ANDROID FUNDAMENTALS

Seven Advanced Academy

Text, Scrolling Views

Lesson 3

Contents

- TextView
- ScrollView
- Documentation
- Tutorials and codelabs
- Blogs and videos
- Source code for the practicals

Tasks

- Create the Scrolling Text app
- Add two TextView elements for the article heading and subheading
- Use TextAppearance styles and colors for the article heading and subheading
- Use HTML tags in the text string to control formatting
- Use the lineSpacingExtra attribute to add line spacing for readability

Tasks Cont.

- Add a ScrollView to the layout to enable scrolling a TextView element.
- Add the autoLink attribute to enable URLs in the text to be active and clickable.
- Explore and use Android developer resources.
- Use developer resources to figure out how to add an icon to the home screen of your device.
- When this icon is clicked, your app launches.

TextView

TextView for Text

- **TextView** is a view for displaying single and multi-line text
- **EditText** is a subclass of TextView with editable text
- Controlled with layout attributes
- Set text statically from a string resource in XML, or dynamically from Java code and any source

Creating TextView in XML

```
  <TextView android:id="@+id/textview"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="@string/my_story"/>
```

Common TextView Attributes

- android:**text**—text to display
- android:**textColor**—color of text
- android:**textAppearance**—predefined style or theme
- android:**textSize**—text size in sp
- android:**textStyle**—normal, bold, italic, or bold|italic
- android:**typeface**—normal, sans, serif, or monospace
- android:**lineSpacingExtra**—extra space between lines in sp

Formatting Active Web Links

```
 <string name="article_text">... www.rockument.com
...</string>

<TextView
   android:id="@+id/article"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:autoLink="web"
   android:text="@string/article_text"/>
```

Don’t use HTML for a web link in free-form text

autoLink values:"web", "email", "phone", "map", "all"

Creating TextView in Java Code

```
 TextView myTextview = new TextView(this);
myTextView.setWidth(LayoutParams.MATCH_PARENT);
myTextView.setHeight(LayoutParams.WRAP_CONTENT);
myTextView.setMinLines(3);
myTextView.setText(R.string.my_story);
myTextView.append(userComment);
```

ScrollView

What about large amounts of text?

- The user may need to scroll
  News stories, articles, ...
- To allow users to scroll a TextView, embed it in a ScrollView
- Other Views can be embedded in a ScrollView
  LinearLayout, TextView, Button, ...

ScrollView for Scrolling Content

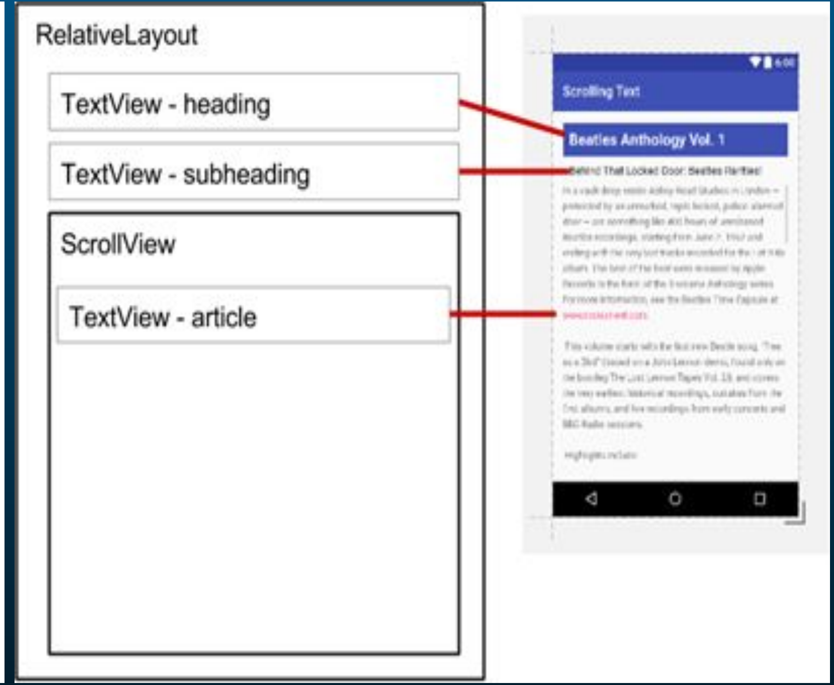
- ScrollView is a subclass of FrameLayout
- Can only hold **one** view (which can be a ViewGroup)
- Holds all content in memory
- Good for long texts, complex layouts
- Do not nest multiple scrolling views
- Use HorizontalScrollView for horizontal scrolling
- Use a RecyclerView for lists

ScrollView Layout with one TextView

```
<ScrollView
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_below="@id/article_subheading">

 <TextView
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   .../>

</ScrollView>
```

