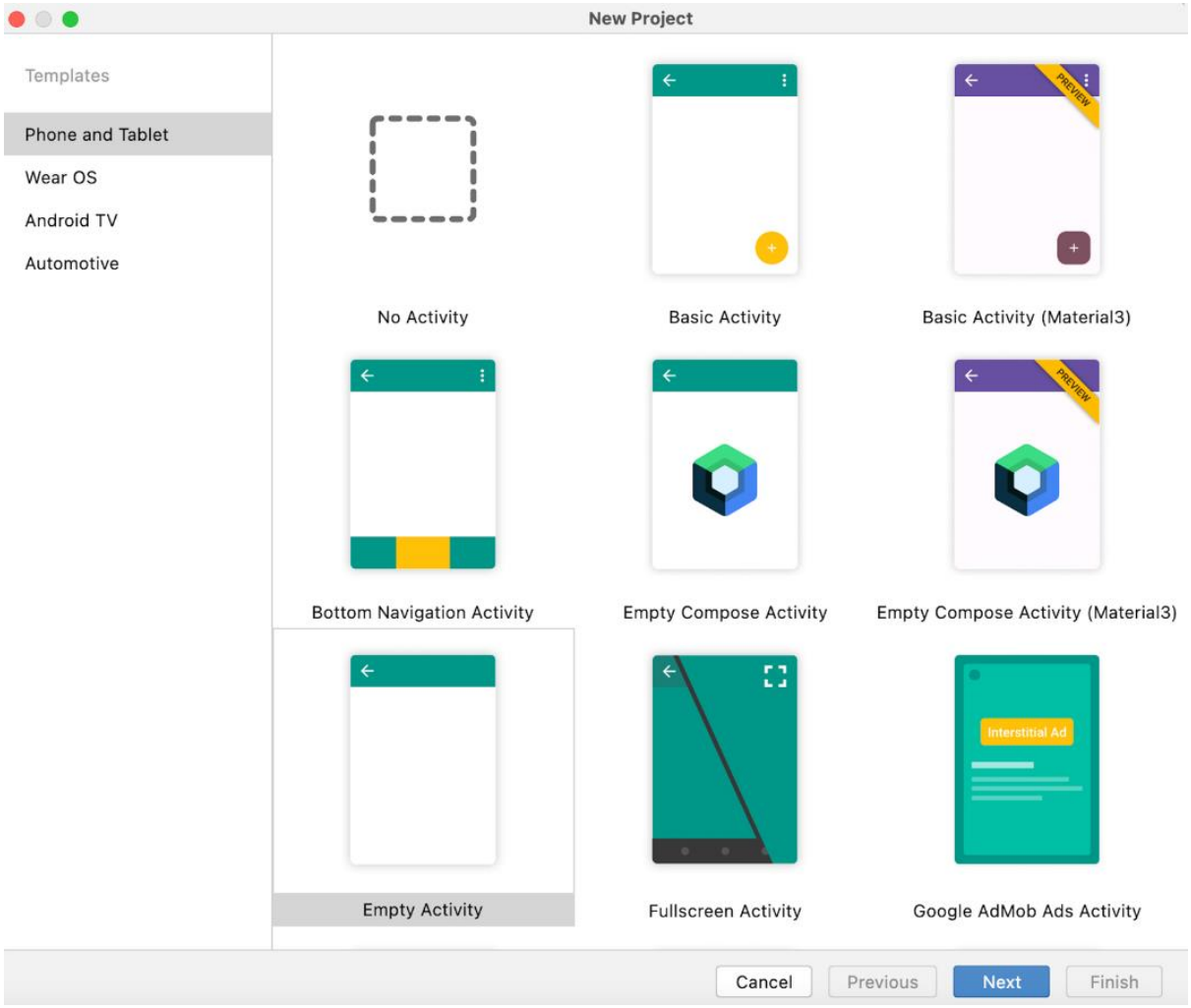
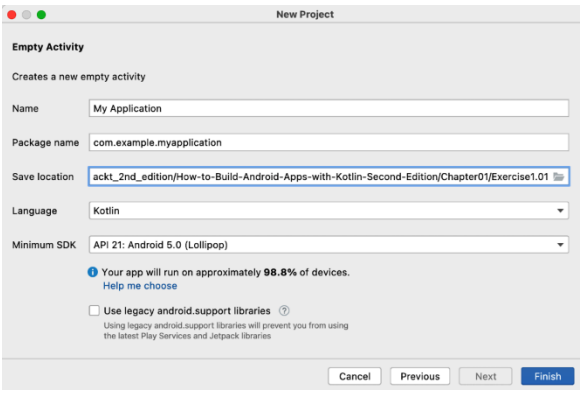
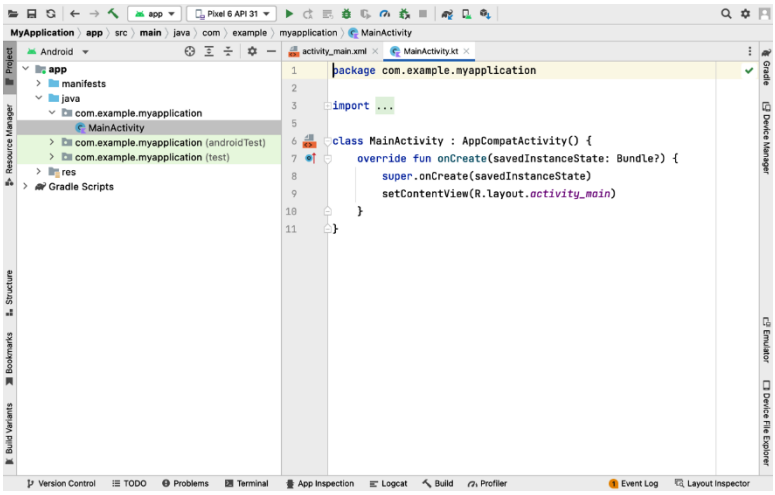
