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# Mobile Programming

## Chapter 1.4. Text and scrolling views

# Note

- ❖ This slides is based on Google Android code labs slides
- ❖ Original slides:  
[https://drive.google.com/drive/folders/1eu-LXxiHocSktGYpG04PfE9Xmr\\_pBY5P](https://drive.google.com/drive/folders/1eu-LXxiHocSktGYpG04PfE9Xmr_pBY5P)

# 1.3 Text and scrolling views

# Contents

- TextView
- ScrollView

# TextView

# TextView for text

- TextView is View subclass for single and multi-line text
- EditText is TextView subclass with editable text
- Controlled with layout attributes
- Set text:
  - Statically from string resource in XML
  - Dynamically from Java code and any source

# Formatting text in string resource

- Use `<b>` and `<i>` HTML tags for bold and italics
- All other HTML tags are ignored
- String resources: one unbroken line = one paragraph
- `\n` starts a new a line or paragraph
- Escape apostrophes and quotes with backslash (`\"`, `\'`)
- Escape any non-ASCII characters with backslash

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# 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?

- News stories, articles, etc...
- To scroll a TextView, embed it in a [ScrollView](#)
- Only *one* View element (usually TextView) allowed in a ScrollView
- To scroll multiple elements, use one ViewGroup (such as LinearLayout) within the ScrollView

# ScrollView for scrolling content

- [ScrollView](#) is a subclass of [FrameLayout](#)
- Holds all content in memory
- Not 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

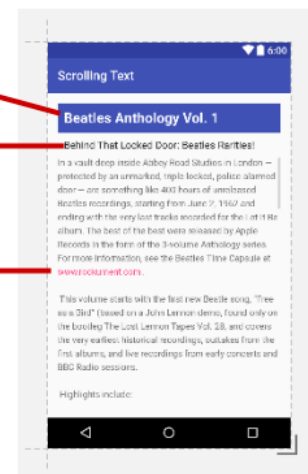
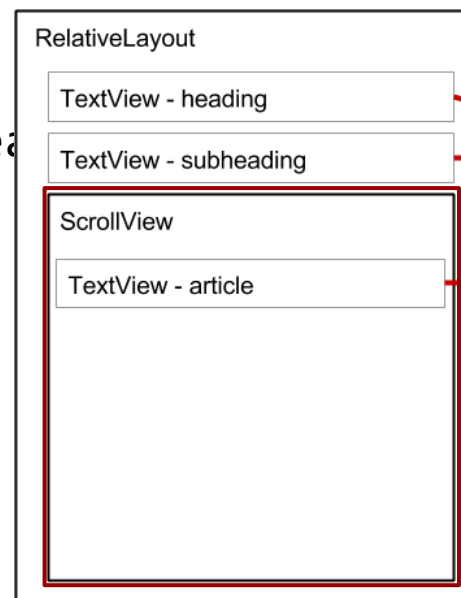
<ScrollView

```
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_below="@id/article_subhead
```

<TextView

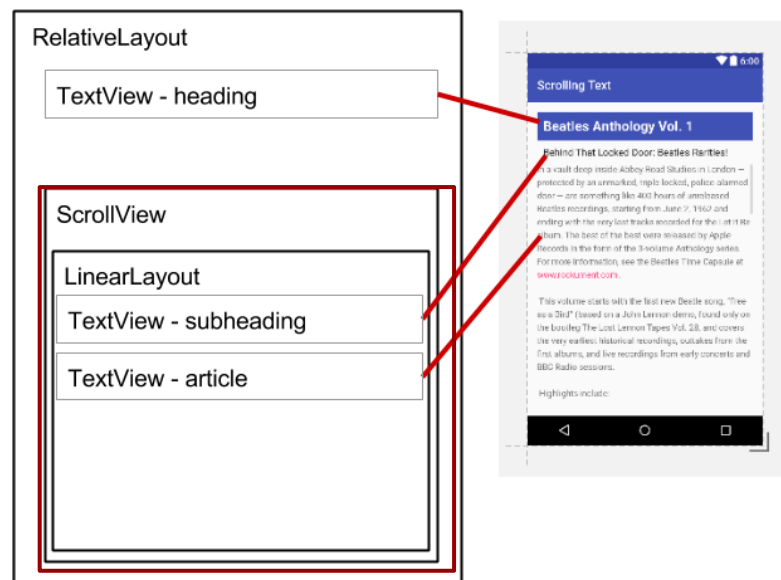
```
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    .../>
```