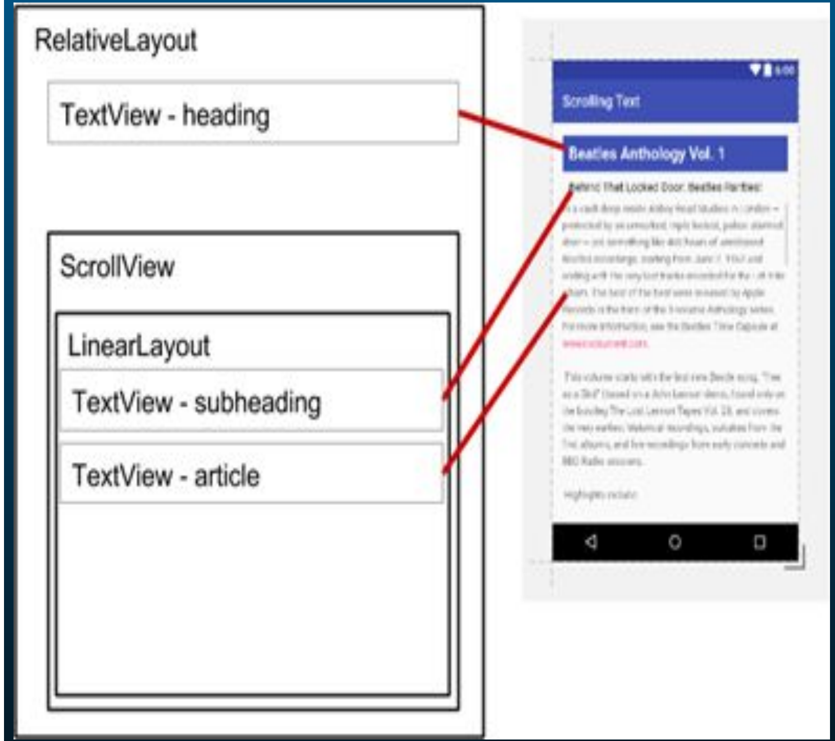


ScrollView Layout with a View Group

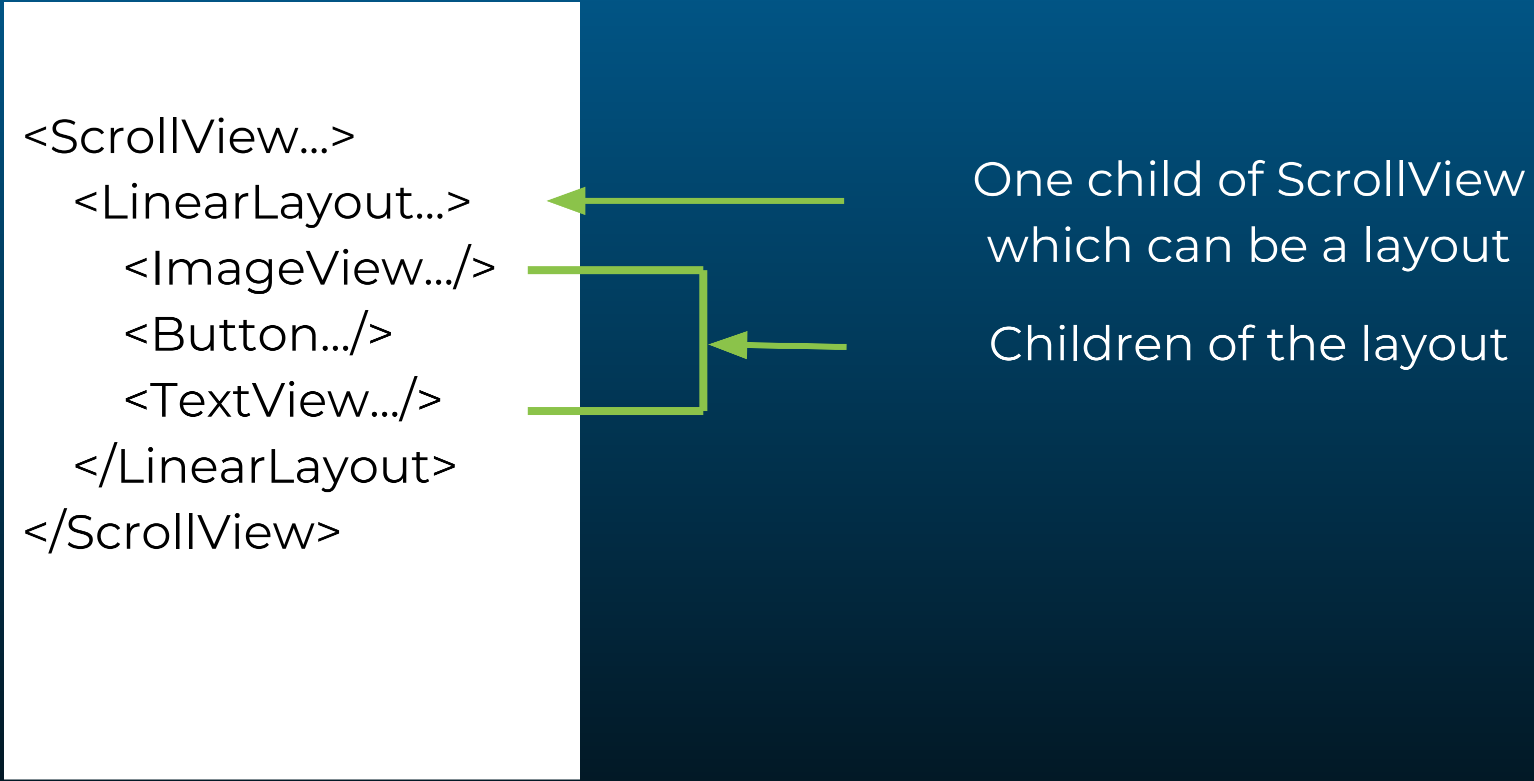
```
 <ScrollView ...
  <LinearLayout
     android:layout_width="match_parent"
     android:layout_height="wrap_content"
     android:orientation="vertical">

     <TextView
        android:id="@+id/article_subheading"
        .../>

     <TextView
        android:id="@+id/article" ... />
  </LinearLayout>
</ScrollView>
```



