

# Android Development

CYBERLABS



# Why Android Development

- Open source code – Make what you want
- Google Play Store– The Huge App Market
- Easy to Integrate
- It's Fun



# Platforms



## **Android Studio**

- IDE developed by google.
- Uses Xml and Java/Kotlin programming language.
- Mostly preferred by developers as it has wide community support.



## **Xamarin**

- Used to build android, IOS and windows app.
- Uses C# as programming language.



## **React Native**

- React Native is UI focused platform , which makes the apps load quickly and gives a smoother feel.
- It helps you create exciting mobile apps with the help of JavaScript, HTML, CSS.

# Android SDK

The Android SDK (software development kit) is a set of development tools used to develop applications for Android platform.

The Android SDK includes the following:

- SDK Build-Tools is a component of the Android SDK required for building Android apps.
- SDK Tools is a downloadable component for the Android SDK. It includes the complete set of development and debugging tools for the Android SDK like emulator, sdcard, sqlite and apk builder etc



# Gradle Files

- Every Android project needs a gradle for generating an apk from the *.java* and *.xml* files in the project.
- In Layman terms , a gradle takes all the source files (java and XML) and apply appropriate tools, e.g., converts the java files into dex files and compresses all of them into a single file known as apk that is actually used.



**ANDROID DEVELOPER'S  
REACTION**



**WHEN GRADLE BUILD  
SUCCESSFULLY**

#viral india

# How To Start



# AN ANDROID APP

## Resources



## Java code



logic for the app

Components of an Android App



# Become a Developer

STEP 1:

*Settings > About phone > Build number.*

STEP 2 :

Tap *Build number* seven times.

STEP 3:

Go back to *Settings*, where you'll find a *Developer options* entry in the menu.

when you tap build  
number 7 times on  
android

You are now a developer!