</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

# Learn more

## Developer Documentation:

- [TextView](#)
- [ScrollView](#) and [HorizontalScrollView](#)
- [String Resources](#)

## Other:

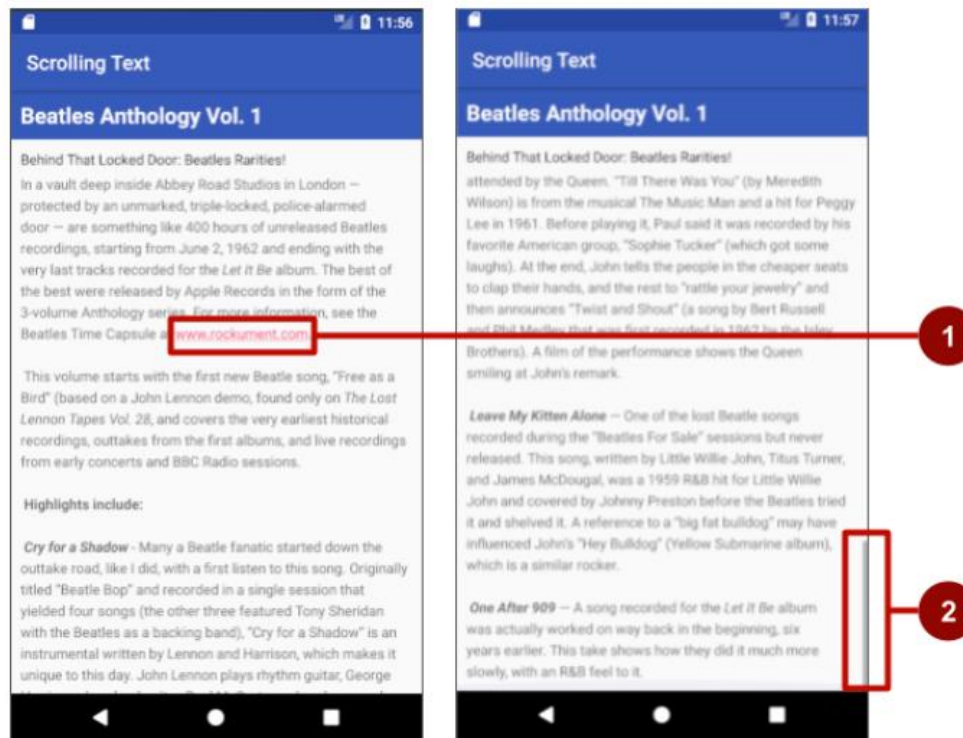
- Android Developers Blog: [Linkify your Text!](#)
- Codepath: [Working with a TextView](#)

# What's Next?

- Concept Chapter: [1.3 Text and scrolling views](#)
- Practical: [1.3 Text and scrolling views](#)

# CODELABS

# App Overview



# Task 1: Add 3 TextView

1. Title
2. Subtitle
3. Article text
4. Fill the content in and run the app

# Task 2: Add a scrollview

1. Add a Scrollview
2. Put the ScrollView “**below**” the subtitle TextView
3. Move the article TextView into the ScrollView
4. Run the app

# Task 3: Scroll multiple view

1. Put the ScrollView “**below**” the title TextView
2. Create a new “**LinearLayout**” inside the ScrollView
3. Move the subtitle and article TextView into the new **vertical LinearLayout**
4. Run the app