

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\java\\edu\\udayton\\concerttickets\\MainActivity.java [app] - Android Studio

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

ConcertTickets app src main java edu

[app] C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets\app\src\main\res\layout\activity_main.xml

Android

1:Project

app manifests java edu.udayton.concerttickets MainActivity

Resource Manager

Switch to the main layout

MainActivity.java

```
1 package edu.udayton.concerttickets;
2
3 public class MainActivity extends AppCompatActivity {
4
5     @Override
6     protected void onCreate(Bundle savedInstanceState) {
7         super.onCreate(savedInstanceState);
8         setContentView(R.layout.activity_main);
9     }
10
11 }
12
13
14 }
```

2:Structure

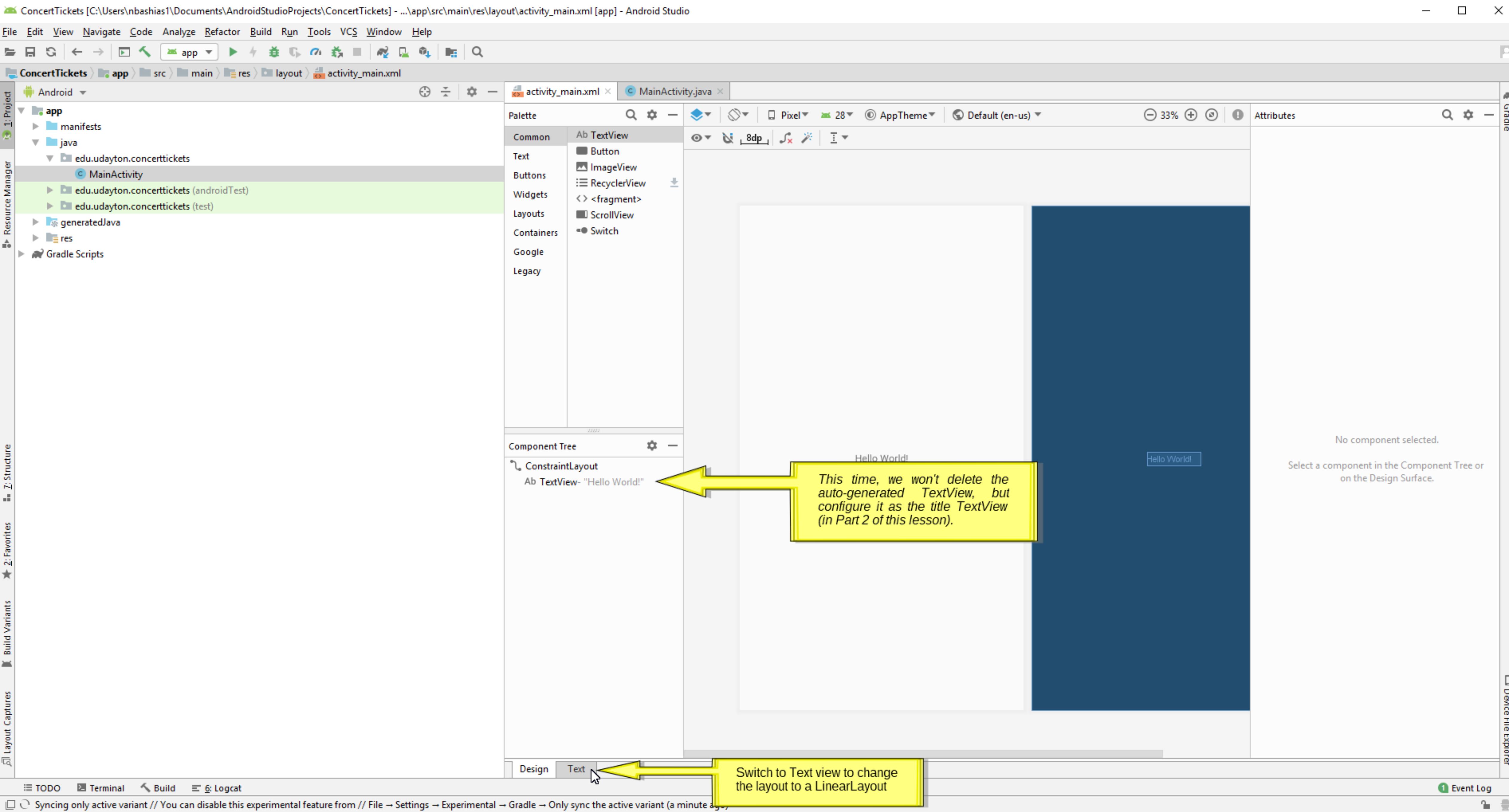
3:Favorites

Build Variants

Layout Captures

Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (moments ago)



ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...app\src\main\res\layout\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res layout activity_main.xml

Android Project Resource Manager Gradle Scripts

activity_main.xml MainActivity.java Preview

As before, select the full ConstraintLayout path, and right-click on it

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout[ xmlns:android="http://schemas.android.com/apk/res-auto"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="8dp">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        android:layout_constraintBottom_toBottomOf="parent"
        android:layout_constraintLeft_toLeftOf="parent"
        android:layout_constraintRight_toRightOf="parent"
        android:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

Palette Pixel 28 AppTheme 34% 8dp Preview

Hello World!

Layout Captures Build Variants Favorites Build Variants

Design Text

android.support.constraint.ConstraintLayout

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (a minute ago)

43 chars 2:45 CRLF 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...app\src\main\res\layout\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res layout activity_main.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

activity_main.xml x MainActivity.java x Preview

As in Lesson 2, rename the layout to LinearLayout

Then switch back to Design view

Preview Pixel 28 AppTheme 35% 1 Event Log

Synching only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (a minute ago)