ScrollView with Image and Button



```
<ScrollView...>
    <LinearLayout...>
        <ImageView.../>
        <Button.../>
        <TextView.../>
    </LinearLayout>
</ScrollView>
```

One child of ScrollView which can be a layout

Children of the layout

The Scrolling Text App

App Overview

- The Scrolling Text app demonstrates the ScrollView UI component. ScrollView is a view group that in this example contains a TextView

- It shows a lengthy page of text—in this case, a music album review—that the user can scroll vertically to read by swiping up and down

Let’s code

TURNIP 2000
INITIATING... WAIT... WAIT A BIT MORE... ALMOST
WELCOME TO FUNKYTOWN, BROTHER
BEAT DROPPING
BEAT SUCCESSFULLY DROPPED. IS IT FRESH? Y/N
PHASE? Y/N
INITIATING... PLEASE WAIT
SUCCESSFULLY INITIATED.

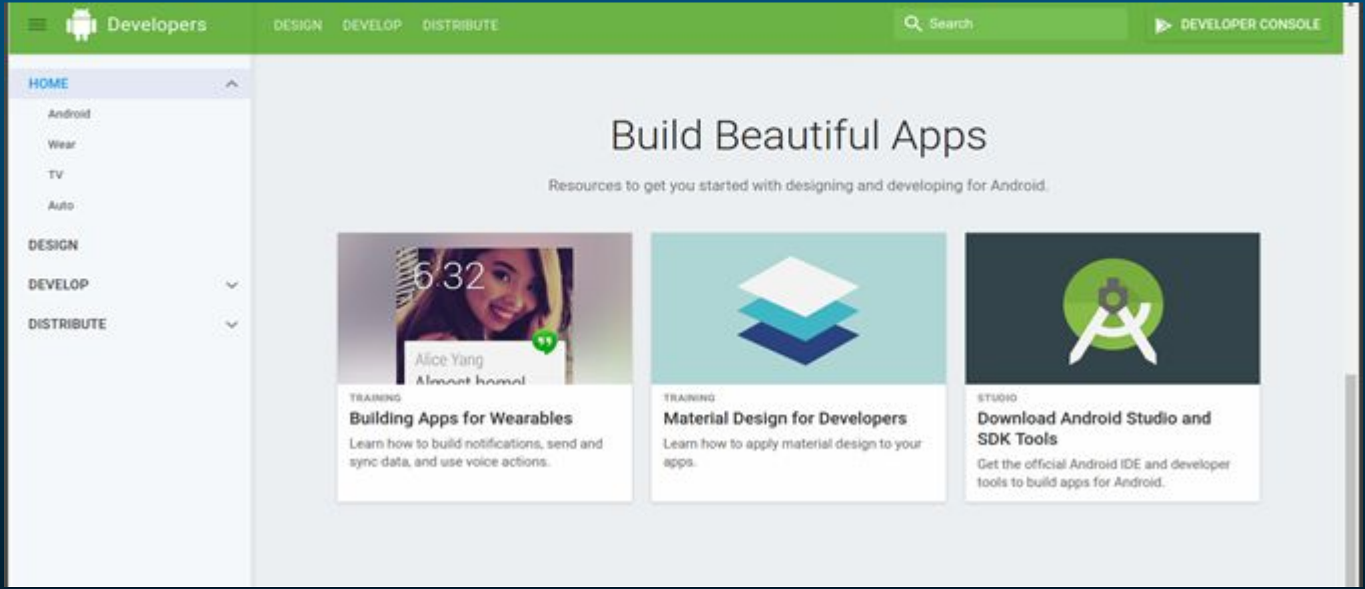
Source Code

- ScrollingText
- ScrollingText2
- ScrollingText3

Resources that Help You Learn

Official Documentation

developer.android.com



Build Beautiful Apps

Resources to get you started with designing and developing for Android.

