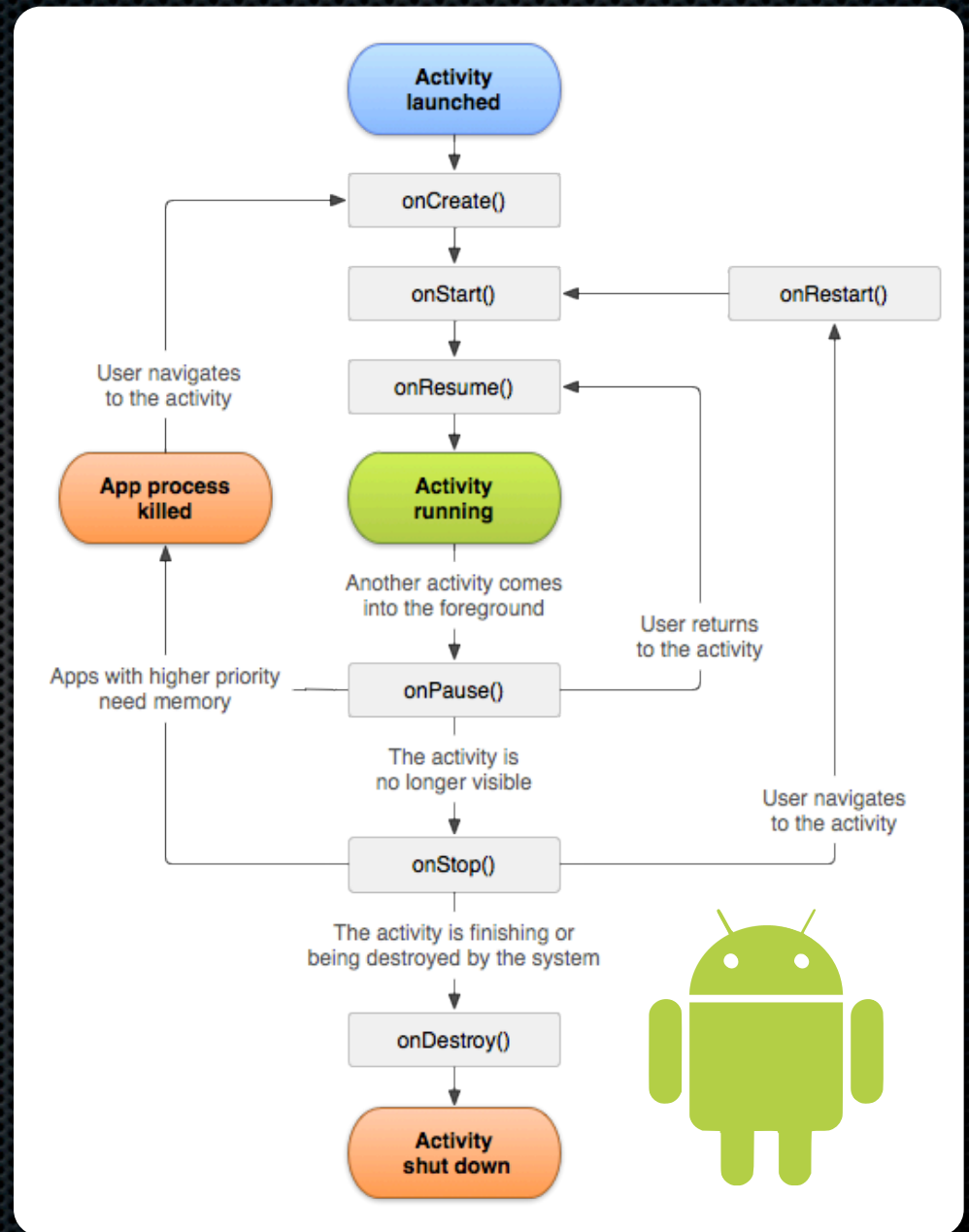


Mobile Application Programming: Android

UI and Layout

Activities

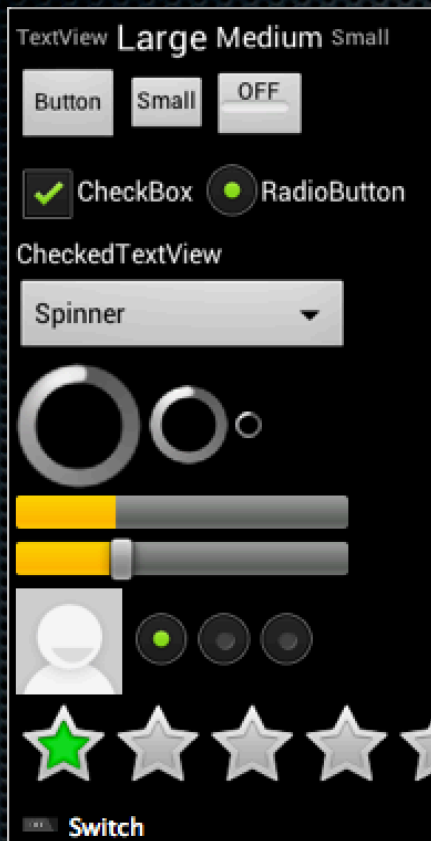
- ❖ Apps are **composed of activities**
- ❖ Activities are self-contained tasks made up of **one screen-full** of information
- ❖ Activities **start one another** and are **destroyed commonly**
- ❖ Apps can **use activities belonging to another app**
- ❖ Much more to come...



