

Android User Interface

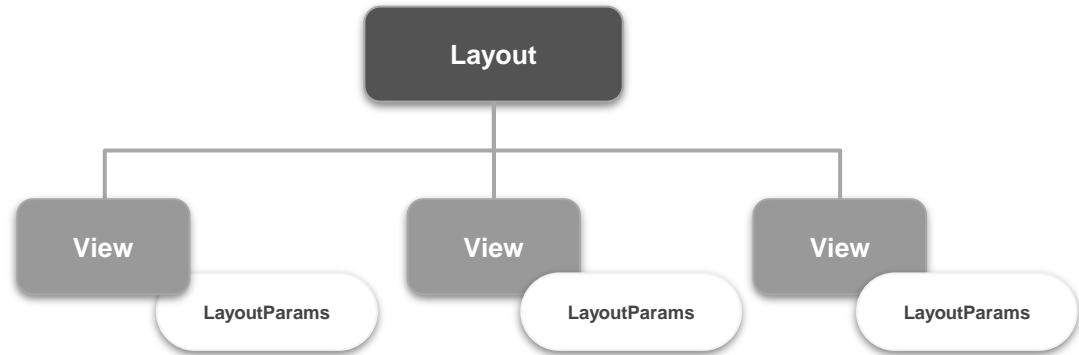


Agenda

- App UI Layout
- App Fragment

Android UI Layout

- UI Linear Layout
- UI Relative Layout
- UI List View Layout
- UI Grid View Layout
- UI Absolute Layout
- UI Table Layout
- UI Frame Layout



UI Layout Attributes

Name of the Attribute	Specification
id	Used to uniquely specify the view
layout_width	Used to specify width of view
layout_height	Used to specify Height of view
layout_marginTop	Used to add extra space from top
layout_marginBottom	Used to add extra space from bottom
layout_marginLeft	Used to add extra space from left side
layout_marginRight	Used to add extra space from right side
layout_gravity	Used to specify child position
layout_weight	Used to specify extra spaces between views
paddingLeft	Used to specify Left padding of the layout
paddingRight	Used to specify right padding of the layout
paddingTop	Used to specify top padding of the layout
paddingBottom	Used to specify bottom padding of the layout
layout_x	Used to specify X-Coordinate
layout_y	Used to specify Y-Coordinate
layout_width	Used to specify Layout width

App UI Linear Layout

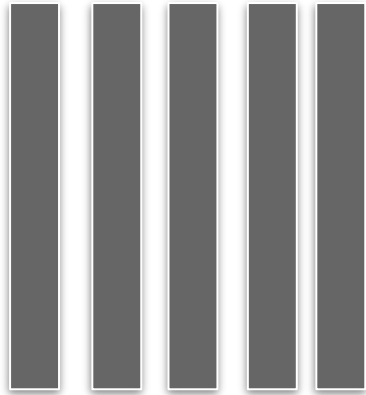
Linear Layout is used to align the children in vertical or horizontal manner.

Attributes of Linear Layout

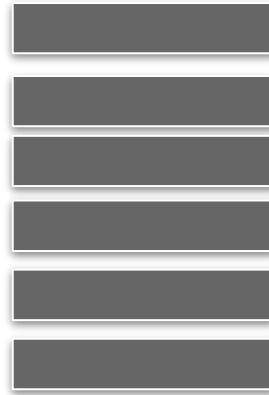
Name of the Attribute	Specification
id	Used for unique identification
baselineAligned	It has true or false value and used for controlling baseline view.
baselineAlignedChildIndex	It specify the child for base.
divider	This is used separator between buttons
gravity	Used to specify child position
orientation	This attribute specify the vertical or horizontal placement.
weightSum	Child weight Sum

Linear Layout (Block Diagram)

orientation="horizontal"



orientation="Vertical"

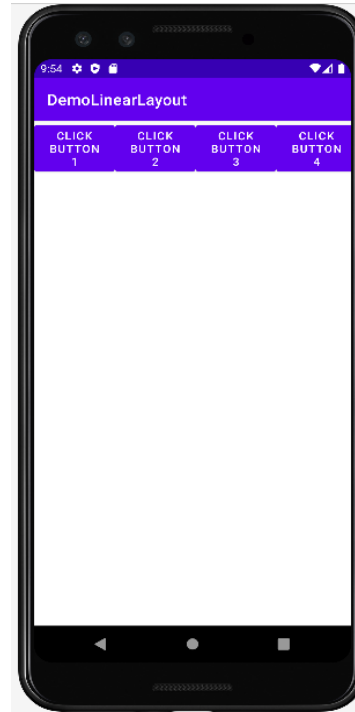


Linear Layout (Real Interface)

orientation="vertical"



orientation="horizontal"



