

Linear Layouts

A View Group (aka Panel)

VIEW GROUPS



Start
Linear
Layout

XML SYNTAX

```
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical">

    <TextView
        android:text="Happy Birthday"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>

    <TextView
        android:text="You're the best!"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>

</LinearLayout>
```

End Linear
Layout

Child 1 of
Linear
Layout

Child 2 of
Linear
Layout

MEET THE VIEWS



Ray
Relative Layout



Laura
Linear Layout



Tommy
TextView



Ivy
ImageView

PARENTAL SUPERVISION



Laura
LinearLayout

- Tommy, sit here.
- Ivy, sit over there.
- Don't move!



Tommy
TextView



Ivy
ImageView



PARENTAL SUPERVISION



Laura
LinearLayout

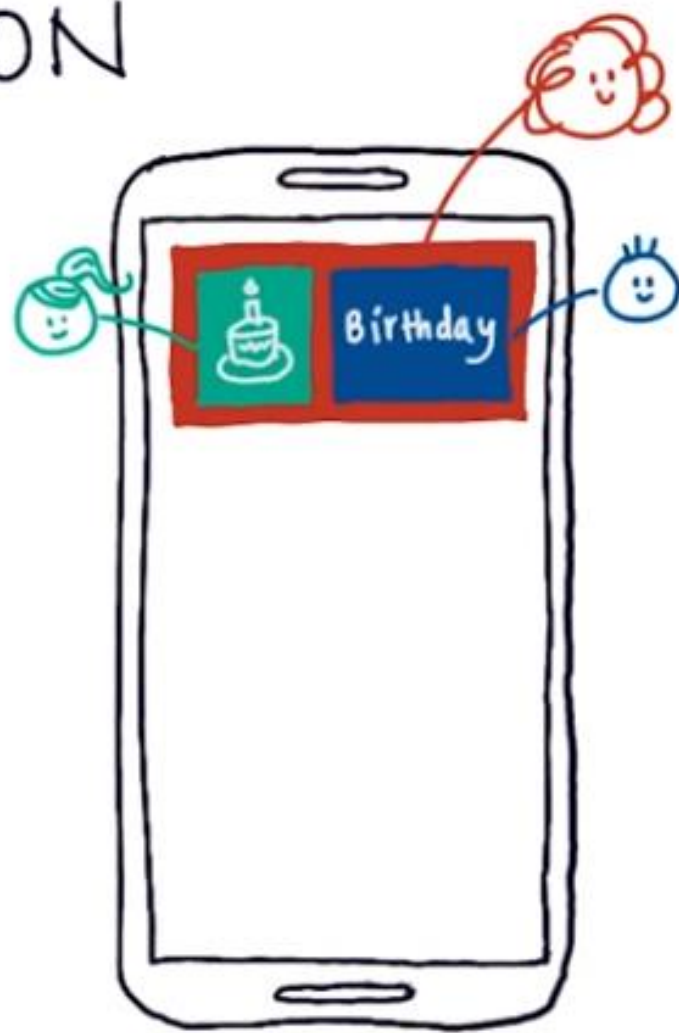
— Tommy, sit here.
— Ivy, sit over there.
— Don't move!



Tommy
TextView



Ivy
ImageView



VIEW GROUPS

1. How many views are there?

2. The mountain image is a _____ of the red ViewGroup.

- ☐ child ☐ parent

3. The red ViewGroup is the _____ of the "Hiking" TextView.

- ☐ child ☐ parent

4. Which views are siblings of each other?



VIEW GROUPS

1. How many views are there?
2. The mountain image is a _____ of the red ViewGroup.
☒ child ☐ parent
3. The red ViewGroup is the _____ of the "Hiking" TextView.
☐ child ☒ parent
4. Which views are siblings of each other?



