

Mobile Application Programming: Android

Layout and Adapters

View & ViewGroup

- GridLayout
- LinearLayout (Vertical)
- LinearLayout (Horizontal)
- RelativeLayout
- FrameLayout
- Include Other Layout
- Fragment
- TableLayout
- TableRow
- Space

TextView Large Medium Small

Button Small OFF

CheckBox Radio Button

CheckedTextView

Spinner

Progress indicators

Switch

abc

Firstname Lastname

.....

1...2...3

user@domain

(555) 0100

Address

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor

12:00am

1/1/2011



Alarm Alarm

Sync Browser 5/31/2012 4:58 PM

Off On OFF ON

Yes Maybe No

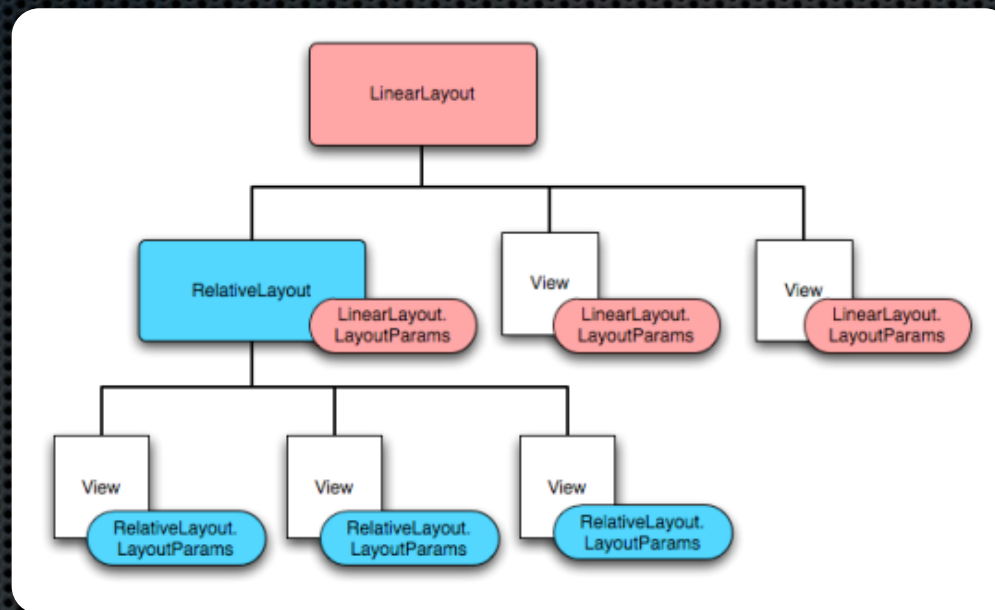
To|

Button

Text field

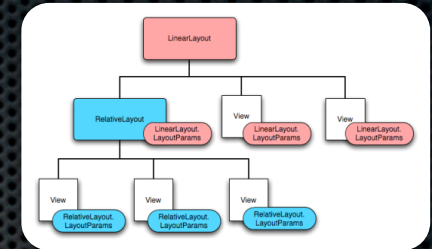
OFF ON

Android Layout



<http://developer.android.com/guide/topics/ui/declaring-layout.html>

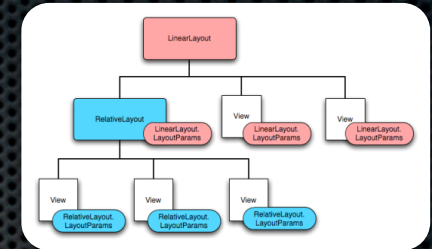
LinearLayout



- ✦ Single-Row Layout
- ✦ Horizontal / Vertical
- ✦ Dividers
- ✦ Baseline Alignment
- ✦ Weight
- ✦ Gravity