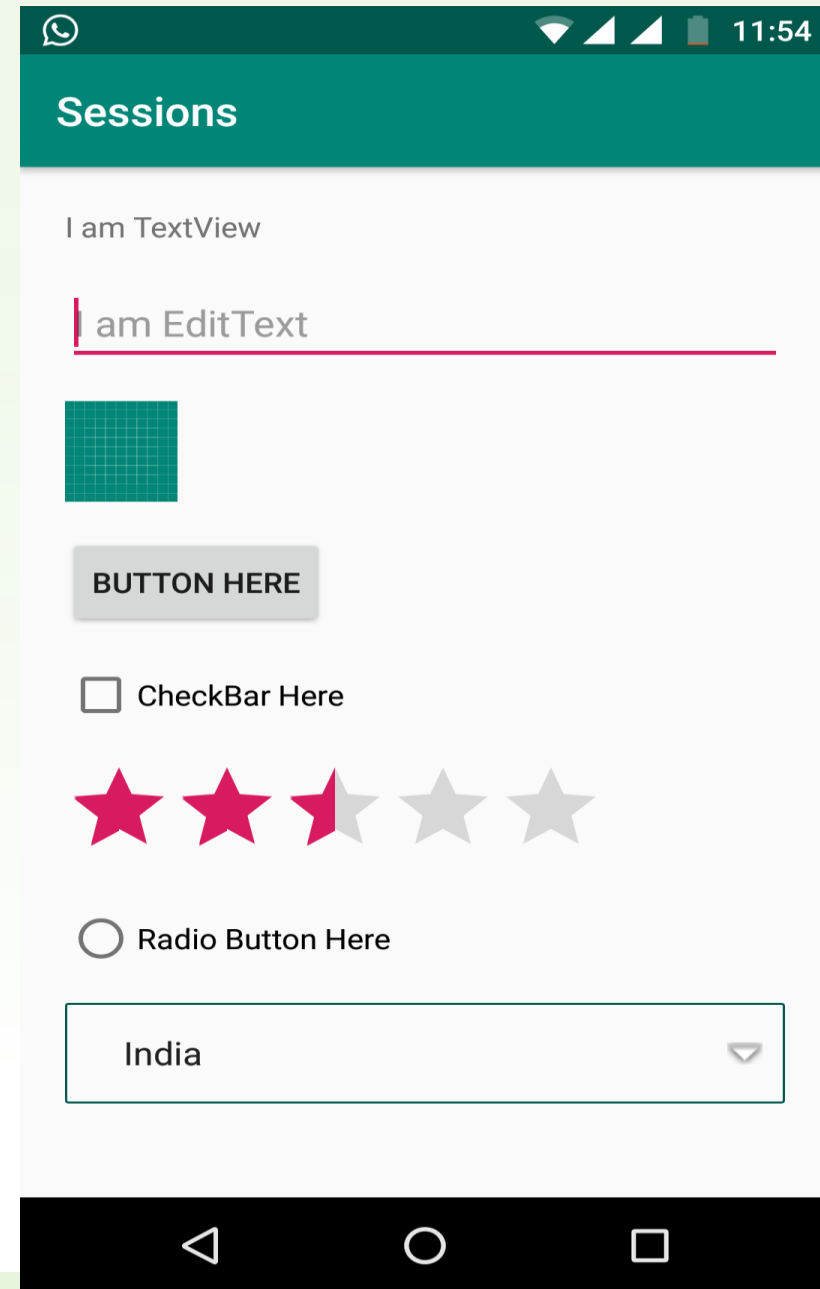


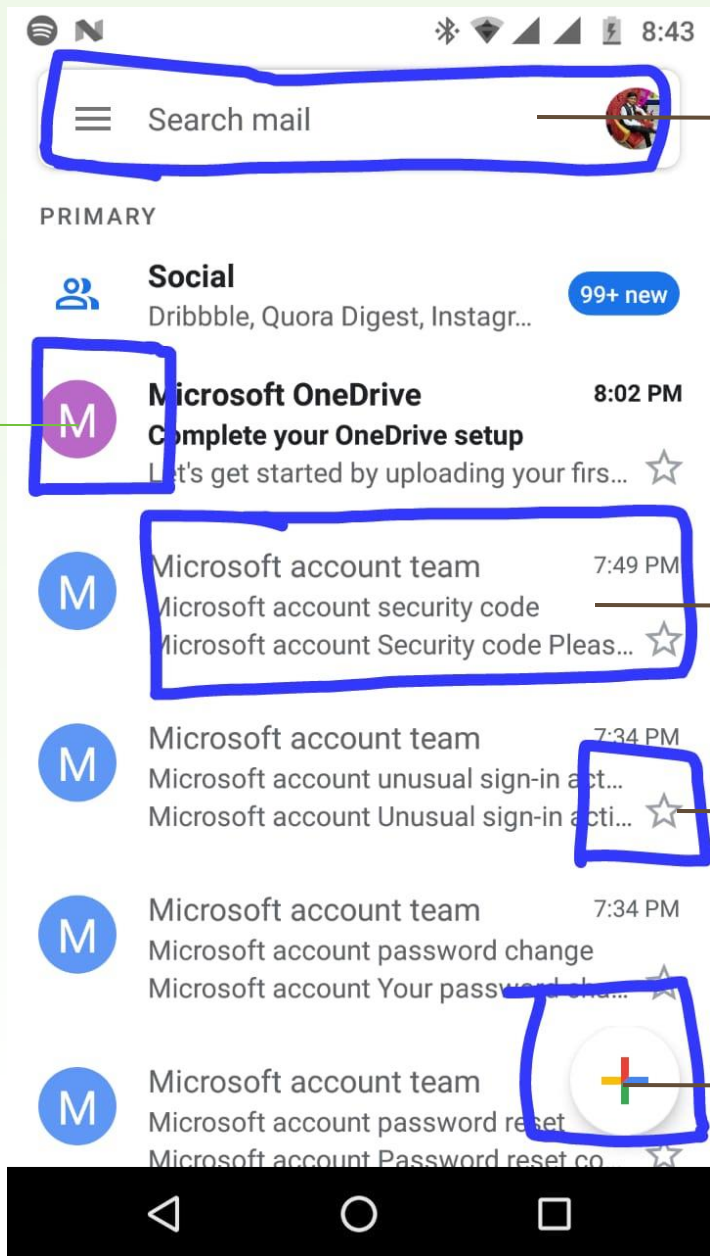
# Creating Layouts

LEARNING XML

# Views

- TextView
- EditText
- ImageView
- Button
- Spinner
- CheckBox
- RatingBar
- RadioButton





1.