LINEAR LAYOUT

Vertical column



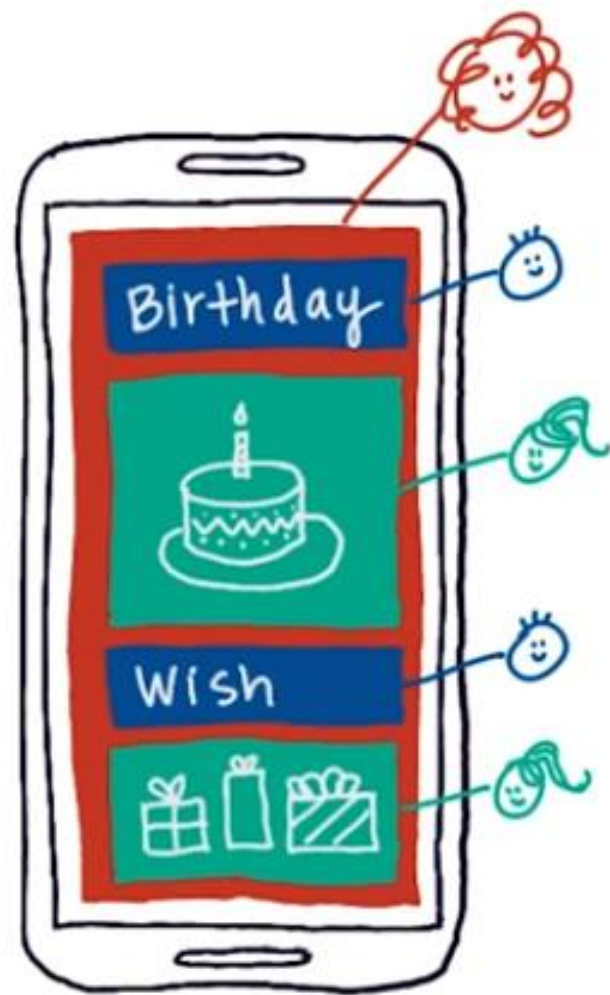
Laura
LinearLayout



Tommy
TextView



Ivy
ImageView



LINEAR LAYOUT

Horizontal row



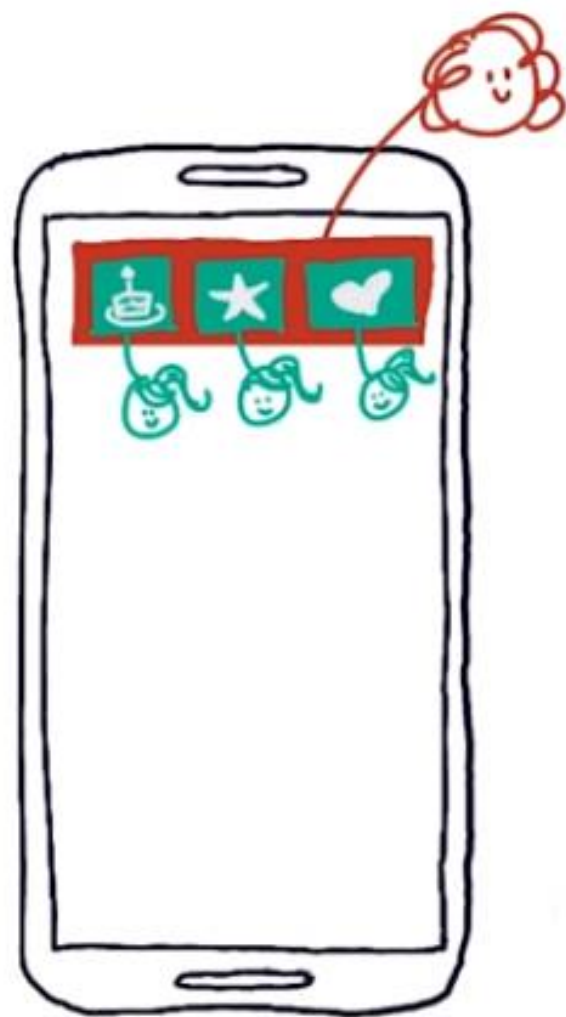
Laura
LinearLayout



Tommy
TextView



Ivy
ImageView



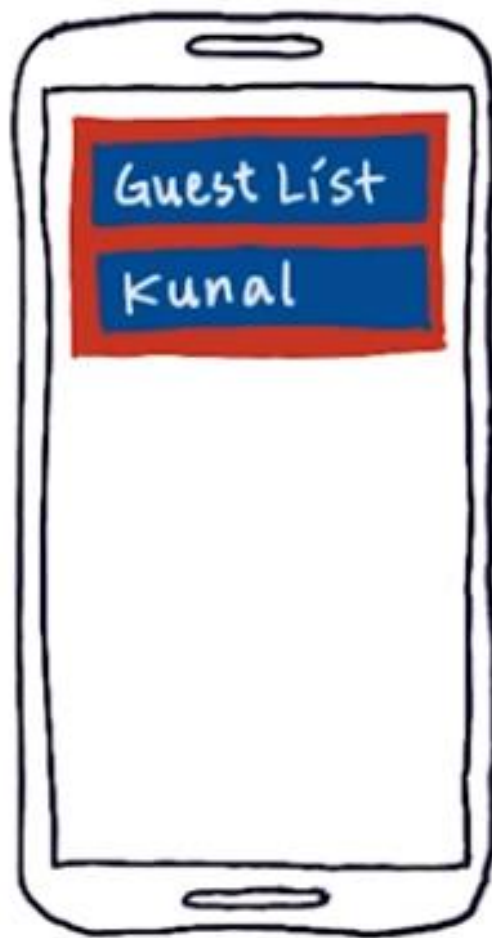
VIEW GROUPS

```
<LinearLayout
    android:orientation="vertical"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content">

    <TextView