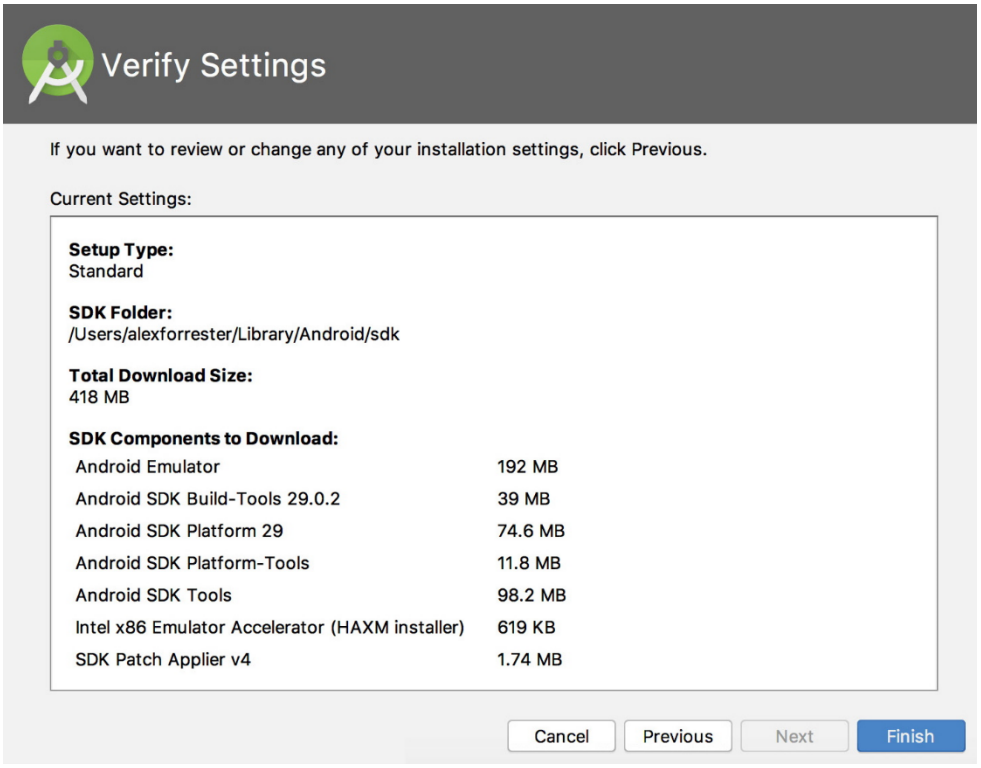
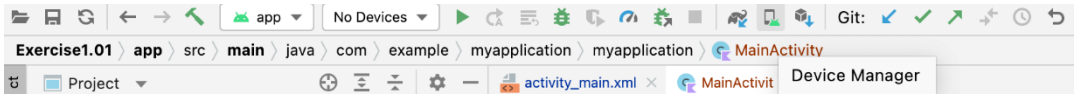
Chapter 01: Creating Your First App

