Adapter Views

Repo: https://github.com/karlmorris/AdvancedViews
Overview

- A look at basic adapter views
- A look at basic adapters
- Creating custom adapters
- Dynamic population of adapters
Basic Understanding of Views

- Everything you see in Android is a view
- e.g. TextView
  - Anywhere text is visible, a TextView or derivative is being used
  - This is true no matter where the text is being displayed, even inside other views
Adapter Views

- Adapter views are made up of a series of views.
- Generally used for selection actions.
- They receive the views to display (children) from a compatible Adapter.
- Adapters are objects that take a set of data and generates a set of views based on that data.
Adapter Views

• Extend the ViewGroup class
• Displayed views can be
  – Simple: Using predefined adapters
  – Complex: Using custom adapters
Examples

Spinner

GridView

ListView

```
ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
                        android.R.layout.simple_list_item_1, myStringArray);

ListView listView = (ListView) findViewById(R.id.listview);
listView.setAdapter(adapter);
```
Creating a Custom Adapter

• Begin by extending the BaseAdapter class

• Depending on use, you may need to override certain methods. Important methods are:
  – getCount()
    • Returns a count of the number of items in the data set
  – getItem(int position)
    • Returns the item in the data set found at the specified position
  – getView(int position, View convertView, ViewGroup parent)
    • Returns a view representing the data found at a specified position