        android:text="Guest List"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

    <TextView
        android:text="Kunal"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</LinearLayout>
```



DIFFERENT WIDTHS ON CHILD VIEWS

200 dp



wrap-content



match-parent



DIFFERENT HEIGHTS ON CHILD VIEWS

200 dp



wrap-content



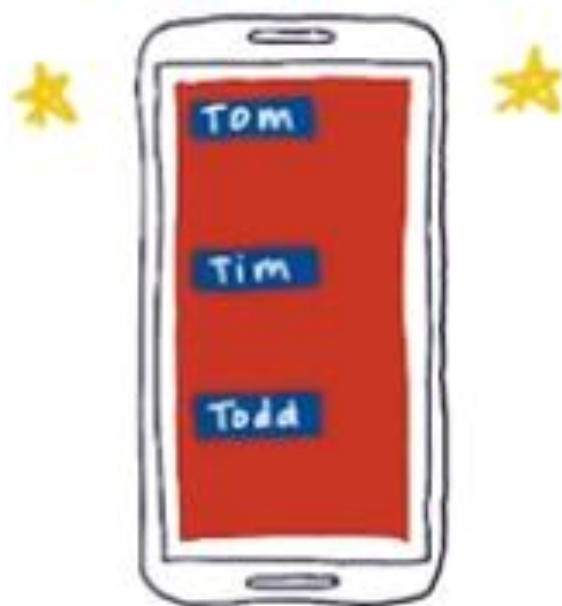
match-parent



What we have:

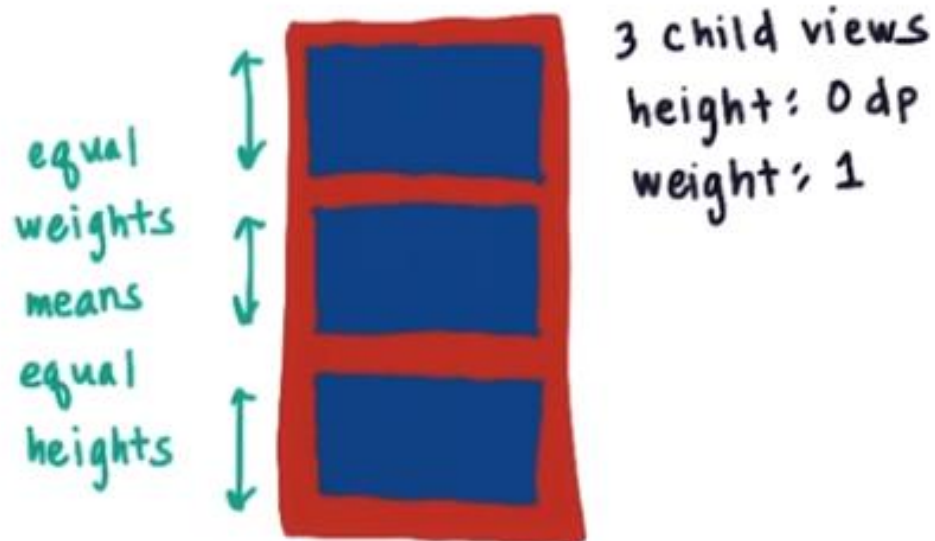


What we want:



