📝 Widget

🕐 Created	@September 8, 2023 11:36 PM
☰ Tags	

- Radio Button, Check Button → small number of options
- List Box, Combo Box, Drop Down List, Picture Gallery → larger number of options
- Selection View/Widget - View/Widget display a list of options, controlled by an Adapter
    - eg: List View, Grid View, Spinner…
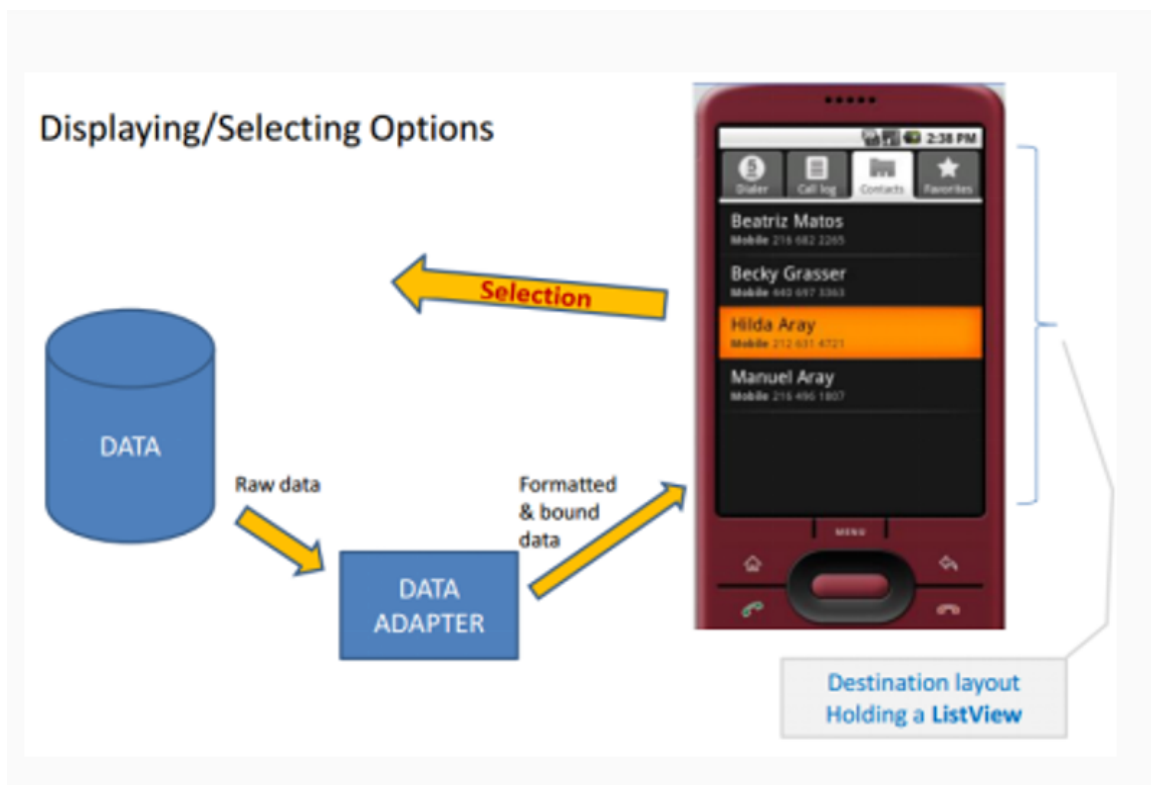
- Common Data Adapter