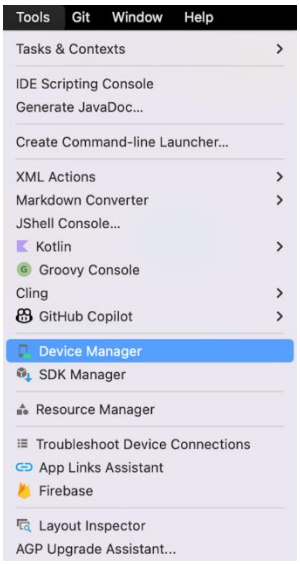




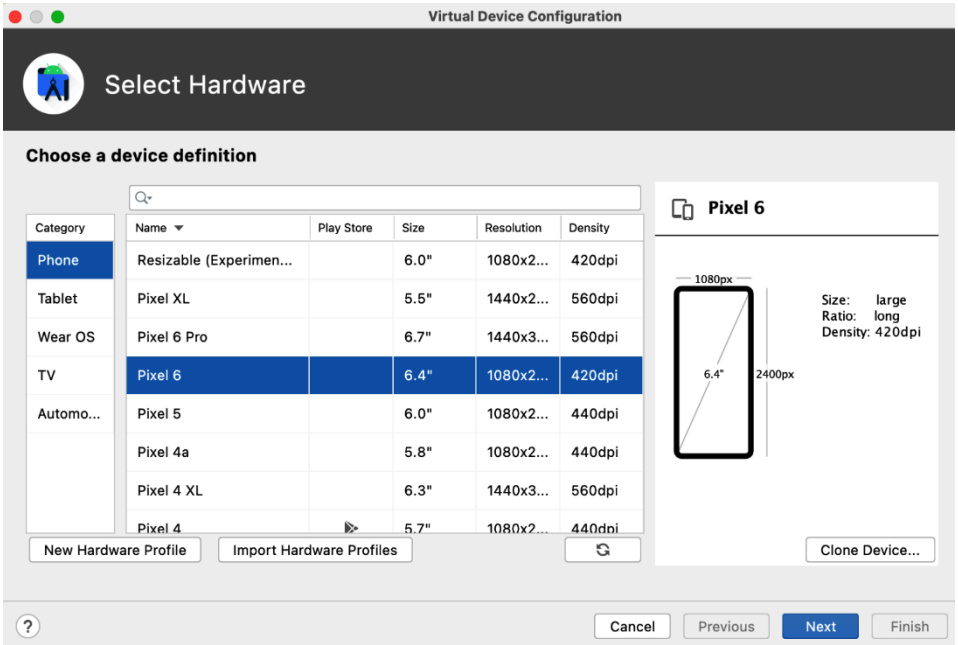

MyApplication
app
src
main
java
com
example
myapplication
MainActivity
Android
app
manifests
java
com.example.myapplication
MainActivity
com.example.myapplication (androidTest)
com.example.myapplication (test)
res
Gradle Scripts
activity_main.xml
MainActivity.kt
package com.example.myapplication
import ...
class MainActivity : AppCompatActivity() {
override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
setContentView(R.layout.activity_main)
}
}
Version Control
TODO
Problems
Terminal
App Inspection
Logcat
Build
Profiler
Event Log
Layout Inspector