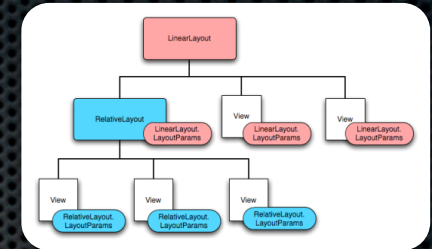
LinearLayout Params



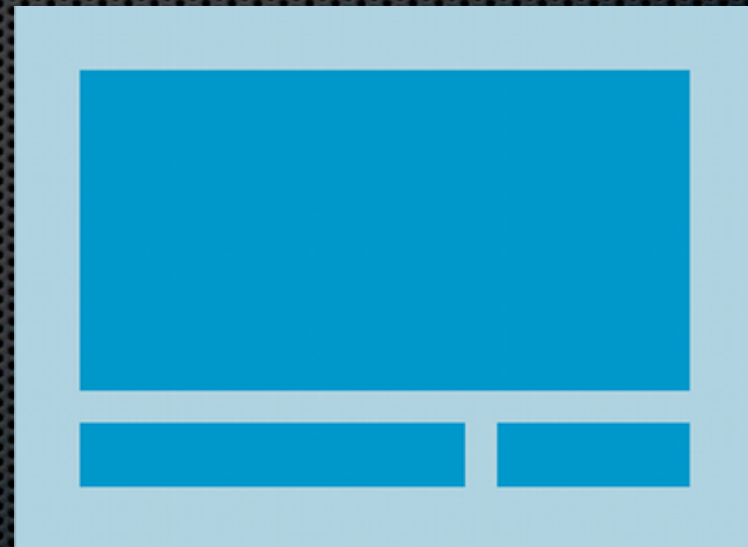
- ✦ **Weight**
 - ✦ Distributes Match Parent space across children
 - ✦ Defaults to 0
- ✦ **Gravity**
 - ✦ How to position smaller child within larger container



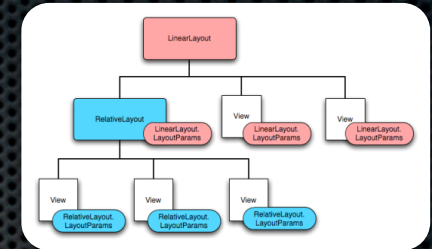
RelativeLayout



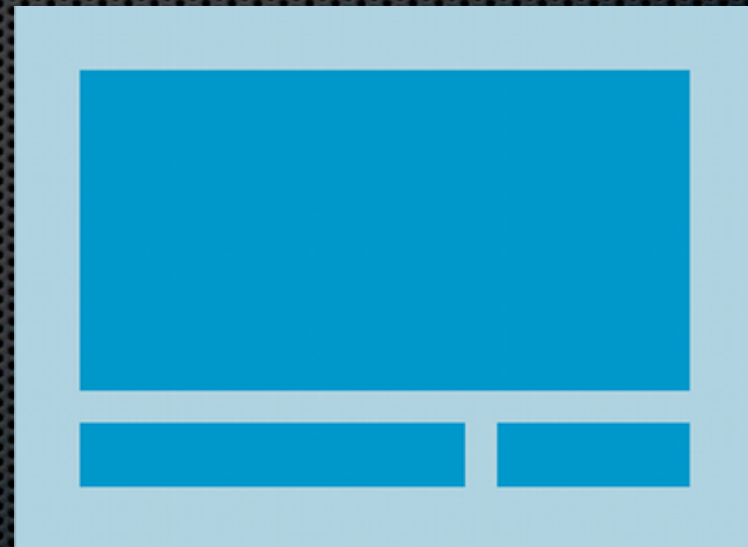
- ✦ Children **Relative to Each Other** or to Parent
- ✦ Uses **Rules** in Params
- ✦ Rules **Require View ID**
- ✦ Gravity



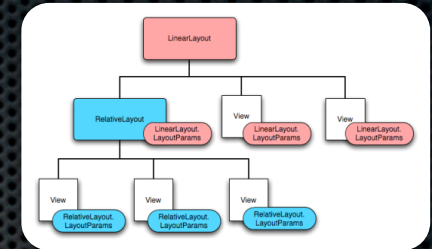
RelativeLayout Params



- ✦ Above / Below
- ✦ Left Of / Right Of
- ✦ Left / Right / Top / Bottom
- ✦ Align Parent
 - ✦ Left / Right / Top / Bottom
- ✦ Center in Parent
 - ✦ Vertical / Horizontal / Both



ListView



- ✦ Lists data provided by an **Adapter**
- ✦ Use ArrayAdapter or a **custom class** to provide data
- ✦ Set **OnItemClickListener** to react to clicks on rows



GridView

- ✦ Lists data provided by an **Adapter**
- ✦ Use ArrayAdapter or a **custom class** to provide data
- ✦ Set **OnItemClickListener** to react to clicks on rows
- ✦ Call **setNumColumns** to change the grid resolution