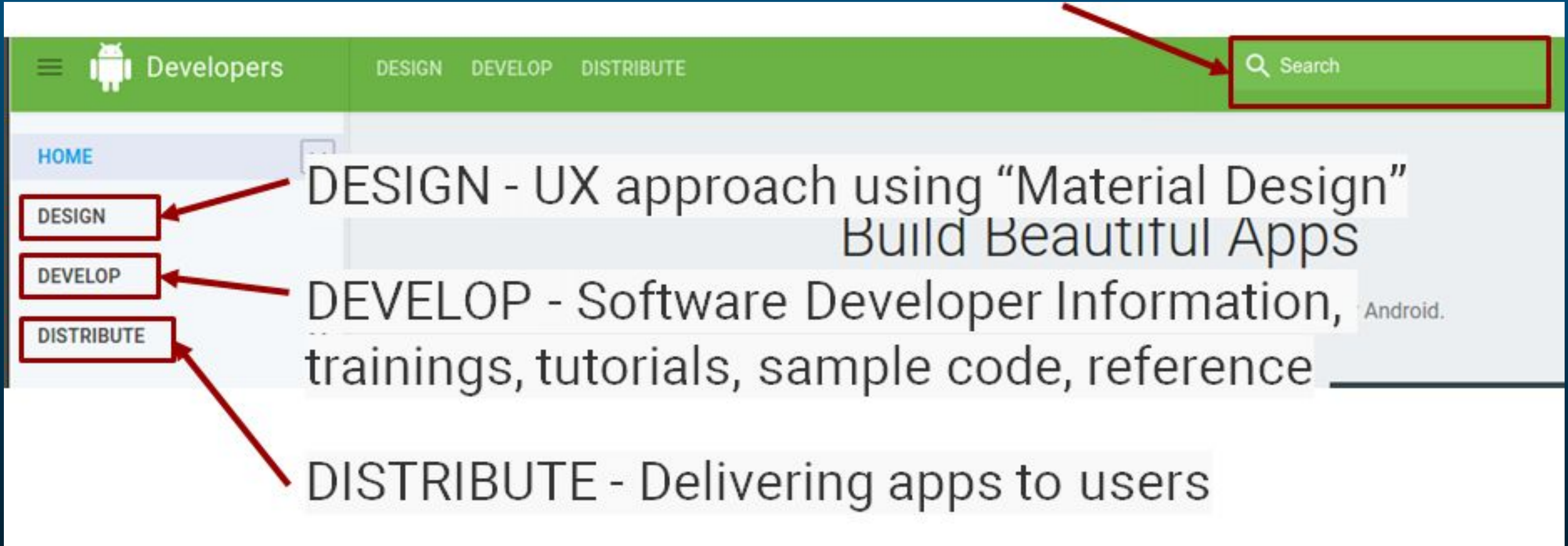
TRAINING
Building Apps for Wearables
Learn how to build notifications, send and sync data, and use voice actions.

TRAINING
Material Design for Developers
Learn how to apply material design to your apps.

STUDIO
Download Android Studio and SDK Tools
Get the official Android IDE and developer tools to build apps for Android.

Documentation Structure

Search



DESIGN - UX approach using “Material Design”

DEVELOP - Software Developer Information, trainings, tutorials, sample code, reference