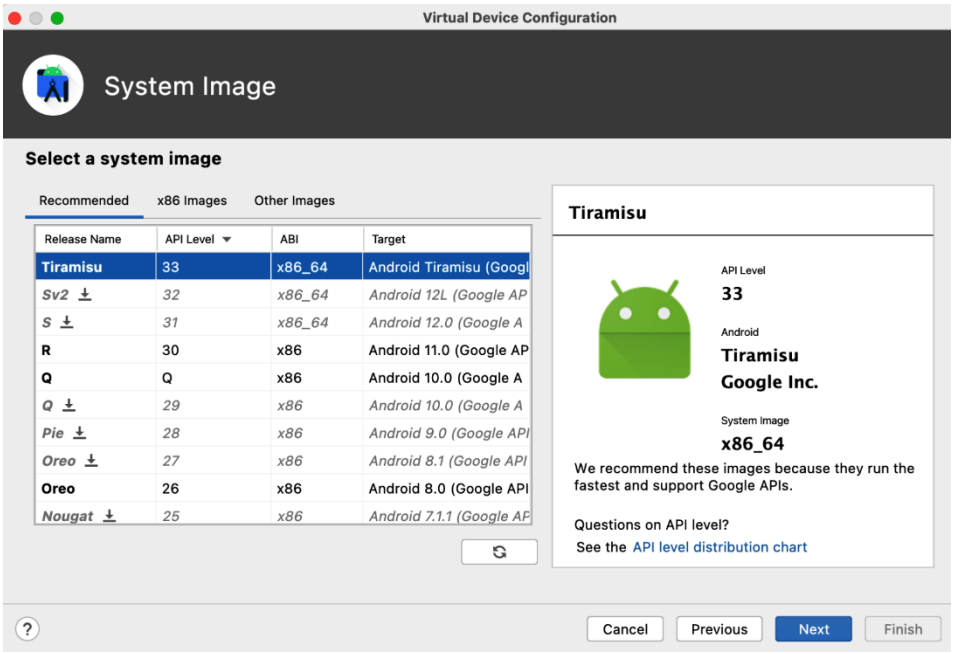

Verify Settings
If you want to review or change any of your installation settings, click Previous.
Current Settings:
Setup Type:
Standard
SDK Folder:
/Users/alexforrester/Library/Android/sdk
Total Download Size:
418 MB
SDK Components to Download:
Android Emulator 192 MB
Android SDK Build-Tools 29.0.2 39 MB
Android SDK Platform 29 74.6 MB
Android SDK Platform-Tools 11.8 MB
Android SDK Tools 98.2 MB
Intel x86 Emulator Accelerator (HAXM installer) 619 KB
SDK Patch Applier v4 1.74 MB
Cancel
Previous
Next
Finish

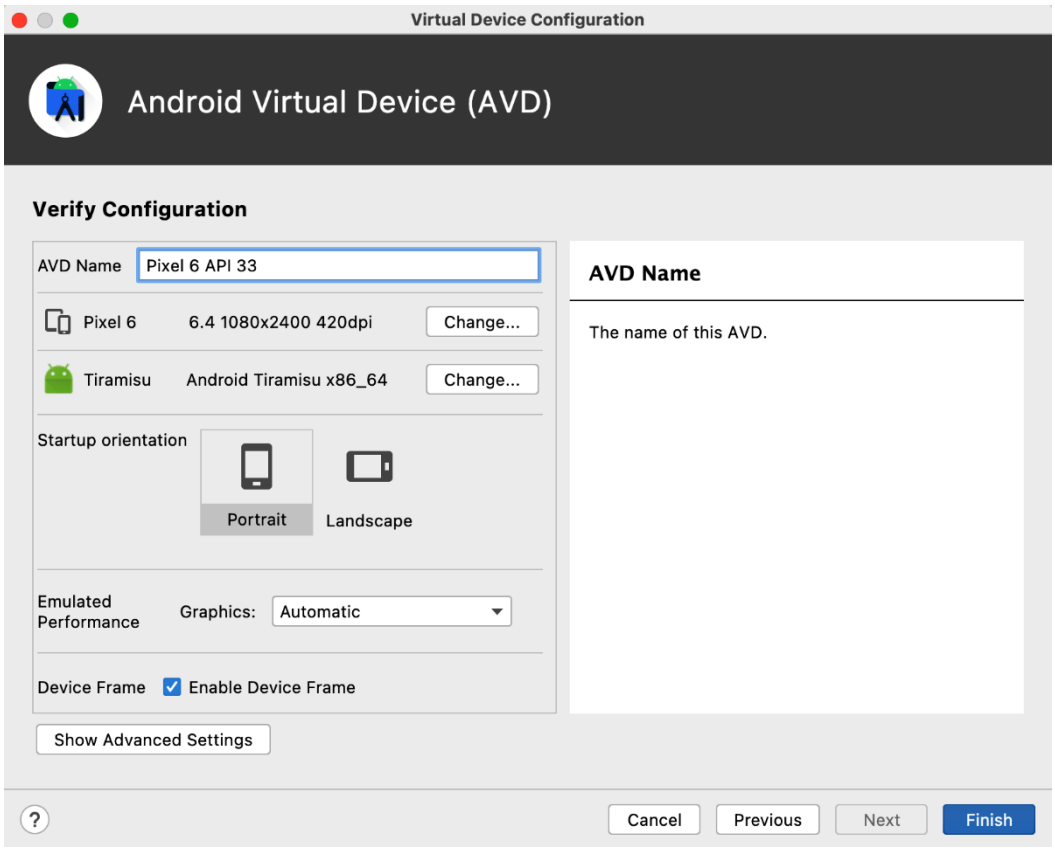

app
No Devices
Git:
Exercise1.01 app src main java com example myapplication myapplication MainActivity
Project
activity_main.xml
MainActivit
Device Manager

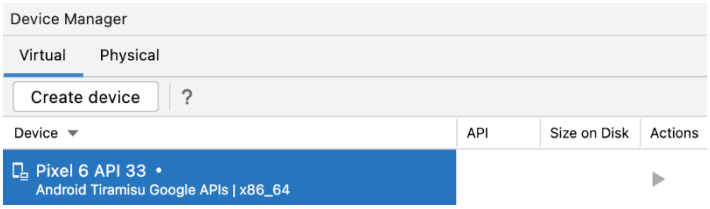

Tools
Git
Window
Help
Tasks & Contexts
IDE Scripting Console
Generate JavaDoc...
Create Command-line Launcher...
XML Actions
Markdown Converter
JShell Console...
Kotlin
Groovy Console
Cling
GitHub Copilot
Device Manager
SDK Manager
Resource Manager
Troubleshoot Device Connections
App Links Assistant
Firebase
Layout Inspector
AGP Upgrade Assistant...