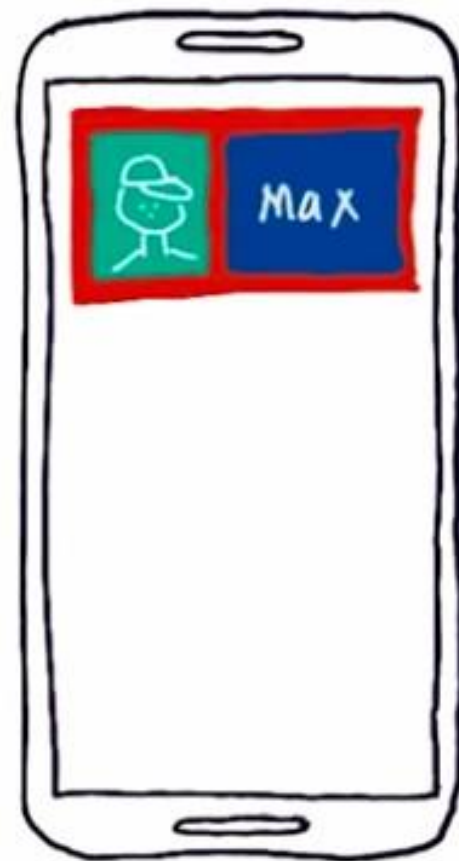
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3.

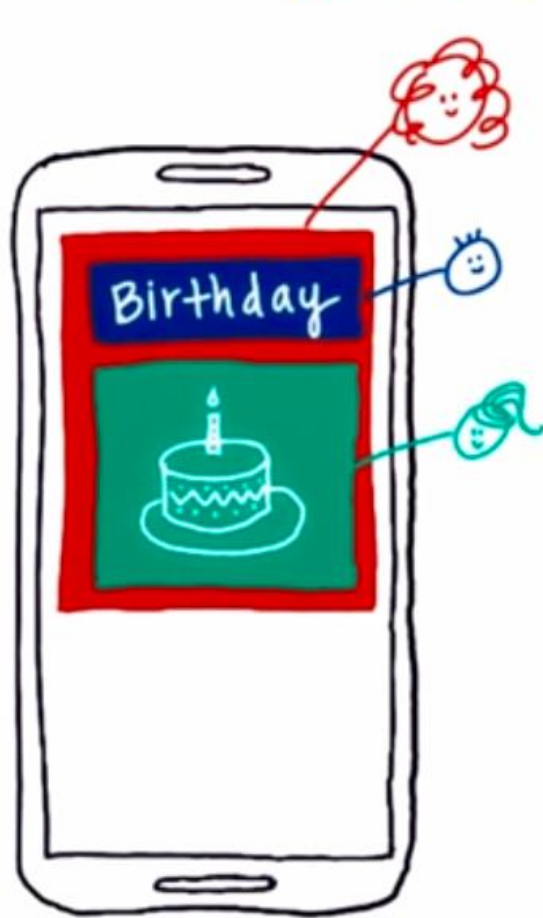
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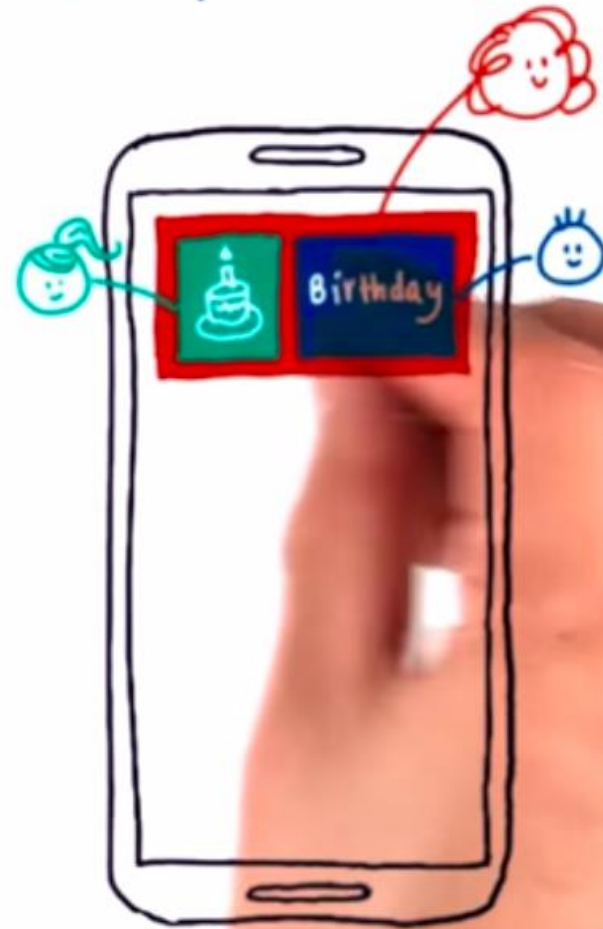
# VIEW GROUPS