Informational Views

- ✦ TextView
- ✦ ImageView
- ✦ ProgressBar
- ✦ AnalogClock
- ✦ DigitalClock
- ✦ Chronometer
- ✦ VideoView

View & ViewGroup



abc

Firstname Lastname

.....

1...2...3

user@domain

(555) 0100

Address

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

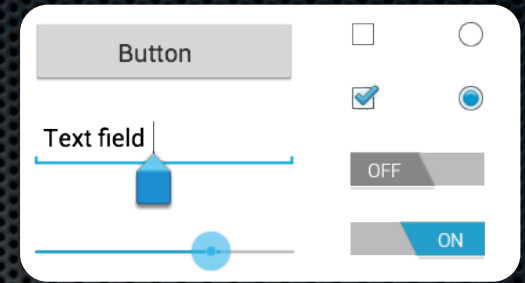
12:00am

1/1/2011



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

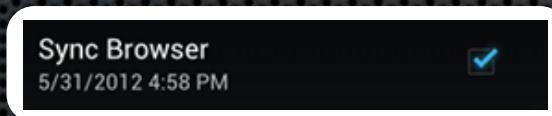
Input Controls



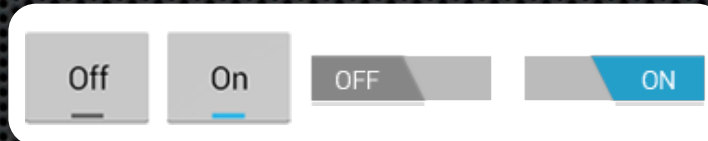
- Buttons



- Check Boxes



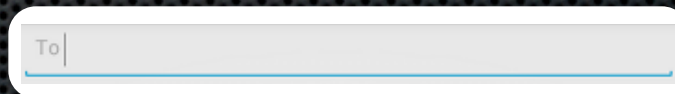
- Toggle Buttons



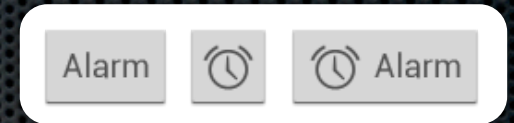
- Radio Buttons



- Text Fields



Buttons



- ✦ Class - `android.widget.Button`
- ✦ Principal Event - `onClick` Principal Property - `title`
- ✦ Accepting Event
 - ✦ Call `setOnClickListener` with an anonymous class as the argument
 - ✦ Define `public void onClick(View v)` in the anonymous class

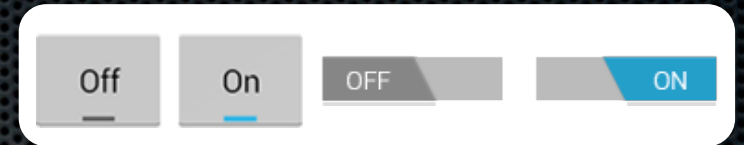
Check Boxes

Sync Browser
5/31/2012 4:58 PM



- Class - `android.widget.CheckBox`
- Principal Event - `onClick` Principal Property - `checked`
- Accepting Event
 - Call `setOnCheckedChangeListener` with an anonymous class as the argument
 - Define `onCheckedChanged(...)` in the anonymous class

Toggle Buttons



- ✦ Class - `android.widget.ToggleButton`
- ✦ Principal Event - `onClick` Principal Property - `checked`
- ✦ Accepting Event
 - ✦ Just like CheckBox as both are actually subclasses of `android.widget.CompoundButton`