- BaseAdapter

- ArrayAdapter

- CursorAdapter

- SimpleCursorAdapter

- SpinnerAdapter

- WrapperListAdapter

```java
String[] mobileArray = {"Android","IPhone","WindowsMobile",
        "Blackberry","WebOS","Ubuntu","Windows7","Max OS X"};

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_list_display);

    ArrayAdapter adapter = new ArrayAdapter<String>(this, R.layout.activity_listview, mobileArray);

    ListView listView = (ListView) findViewById(R.id.mobile_list);
    listView.setAdapter(adapter);
}
```
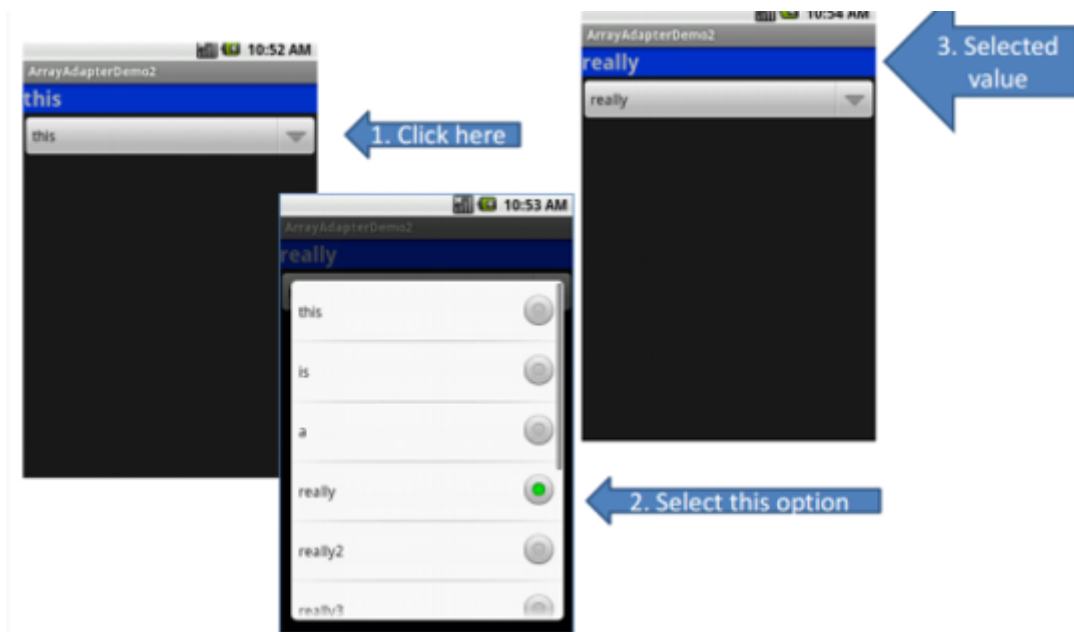
```xml
<ListView
        android:id="@+id/mobile_list"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" >
</ListView>
```

- Spinner = Drop Down

1. Click here

3. Selected value

2. Select this option

```java
AdapterView.OnItemSelectedListener {
    TextView selection;
    String[] items =
{"Android","IPhone","WindowsMobile",

    "Blackberry","WebOS","Ubuntu","Windows7","Max
    OS X"};
```

```java
selection = (TextView) findViewById(R.id.selection);
Spinner spin = (Spinner) findViewById(R.id.spinner);
spin.setOnItemSelectedListener(this);
```

```java
ArrayAdapter<String> aa = new ArrayAdapter<String>(
        this, android.R.layout.simple_spinner_item, items);
```

```java
aa.setDropDownViewResource(
        android.R.layout.simple_spinner_dropdown_item);
```

```java
spin.setAdapter(aa);
```

```java
public void onItemSelected(
        AdapterView<?> parent, View v, int position, long id) {
    selection.setText(items[position]);
}
public void onNothingSelected(AdapterView<?> parent) {
    selection.setText("");
}
```
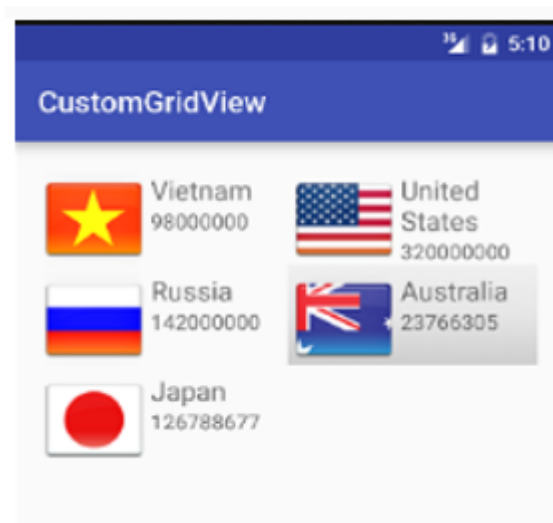
```xml
<TextView
    android:id="@+id/selection"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0033cc"
    android:textSize="14pt"
    android:textStyle="bold"
    >
</TextView>
<Spinner
    android:id="@+id/spinner"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    >
</Spinner>
```