Relative Layout

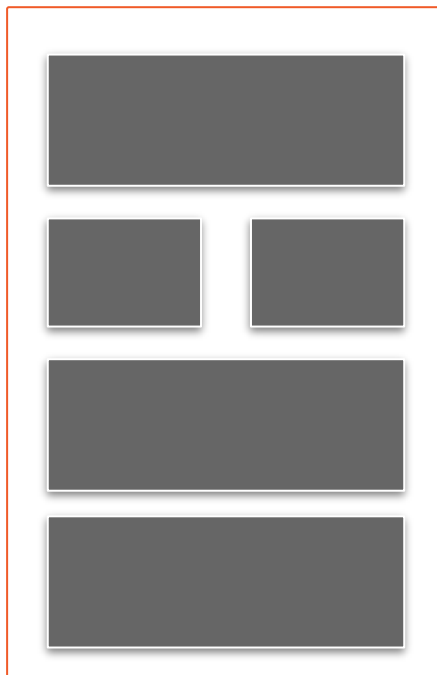
Relative Layout Specify the positions of views relative to other views.

Relative Layout Attributes

Attribute	Description
id	Used to uniquely specify
gravity	Used to specify child position
ignoreGravity	Used to specify which need to be ignored for gravity

Relative Layout (Block Diagram)

App Relative Layout Orientation



Relative Layout (Real Interface)

App Relative Layout Orientation

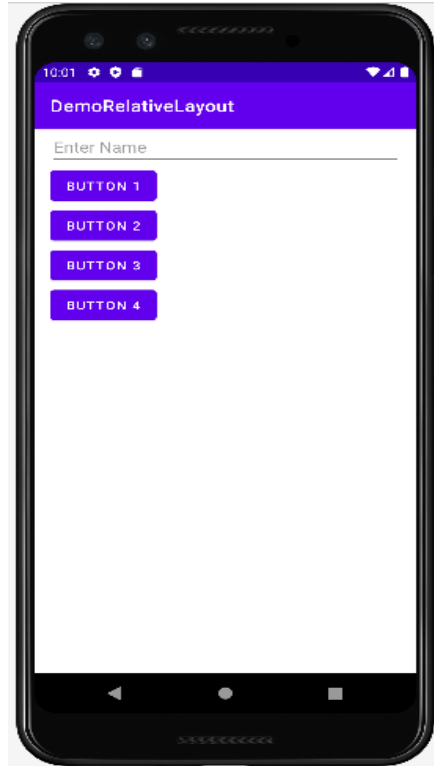


Table Layout

- In this layout views are groups in rows and columns.
- `<TableRow>` is used to add a row in this layout
- Each view is placed in a cell.

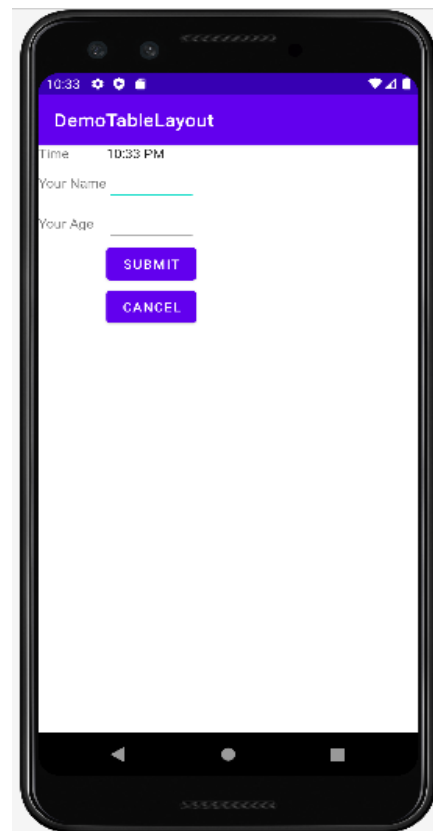
Row1		
Row2 Col1	Row2 Col2	Row2 Col3
Row3 Col1	Row3 Col2	
Row4 Col1	Row4 Col2	
Row5		

Table Layout (Attribute)

