed commonly
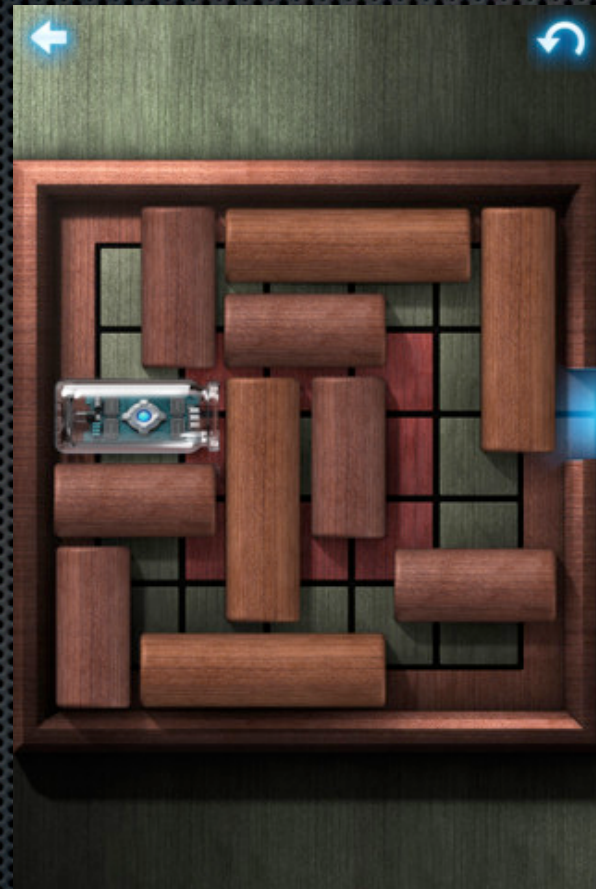
- Apps can use activities belonging to another app

Android Layout

The Heist
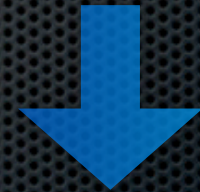

http://itunes.apple.com/us/app/the-heist/id424724418?mt=8

Creating a Custom Control

- Create subclass of View class

- Override:

  - onDraw(Canvas c)

  - onMeasure(int wMeasure, int hMeasure)

- Add listener interface and listener property for the interesting events the control generates and call on… methods when events occur
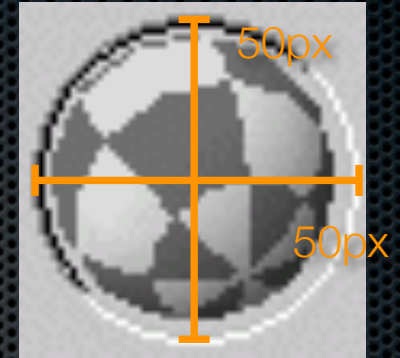
Drawing

- onDraw(Canvas c)

  - Call super classes' onDraw

  - Clear background (if opaque)

  - Build Paint object for draws

  - Make calls to canvas.draw...()

  - Determine what data should be made available to onMeasure through methods or constants

Measuring

- onMeasure(int wMeasure, int hMeasure)

  - Get suggested size with View.MeasureSpec.getSize

  - Get mode with View.MeasureSpec.getMode

  - Choose size for view respecting mode (view specific)

    - Also respect min using getSuggestedMinimum...

  - Call resolveSize to ensure MeasureSpec is respected

  - Call setMeasuredDimension (exception raised if not!)