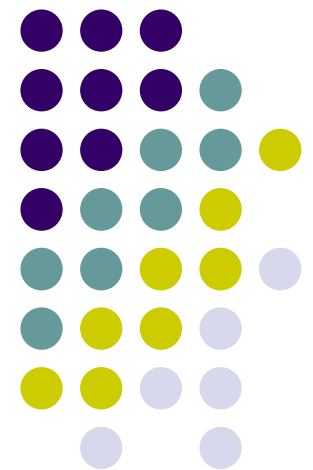


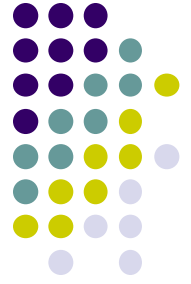
**CS 528 Mobile and Ubiquitous  
Computing  
Tutorial 12: More on User Interface  
by Bucky Roberts (thenewboston)**

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**Emmanuel Agu**

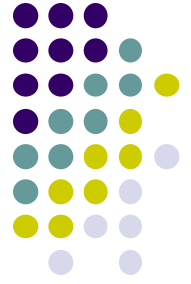


# Tutorial 12: More on User Interface



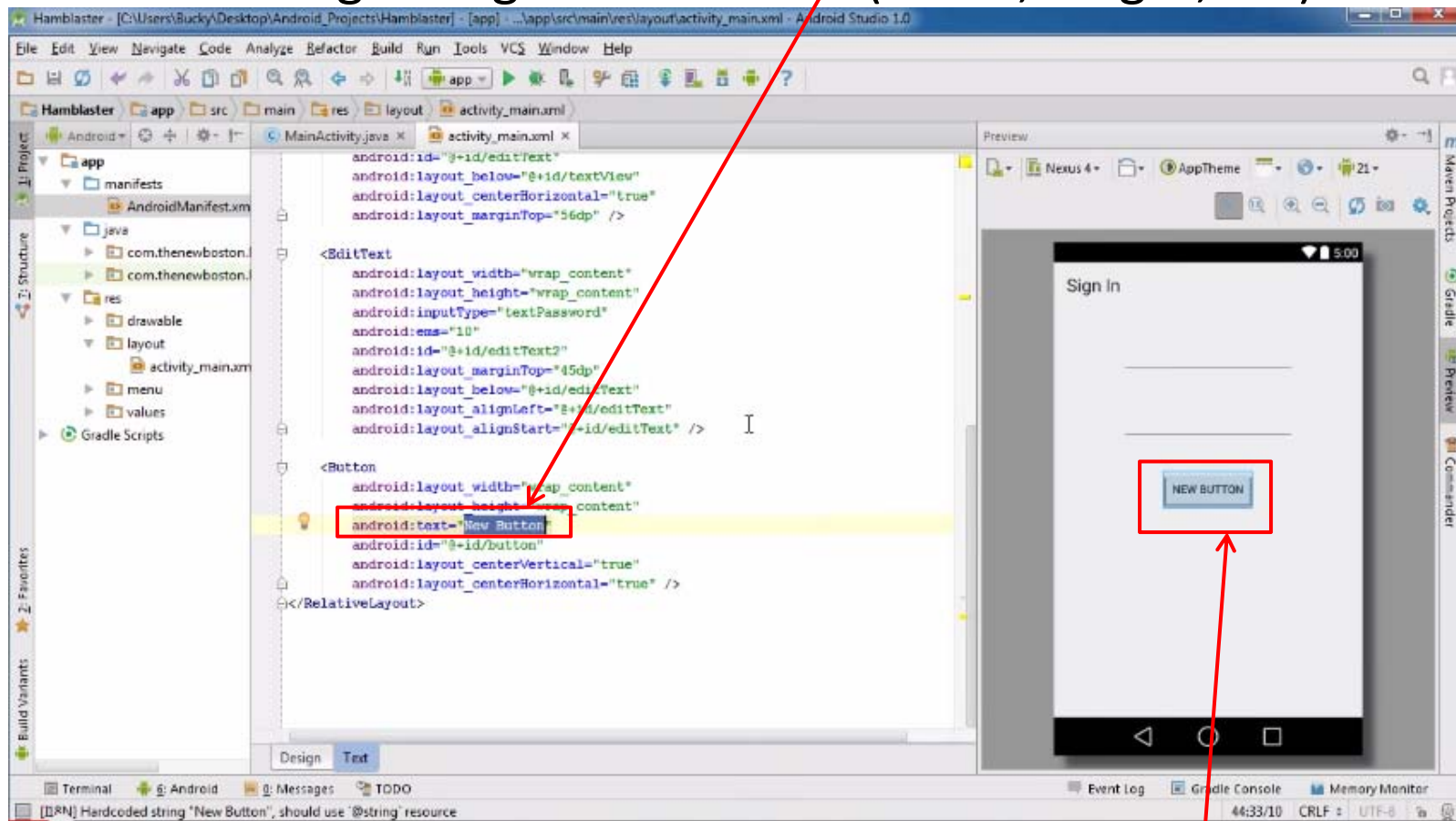
- Tutorial 12: More on User Interface [10:24 mins]
  - <https://www.youtube.com/watch?v=72mf0rmjNAA>
- Main Topics
  - Changing text in widgets
  - Changing strings from hardcoded to resources (variables)