- Grid View = scrollable grid

- columnWidth = dp, in, mm…

- (horizontal/vertical)Spacing = dp, in, mm…

- gravity

- numColumns = number/auto_fit

- stretchMode =
  none/spacingWidth/columnWidth/spacingWidthUniform

```java
        TextView selection;
        String[] items =
   {"Android","IPhone","WindowsMobile",
   "Blackberry","WebOS","Ubuntu","Windows7",
   "Max OS X"};
```

```java
selection = (TextView) findViewById(R.id.selection);
GridView gv = (GridView) findViewById(R.id.grid);
ArrayAdapter<String> aa = new ArrayAdapter<String>(
        this,
        android.R.layout.simple_list_item_1,
        items );
gv.setAdapter(aa);
gv.setOnItemClickListener(this);
```

```java
public void onItemClick(AdapterView<?> parent, View v,
                        int position, long id) {
   selection.setText(items[position]);
}
```

```xml
<TextView
    android:id="@+id/selection"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0033cc"
    android:textSize="14pt"
    android:textStyle="bold"
    >
</TextView>
<GridView
    android:id="@+id/grid"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:numColumns="2"
    android:stretchMode="columnWidth"
    android:gravity="center"
    >
</GridView>
```

- AutoCompleteTextView = suggestion words
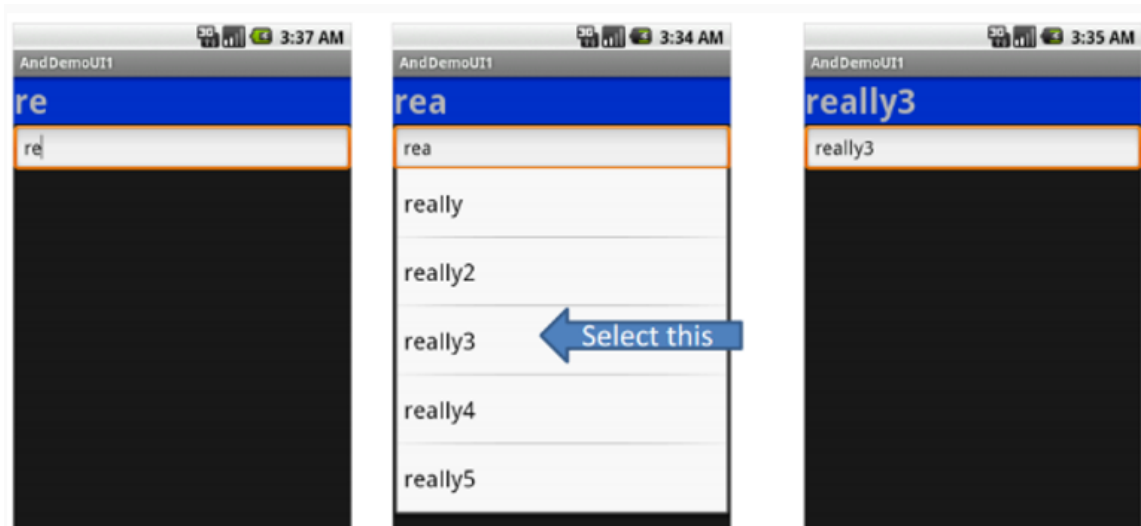
```
    TextView selection;
    AutoCompleteTextView edit;
    String[] items =
{"Android","IPhone","WindowsMobile",
            "Blackberry","WebOS","Ubuntu","Windows7",
"Max OS X"};
```

```
        selection = (TextView)
findViewById(R.id.selection);
        edit = (AutoCompleteTextView)
findViewById(R.id.edit);
        edit.addTextChangedListener(this);
        edit.setAdapter(new ArrayAdapter<String>(this,

android.R.layout.simple_dropdown_item_1line, items));
```

```
    public void onTextChanged(CharSequence s, int start,
int before, int count) {
        selection.setText(edit.getText());
    }
    public void beforeTextChanged(CharSequence s, int
start,
                                    int count, int after) {
}
    public void afterTextChanged(Editable s) {
    }
```

```xml
<TextView
    android:id="@+id/selection"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0033cc"
    android:textSize="14pt"
    android:textStyle="bold"
    />
<AutoCompleteTextView
    android:id="@+id/edit"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:completionThreshold="3"/>
```

3 ký tự mới bắt đầu hiện