2:14 CRLF UTF-8 4 spaces

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/layout_width"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:text=".MainActivity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</LinearLayout>
```

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res layout activity_main.xml

1:Project Resource Manager 2:Structure Favorites Build Variants Layout Captures

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res Gradle Scripts

activity_main.xml MainActivity.java

Palette Attributes

Common Ab TextView

Text Button

Buttons ImageView

Widgets RecyclerView

Layouts <> <fragment>

Containers ScrollView

Google Switch

Legacy

Component Tree

LinearLayout(horizontal)

Ab TextView- "Hello World!"

Hello World!

Hello World!

Select the LinearLayout in the Component View

Design Text

33% Attributes

<unnamed> LinearLayout

id

Declared Attributes

Layout

layout_width match_parent

layout_height match_parent

visibility

visibility

Common Attributes

orientation

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

context .MainActivity

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (a minute ago)

Event Log

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res layout activity_main.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

ConcertTickets

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res Gradle Scripts

activity_main.xml MainActivity.java

Palette Attributes

Common Ab TextView

Text Button

Buttons ImageView

Widgets RecyclerView

Layouts <> <fragment>

Containers ScrollView

Google Switch

Legacy

Component Tree

LinearLayout(horizontal)

Ab TextView- "Hello World!"

Pixel 28 AppTheme Default (en-us) 33% 33%

Hello World! Hello World!

Use the pulldown menu to change its orientation to vertical

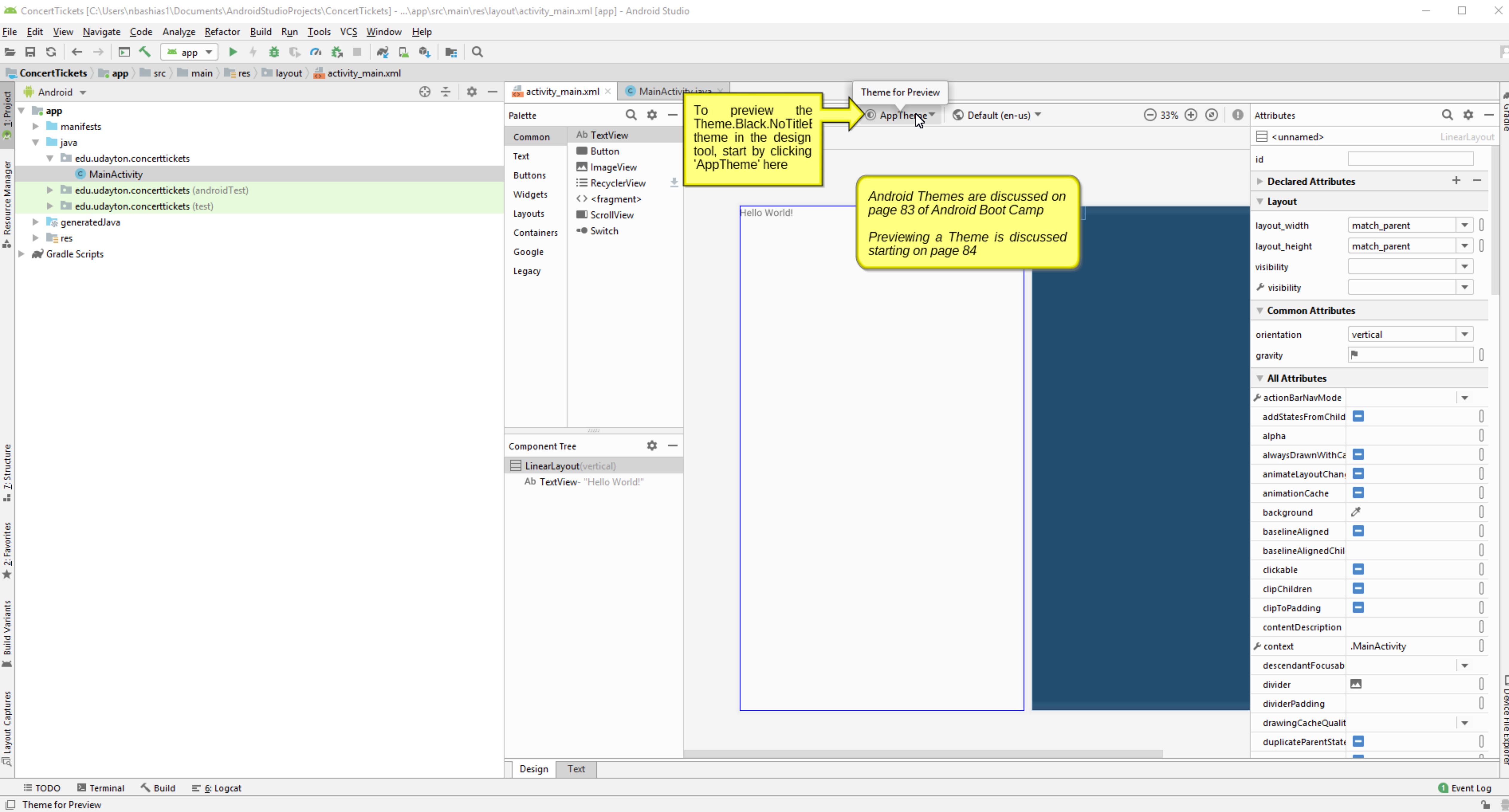
All Attributes orientation horizontal vertical

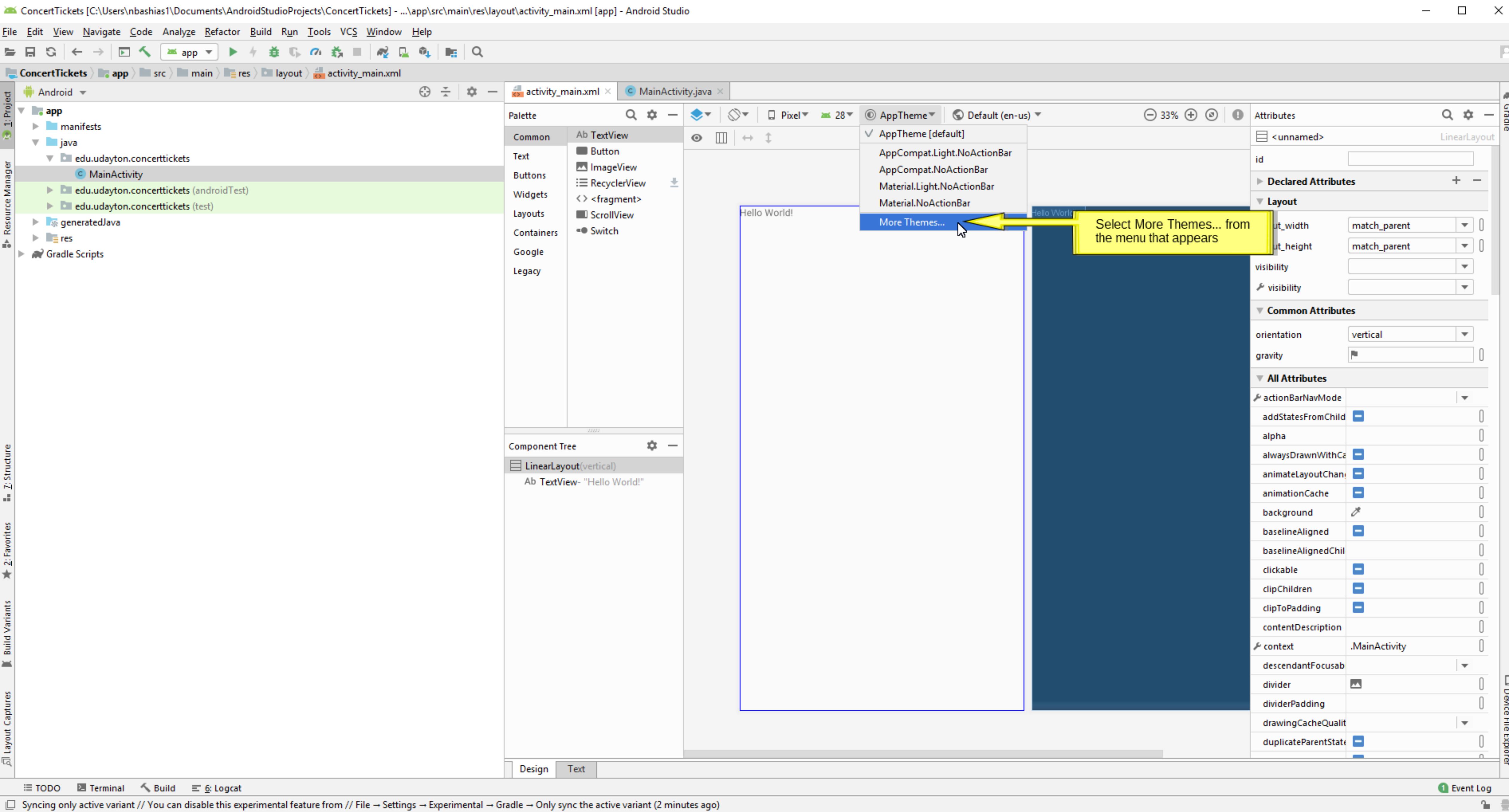
actionBarNavMode addStatesFromChild alpha alwaysDrawnWithCa animateLayoutChani animationCache background baselineAligned baselineAlignedChil clickable clipChildren clipToPadding contentDescription context .MainActivity descendantFocusab divider dividerPadding drawingCacheQualit duplicateParentState

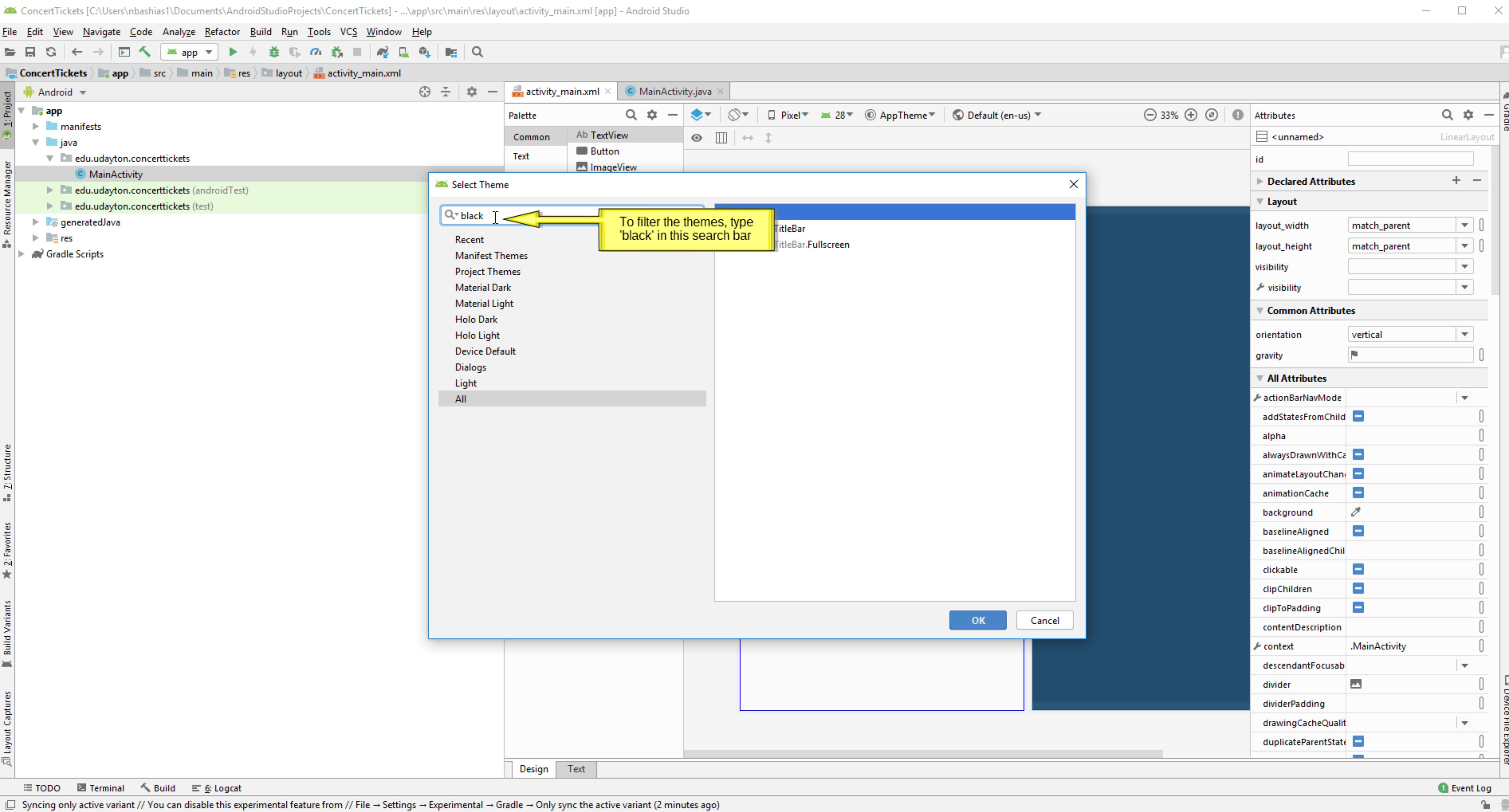
Design Text

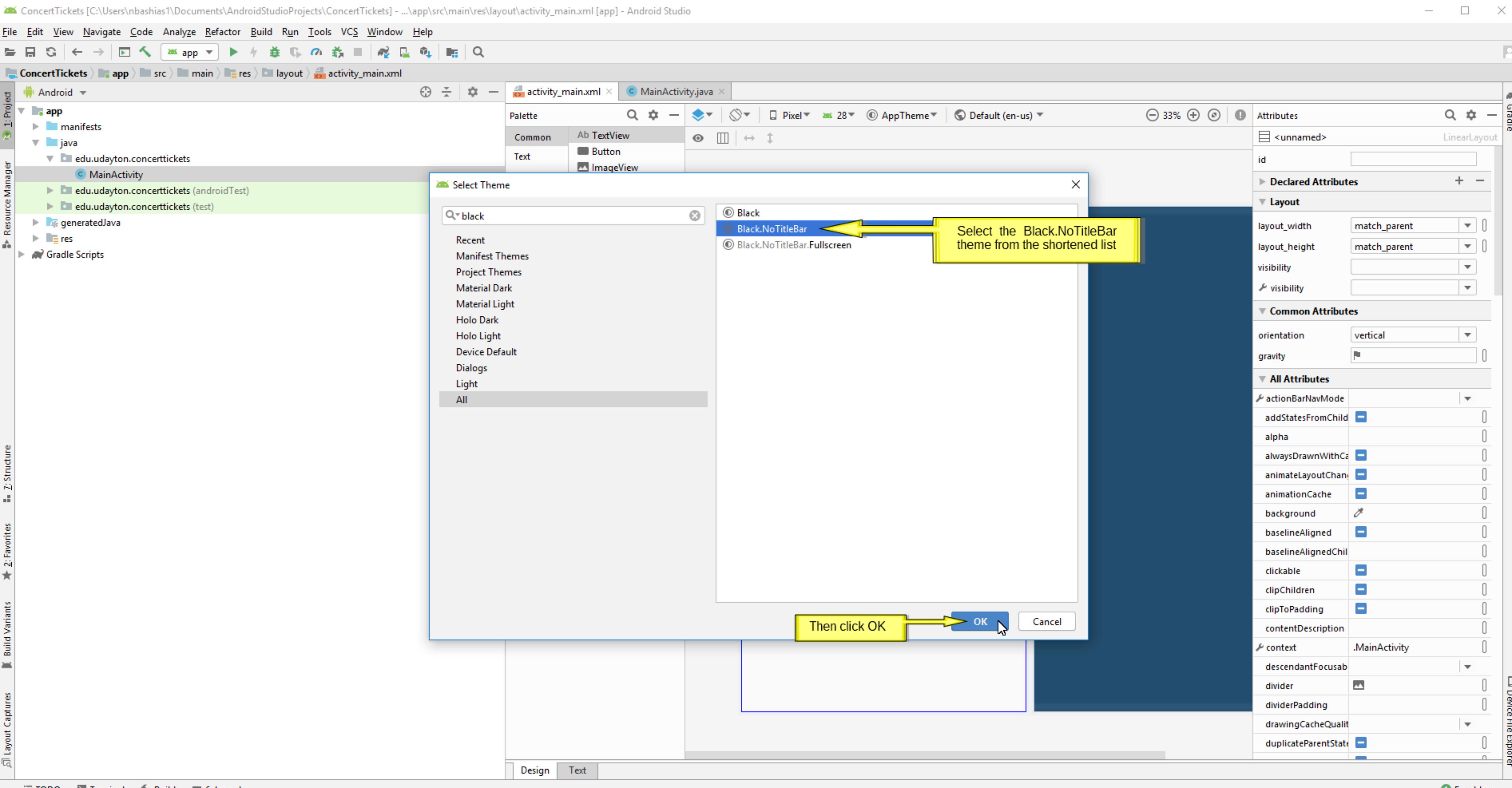
TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (2 minutes ago)









ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res layout activity_main.xml

1:Project

Resource Manager

2:Structure

3:Favorites

Build Variants

Layout Captures

4:Logcat

Design Text

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (3 minutes ago)

1 Project

app

manifests

java

edu.udayton.concertickets

MainActivity

edu.udayton.concertickets (androidTest)

edu.udayton.concertickets (test)

generatedJava

Gradle Scripts

Start by expanding the app/res folder in the Project explorer

activity_main.xml

MainActivity.java

Palette

Common

Text

Buttons

Widgets

Layouts

Containers

Google

Legacy

Ab TextView

Button

ImageView

RecyclerView

<> <fragment>

ScrollView

Switch

Pixel 28 NoTitleBar Default (en-us) 33% Attributes