# Changing Widget text in Text View



Change text “New Button” in XML file,

- E.g. Change text on New Button in activity\_main.xml
- Can also change widget dimensions (width, height, etc)

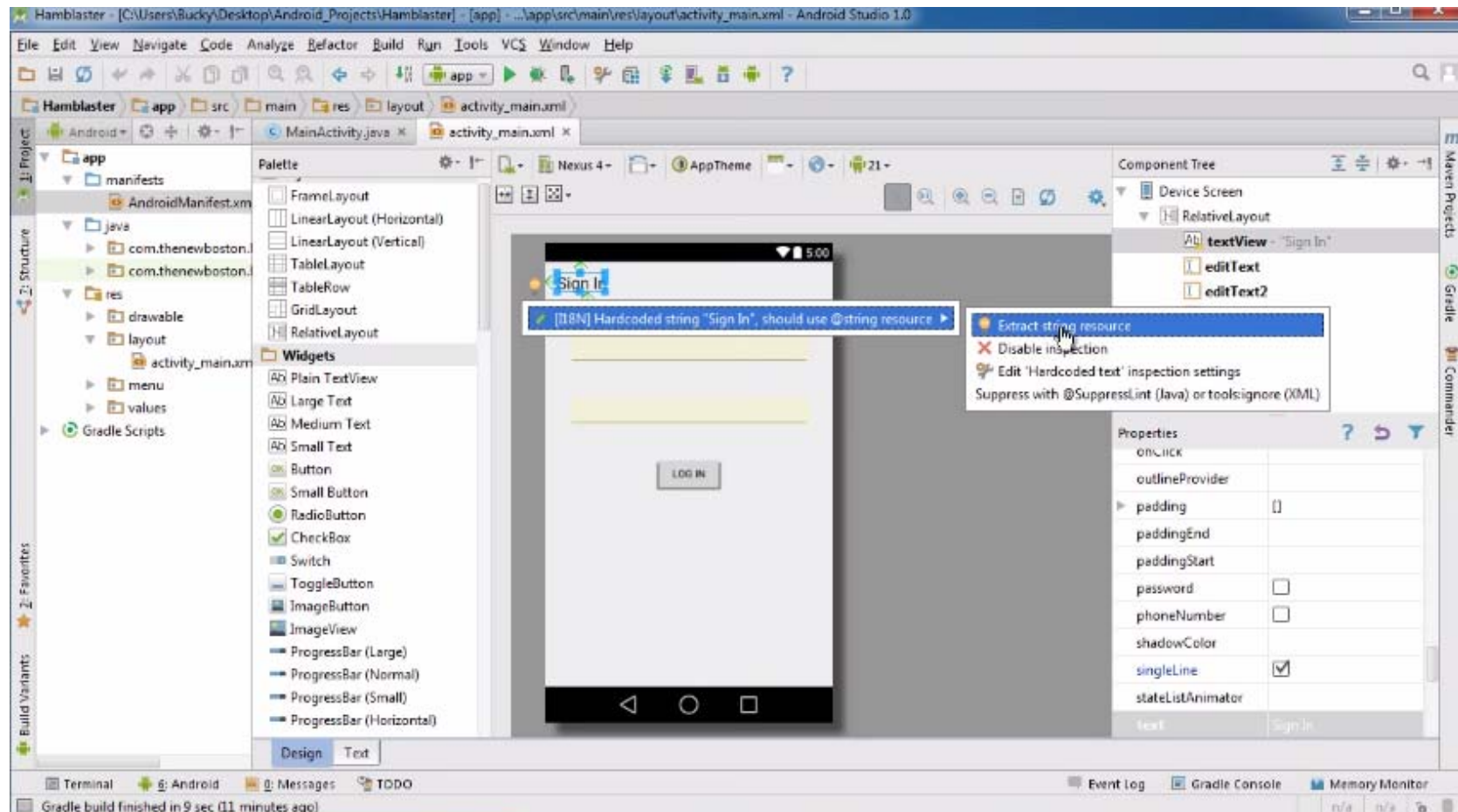


We want to change Text “New Button”