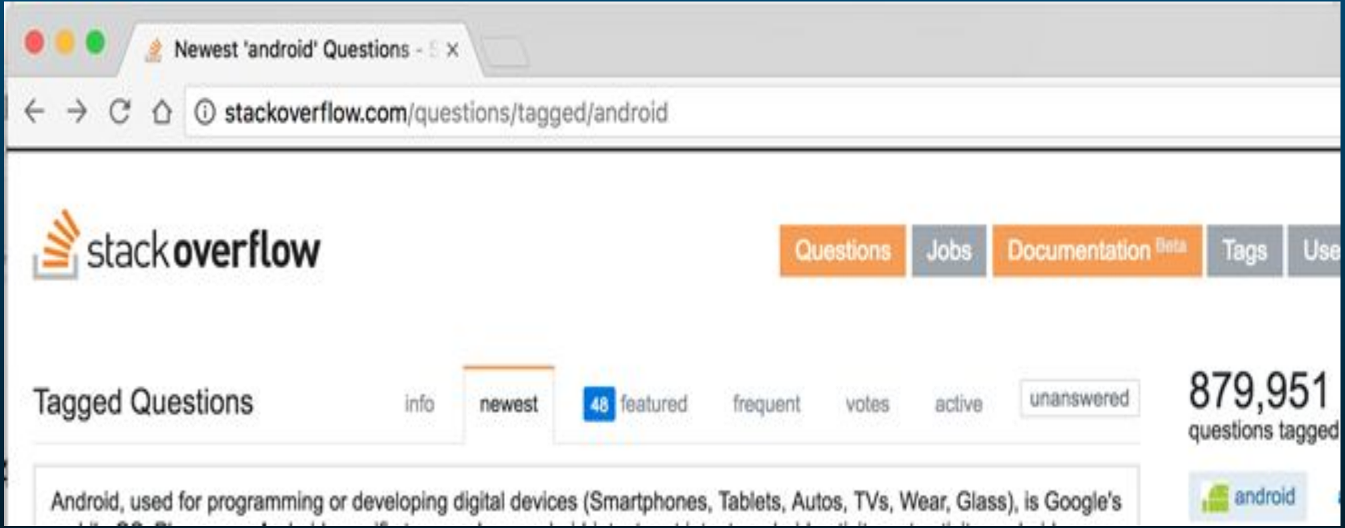
DISTRIBUTE - Delivering apps to users

Stackoverflow.com

stackoverflow.com/questions/ tagged/android

Question/Answer format

Android, Java language, other programming topics

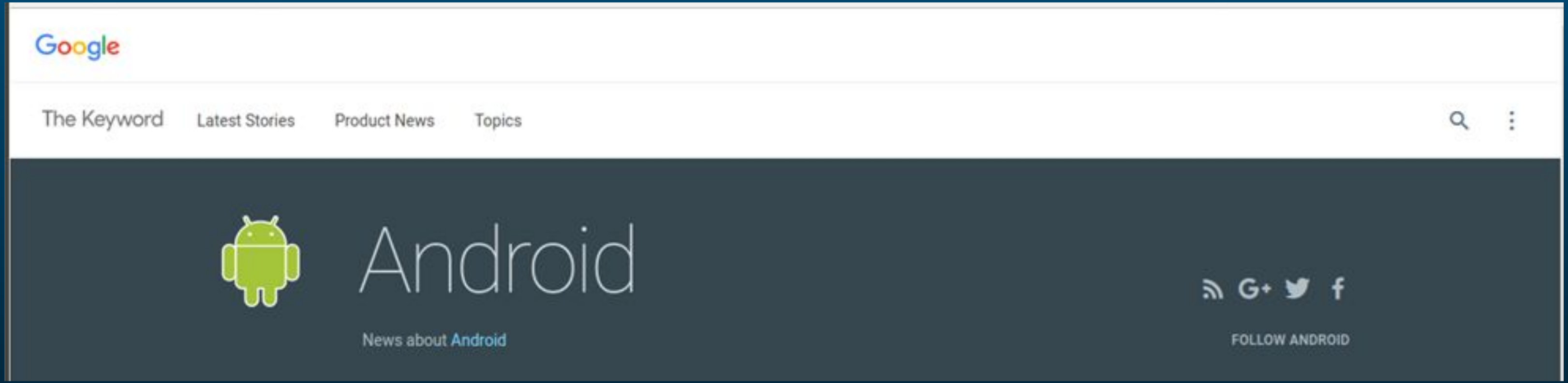


Android, used for programming or developing digital devices (Smartphones, Tablets, Autos, TVs, Wear, Glass), is Google's