Device Manager
Virtual
Physical
Create device
?

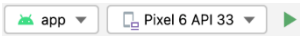

Virtual Device Configuration
Select Hardware
Choose a device definition
Category
Phone
Tablet
Wear OS
TV
Automo...
Name
Play Store
Size
Resolution
Density
Resizable (Experimen... 6.0" 1080x2... 420dpi
Pixel XL 5.5" 1440x2... 560dpi
Pixel 6 Pro 6.7" 1440x3... 560dpi
Pixel 6 6.4" 1080x2... 420dpi
Pixel 5 6.0" 1080x2... 440dpi
Pixel 4a 5.8" 1080x2... 440dpi
Pixel 4 XL 6.3" 1440x3... 560dpi
Pixel 4 5.7" 1080x2... 440dpi
New Hardware Profile
Import Hardware Profiles
Pixel 6
1080px
6.4"
2400px
Size: large
Ratio: long
Density: 420dpi
Clone Device...
?
Cancel
Previous
Next
Finish

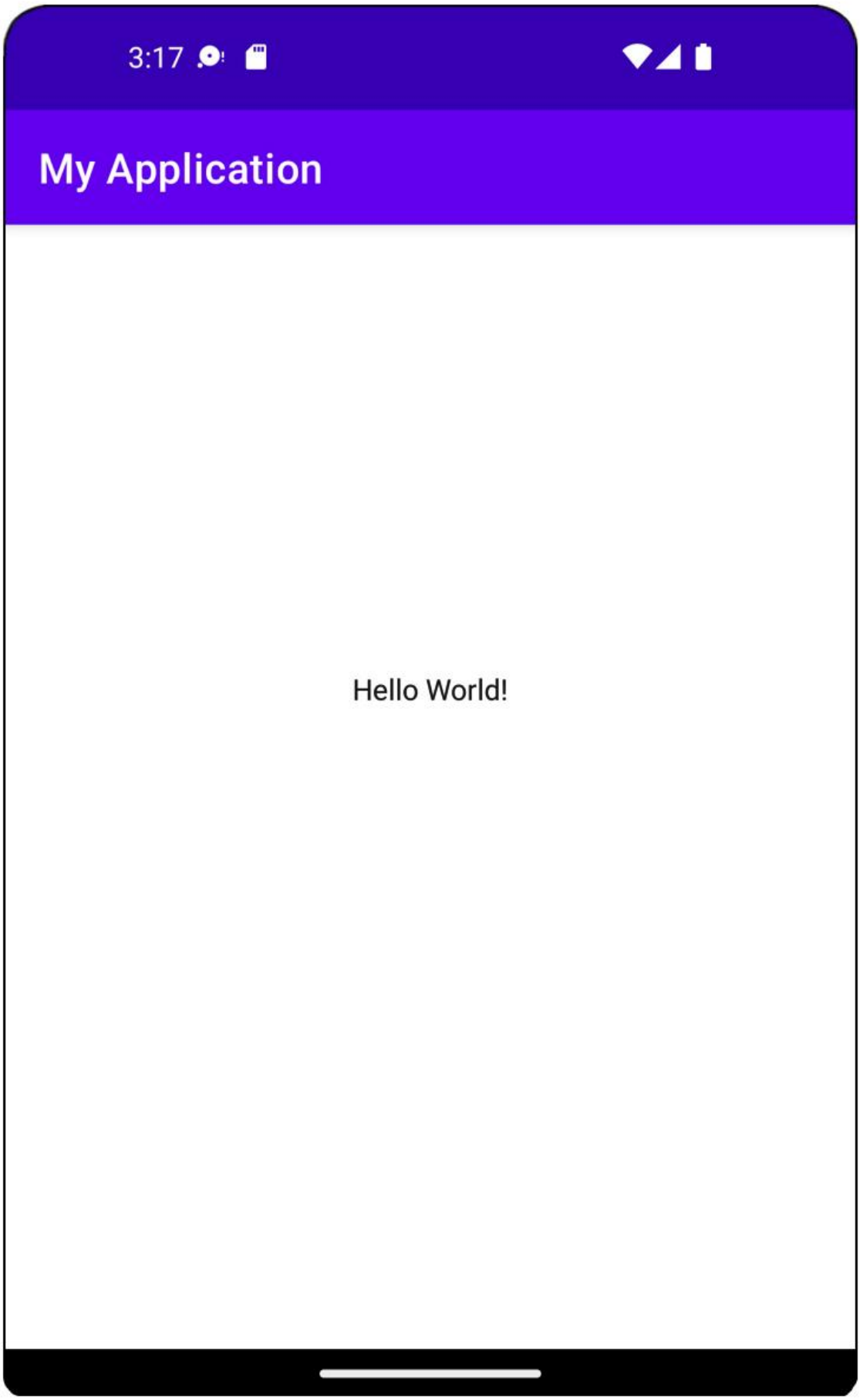

Virtual Device Configuration
System Image
Select a system image
Recommended
x86 Images
Other Images
Release Name
API Level
ABI
Target
Tiramisu 33 x86_64 Android Tiramisu (Googl
Sv2 32 x86_64 Android 12L (Google AP
S 31 x86_64 Android 12.0 (Google A
R 30 x86 Android 11.0 (Google AP
Q Q x86 Android 10.0 (Google A
Q 29 x86 Android 10.0 (Google A
Pie 28 x86 Android 9.0 (Google API
Oreo 27 x86 Android 8.1 (Google API
Oreo 26 x86 Android 8.0 (Google API
Nougat 25 x86 Android 7.1.1 (Google AP
Tiramisu
API Level
33
Android
Tiramisu
Google Inc.
System Image
x86_64
We recommend these images because they run the fastest and support Google APIs.
Questions on API level?
See the API level distribution chart
Cancel
Previous
Next
Finish

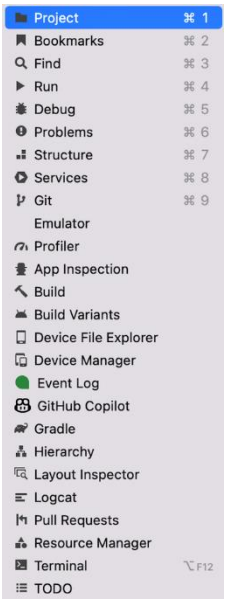

Virtual Device Configuration
Android Virtual Device (AVD)
Verify Configuration
AVD Name
Pixel 6 API 33
Pixel 6
6.4 1080x2400 420dpi
Change...
Tiramisu
Android Tiramisu x86_64
Change...
Startup orientation
Portrait
Landscape
Emulated Performance
Graphics:
Automatic
Device Frame
Enable Device Frame
Show Advanced Settings
AVD Name
The name of this AVD.
Cancel
Previous
Next
Finish

