



Layout



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Layouts

Part of setting up the screen of your app in Android Studio involves layouts. Read on to learn more about the function and types of layouts in Android Studio.



What is a layout?

In Android, **layout defines the user interface (UI) for an app or activity** and holds the UI elements that will appear to the user.

Related to layouts are View and ViewGroup.

View

A View is defined as the UI which is used to create interactive UI components

such as **TextView, ImageView, Label, RadioButton** and so on. It is in charge of event handling and drawing. They are generally referred to as "widgets".

ViewGroup

A ViewGroup **serves as a parent class for layouts and layout parameters that hold other Views or ViewGroups and define the layout properties.** They are generally referred to as "layouts".

Types of Android Layouts

LinearLayout

LinearLayout is a ViewGroup subclass used to render child View elements one after the other either horizontally or vertically based on the orientation property specified.

ConstraintLayout

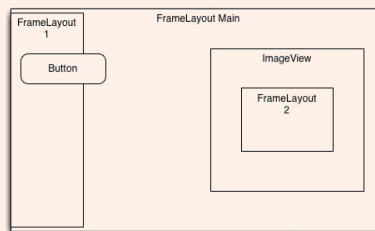
ConstraintLayout is a ViewGroup subclass used to specify ***the position of layout constraints*** for every child View relative to other views on the screen.

Frame Layout

FrameLayout is a ViewGroup subclass used to specify the **position of View elements it contains on the top of each other to display only a single View inside the FrameLayout.**

What is Frame Layout?

- Frame Layout is designed to block out an area on the screen to display a single item. Generally, FrameLayout should be used to hold a single child view, because it can be difficult to organize child views in a way that's scalable to different screen sizes without the children overlapping each other.



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Table Layout

TableLayout is a ViewGroup subclass used to display the child **View elements in rows and columns. (tables !!!)**

WebView

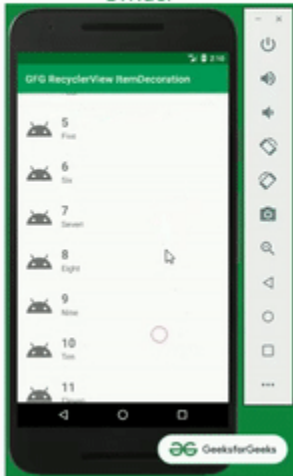
WebView **is a browser that is used to display the web pages** in your activity layout.

RecyclerView

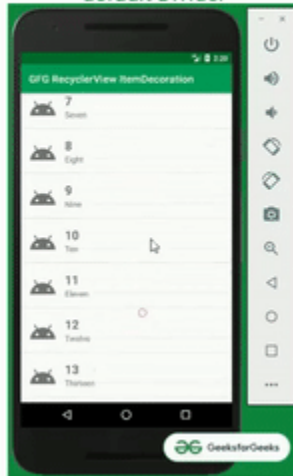
You can use RecyclerView with LinearLayoutManager to **display scrollable lists of items in a single column. You can also use RecyclerView with GridLayoutManager to display a scrollable list of items in a grid view of rows and columns.**

Adding Dividers for RecyclerView items

RecyclerView with no Divider



RecyclerView with default Divider



RecyclerView with custom Divider