<unnamed> LinearLayout

id

Declared Attributes

Layout

layout_width match_parent

layout_height match_parent

visibility

visibility

Common Attributes

orientation vertical

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

context .MainActivity

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Event Log

The screenshot shows the Android Studio interface with the project 'ConcertTickets' open. In the Project Explorer on the left, the 'app' module is selected, showing its structure. A yellow callout box points to the 'Gradle Scripts' section, with the text: 'Start by expanding the app/res folder in the Project explorer'. In the center, the layout editor displays 'activity_main.xml'. The preview window shows a dark blue-themed application with two white text views both displaying 'Hello World!'. A second yellow callout box points to the preview window, with the text: 'Now, we'll change the actual app theme so that the app has this look and feel when we build it and run it on an Android device'. The right side of the screen shows the 'Attributes' panel for the selected view, listing various theme-related attributes like 'colorPrimary', 'colorPrimaryDark', and 'colorAccent'.

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main java edu udayton concerttickets MainActivity

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Activity Main

Expand the app/res/values sub-folder

Palette

Common Ab TextView

Text Button

Buttons ImageView

Widgets RecyclerView

Layouts <> <fragment>

Containers ScrollView

Google Switch

Legacy

Component Tree

LinearLayout(vertical)

Ab TextView- "Hello World!"

Design Text

Attributes

<unnamed> LinearLayout

id

Declared Attributes

Layout

layout_width match_parent

layout_height match_parent

visibility

visibility

Common Attributes

orientation vertical

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

context .MainActivity

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (3 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res values styles.xml

1:Project Resource Manager 2:Structure Favorites Build Variants Layout Captures

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

Gradle Scripts

Open the styles.xml file

activity_main.xml MainActivity.java

Palette Attributes

Common Ab TextView

Text Button

Buttons ImageView

Widgets RecyclerView

Layouts <> <fragment>

Containers ScrollView

Google Switch

Legacy

Component Tree

LinearLayout(vertical)

Ab TextView- "Hello World!"

Design Text

33% Attributes

<unnamed> LinearLayout

id

Declared Attributes

Layout

layout_width match_parent

layout_height match_parent

visibility

visibility

Common Attributes

orientation vertical

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

context .MainActivity

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (3 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\styles.xml [app] - Android Studio

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

ConcertTickets app src main res values styles.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

activity_main.xml styles.xml MainActivity.java

