

# Computer Science E-76

## Building Mobile Applications

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Lecture 4: [Android] Resources, Assets, and Intents  
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Dan Armendariz  
danallan@mit.edu

```
TextView tv = new TextView(this);  
tv.setText("Hello, Android");
```

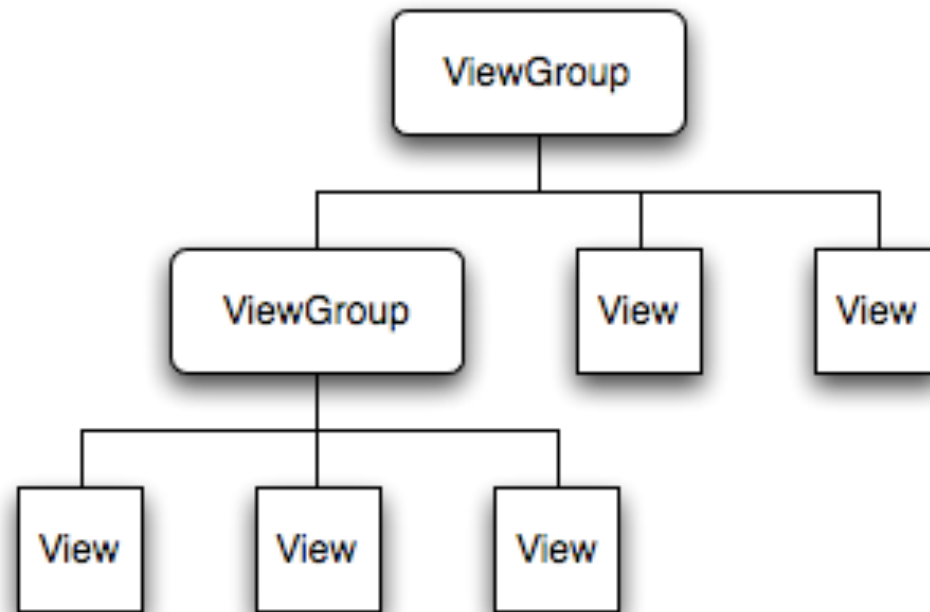
– Or –

```
<?xml version="1.0" encoding="utf-8"?>  
<TextView xmlns:android="http://schemas.android.com/apk/res/android"  
    android:layout_width="fill_parent"  
    android:layout_height="fill_parent"  
    android:text="@string/hello" />
```

<http://developer.android.com/resources/tutorials/hello-world.html>



Creating a UI



<http://developer.android.com/guide/topics/ui/index.html>

Views

Layouts

**FrameLayout**  
**Gallery**  
**GridView**  
**LinearLayout**  
**ListView**  
**RelativeLayout**  
**ScrollView**  
**Spinner**  
**SurfaceView**  
**TabHost**  
**TableLayout**  
**ViewFlipper**  
**ViewSwitcher**

More: <http://developer.android.com/reference/android/widget/package-summary.html>

Views

Common Layouts

<b>Assets</b>	<code>assets/</code>	read raw bytes via <code>AssetManager</code>
<b>Resources</b>	<code>res/</code>	reference included content via <code>R.java</code>



<code>res/anim/</code>	XML files for frame-by-frame animation
<code>res/drawable/</code>	images compiled and optimized
<code>res/layout/</code>	XML files for screen layouts
<code>res/values/</code>	compiled XML files into different resource
<code>res/xml/</code>	arbitrary XML files
<code>res/raw/</code>	raw, uncompiled files

Resources

Additional Information

<http://developer.android.com/guide/topics/resources/index.html>

Resources

Additional Information

```
res/drawable-[lang]-[screen dimensions]
               -[wide/tall screen]-[orientation]
               -[pixel density]-[touchscreen type]
               -[keyboard]-[text input method]-...
```

**Eg: res/drawable-en-rUS-port-mdpi-finger**

<http://developer.android.com/guide/topics/resources/resources-i18n.html#AlternateResources>

Resources

Localization



px	Standard physical pixel
in	Inches, based on physical size of screen
mm	Millimeters, based on screen size
pt	Points, 1/72 of an inch based on screen size
dp	Density-independent Pixel. Relative pixel size vs 160dpi screen
sp	Scale-independent pixel. Like dp, but scaled by user's font size pref (use for specifying font)

Resources

Dimension measurements

Intents launch:  
Activities  
Services  
Broadcasts

Intents

A bundle of information

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