CS196

Android

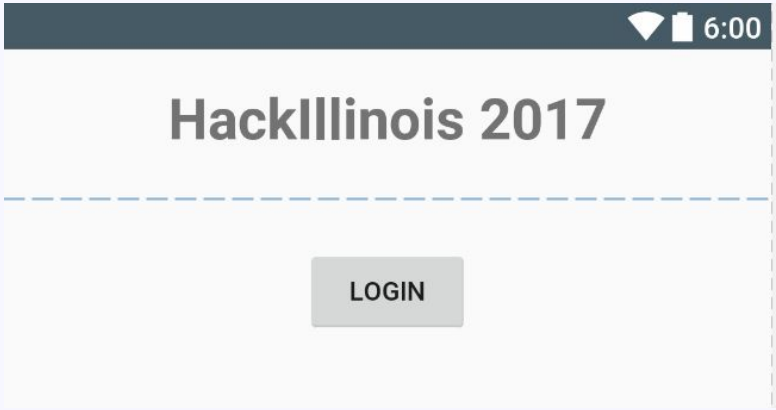
What is XML?

- Extensible Markup Language
- Defines a set of rules for encoding documents in a format that is both human-readable and machine-readable
- Used to build/design Android UI

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="match_parent"
    android:layout_height="match_parent">

    <View
        android:layout_width="match_parent"
        android:layout_height="4dp"
        android:background="@drawable/shadow" />

    <android.support.v7.widget.RecyclerView
        android:id="@+id/ticketList"
        android:scrollbars="vertical"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>

    <android.support.design.widget.FloatingActionButton
        android:id="@+id/helpqFab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_margin="16dp"
        android:src="@drawable/ic_add_white_24dp" />