Attributes for Table Layout

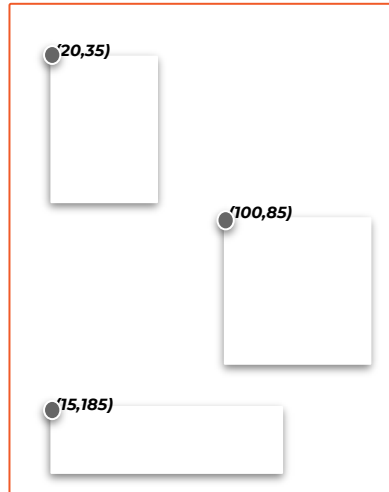
Attribute	Description
id	Used to identify uniquely
collapseColumns	Used to specify collapse for columns
shrinkColumns	Used to specify shrink columns
stretchColumns	Used to specify stretch columns

Table Layout (Real Interface)



Absolute Layout

- This Layout specify the exact location of View.
- It is hard to fix the position of Layout component

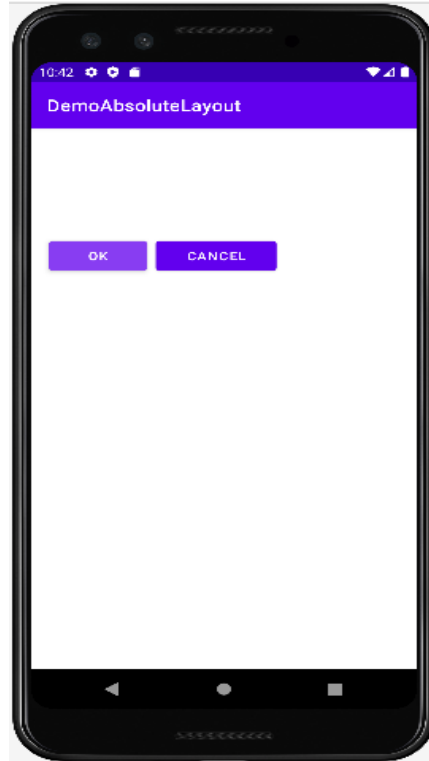


Absolute Layout

Attribute of Absolute Layout

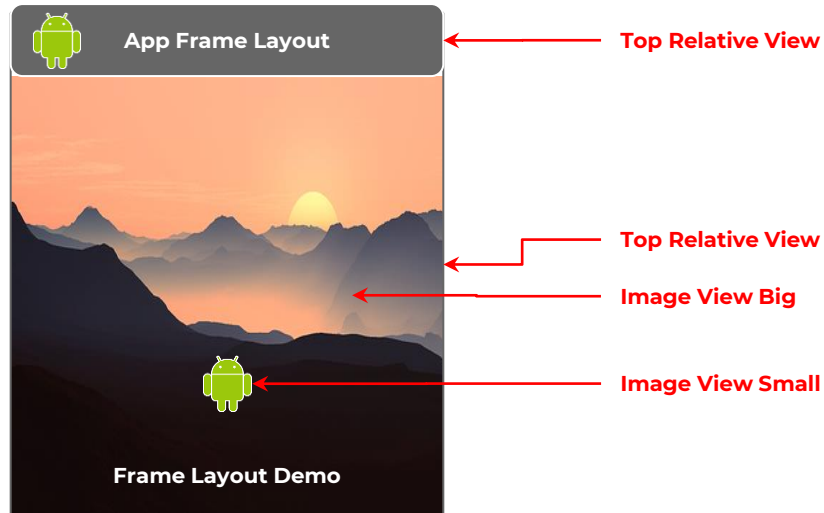
Attribute	Description
id	Used to identify uniquely
layout_x	Used to specify X Coordinate
layout_y	Used to specify Y Coordinate

Absolute Layout (Real Interface)



App Frame Layout

- App Frame layout is used to block a single screen for a single view.
- It is not useful for multiple views.