# Text is HardCoded

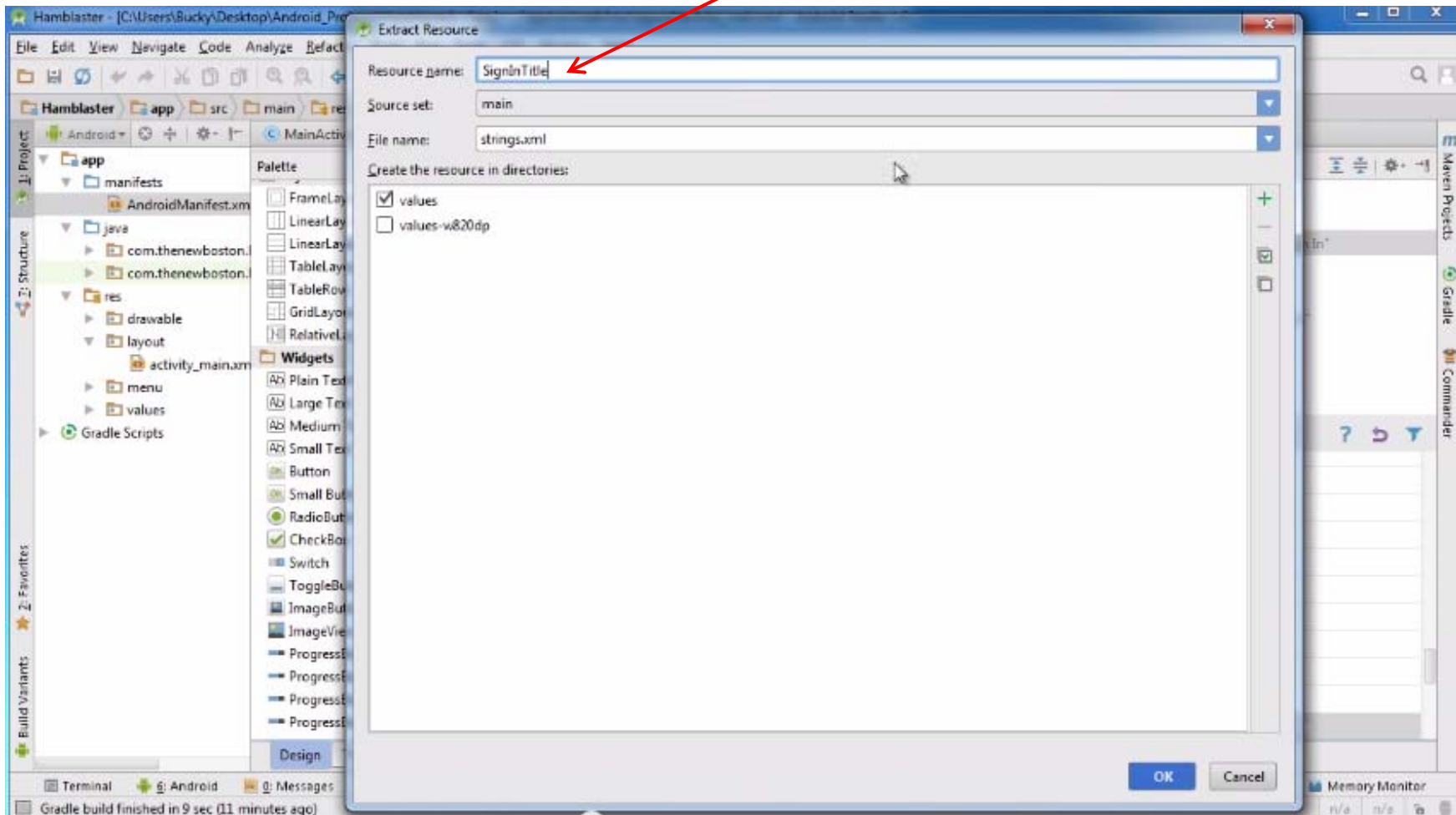
- Android Studio gives warning that text “Sign in” is hardcoded
- Convert hardcoded text to variables (called string resource)



# Convert Hardcoded Strings to Variables



Type in string variable name



# String Resource (Variable)

- **Sign in** text now changed to variable stored in file strings.xml



The screenshot shows the Android Studio interface. On the left, the Project view shows the file structure with 'strings.xml' highlighted in a red box. The main editor displays the XML code for 'activity\_main.xml'. The following code is visible:

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
    android:layout_height="match_parent" android:paddingLeft="16dp"
    android:paddingRight="16dp" android:paddingTop="16dp"
    android:paddingBottom="16dp"
    tools:context="com.thenewboston.hamblaster.MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textAppearance="?android:attr/textAppearanceLarge"
        android:text="@string/signin_title"
        android:id="@+id/textView"
        android:layout_alignParentTop="true"
        android:layout_alignParentLeft="true"
        android:layout_alignParentStart="true"
        android:singleLine="true" />

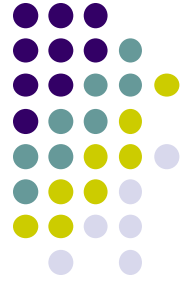
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:inputType="textEmailAddress"
        android:ems="10"
        android:id="@+id/editText"
        android:layout_below="@+id/textView"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="56dp"
        android:width="320dp"/>
```

The line `android:text="@string/signin_title"` is highlighted in yellow and has a red box around it. On the right, the Preview window shows a mobile app interface with a 'Sign in' title, two horizontal lines for input, and a 'LOG IN' button. The status bar at the bottom shows '13:43 CRLF UTF-8'.



# Strings.xml

- The values of all string variables are listed in **strings.xml**
- String variables can be referenced from activity\_main.xml other xml files



```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">Hamblaster</string>
    <string name="title_activity_main">MainActivity</string>
    <string name="hello_world">Hello world!</string>
    <string name="action_settings">Settings</string>
    <string name="SignInTitle">Sign In</string>
</resources>
```