



## Your Virtual Devices

Android Studio



Virtual devices allow you to test your application without having to own the physical devices.

+ Create Virtual Device...

Click to create a new virtual device

To prioritize which devices to test your application on, visit the [Android Dashboards](#), where you can get up-to-date information on which devices are active in the Android and Google Play ecosystem.

Virtual Device Configuration

## Select Hardware

Android Studio

Choose a device definition

Category	Name	Play Store	Size	Resolution	Density
TV	Nexus S		4.0"	480x800	hdpi
Phone	Nexus One		3.7"	480x800	hdpi
Wear OS	Nexus 6P		5.7"	1440x2560	560dpi
Tablet	Nexus 6		5.96"	1440x2560	560dpi
	Nexus 5X		5.2"	1080x1920	420dpi
	Nexus 5				hdpi
	Nexus 4				hdpi
	Galaxy Nexus		4.65"	720x1280	xhdpi
	5.4" FWVGA		5.4"	480x854	mdpi

New Hardware Profile Import Hardware Profiles

**Nexus 5**

Size: normal  
Ratio: long  
Density: xxhdpi

1080px  
4.95"  
1920px

Clone Device...

Previous **Next** Cancel Finish Help

Then click Next

which devices are active in the Android and Google Play ecosystem.





## Your Virtual Devices

Android Studio

Note that an image of the next Android OS release is also available

This is typically the case: the system image of an Android OS is available to developers before the OS is released for sale on Android devices.

Device Configuration

## System Image

Android Studio

## System image

Selected x86 Images Other Images

Release Name	API Level	ABI	Target
Q <a href="#">Download</a>	Q	x86	Android 9.+ (Google Play)
Pie <a href="#">Download</a>			Android 9.0 (Google Play)
Oreo <a href="#">Download</a>			Android 8.1 (Google Play)
Oreo <a href="#">Download</a>			Android 8.0 (Google Play)
Nougat <a href="#">Download</a>	25	x86	Android 7.1.1 (Google Play)
Nougat <a href="#">Download</a>	24	x86	Android 7.0 (Google Play)

Click to download the Pie system image

Q



API Level

Q

Android

Google Inc.

System Image

x86

We recommend these Google Play images because this device is compatible with Google Play.

Questions on API level?

[See the API level distribution chart](#)

! A system image must be selected to continue.

Previous


Next


Cancel

Finish

Help

which devices are active in the Android and Google Play ecosystem.

 Sy  
And

 Component Installer  
Android Studio

Select a sys

Installing Requested Components

Recommended

Rel

Q Download

Pie Download

Oreo Download

Oreo Download

Nougat Dow

Nougat Dow

SDK Path: C:\Users\nbashias1\AppData\Local\Android\Sdk

Packages to install:  
- Google Play Intel x86 Atom System Image (system-images;android-28;google\_apis\_playstore;x86)  
  
Preparing "Install Google Play Intel x86 Atom System Image (revision: 8)".  
Downloading https://dl.google.com/android/repository/sys-img/google\_apis\_playstore/x86-28\_r08.zip

Downloading (30%): 259.4 / 864.6 MB ...  
://dl.google.com/android/repository/sys-img/google\_apis\_playstore/x86-28\_r08.zip

A system im

Please wait until the installation finishes

Previous

Next

Cancel

Finish

Help

Wait for the system image  
to download and install

which devices are active in the Android and Google Play ecosystem.

### Component Installer

Android Studio

#### Select a system image

SDK Path: C:\Users\nbashias1\AppData\Local\Android\Sdk

Packages to install:  
- Google Play Intel x86 Atom System Image (system-images;android-28;google\_api\_playstore;x86)

Preparing "Install Google Play Intel x86 Atom System Image (revision: 8)".  
Downloading https://dl.google.com/android/repository/sys-img/google\_api\_playstore/x86-28\_r08.zip  
"Install Google Play Intel x86 Atom System Image (revision: 8)" ready.  
Installing Google Play Intel x86 Atom System Image in  
C:\Users\nbashias1\AppData\Local\Android\Sdk\system-images\android-28\google\_api\_playstore\x86  
"Install Google Play Intel x86 Atom System Image (revision: 8)" complete.  
"Install Google Play Intel x86 Atom System Image (revision: 8)" finished.