Official Android Blog

android.googleblog.com

News, features, high-level



Android Developers Blog

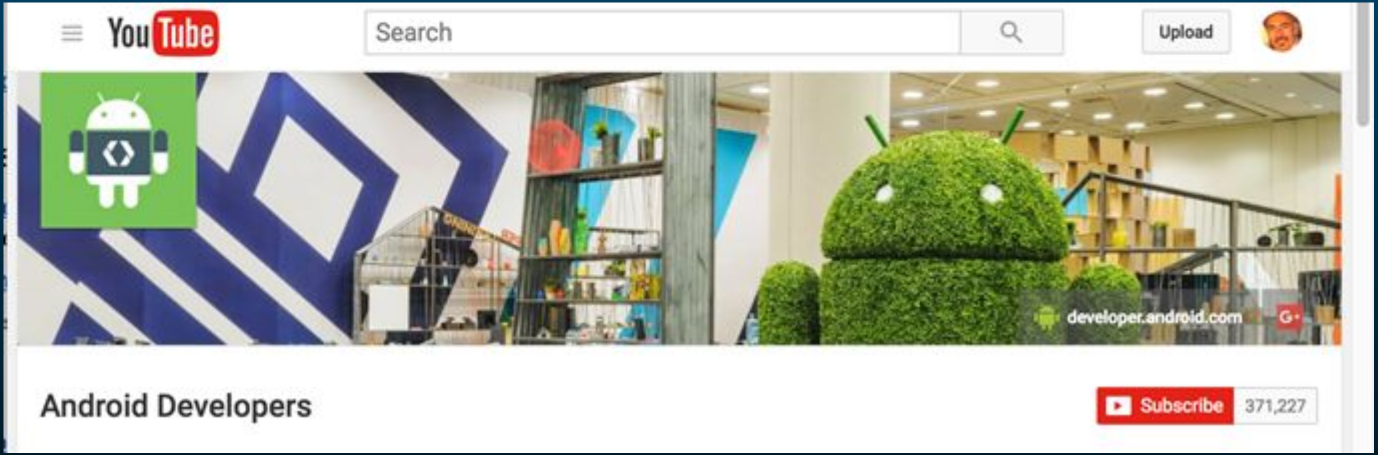
android-developers.blogspot.com

News, updates, developer stories, and articles on how to make your app successful

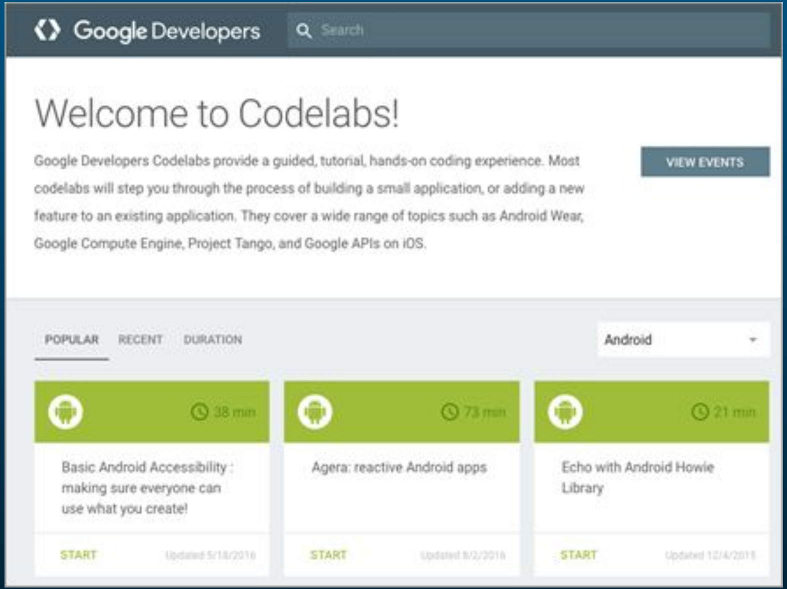
Android Developers YouTube Channel

Android Developers Youtube Channel

News, tools, how to, and playlists around specific themes, such as Android Developer Patterns, Android Developer Stories, and Android Performance Patterns



Google IO Codelabs



Welcome to Codelabs!

Google Developers Codelabs provide a guided, tutorial, hands-on coding experience. Most codelabs will step you through the process of building a small application, or adding a new feature to an existing application. They cover a wide range of topics such as Android Wear, Google Compute Engine, Project Tango, and Google APIs on iOS.

38 min
Basic Android Accessibility : making sure everyone can use what you create!
START Updated 5/18/2016

73 min
Agera: reactive Android apps
START Updated 8/2/2016

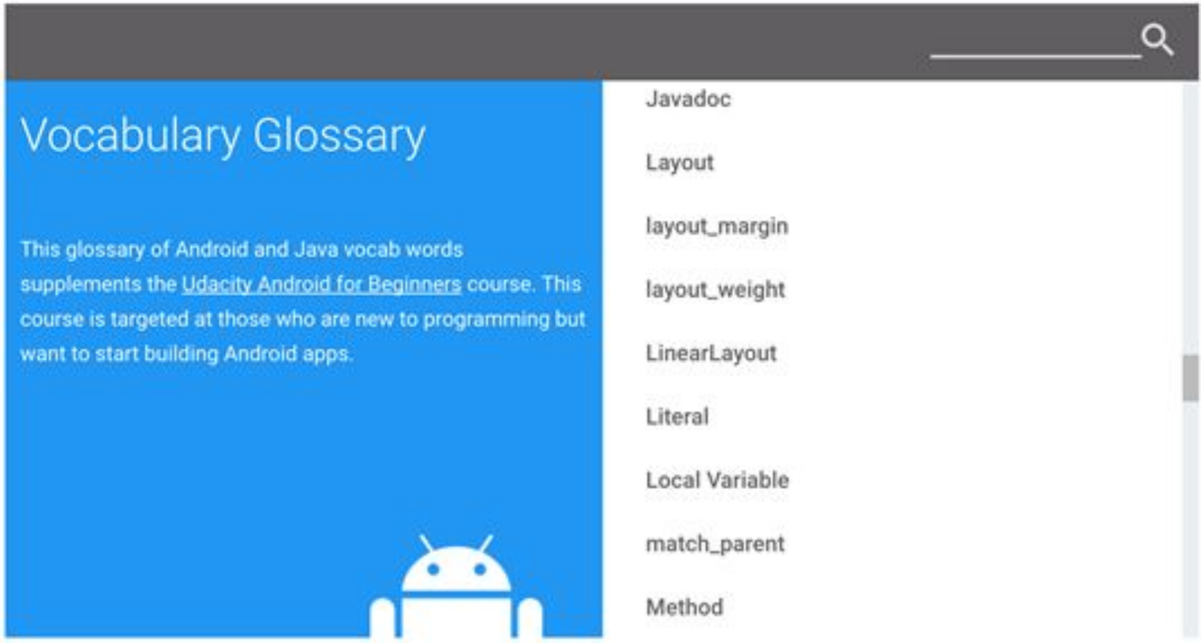
21 min
Echo with Android Howie Library
START Updated 12/4/2015