```
<resources>
    <!-- Base application theme. -->
    <style name="AppTheme" parent="Theme.AppCompat.Light.DarkActionBar">
        <!-- Customize your theme here. -->
        <item name="colorPrimary">@color/colorPrimary</item>
        <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>
</resources>
```

To change the AppTheme's parent setting to Theme.AppCompat, select the '.Light.DarkActionBar'

resources style

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (6 minutes ago)

20 chars 4:71 CRLF 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\styles.xml [app] - Android Studio

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

ConcertTickets app src main res values styles.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

activity_main.xml styles.xml MainActivity.java

```
<resources>
    <!-- Base application theme. -->
    <style name="AppTheme" parent="Theme.AppCompat">
        <!-- Customize your theme here. -->
        <item name="colorPrimary">@color/colorPrimary
        <item name="colorPrimaryDark">@color/colorPrimaryDark
        <item name="colorAccent">@color/colorAccent
    </style>
</resources>
```

... and delete it

resources style

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (6 minutes ago)

4:51 CRLF UTF-8 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\styles.xml [app] - Android Studio

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

ConcertTickets app src main res values styles.xml

Android

1:Project

app

- manifests
- java
 - edu.udayton.concerttickets
 - MainActivity
 - edu.udayton.concerttickets (androidTest)
 - edu.udayton.concerttickets (test)
- generatedJava
- res
 - drawable
 - layout
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - styles.xml

Resource Manager

2: Favorites

Build Variants

Layout Captures

resources > style

Close. Alt-click to close others

Close styles.xml

