

دورة الأندرويد للمبتدئين

Android Beginner Course

تخطيط واجهة المستخدم

View Groups

الدرس الثالث

Lesson 3



مرحبا مجددا ! Hello Again !



In today lesson we're going to see how to manage views
Inside a layout and customize
their style and positions.

Organize Views



View Group & View Hierarchy

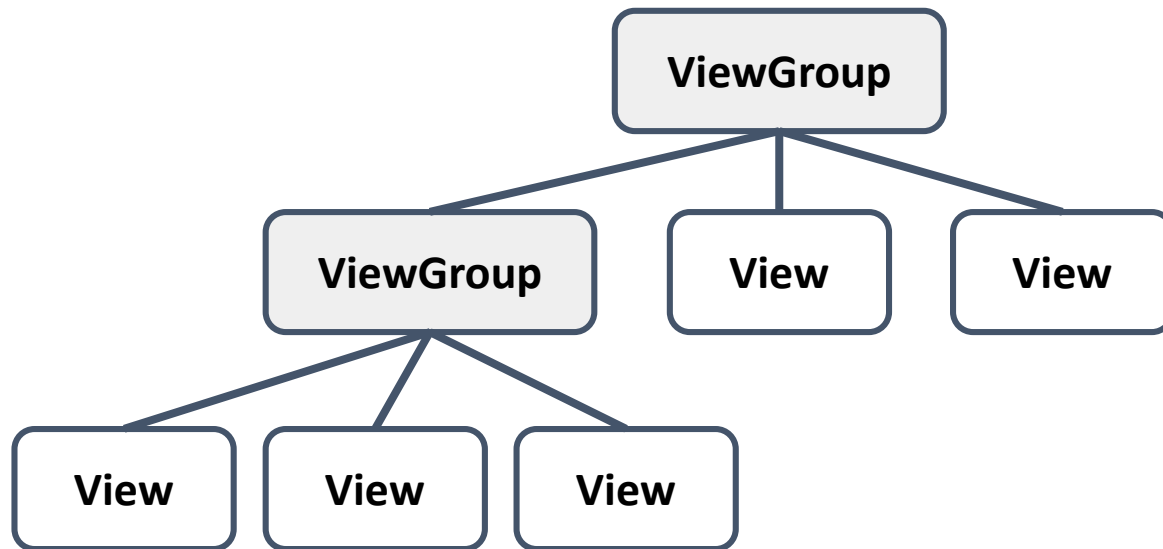
View Group views

A [ViewGroup](#) (parent) is a type of view that can contain other views (children)

ViewGroup is the base class for layouts and view containers

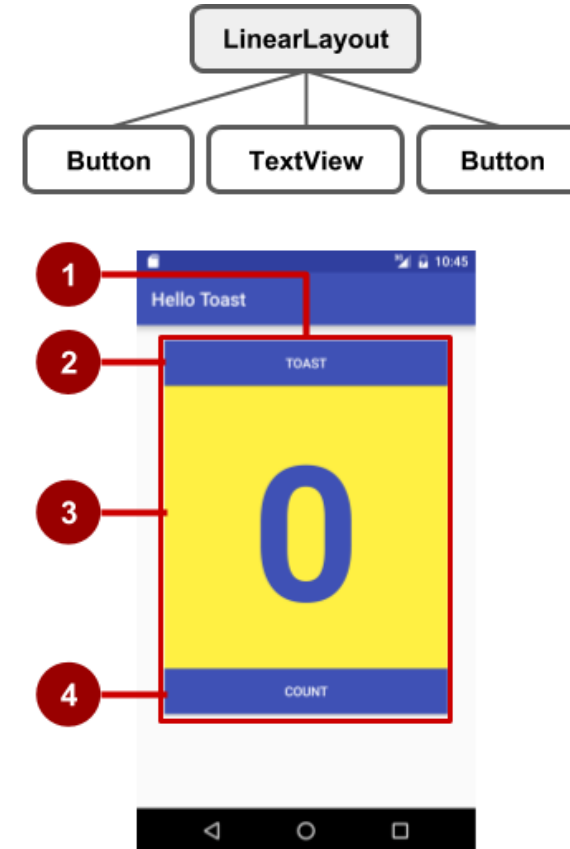
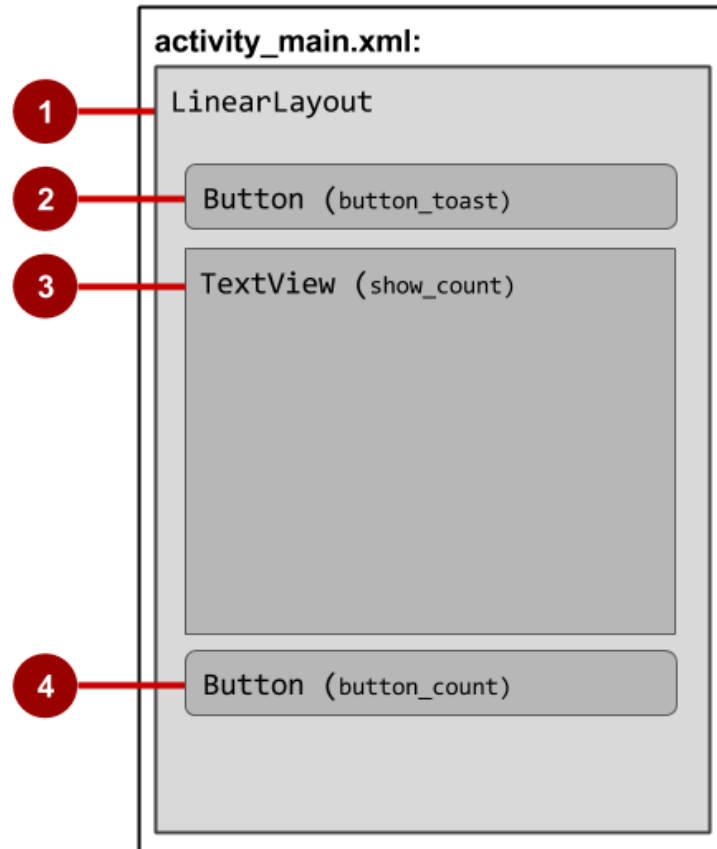
- ScrollView—scrollable view that contains one child view
- LinearLayout—arrange views in horizontal/vertical row
- RelativeLayout—arrange views relative to each other.