codelabs.developers.google.com

Short tutorials
about specific topics

Android Vocabulary Tool

developers.google.com/android/for-all/vocab-words



Vocabulary Glossary

This glossary of Android and Java vocab words supplements the Udacity Android for Beginners course. This course is targeted at those who are new to programming but want to start building Android apps.

Javadoc

Layout

layout_margin

layout_weight

LinearLayout

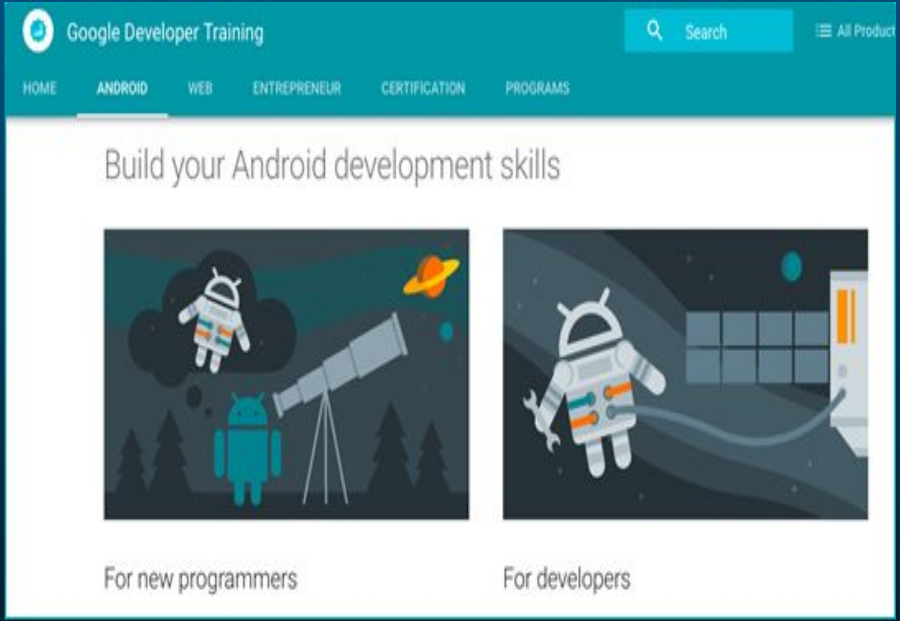
Literal

Local Variable

match_parent

Method

Google Developer Training Website



Build your Android development skills

For new programmers

For developers

developers.google.com/training

Course info

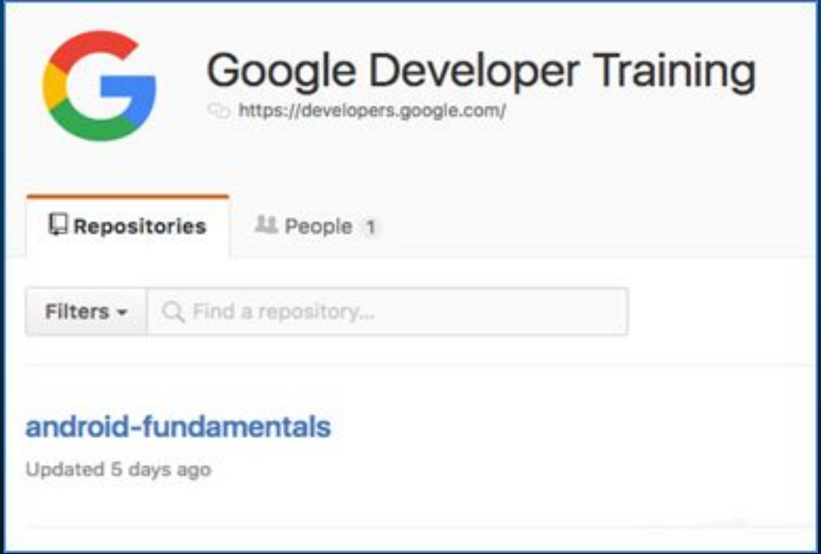
Programs

Certification details

Authorized Training Partners

Source code for Exercises on Github

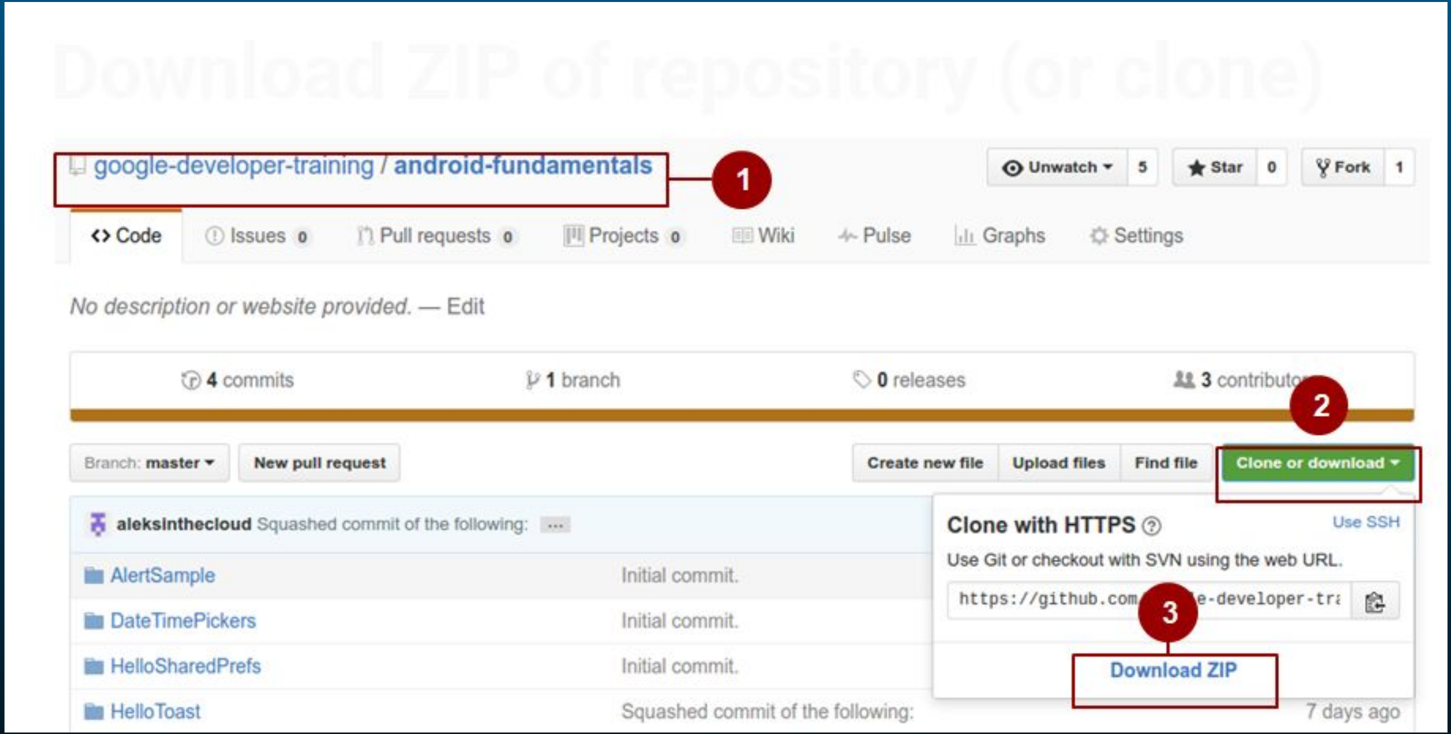
https://github.com/google-developer-training/android-fundamentals
Starter code and solutions for all the practicals and many of the challenges



Google Developer Training
https://developers.google.com/

android-fundamentals
Updated 5 days ago

Download ZIP of Repository (or Clone)



No description or website provided. — Edit

aleksinthecloud Squashed commit of the following: ...

AlertSample	Initial commit.
DateTimePickers	Initial commit.
HelloSharedPrefs	Initial commit.
HelloToast	Squashed commit of the following:

7 days ago

Clone with HTTPS ⓘ Use SSH

Use Git or checkout with SVN using the web URL.

`https://github.com/...e-developer-tra`

Get the Most from the Practicals

- Complete each practical
- Study and learn the corresponding concepts
- Try completing the challenges

  More detailed app that uses the concepts covered

  Closer to real-world apps

Learn More

Developer Documentation:

- TextView
- ScrollView and HorizontalScrollView
- String Resources

Other:

- Android Developers Blog: Linkify your Text!
- Codepath: Working with a TextView

Learn More

- Official Android documentation
- Image Asset Studio
- Android Monitor page
- Official Android blog
- Android Developers blog
- Google I/O Codelabs
- Stack Overflow
- Android vocabulary
- Google Developer Training website

Learn Even More

Code:

- Source code for exercises on github
- Android code samples for developers

Videos:

- Android Developer YouTube channel