Adapter Views

https://developer.android.com/guide/topics/ui/declaring-layout.html

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

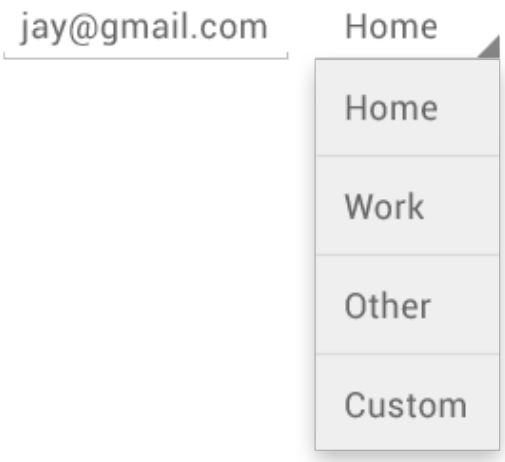
- Adapter views are made up of a series of views
- Generally used for selection actions
- They receive the views to display (children) from a compatible Adapter
- Adapters are objects that take a set of data and generates a set of views based on that data

Adapter Views

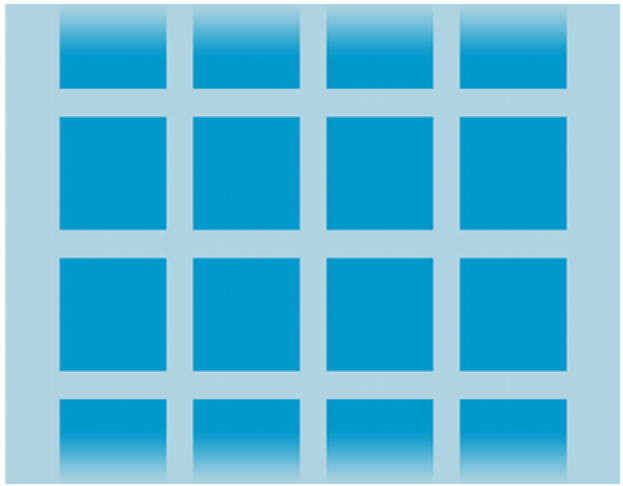
- Extend the ViewGroup class
- Displayed views can be
  - Simple: Using predefined adapters
  - Complex: Using custom adapters

Examples

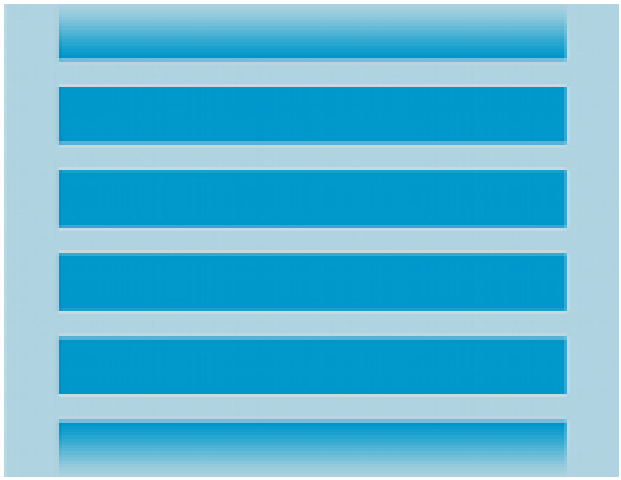
Spinner



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
  - https://developer.android.com/reference/android/widget/BaseAdapter.html
- 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