</RelativeLayout>
```

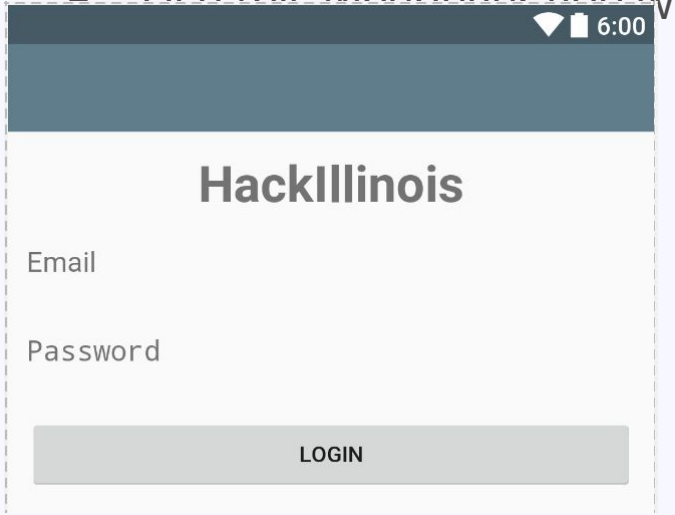
TextView

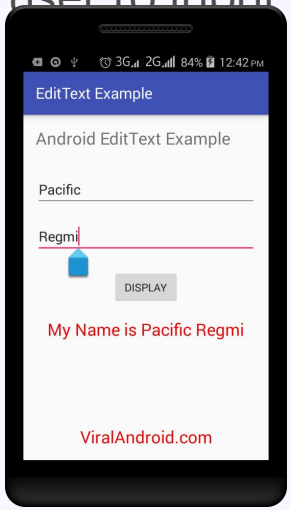
- Displays text to the user and optionally allows them to edit it
- A TextView is a complete text editor, however the basic class is configured to not allow editing
- Essentially a label
- Button class inherits from TextView

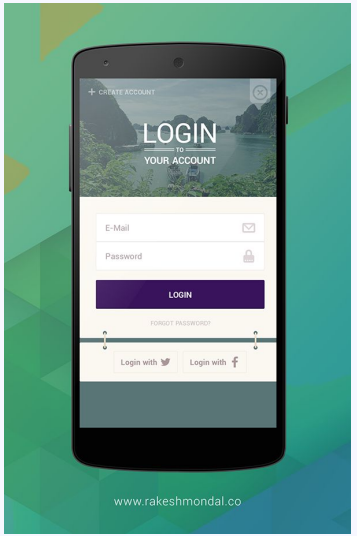


EditText

- EditText is a thin veneer over TextView that configures itself to be editable
- Use this whenever you want the user to input text





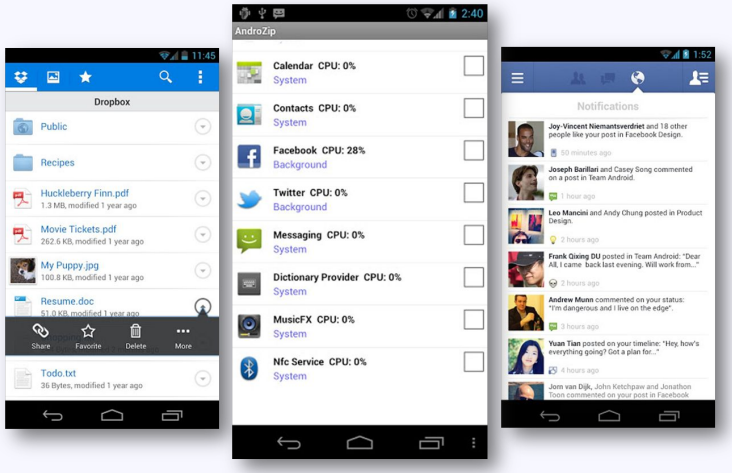


ImageView

- Self-explanatory, displays an image in a layout
- The ImageView class can load images from various sources (such as resources or content providers)
- Android framework takes care of measurement computation

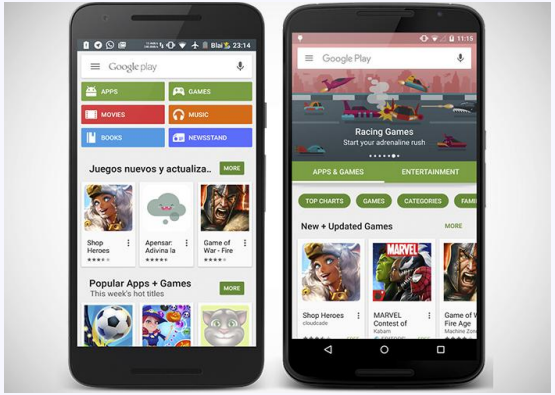
ListView

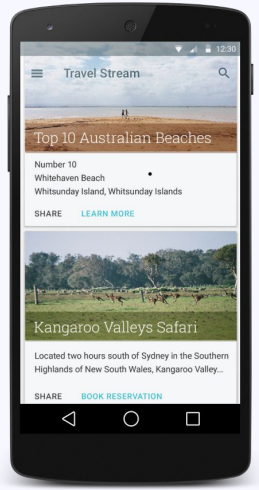
- A view that shows items in a vertically scrolling list
- The items come from the ListAdapter associated with this view



CardView and RecyclerView

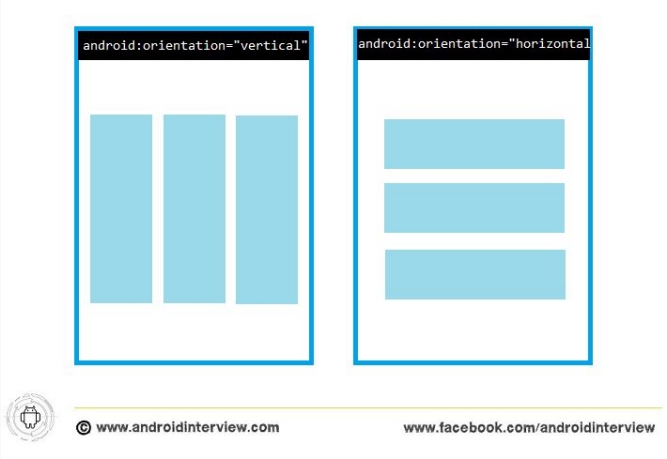
- Cardview: A framelayout with a rounded corner background and shadow
- RecyclerView: A flexible view for providing a limited window into a large data set.
  - Essentially a super-charged listview
  - Used for displaying lists of card views

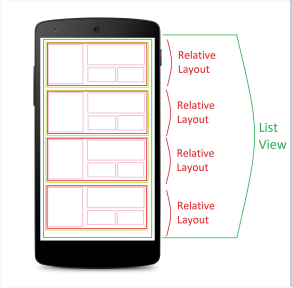
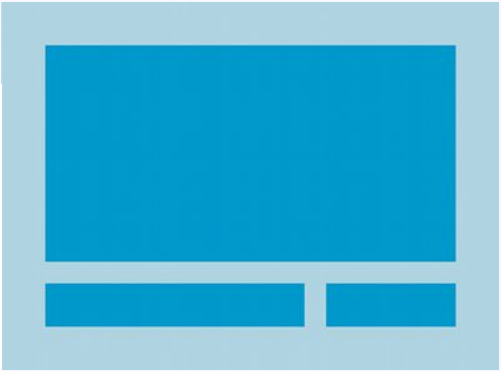
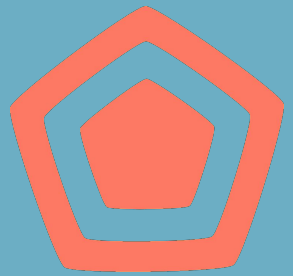




LinearLayout

- A Layout that arranges its children in a single column or a single row either vertically or horizontally
- The most straightforward layout
- Child elements are stacked below each other



RelativeLayout

- A Layout where the positions of the children can be described in relation to each other or to the parent.
- Element positions must be defined in relation to either the borders or other elements
- Makes it easier to make more complex designs