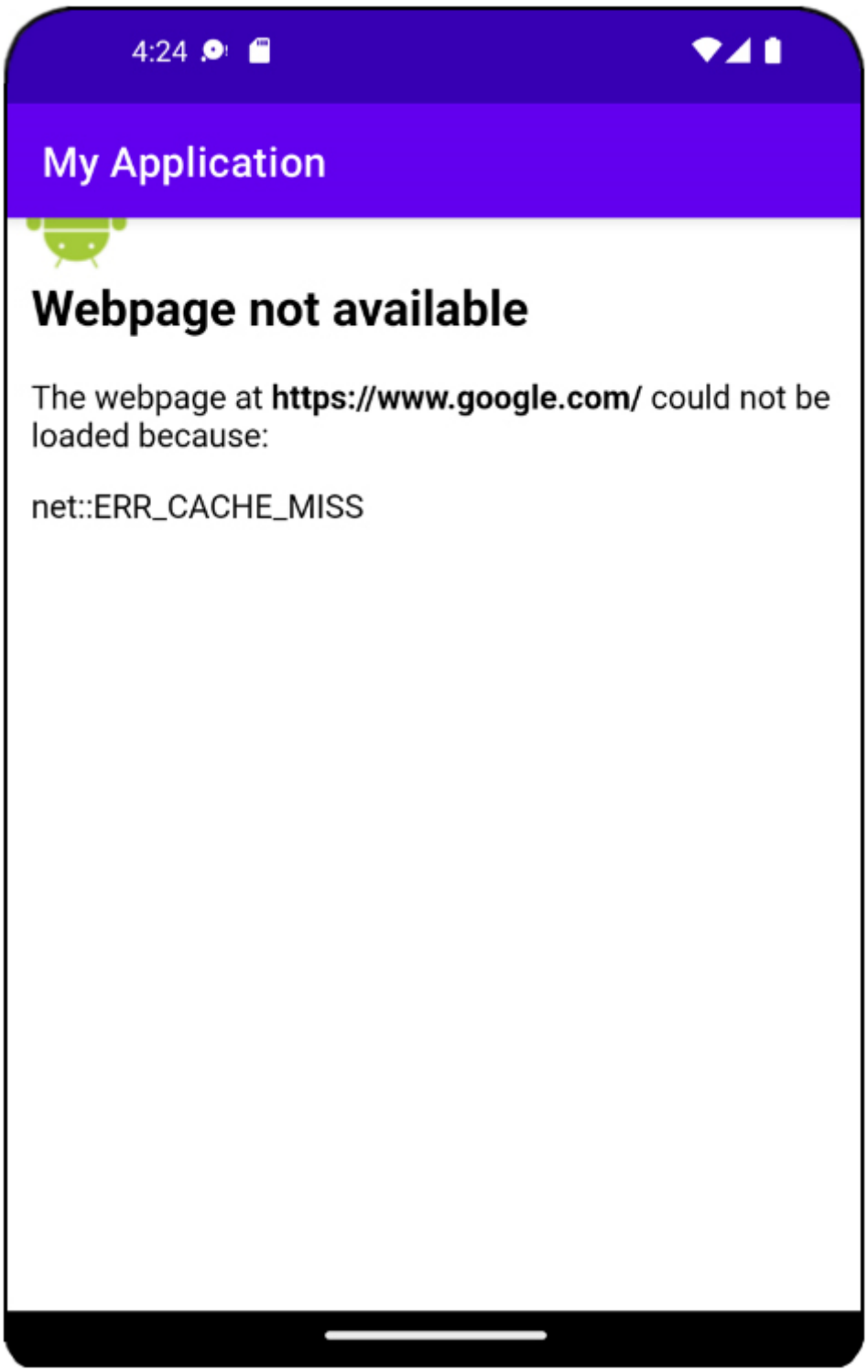

Device Manager
Virtual
Physical
Create device
Device
API
Size on Disk
Actions
Pixel 6 API 33
Android Tiramisu Google APIs | x86_64

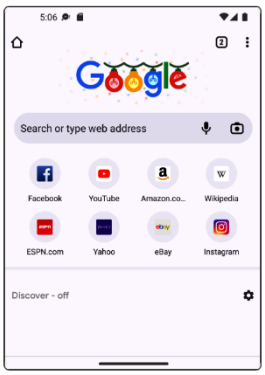
Emulator:
Pixel 6 API 33
3:09
Tue, Dec 27
Gmail
Photos
YouTube
1:1

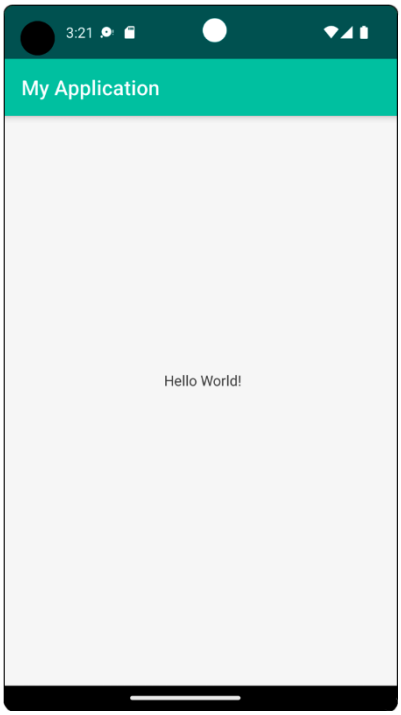

app
Pixel 6 API 33

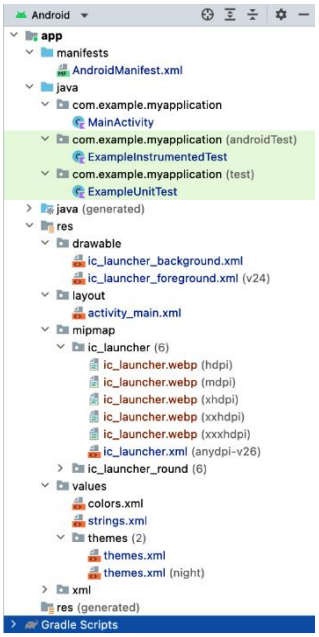

3:17
My Application
Hello World!


Project ⌘ 1
Bookmarks ⌘ 2
Find ⌘ 3
Run ⌘ 4
Debug ⌘ 5
Problems ⌘ 6
Structure ⌘ 7
Services ⌘ 8
Git ⌘ 9
Emulator
Profiler
App Inspection
Build
Build Variants
Device File Explorer
Device Manager
Event Log
GitHub Copilot
Gradle
Hierarchy
Layout Inspector
Logcat
Pull Requests
Resource Manager
Terminal ⌥F12
TODO


4:24
My Application
Webpage not available
The webpage at https://www.google.com/ could not be loaded because:
net::ERR_CACHE_MISS


5:06
Search or type web address
Facebook
YouTube
Amazon.co...
Wikipedia
ESPN.com
Yahoo
eBay
Instagram
Discover - off