```
<resources>
    <!-- Base application theme. -->
    <style name="AppTheme" parent="Theme.AppCompat">
        <!-- Customize your theme here. -->
        <item name="colorPrimary">@color/colorPrimary</item>
        <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>
</resources>
```

4:51 CRLF UTF-8 4 spaces

Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (7 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res values strings.xml

1:Project Resource Manager 2:Structure Favorites Build Variants Layout Captures

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

We'll start with adding string resources (and the string-array resource)
Open the strings.xml file

In this project, we'll show how to add string and dimension resources by directly editing their resource files in the res/values folder (strings.xml and dimens.xml, respectively)

activity_main.xml MainActivity.java

Palette

Common Ab TextView

- Text
- Buttons
- Widgets
- Layouts
- Containers
- Google
- Legacy

Pixel 28 NoTitleBar Default (en-us) 33% Attributes

<unnamed> LinearLayout

id Declared Attributes Layout

layout_width match_parent

layout_height match_parent

visibility

✓ visibility

Common Attributes

orientation vertical

gravity

All Attributes

ActionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

✓ context .MainActivity

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Design Text

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (7 minutes ago)



Android

1:Project

Resource Manager

2: Favorites

Build Variants

Layout Captures

2: Structure

Gradle Scripts

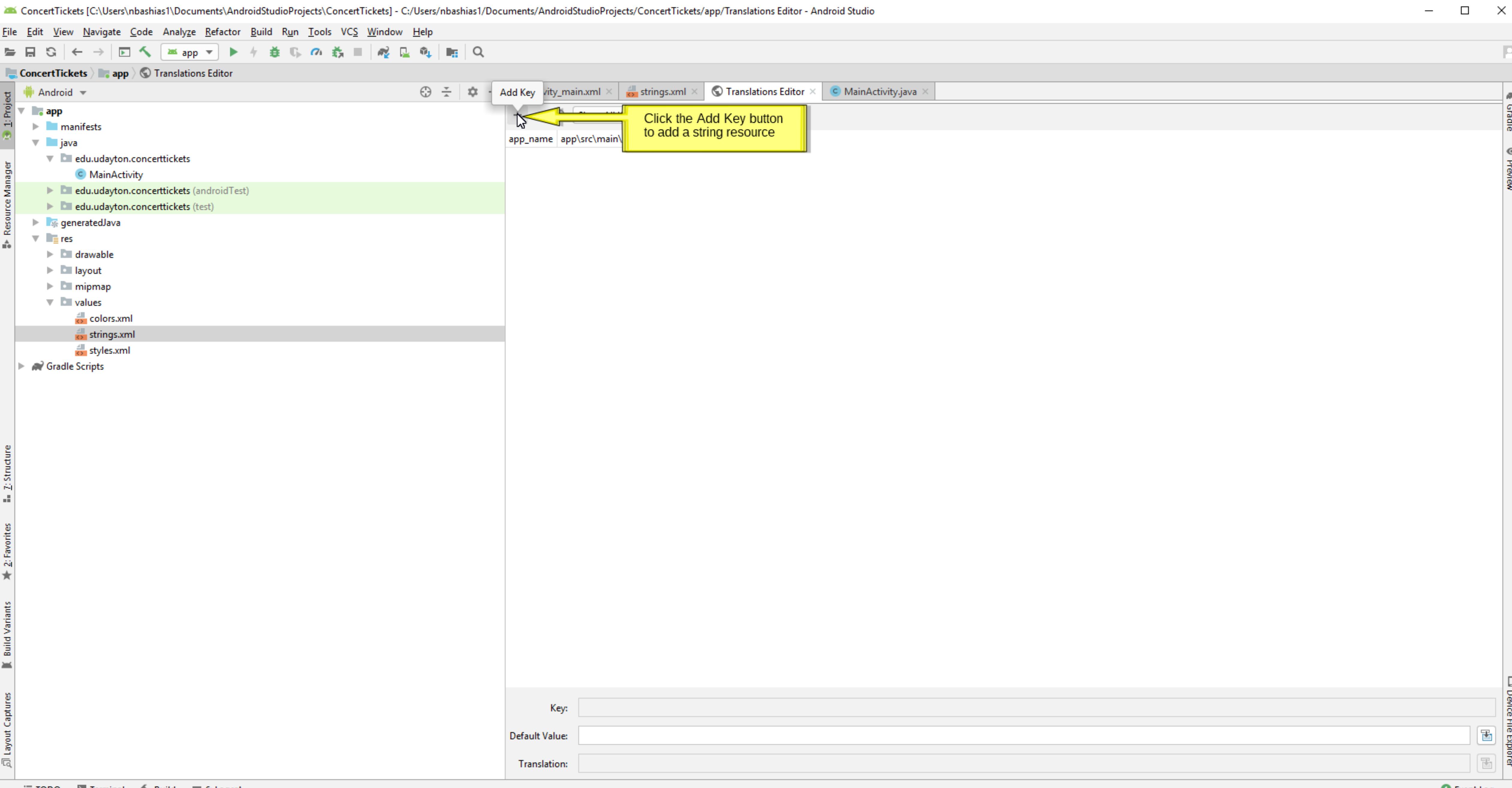
activity_main.xml strings.xml MainActivity.java

Edit translations for all locales in the translations editor.

Click to open the string resource editor  Hide notification

1 <resources>
2 <string name="app_name">Concert Tickets</string>
3 </resources>
4

resources



ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

1:Project

Resource Manager

2:Structure

3:Favorites

Build Variants

Layout Captures

Translations Editor

activity_main.xml strings.xml Translations Editor MainActivity.java

Show All Keys Show All Locales

app_name app\src\main\res Concert Tickets

1. Enter the Key (resource name) for the title string resource

2. Enter the resource value (string text) for the title string resource

3. Click OK

Notice how similar this is to adding a string resource via the Resource manager, as we did in previous lessons

Add Key

Key: txtTitle

Default Value: Ticket Vault

Resource Folder: app\src\main\res

OK

Key:

Default Value:

Translation:

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (12 minutes ago)

1:13

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

Android

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Layout Editor

3:Logcat

Add Key activity_main.xml strings.xml Translations Editor MainActivity.java

Show All Keys Show All Locales

In the same manner, add the additional string resources for the project

Key:

Default Value:

Translation:

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (12 minutes ago)

Event Log

Gradle Preview

The screenshot shows the Android Studio interface for a project named "ConcertTickets". The "Translations Editor" tab is active. In the top navigation bar, the "Translations Editor" tab is highlighted. Below it, there are tabs for "activity_main.xml", "strings.xml", and "Translations Editor". The "Translations Editor" tab has a tooltip: "In the same manner, add the additional string resources for the project". The "strings.xml" file is currently selected in the "Resource Manager" on the left. The bottom status bar indicates "Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (12 minutes ago)".

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Translations Editor

activity_main.xml strings.xml Translations Editor MainActivity.java

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

Gradle Preview

Add Key

Key: txtTickets
Default Value: Number of Tickets
Resource Folder: app\src\main\res

OK Cancel

This is the string resource for the hint TextView of the entry field for the number of tickets.

Key: Default Value: Translation:

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (12 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

Android

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Translations Editor

MainActivity.java

Add Key

Show All Keys

Show All Locales

?

Add the next string resource

Key	Value
activity_main.xml	Concert Tickets
strings.xml	Number of Tickets
Ticket Vault	

Key:

Default Value:

Translation:

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (13 minutes ago)

Event Log

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Translations Editor

activity_main.xml strings.xml Translations Editor MainActivity.java

app manifests java edu.udayton.concerttickets MainActivity edu.udayton.concerttickets (androidTest) edu.udayton.concerttickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

+ - Show All Keys Show All Locales G ?

app_name	app\src\main\res	<input type="checkbox"/>	Concert Tickets
txtTickets	app\src\main\res	<input type="checkbox"/>	Number of Tickets
txtTitle	app\src\main\res	<input type="checkbox"/>	Ticket Vault

Add Key

Key: prompt
Default Value: Select Group
Resource Folder: app\src\main\res

OK Cancel

This is the string resource for the prompt of the Spinner that will be used to select the musical group.

Key:
Default Value:
Translation:

Device File Explorer

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (13 minutes ago)

1:13

ConcertTickets [C:\Users\Nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

Android

1: Project

app

- manifests
- java
 - edu.udayton.concerttickets
 - MainActivity
 - edu.udayton.concerttickets (androidTest)
 - edu.udayton.concerttickets (test)
- generatedJava
- res
 - drawable
 - layout
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - styles.xml

Resource Manager

2: Favorites

Build Variants

Layout Captures

Add Key

Show All Keys Show All Locales

Add the next string resource

Key	Value	Locale
Concert Tickets	Concert Tickets	en
Select Group	Select Group	en
Number of Tickets	Number of Tickets	en
Ticket Vault	Ticket Vault	en

Key:

Default Value:

Translation:

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (13 minutes ago)

Event Log

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Translations Editor

activity_main.xml strings.xml Translations Editor MainActivity.java

app manifests java edu.udayton.concerttickets MainActivity edu.udayton.concerttickets (androidTest) edu.udayton.concerttickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

+ - Show All Keys Show All Locales G ?

app_name	app\src\main\res	<input type="checkbox"/>	Concert Tickets
prompt	app\src\main\res	<input type="checkbox"/>	Select Group
txtTickets	app\src\main\res	<input type="checkbox"/>	Number of Tickets
txtTitle	app\src\main\res	<input type="checkbox"/>	Ticket Vault

Add Key

Key: description
Default Value: Concert Image
Resource Folder: app\src\main\res

OK Cancel

This is the string resource for the contentDescription of the concert image

Key:
Default Value:
Translation:

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (13 minutes ago)

1:14

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

Android

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Device File Explorer

Add Key Activity_main.xml strings.xml Translations Editor MainActivity.java

Show All Keys Show All Locales

Add the next string resource

Key	Value
Concert Tickets	Concert Tickets
Concert Image	Concert Image
Select Group	Select Group
Number of Tickets	Number of Tickets
Ticket Vault	Ticket Vault

Key:

Default Value:

Translation:

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (14 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Translations Editor

activity_main.xml strings.xml Translations Editor MainActivity.java

app manifests java edu.udayton.concerttickets MainActivity edu.udayton.concerttickets (androidTest) edu.udayton.concerttickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

app_name app\src\main\res Concert Tickets
description app\src\main\res Concert Image
prompt app\src\main\res Select Group
txtTickets app\src\main\res Number of Tickets
txtTitle app\src\main\res Ticket Vault

Add Key

Key: txtCost
Default Value: Find the Cost
Resource Folder: app\src\main\res

OK Cancel

This is the string resource for the button label for calculating the total ticket cost

Key:
Default Value:
Translation:

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (14 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - C:/Users/nbashias1/Documents/AndroidStudioProjects/ConcertTickets/app/Translations Editor - Android Studio

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

ConcertTickets app Translations Editor

Close. Alt-click to close others

We need to create the string-array in XML, so close the editor.

Activity_main.xml strings.xml Translations Editor

app manifests java edu.udayton.concerttickets MainActivity edu.udayton.concerttickets (androidTest) edu.udayton.concerttickets (test) generatedJava res drawable layout mipmap values colors.xml strings.xml styles.xml

Key: Default Value: Translation:

Resource Manager

1: Project

2: Favorites

Build Variants

Layout Captures

Device File Explorer

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (14 minutes ago)



1: Project 2: Resource Manager 3: Favorites 4: Build Variants 5: Layout Captures 6: Logcat

Edit translations for all locales in the translations editor.