Once the installation is done, click Finish

Done

Previous Next Cancel Finish Help

### System Image

Android Studio


#### Select a system image

Recommended x86 Images Other Images

Release Name	API Level	ABI	Target
<a href="#">Q Download</a>	Q	x86	Android 9.0 (Google Play)
<b>Pie</b>	28	x86	Android 9.0 (Google Play)
<a href="#">Oreo Download</a>	27	x86	Android 8.1 (Google Play)
<a href="#">Oreo Download</a>	26	x86	Android 8.0 (Google Play)
<a href="#">Nougat Download</a>	25	x86	Android 7.1.1 (Google Play)
<a href="#">Nougat Download</a>	24	x86	Android 7.0 (Google Play)

Then click Next

### Pie



API Level  
**28**

Android  
**9.0**

Google Inc.

System Image  
**x86**

We recommend these Google Play images because this device is compatible with Google Play.

Questions on API level?  
[See the API level distribution chart](#)

Previous **Next** Cancel Finish Help

which devices are active in the Android and Google Play ecosystem.





**Virtual Device Configuration**

**Android Virtual Device (AVD)**  
Android Studio



**Verify Configuration**

AVD Name  *If you wish, you may rename the newly-created virtual device*

 Nexus 5 4.95 1080x1920 xxhdpi [Change...](#)

 Pie Android 9.0 x86 [Change...](#)

Startup orientation

 Portrait  Landscape

Emulated Performance Graphics:

Device Frame ☒ Enable Device Frame

[Show Advanced Settings](#)

The name of this AVD.

[Previous](#) [Next](#) [Cancel](#) [Finish](#) [Help](#)






*Click Finish*

which devices are active in the Android and Google Play ecosystem.

Android Virtual Device Manager

## Your Virtual Devices

Android Studio

Type	Name	Play Store	Resolution	API	Target	CPU/ABI	Size on Disk	
	Nexus 5 Pie		1080 × 1920: xxhdpi	28	Android 9.0 (Google Play)	x86	513 MB	  

Launch this AVD in the emulator

For now, click this play button to launch the virtual Nexus 5 in the emulator

+ Create Virtual Device...

In future lessons, we will use additional virtual devices (e.g., tablets)

Design Text

Logcat TODO Terminal Build

Gradle sync finished in 16 s 469 ms (from cached state) (2 minutes ago)

Event Log

Friday, May 17

Here is our virtual Google Nexus 5 running Android 9 (Pie)!  
Yay, pie!

Click to bring the AVD Manager to the foreground

Resolution	API	target	CPU/ABI	Size on Disk	Actions
xxhdpi	28		x86	513 MB	

Design Text

Logcat TODO Terminal Build

\* daemon started successfully (2 minutes ago)

Event Log



Type	Name	Play Store	Resolution	API	Target	CPU/ABI	Size on Disk
	Nexus 5 Pie		1080 × 1920: xxhdpi	28	Android 9.0 (Google Play)	x86	513 MB