LINEAR LAYOUT WEIGHT

Vertical Linear Layout



Horizontal Linear Layout

equal weights means equal widths



3 child views
width: 0 dp
weight: 1

EMAIL APP



Vertical Linear Layout

Edit Text

match-parent

wrap-content

0

Edit Text

match-parent

wrap-content

0

Edit Text

match-parent

wrap-content

0

Edit Text

match-parent

0dp

1

HANGOUTS APP

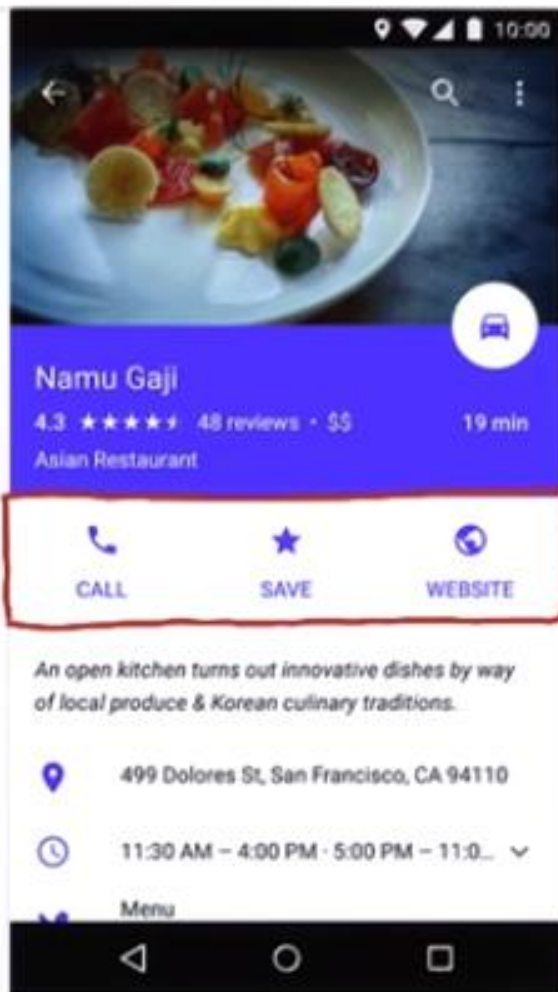


Horizontal linear layout

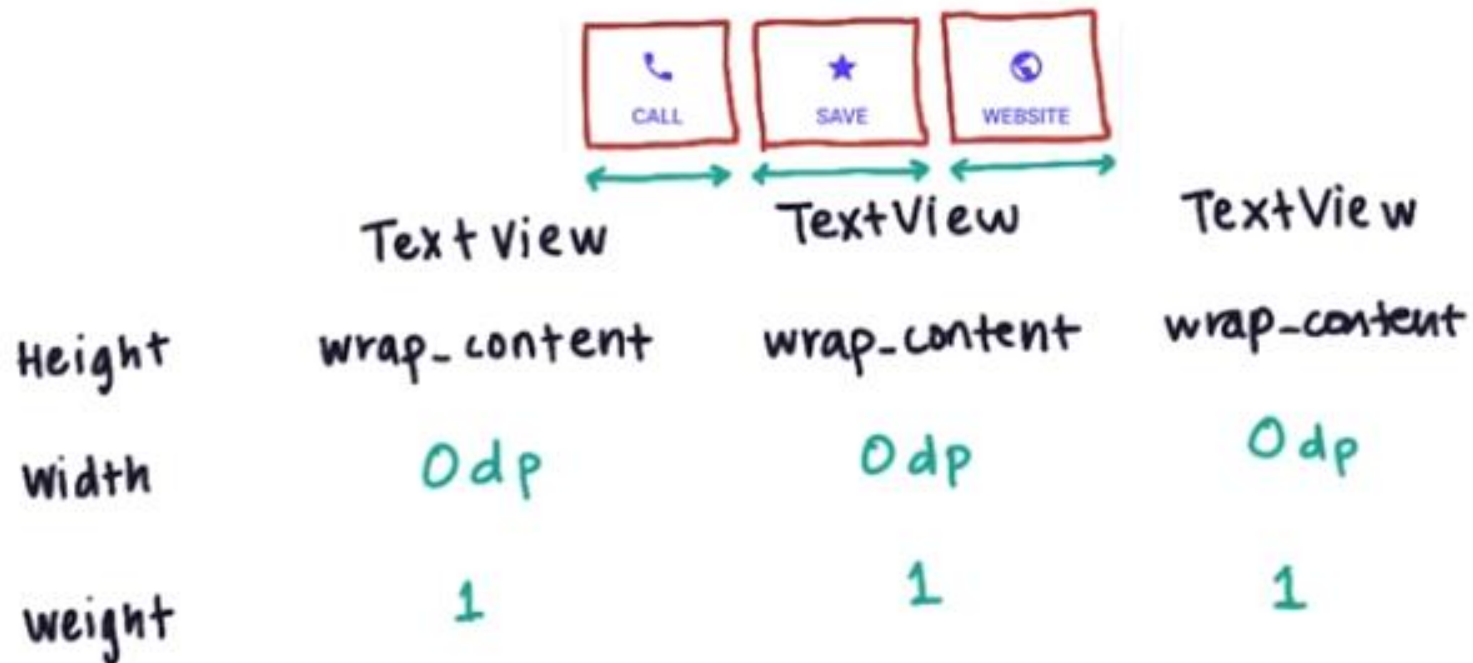


	Image View	EditText	Image View
Height	wrap-content	wrap-content	wrap-content
Width	wrap-content	0dp	wrap-content
weight	0	1	0

MAPS APP



Horizontal Linear layout



LINEAR LAYOUT WEIGHT

Build this layout !



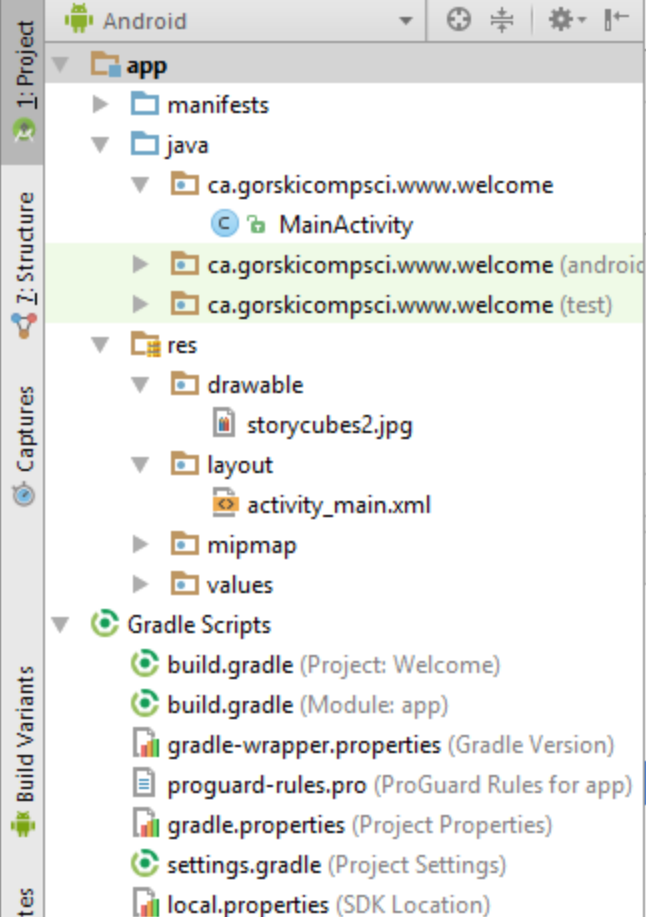
Start with XML provided below.