```
<resources>
    <string name="app_name">Concert Tickets</string>
    <string name="txtTitle">Ticket Vault</string>
    <string name="txtTickets">Number of Tickers</string>
    <string name="prompt">Select Group</string>
    <string name="description">Concert Image</string>
    <string name="txtCost">Find the Cost</string>
```

Place the cursor at the end of this line
To add the string-array for the group Spinner,
add a blank line (i.e., hit the Enter key twice) ...



1:Project 2:Resource Manager 3:Build Variants 4:Layout Captures 5:Favorites

Android

app

- manifests
- java
 - edu.udayton.concertickets
 - MainActivity
 - edu.udayton.concertickets (androidTest)
 - edu.udayton.concertickets (test)
- generatedJava
- res
 - drawable
 - layout
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - styles.xml
- Gradle Scripts

Edit translations for all locales in the translations editor.

... type '<s' ...
<s>
... and select 'string-array' from this code completion menu

```
1 <resources>
2     <string name="app_name">Concert Tickets</string>
3     <string name="txtTitle">Ticket Vault</string>
4     <string name="txtTickets">Number of Tickers</string>
5     <string name="prompt">Select Group</string>
6     <string name="description">Concert Image</string>
7     <string name="txtCost">Find the Cost</string>
8
9
10    </resources>
11
```

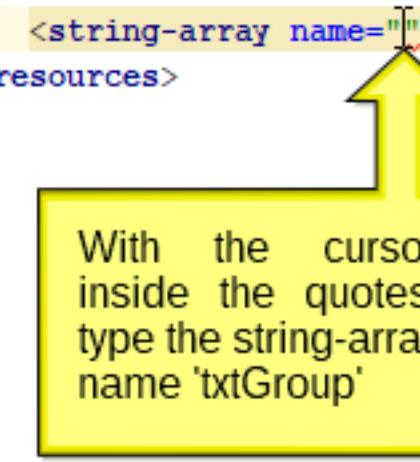
resources



Edit translations for all locales in the translations editor.

```
1 <resources>
2   <string name="app_name">Concert Tickets</string>
3   <string name="txtTitle">Ticket Vault</string>
4   <string name="txtTickets">Number of Tickers</string>
5   <string name="prompt">Select Group</string>
6   <string name="description">Concert Image</string>
7   <string name="txtCost">Find the Cost</string>
8
9   <string-array name="txtGroup">
10  </resources>
```

With the cursor
inside the quotes,
type the string-array
name 'txtGroup'





Project

- app
 - manifests
 - java
 - edu.udayton.concertickets
 - MainActivity
 - edu.udayton.concertickets (androidTest)
 - edu.udayton.concertickets (test)
 - generatedJava
 - res
 - drawable
 - layout
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - styles.xml
- Gradle Scripts

Edit translations for all locales in the translations editor.

```
1 <resources>
2   <string name="app_name">Concert Tickets</string>
3   <string name="txtTitle">Ticket Vault</string>
4   <string name="txtTickets">Number of Tickers</string>
5   <string name="prompt">Select Group</string>
6   <string name="description">Concert Image</string>
7   <string name="txtCost">Find the Cost</string>
8
9   <string-array name="txtGroup">[|]
```

Place the cursor at the end of
this line (past the quotes),
and close the tag by typing '>'



Edit translations for all locales in the translations editor.

Open editor Hide notification

```
1 <resources>
2     <string name="app_name">Concert Tickets</string>
3     <string name="txtTitle">Ticket Vault</string>
4     <string name="txtTickets">Number of Tickers</string>
5     <string name="prompt">Select Group</string>
6     <string name="description">Concert Image</string>
7     <string name="txtCost">Find the Cost</string>
8
9     <string-array name="txtGroup"></string-array>
10    </resources>
```

With the cursor inside the string-array container, add a line break (i.e., hit Enter)

ConcertTickets app src main res values strings.xml

1:Project Resource Manager 2:Structure 3:Favorites 4:Build Variants 5:Layout Captures 6:Logcat

Edit translations for all locales in the translations editor.

```
<resources>
    <string name="app_name">Concert Tickets</string>
    <string name="txtTitle">Ticket Vault</string>
    <string name="txtTickets">Number of Tickers</string>
    <string name="prompt">Select Group</string>
    <string name="description">Concert Image</string>
    <string name="txtCost">Find the Cost</string>
    <string-array name="txtGroup">
        <item></item>
    </string-array>
</resources>
```

Starting with the cursor on this blank line ...

resources > string-array



Edit translations for all locales in the translations editor.

```
1  <resources>
2      <string name="app_name">Concert Tickets</string>
3      <string name="txtTitle">Ticket Vault</string>
4      <string name="txtTickets">Number of Tickers</string>
5      <string name="prompt">Select Group</string>
6      <string name="description">Concert Image</string>
7      <string name="txtCost">Find the Cost</string>
8
9      <string-array name="txtGroup">
10         <item>Life Revealed</item>
11         <item>Spatial Sense</item>
12         <item>Zig Zag</item>
13     </string-array>
14 </resources>
```

... add these string-array items (elements)



Close. Alt-click to close others

Close the string.xml file

Edit translations for all locales in the translations editor.