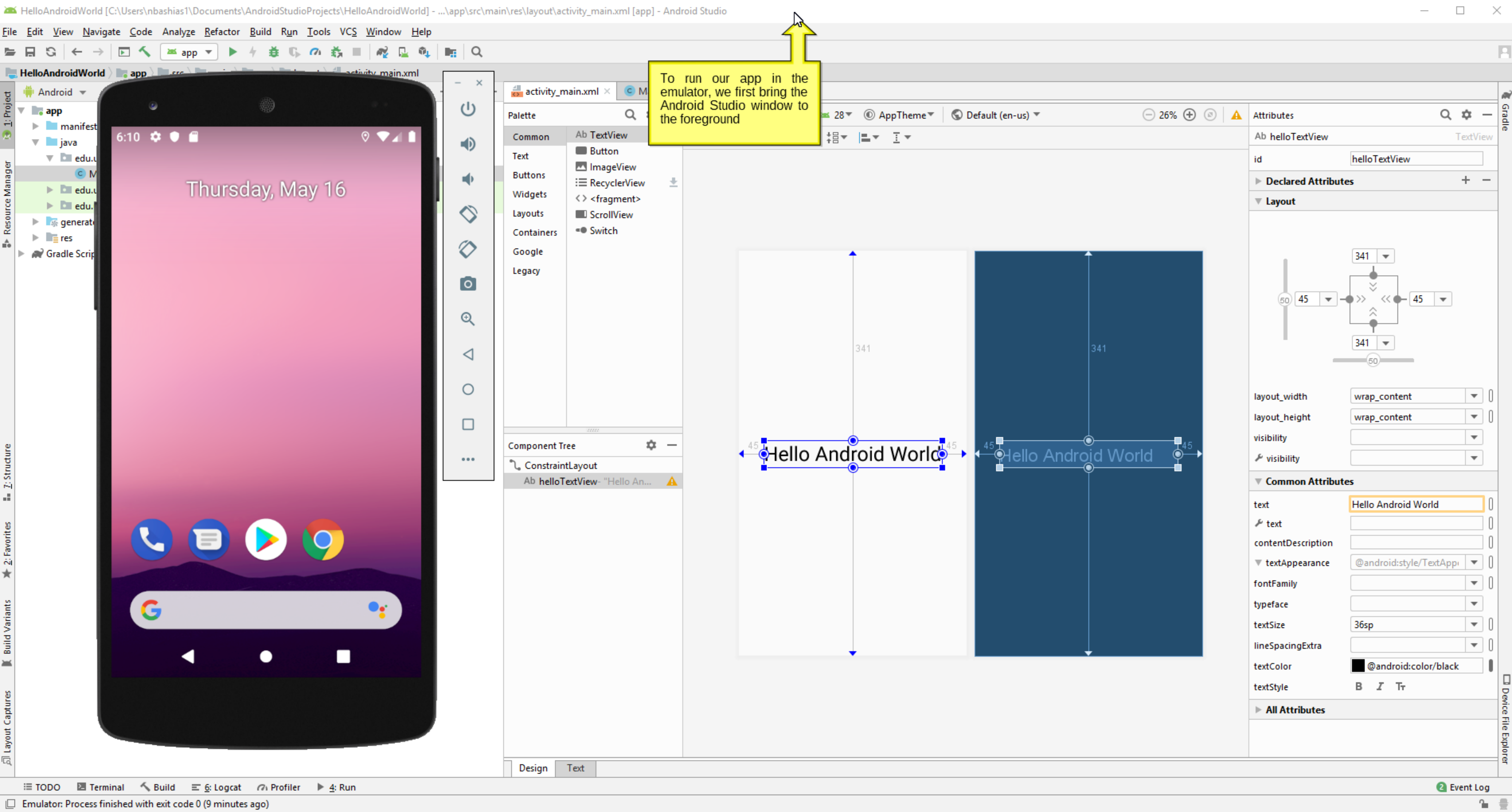
We can now close the AVD Manager window (the emulator is still running)

