To set up your Dev Environment:

Download & Install SDK- http://developer.android.com/sdk/installing.html

ADB (Android Debug Bridge) - very useful command line tool for debugging/logging <a href="http://developer.android.com/guide/developing/tools/adb.html">http://developer.android.com/guide/developing/tools/adb.html</a>

**Quick Start** 

Create a project, manipulate the look and feel:

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

Android Fundamentals - an Overview:

http://developer.android.com/guide/topics/fundamentals.html

Main Building Blocks of an Android app (you don't necessarily need all of these) **Activities & Activity Life cycle**:

The presentation layer, e.g. a screen that the user sees. An application typically has multiple activities, and the users flip back and forth among them

**EXTREMELY IMPORTANT! YOU MUST KNOW THIS!** 

http://developer.android.com/guide/topics/fundamentals/activities.html

## Intents:

Asynchronous messages which allow the application to request functionality from other services or activities - ALSO SUPER IMPORTANT!

http://developer.android.com/guide/topics/intents/intents-filters.html

**Resources** - how to get screen layouts, colours, images into your app <a href="http://developer.android.com/guide/topics/resources/index.html">http://developer.android.com/guide/topics/resources/index.html</a>

**Services** - perform background tasks and don't have any UI components <a href="http://developer.android.com/guide/topics/fundamentals/services.html">http://developer.android.com/guide/topics/fundamentals/services.html</a>

**Content Providers** - interfaces for sharing data between applications http://developer.android.com/guide/topics/providers/content-providers.html

**Broadcast Receiver** - a system-wide publish/subscribe mechanism, receives system messages and implicit intents

http://developer.android.com/reference/android/content/BroadcastReceiver.html

Other components:

User Interface

Overview - http://developer.android.com/guide/topics/ui/index.html

Layouts - http://developer.android.com/guide/topics/ui/layout-objects.html

Adapters - http://developer.android.com/guide/topics/ui/binding.html

Threading

**General** - <a href="http://developer.android.com/guide/topics/fundamentals/processes-andthreads.html">http://developer.android.com/guide/topics/fundamentals/processes-andthreads.html</a>

Async Task - http://developer.android.com/reference/android/os/AsyncTask.html

## Networking

HttpClient library: http://hc.apache.org/httpcomponents-client-ga/examples.html

Tutorial: <a href="http://hc.apache.org/httpcomponents-client-ga/tutorial/html/index.html">http://hc.apache.org/httpcomponents-client-ga/tutorial/html/index.html</a>

## Sample Code – **VERY USEFUL FOR REFERENCE!**

Full list of samples - http://developer.android.com/resources/browser.html?tag=sample

**API Demo** (recommended) - Lots of UI demos: layouts, views, preferences, menus, etc **Note Pad** (recommended) - adapter views, content provider, data access, intents Install the samples - http://developer.android.com/resources/samples/get.h