# LINEAR LAYOUT



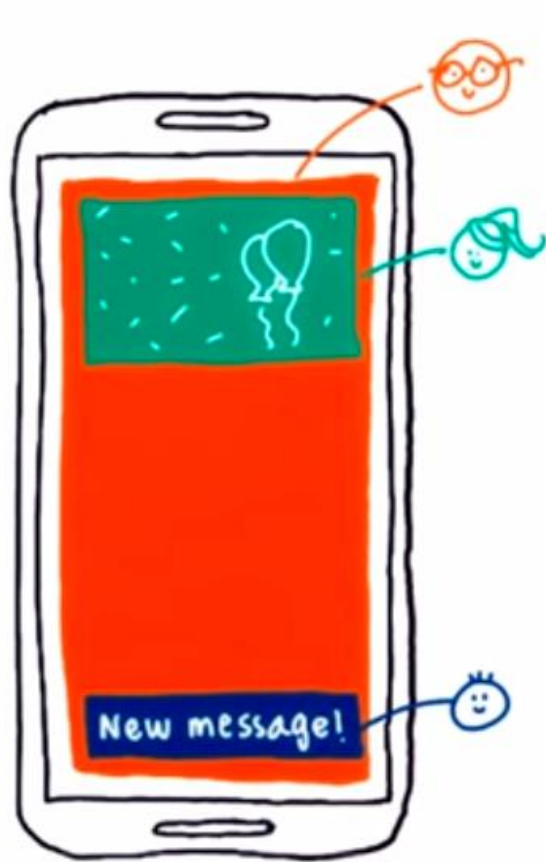
Vertical



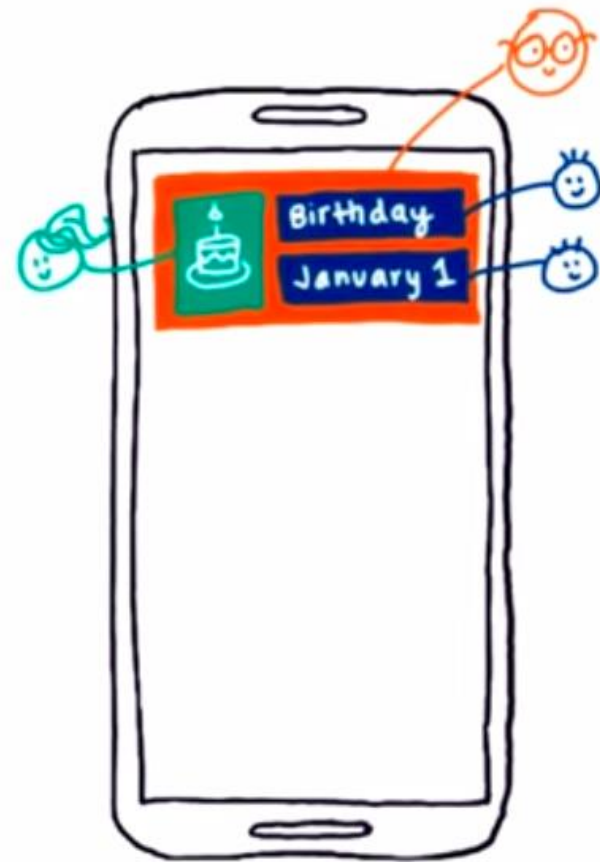
Horizontal



# RELATIVE LAYOUT

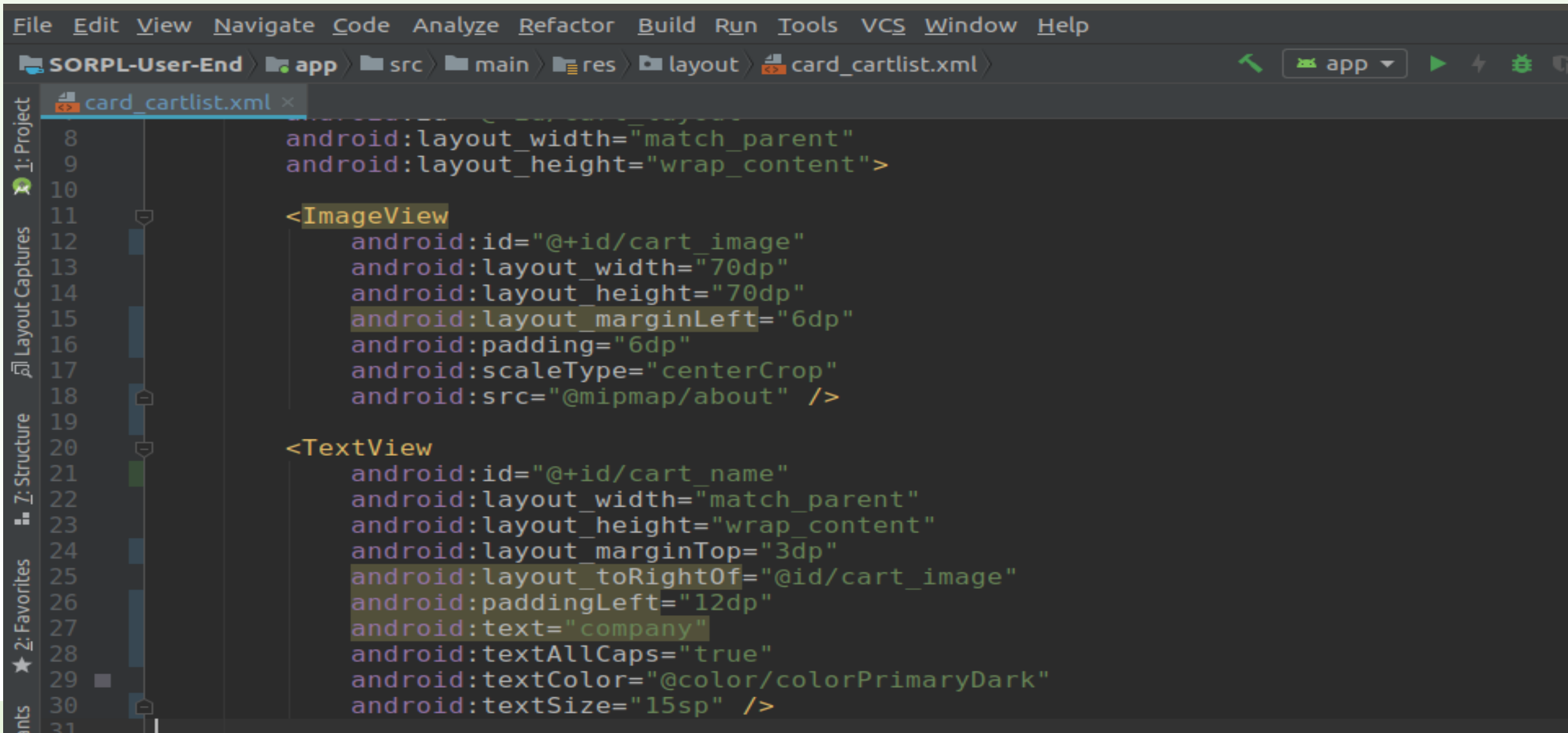


Relative to Parent



Relative to other children

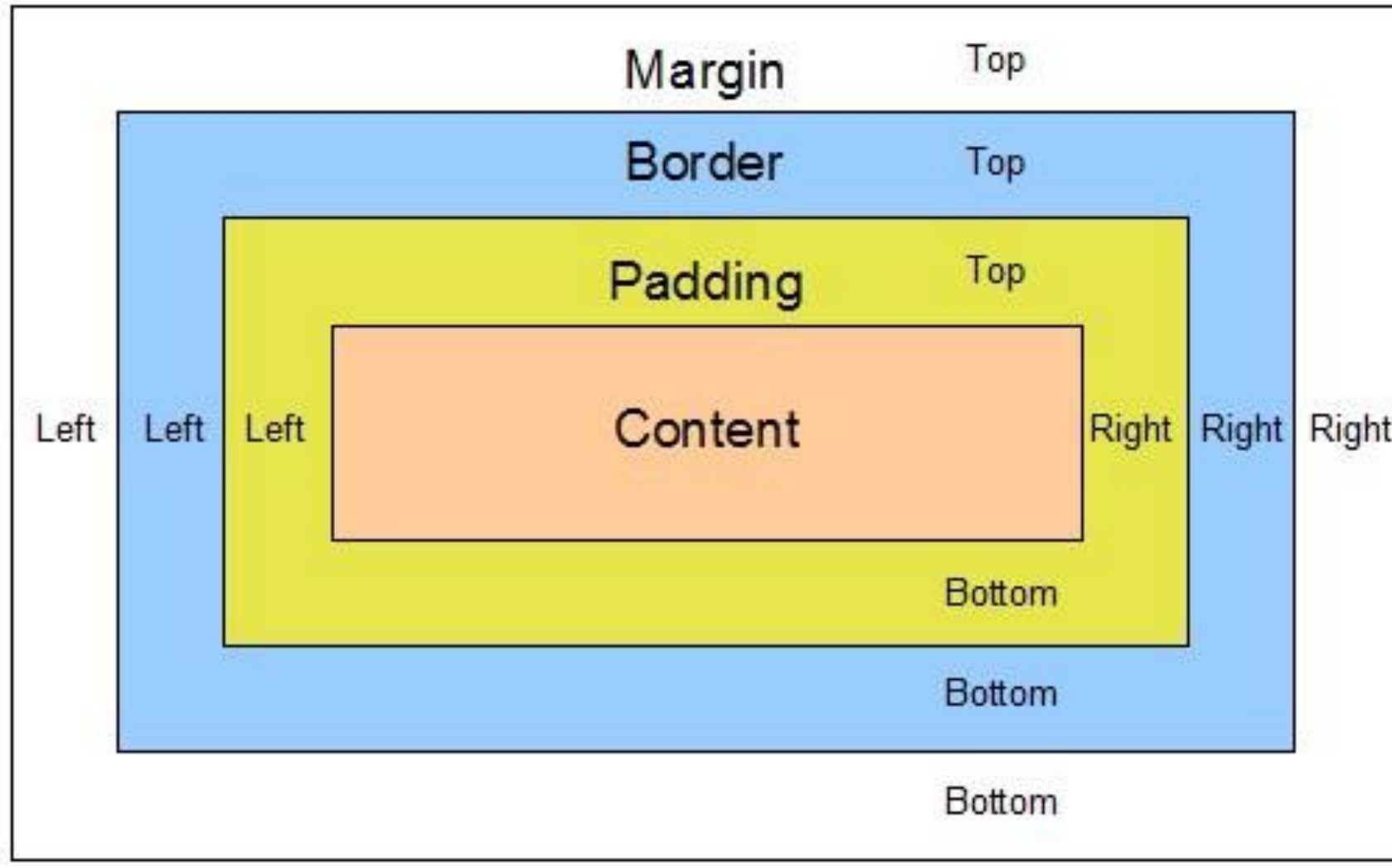
# Attributes



```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
SORPL-User-End > app > src > main > res > layout > card_cartlist.xml
card_cartlist.xml x
8 android:layout_width="match_parent"
9 android:layout_height="wrap_content">
10
11 <ImageView
12     android:id="@+id/cart_image"
13     android:layout_width="70dp"
14     android:layout_height="70dp"
15     android:layout_marginLeft="6dp"
16     android:padding="6dp"
17     android:scaleType="centerCrop"
18     android:src="@mipmap/about" />
19
20 <TextView
21     android:id="@+id/cart_name"
22     android:layout_width="match_parent"
23     android:layout_height="wrap_content"
24     android:layout_marginTop="3dp"
25     android:layout_toRightOf="@id/cart_image"
26     android:paddingLeft="12dp"
27     android:text="company"
28     android:textAllCaps="true"
29     android:textColor="@color/colorPrimaryDark"
30     android:textSize="15sp" />
31
```