Frame Layout

Attributes of Frame Layout

Attribute	Description
id	Used to identify Uniquely
foreground	Used to draw the content on front screen
foregroundGravity	Used to specify the drawing gravity on front screen
measureAllChildren	Used to visible/invisible views on screen

App Frame Layout (Real Interface)



ListView Layout (Real Interface)

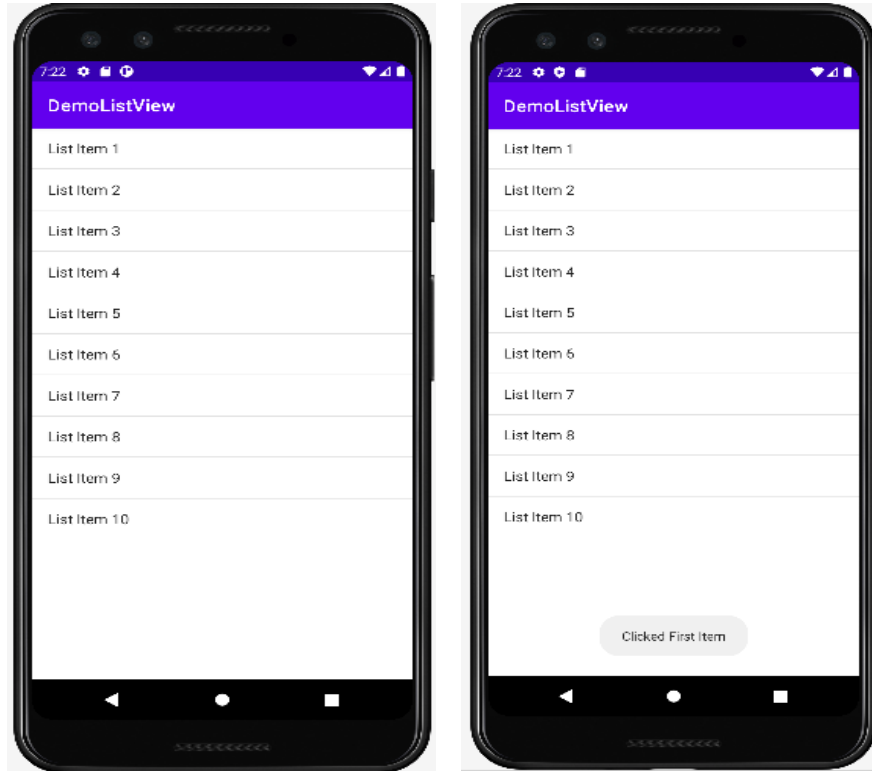
Demo List View Layout	
Keyboard	
Mouse	
Printer	
Speaker	
Monitor	
Hard Disk	
Scanner	

ListView Layout

Attributes of List View Layout

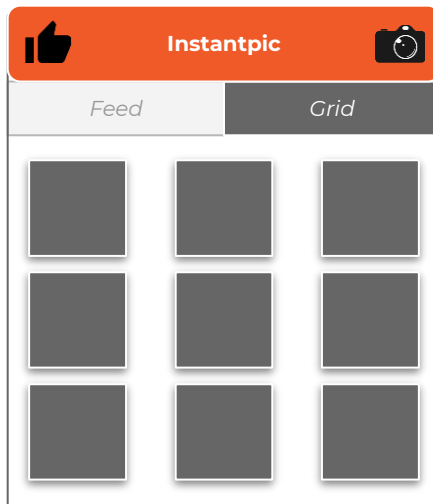
Attribute	Description
id	Used to identify uniquely
divider	Used to separate items in list
dividerHeight	Used to specify the separator width of divider
entries	Used to control number of item in list in single screen
footerDividersEnabled	Has a Bool value to decide the visibility of footer divider
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ListView Layout (Real Interface)



GridView Layout

Android **GridView** shows items in two-dimensional scrolling grid in rows & columns