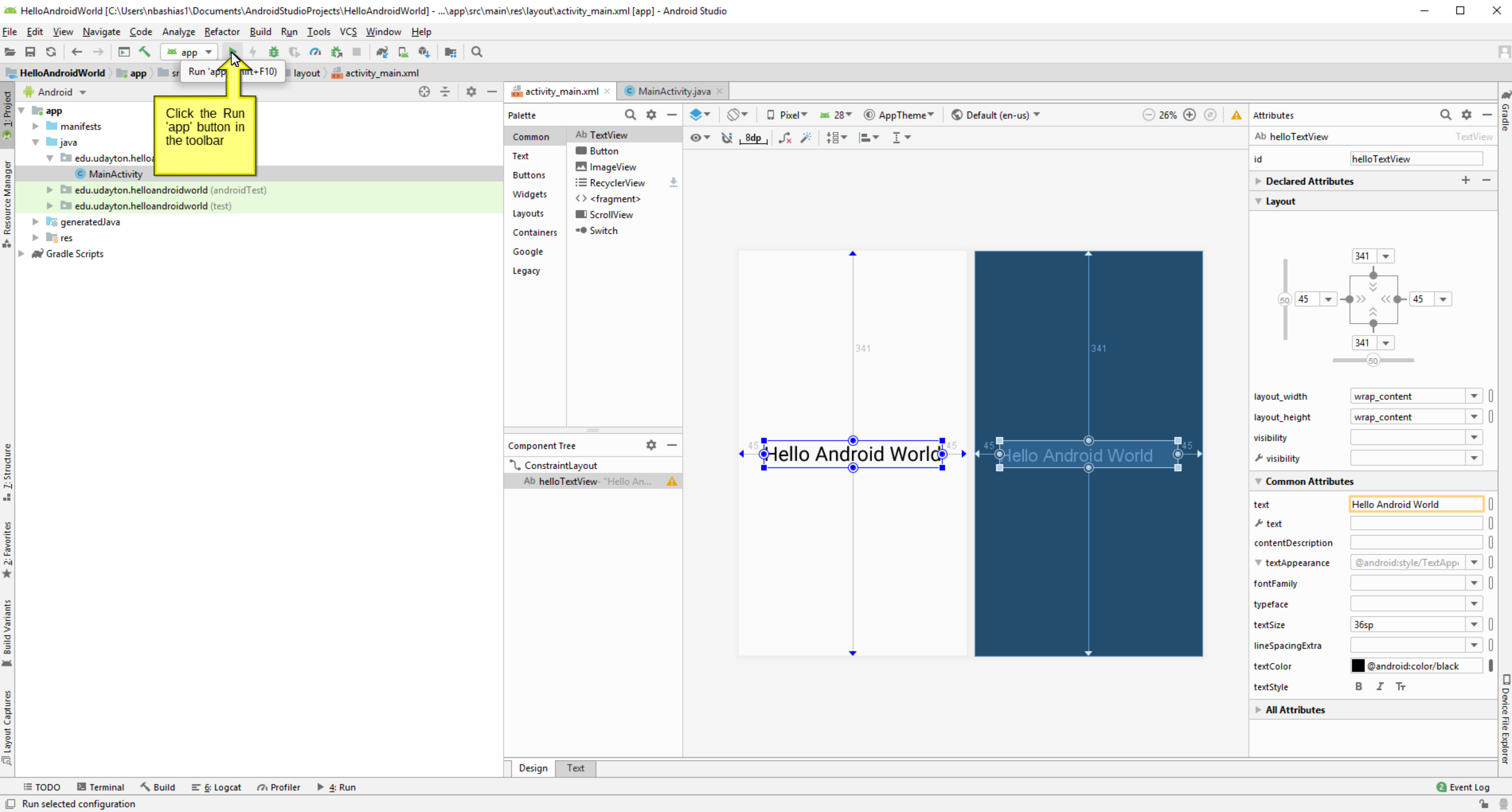
+ Create Virtual Device...