# Padding vs margin

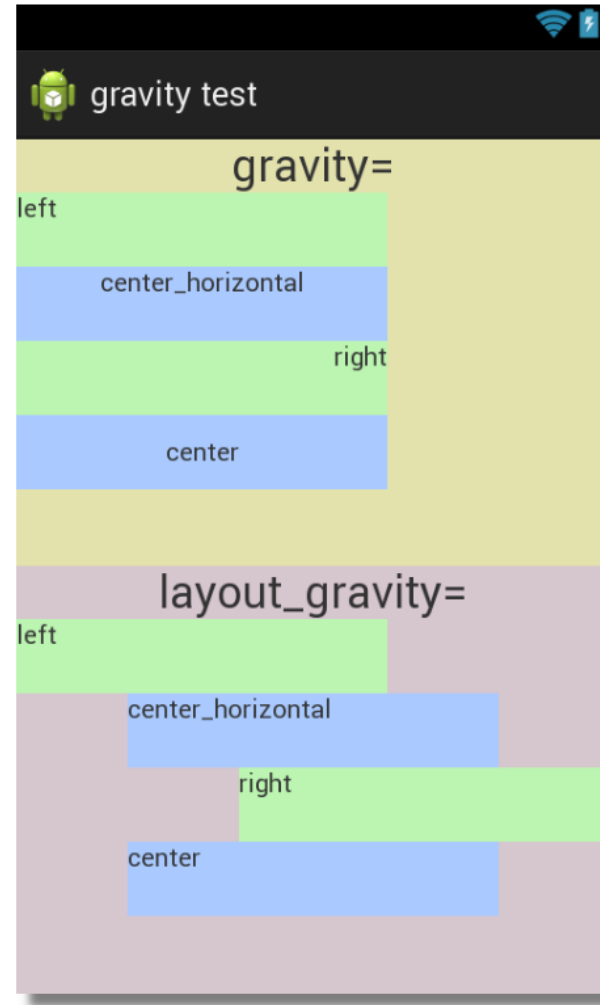


# Gravity

**android:gravity** is used to specify how to place the content of the object within the object itself.

In another word, **android:gravity** is used to specify the **gravity** of the content of the view.

**android:layout\_gravity** sets the gravity of the View or Layout relative to its parent.



# Live Coding Time ! HURRAY

- Android Studio
- <https://labs.udacity.com/android-visualizer/>



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