```
1 <resources>
2   <string name="app_name">Concert Tickets</string>
3   <string name="txtTitle">Ticket Vault</string>
4   <string name="txtTickets">Number of Tickers</string>
5   <string name="prompt">Select Group</string>
6   <string name="description">Concert Image</string>
7   <string name="txtCost">Find the Cost</string>
8
9   <string-array name="txtGroup">
10    <item>Life Revealed</item>
11    <item>Spatial Sense</item>
12    <item>Zig Zag</item>
13  </string-array>
14</resources>
15
```

[Open editor](#) [Hide notification](#)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res values

1:Project Resource Manager 2:Structure Favorites Build Variants Layout Captures

We can now add dimension resources, such as:
1. the top and bottom margin spacing of the UI components
2. the text sizes for UI components

There is no pre-defined dimension resource file, so we'll have to start from scratch
Select, then right-click the res/values subfolder

activity_main.xml MainActivity.java

Palette Attributes

Common Ab TextView

Text Button

Buttons ImageView

Widgets RecyclerView

Layouts <> <fragment>

Containers ScrollView

Google Switch

Legacy

Component Tree

LinearLayout(vertical)
Ab TextView- "Hello World!"

Design Text

33% Attributes

<unnamed> LinearLayout

id

Declared Attributes

Layout

layout_width match_parent

layout_height match_parent

visibility

visibility

Common Attributes

orientation vertical

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

context .MainActivity

descendantFocusab

divider

dividerPadding

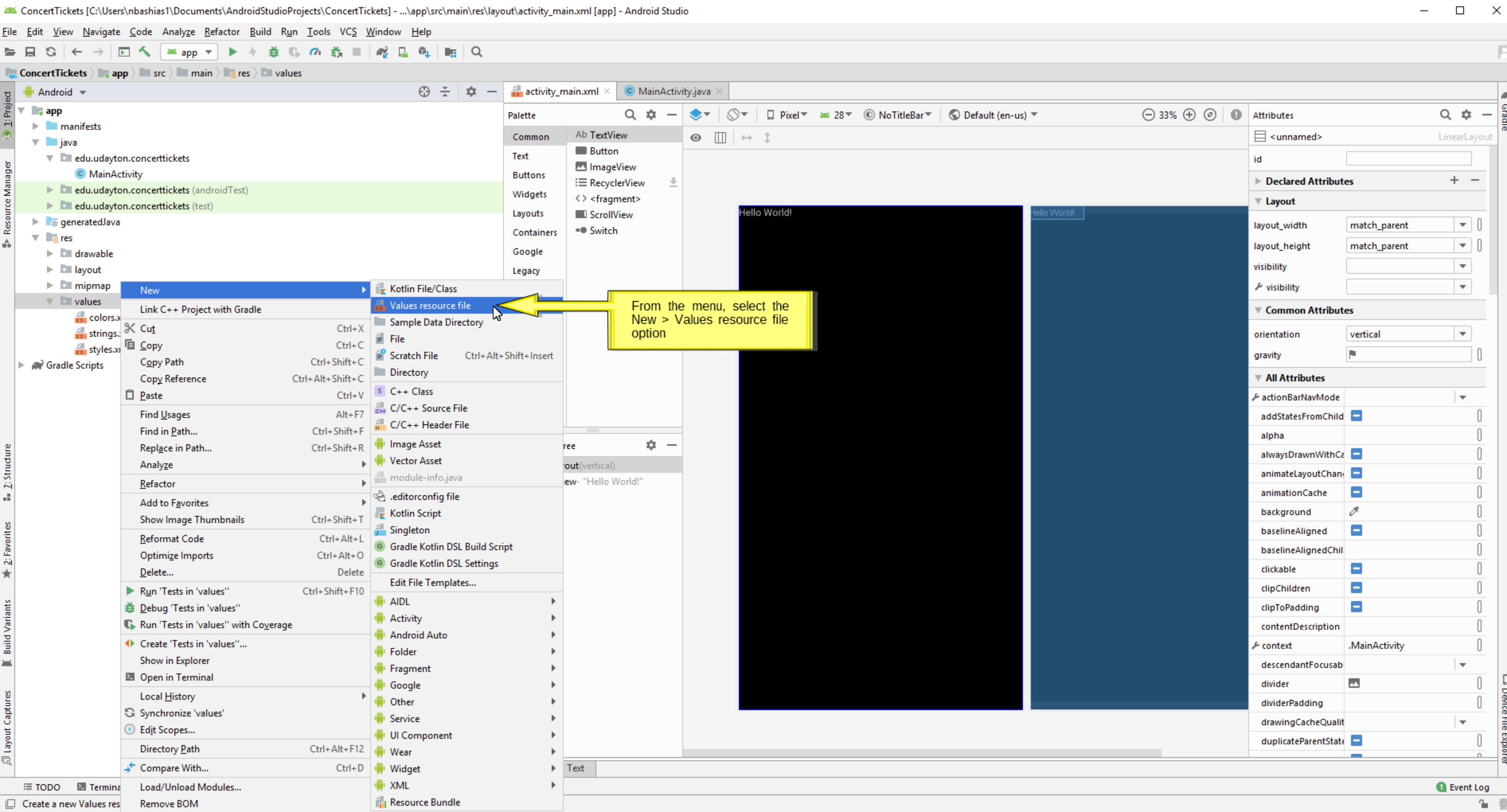
drawingCacheQualit

duplicateParentState

Device File Explorer

Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (16 minutes ago)



ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...app\src\main\res\layout\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res values

1:Project Resource Manager 2:Structure Favorites Build Variants Build Captures Layout Captures

activity_main.xml MainActivity.java

Palette Attributes

Common Ab TextView Button ImageView RecyclerView <fragment>

Text Buttons Widgets

Pixel 28 NoTitleBar Default (en-us) 33% 33% 33%

New Resource File

File name: dimens.xml Type the file name 'dimens.xml'

Source set: main

Directory name: values

Available qualifiers: Chosen qualifiers:

- Country Code
- Network Code
- Locale
- Layout Direction
- Smallest Screen Width
- Screen Width
- Screen Height
- Size
- Ratio
- Orientation
- UI Mode
- Night Mode
- Density

Nothing to show

OK Cancel Help Then click OK

Attributes

<unnamed> LinearLayout

id

Declared Attributes

Layout

layout_width match_parent

layout_height match_parent

visibility

✓ visibility

Common Attributes

orientation vertical

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

context .MainActivity

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Design Text

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (17 minutes ago)

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\dimens.xml [app] - Android Studio

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

ConcertTickets app src main res values dimens.xml

1:Project Resource Manager 2:Structure 3:Favorites 4:Build Variants 5:Layout Captures 6:Logcat

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res drawable layout mipmap values colors.xml dimens.xml strings.xml styles.xml

activity_main.xml dimens.xml MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<resources></resources>
```

With the cursor inside the resources container, add a line break (i.e., hit Enter)

As with the string-array, dimension resources (i.e., dimen elements) have to be added as XML text

resources

TODO Terminal Build Logcat Event Log

XML tag has empty body 2:12 CRLF UTF-8 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\dimens.xml [app] - Android Studio

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

ConcertTickets app src main res values dimens.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res drawable layout mipmap values colors.xml dimens.xml strings.xml styles.xml

activity_main.xml dimens.xml MainActivity.java

```
<?xml version="1.0" encoding="utf-8" ?>
<resources>
</resources>
```

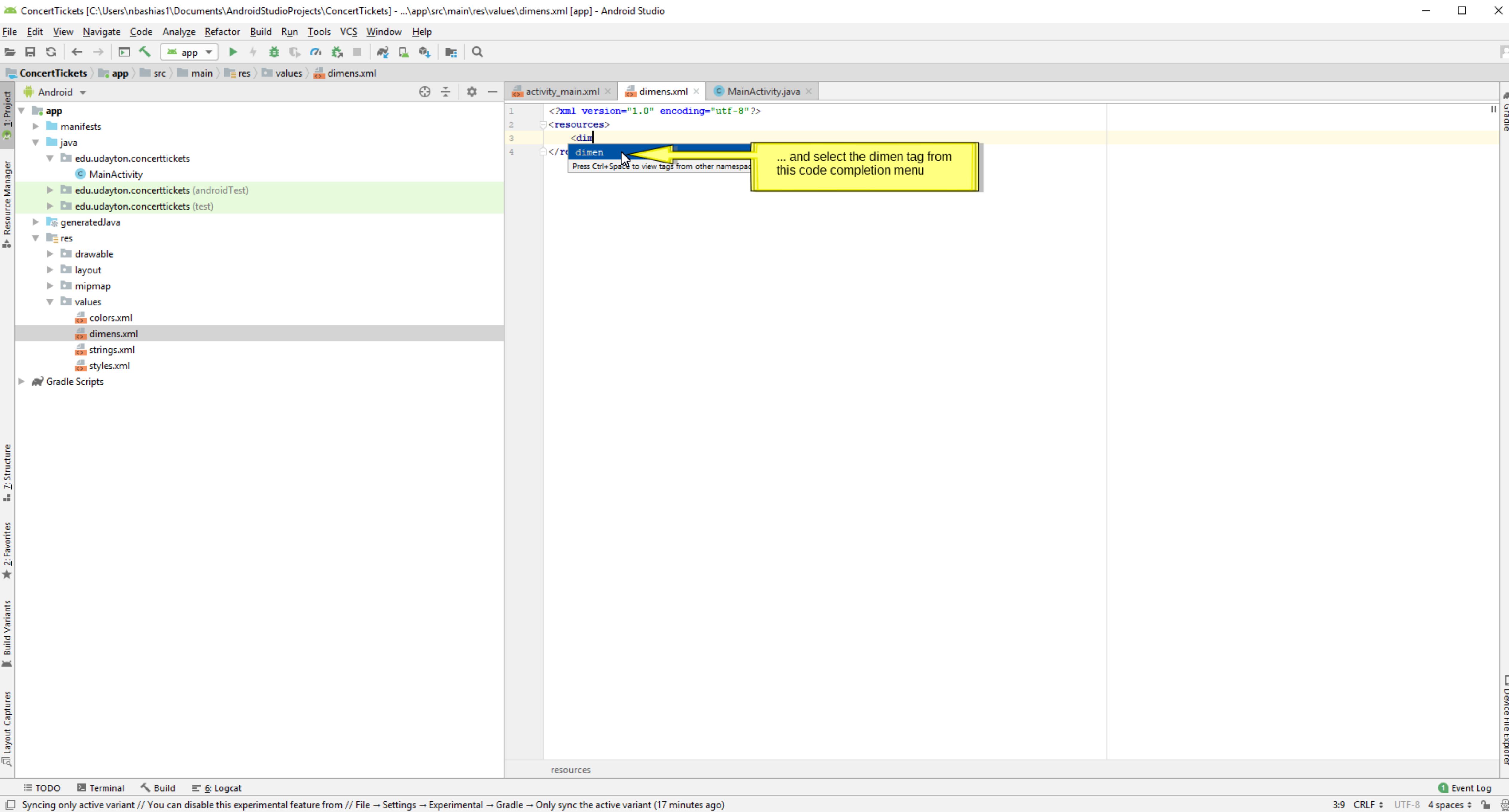
Type '<dim' here ...