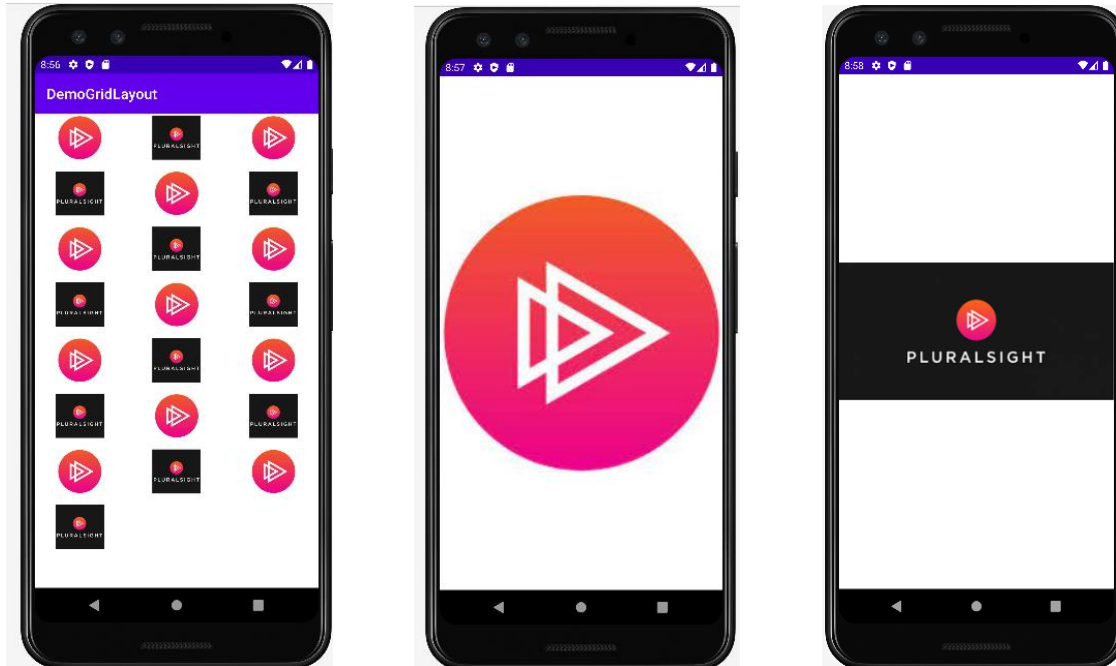
GridView Layout

Attributes of Grid View Layout

Attribute	Description
id	Used to identify uniquely
columnWidth	Used to specify width of each columns. It can be specified in sp, in, or mm, px, dp,
gravity	Specify the gravity in each cell.
horizontalSpacing	Used to specify spacing between cells horizontally
numColumns	Specify the number of columns to show.

GridView Layout

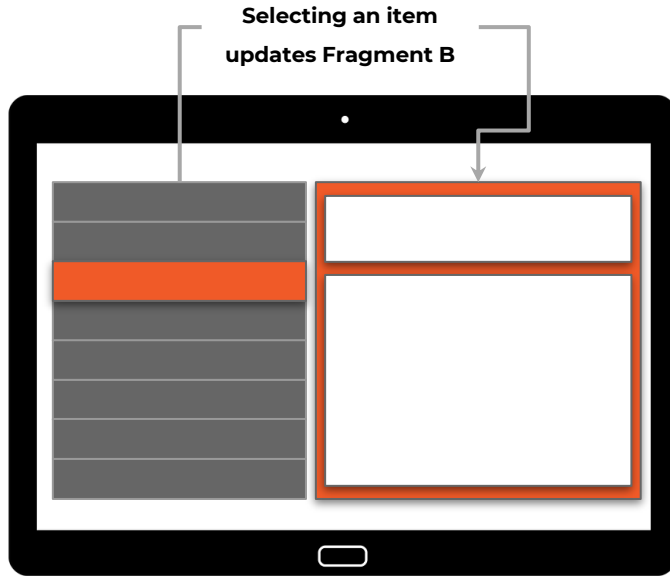
App Grid View Layout is used to represent the View group in scrollable rows and column format. It is populated at runtime using List Adaptor.



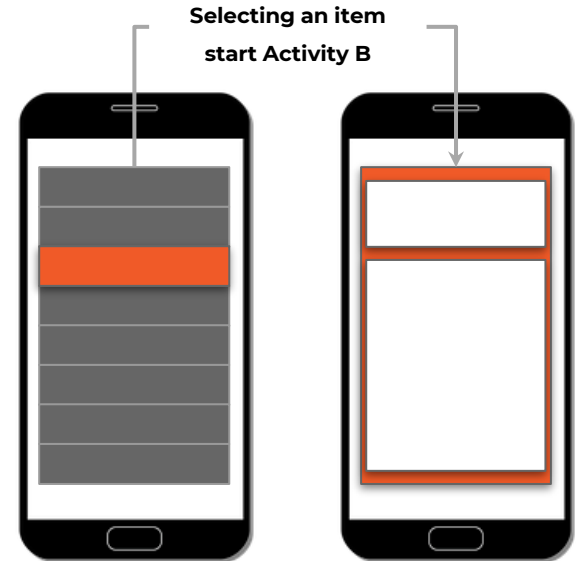
Android Fragments

- App **Fragment** is an activity to provide more modular design of an App.
- It can be called as a sub-activity
- It was difficult to divide screen into multiple sections before fragments.
- At a time one single screen is visible.

Android App Fragments



Activity A contains Fragment A &
Fragment B



Activity A contains
Fragment A

Activity B contains
Fragment B

Questions