

# EECS4443 Notes

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## XML advantages

- XML is used exclusively for the view. We can separate concerns between function and form by using MVC.
- The ID attribute: `android:id="@+id/decbutton"` signifies that we are pulling a value, in this case, a button from the `R` (resources) class.
- `R.java` is automatically generated based on what is in the XML view. This allows us to change a single value in the XML to change **all** occurrences of that value in code.

## Layout parameters

An app activity can have multiple layouts.

- Layouts take on the form of `layout_foo`
- `LinearLayout`: every element is stacked sequentially on the screen depending on the orientation of the screen.

## What is a layout?

Simply put, a layout is what defines the UI elements in a given activity (screen). It is the **parent view** to all other elements within it. A `Layout` is a `ViewGroup`, and a `ViewGroup` is a `View`

## Dynamic layout

In a dynamic layout, the elements on the screen are not pre determined. In other words, `AdapterView` is used to populate the layout with views **at runtime** like `ListView`, `GridView`, etc. These are very common views for organizing data in many applications, since they display items in either a list or a grid respectively.