Radio Buttons

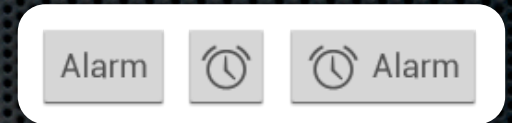
Yes

Maybe

No

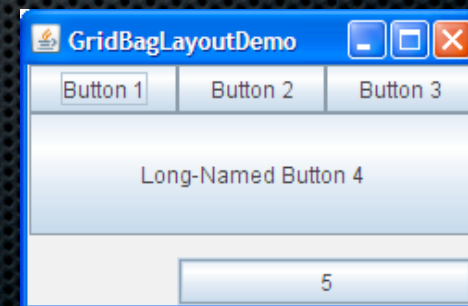
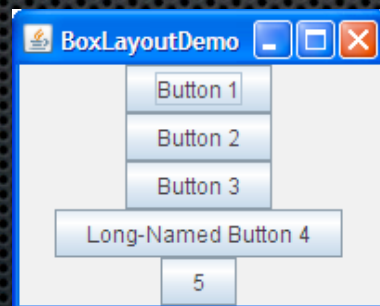
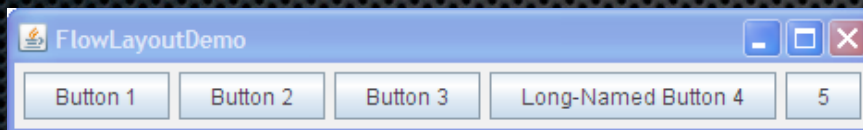
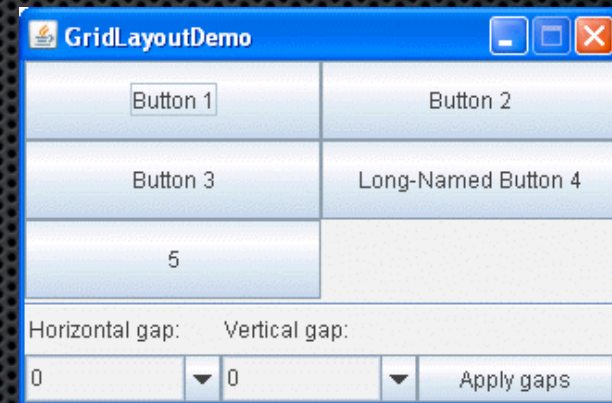
- Classes - `android.widget.RadioButton` & `android.widget.RadioGroup`
- Principal Event - `onClick` Principal Property - `checked`
- Creation - Instantiate `RadioButton` then and add to a `RadioGroup`
- Accepting Event
 - Create an anonymous on click listener class as with a `CheckBox` and store it in a variable
 - Call `setOnCheckedChangeListener` passing variable
 - More simply, you can also set one on the `RadioGroup` instead

Text Fields



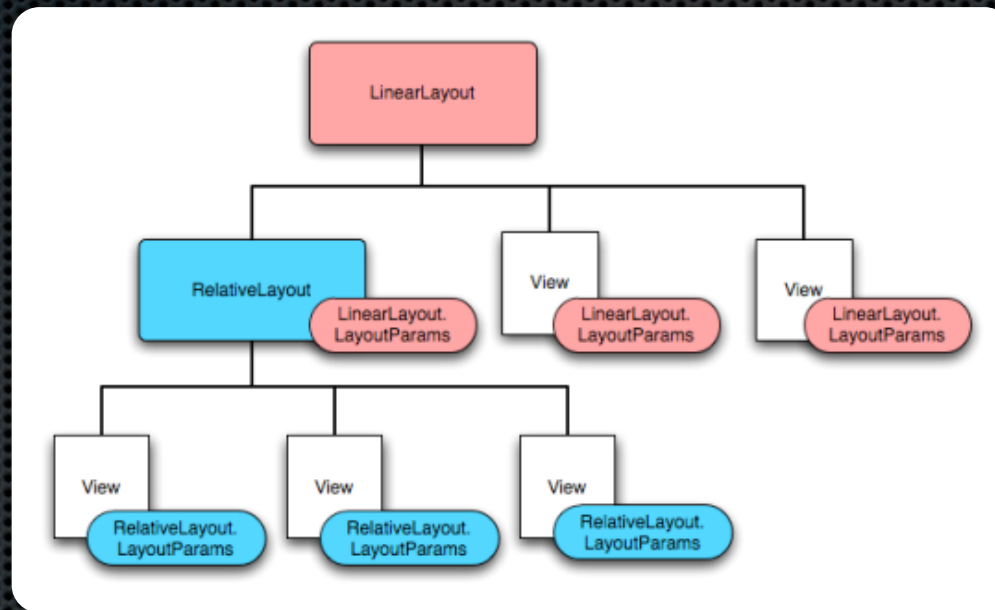
- ✦ Class - `android.widget.TextView` & `android.widget.EditText`
- ✦ Principal Event - `onKey` Principal Property - `text`
- ✦ Accepting Event
 - ✦ Call `setOnKeyListener` (defined by the `View` class) with an anonymous class as the argument
 - ✦ Define `onKey (. . .)` in the anonymous class

AWT Layout Managers



<http://java.sun.com/docs/books/tutorial/uiswing/layout/visual.html>

Android Layout Approach



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