1. Determine width of each view first
2. Determine height of each view
3. Make sure the image  takes up any remaining height in parent Linear layout

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help



Welcome app src main res layout activity_main.xml



activity_main.xml x MainActivity.java x

Palette

All
Widgets
Text
Layouts

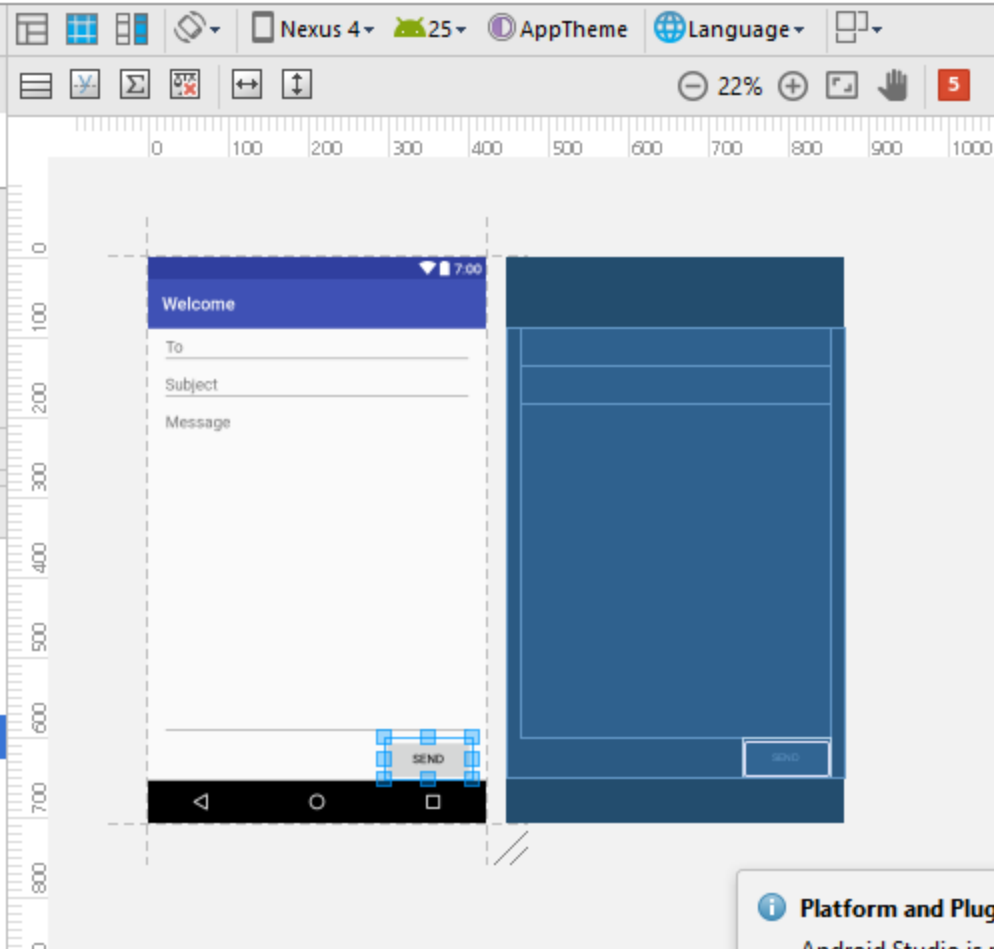
Ab TextView
OK Button
ToggleButt
CheckBox

Component Tree

LinearLayout (vertical)

- to (EditText)
- subject (EditText)
- message (EditText)
- OK send (Button) - "Send"

Design Text



Properties

ID send

layout_width 100dp

layout_heig... p_content

Button

style buttonStyl

background

backgroun...

stateListAni...

elevation

visibility none

onClick none

TextView

text Send

text

contentDes...

Platform and Plugin Updates
Android Studio is ready to [update](#).

TODO Android Monitor Messages Terminal

Event Log Gradle Console

Gradle build finished in 9s 180ms (16 minutes ago)

n/a n/a Context: <no context>

LINEAR LAYOUT WEIGHT

Vertical Linear Layout



Image View

width	Height	Weight
match-parent	0dp	1

Text view
Text view

match-parent	wrap-content	0
match-parent	wrap-content	0

AN ANDROID APP

Resources



Java code





The Drawable Folder



drawable
folder

`android:src="@drawable/androidparty"`

Now



Things Todo:

- text is much larger
- text font is different
- text is white
- image is expanded to fill the screen
- text is not pushed against side of screen