resources

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (17 minutes ago)

3:5 CRLF UTF-8 4 spaces





1:Project

- app
 - manifests
 - java
 - edu.udayton.concertickets
 - MainActivity
 - edu.udayton.concertickets (androidTest)
 - edu.udayton.concertickets (test)
 - generatedJava
 - res
 - drawable
 - layout
 - mipmap
 - values
 - colors.xml
 - dimens.xml
 - strings.xml
 - styles.xml
- Gradle Scripts

activity_main.xml x dimens.xml x MainActivity.java x

```
<?xml version="1.0" encoding="utf-8" ?>
<resources>
    <dimen name="m">
```

We are going to define a dimension resource for a 5-pixel top and bottom margin space for our UI components

So, with the cursor between the double-quote marks ...

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\dimens.xml [app] - Android Studio

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

ConcertTickets app src main res values dimens.xml

Android

1:Project

Resource Manager

Gradle

activity_main.xml dimens.xml MainActivity.java

1 <?xml version="1.0" encoding="utf-8"?>
2 <resources>
3 <dimen name="margin5dp">
4 </resources>

... enter the name 'margin5dp'

app
manifests
java
edu.udayton.concertickets
MainActivity
edu.udayton.concertickets (androidTest)
edu.udayton.concertickets (test)
generatedJava
res
drawable
layout
mipmap
values
colors.xml
dimens.xml
strings.xml
styles.xml
Gradle Scripts

2: Favorites

Build Variants

Layout Captures

resources

TODO Terminal Build Logcat

Event Log

Tag start is not closed

3:28 CRLF UTF-8 4 spaces



Android

1:Project

app

manifests

java

edu.udayton.concertickets

MainActivity

edu.udayton.concertickets (androidTest)

edu.udayton.concertickets (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

activity_main.xml

dimens.xml

MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="margin5dp">
```

Then, place the cursor at the end of the line, and close the tag by typing '>' Tag start is not closed

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\dimens.xml [app] - Android Studio

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

ConcertTickets app src main res values dimens.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

Android

app manifests java edu.udayton.concertickets MainActivity edu.udayton.concertickets (androidTest) edu.udayton.concertickets (test) generatedJava res drawable layout mipmap values colors.xml dimens.xml strings.xml styles.xml

activity_main.xml dimens.xml MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="margin5dp">5dp</dimen>
</resources>
```

With the cursor inside the dimen container, enter the dimension value of 5dp

Then, place the cursor at the end of the line, hit Enter ...

resources

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (50 minutes ago)

3:40 CRLF UTF-8 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\dimens.xml [app] - Android Studio

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

ConcertTickets app src main res values dimens.xml

Android

1:Project

Resource Manager

Gradle Scripts

2: Favorites

Build Variants

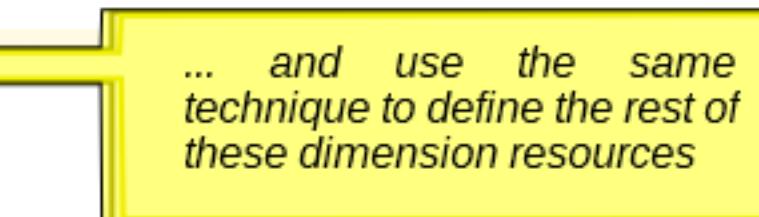
Layout Captures

resources

activity_main.xml dimens.xml MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="margin5dp">5dp</dimen>
    <dimen name="titleSize">40sp</dimen>
    <dimen name="hintSize">36sp</dimen>
    <dimen name="buttonSize">34sp</dimen>
</resources>
```

... and use the same technique to define the rest of these dimension resources



Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (51 minutes ago)

6:42 CRLF UTF-8 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\values\\dimens.xml [app] - Android Studio

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

ConcertTickets app src main res values dimens.xml

1:Project Resource Manager 2:Structure 3:Favorites Build Variants Layout Captures

Close. Alt-click to close others

Once you have defined these dimension resources, you can close the dimens.xml file

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="margin5dp">5dp</dimen>
    <dimen name="titleSize">40sp</dimen>
    <dimen name="hintSize">36sp</dimen>
    <dimen name="buttonSize">34sp</dimen>
</resources>
```

resources

TODO Terminal Build Logcat Event Log

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (51 minutes ago)

6:42 CRLF UTF-8 4 spaces

ConcertTickets [C:\Users\nbashias1\Documents\AndroidStudioProjects\ConcertTickets] - ...\\app\\src\\main\\res\\layout\\activity_main.xml [app] - Android Studio

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

ConcertTickets app src main res layout activity_main.xml

1:Project

Resource Manager

2:Structure

2:Favorites

Build Variants

Layout Captures

Activity Main

Java

edu.udayton.concerttickets

MainActivity

edu.udayton.concerttickets (androidTest)

edu.udayton.concertickets (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

activity_main.xml

MainActivity.java

Attributes

<unnamed>

id

Declared Attributes

Layout

layout_width

layout_height

visibility

✓ visibility

Common Attributes

orientation

gravity

All Attributes

actionBarNavMode

addStatesFromChild

alpha

alwaysDrawnWithCa

animateLayoutChani

animationCache

background

baselineAligned

baselineAlignedChil

clickable

clipChildren

clipToPadding

contentDescription

✓ context

descendantFocusab

divider

dividerPadding

drawingCacheQualit

duplicateParentState

Device File Explorer

Palette

Common

Text

Buttons

Widgets

Layouts

Containers

Google

Legacy

Ab TextView

Button

ImageView

RecyclerView

<> <fragment>

ScrollView

Switch

Component

LinearL

Ab Text

Design Text

This concludes Part 1 of Lesson 3.

In Part 2, we finish composing activity_main.xml, using the string and dimension resource we just defined.

In Part 3:

- i. we add the Java code to MainActivity.java's onCreate method with the app functionality
- ii. we test the app using the Android Studio emulator.

Syncing only active variant // You can disable this experimental feature from // File -> Settings -> Experimental -> Gradle -> Only sync the active variant (51 minutes ago)

Event Log