Hierarchy of view groups and views



Root view is always a view group

View hierarchy and screen layout



The Way



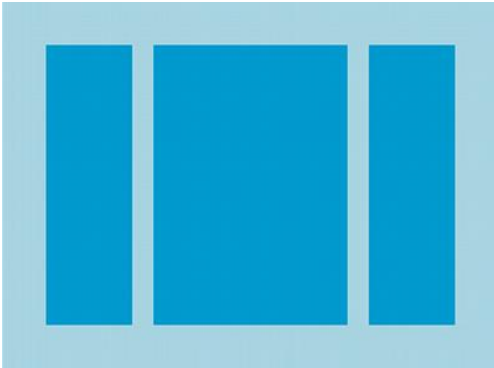
Layouts

Layout Views

Layouts

- are specific types of view groups
- are subclasses of [ViewGroup](#)
- contain child views
- can be in a row, column, grid, table, absolute

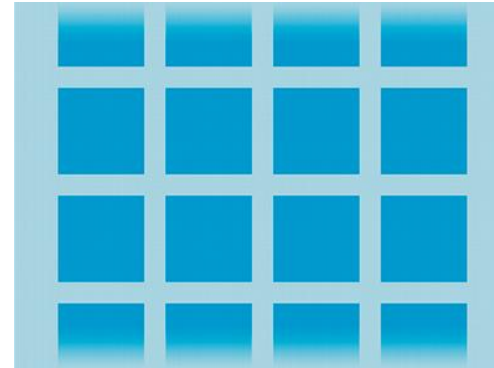
Common Layout Classes



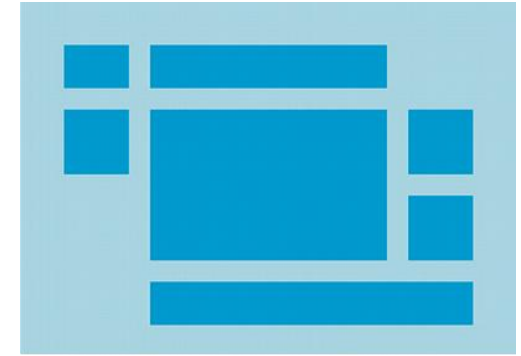
LinearLayout



RelativeLayout



GridLayout



TableLayout

Common Layout Classes

- **ConstraintLayout** - connect views with constraints
- **LinearLayout** - horizontal or vertical row
- **RelativeLayout** - child views relative to each other
- **TableLayout** - rows and columns
- **FrameLayout** - shows one child of a stack of children
- **GridView** - 2D scrollable grid

Layout created in XML

```
<LinearLayout
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <EditText
        ... />
    <Button
        ... />
</LinearLayout>
```

التمرين Practice

Open Up Android Studio And Start Testing Layouts
Try different things to better understand.



Coding Interview

facebook

Given a string of round, curly, and square open and closing brackets,

return whether the brackets are balanced (well-formed).

For example, given the string "`([])[]({})`", you should return true.

Given the string "`([)]`" or "`((()`", you should return false.

Views:

- [View class documentation](#)
- [device independent pixels](#)
- [Button class documentation](#)
- [TextView class documentation](#)
- [Hierarchy Viewer](#) for visualizing the view hierarchy

Layouts:

- [developer.android.com Layouts](#)
- [Common Layout Objects](#)

Resources:

- [Android resources](#)
- [Color](#) class definition
- [R.color resources](#)
- [Supporting Different Densities](#)
- [Color Hex Color Codes](#)

Other:

- [Android Studio documentation](#)
- [Image Asset Studio](#)
- [UI Overview](#)
- [Vocabulary words and concepts glossary](#)
- [Model-View-Presenter \(MVP\) architecture pattern](#)
- [Architectural patterns](#)



شكرا لحضوركم
Thank You For Assisting