

Android Developer

To get started with Android Studio

<https://developer.android.com/studio>

Repositories

<https://github.com/udacity/ud851-Sunshine>

<https://github.com/udacity/ud851-Exercises>

Android Debug Bridge (adb) - <https://developer.android.com/studio/command-line/adb.html>

Android Debug Bridge (adb) is a versatile command-line tool that lets you communicate with a device. The adb command facilitates a variety of device actions, such as installing and debugging apps, and it provides access to a Unix shell that you can use to run a variety of commands on a device.

Apps are collections of connected components

Four types of components:

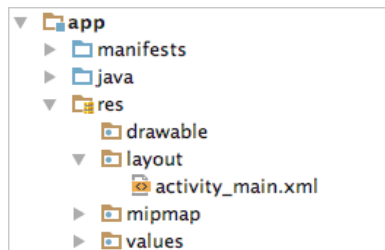
- Activity
- Service
- Broadcast Receiver
- Content Provider

An **activity** is a single focused thing that the user can do.

An activity creates **views** to show the user information and to let the user interact with the activity.

Views are a class in the Android UI framework. They occupy a rectangular area on the screen and are responsible for drawing and handling events.

An activity determines what views to create and where to put them by reading an XML layout file. These XML files are stored in the **res** folder inside the folder labeled **layout**.



Two major categories of views

- UI Components
- Container View

UI components - are often interactive.

<u>Class Name</u>	<u>Description</u>
TextView	Text on the screen; generally non interactive text.
EditText	Text input on the screen
ImageView	Image on the screen
Button	Button on the screen
Chronometer	Simple timer on screen

Container View - primarily responsible for containing a group of views and determining where they are on screen.

<u>Class Name</u>	<u>Description</u>
LinearLayout	Displays views in a single column or row.
RelativeLayout	Displays views positioned relative to each other and this view.
FrameLayout	A ViewGroup meant to contain a single child view.
ScrollView	A FrameLayout that is designed to let the user scroll through the content in the view. NOTE - Required for the first project
ConstraintLayout	This is a newer viewgroup; it positions views in a flexible way.

XML Attributes - control the properties of the view

- textSize, padding, text
- layout_width, layout_height
 - wrap_content = "will shrink the view to wrap whatever is displayed inside the view"
 - match_parent = "expand the size of the view to be as large as the parent view which it is nested inside of"

JSON = "JavaScript Object Notation"

class JSONObject <https://developer.android.com/reference/org/json/JSONObject>

ScrollView

<https://developer.android.com/reference/android/widget/ScrollView>