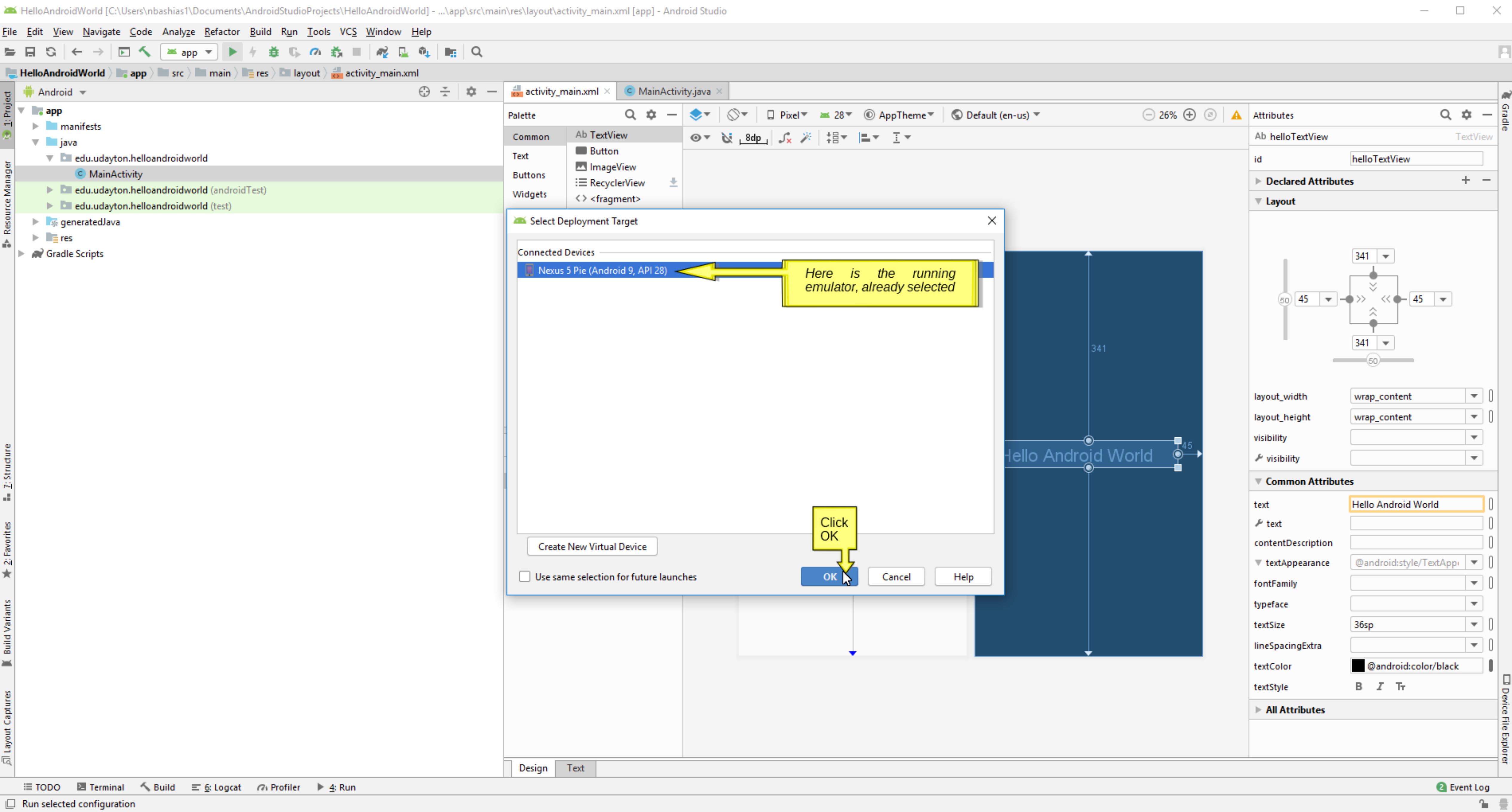


Design Text

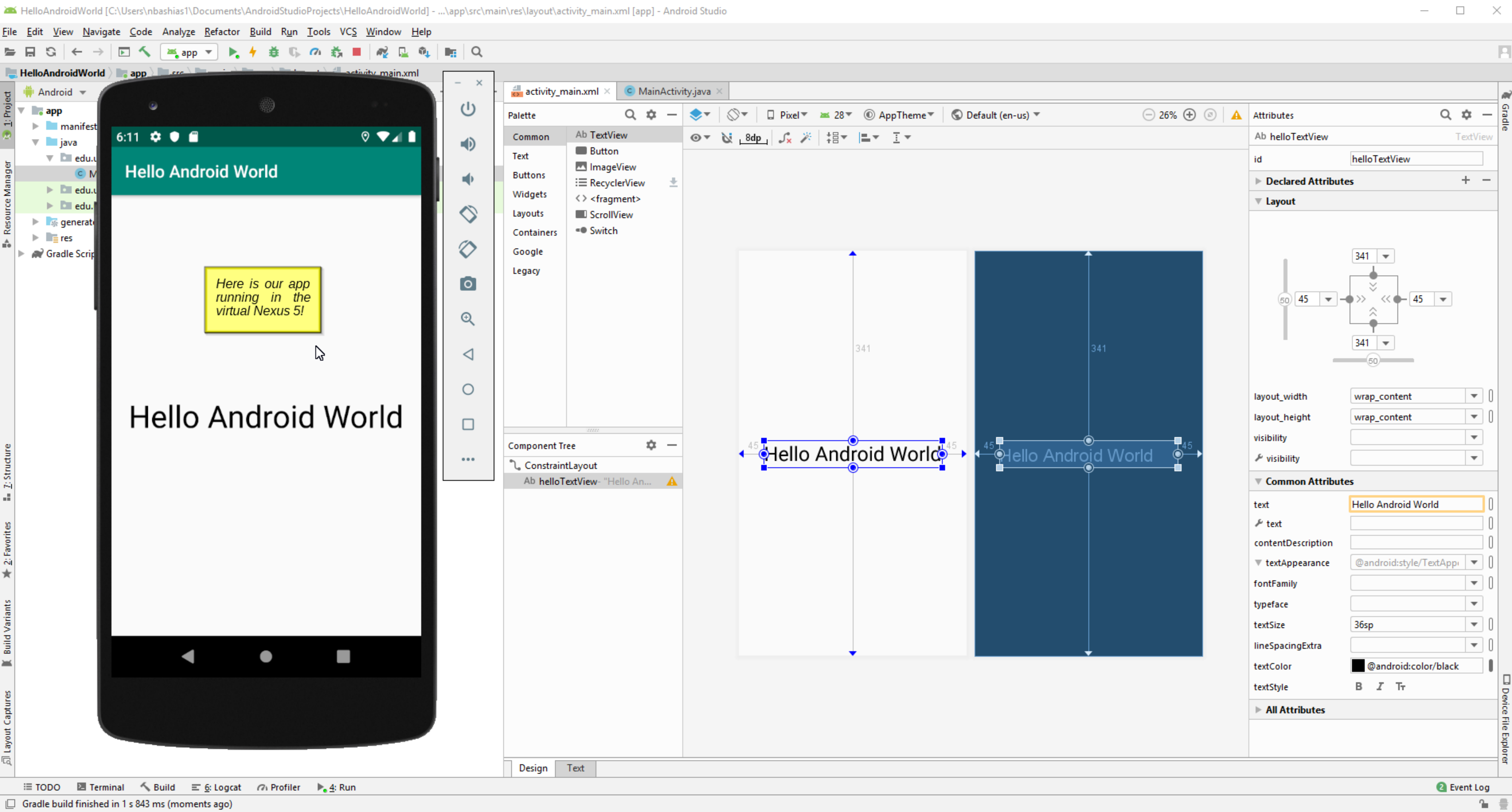














Android

- app
  - manifest
  - java
  - edu.u
  - edu.u
  - edu.u
  - generat
  - res
  - Gradle Scrip

Minimize

We still have some more work to do with this project in Part 3 of this lesson, so we'll minimize the emulator instead of closing it.

Component Tree

- ConstraintLayout
- Ab helloTextView- "Hello An...

Design Text

Pixel 28 AppTheme Default (en-us) 26%

8dp

Attributes

Ab helloTextView TextView

id helloTextView

Declared Attributes

Layout

layout\_width wrap\_content

layout\_height wrap\_content

visibility

visibility

Common Attributes

text Hello Android World

text

contentDescription

textAppearance @android:style/TextApp

fontFamily

typeface

textSize 36sp

lineSpacingExtra

textColor @android:color/black

textStyle B I T

All Attributes