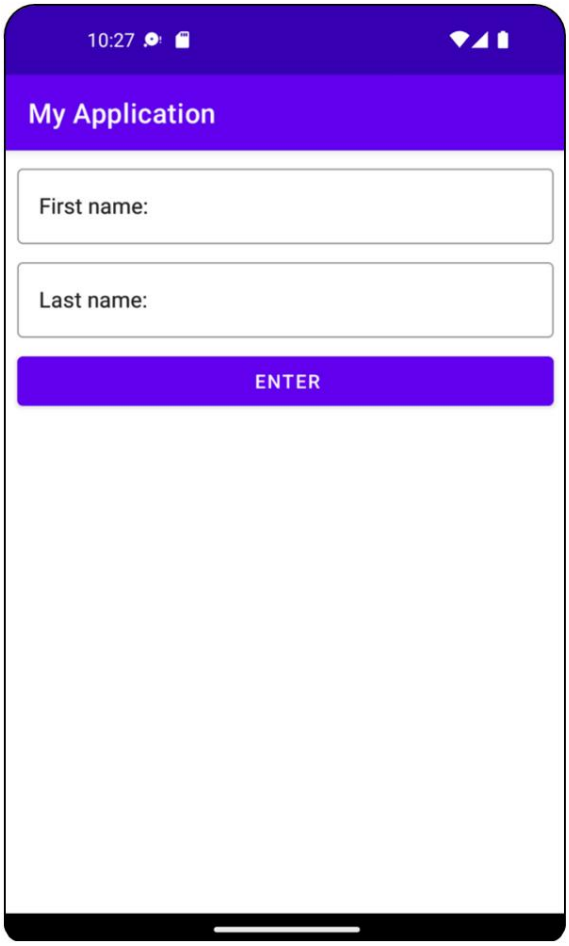

3:21
My Application
Hello World!

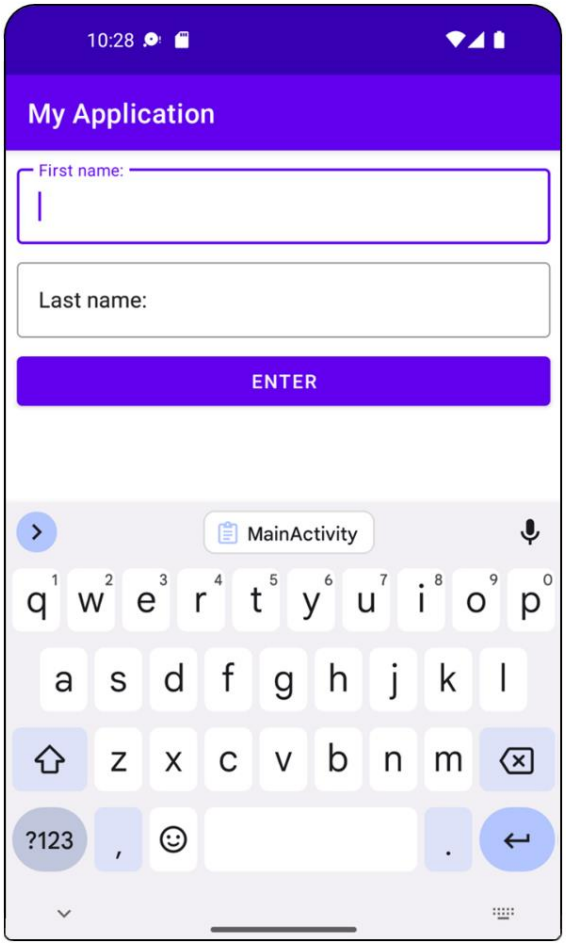


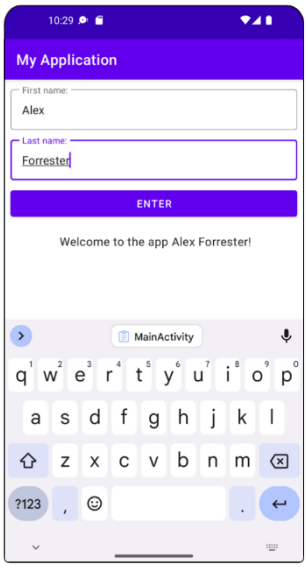
mdpe	hdpi	xhdpi	xxhdpi	xxxhdpi

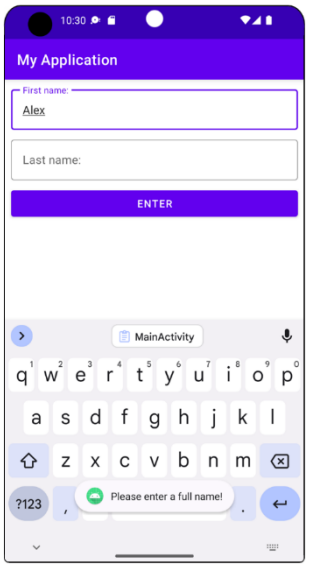
First name:

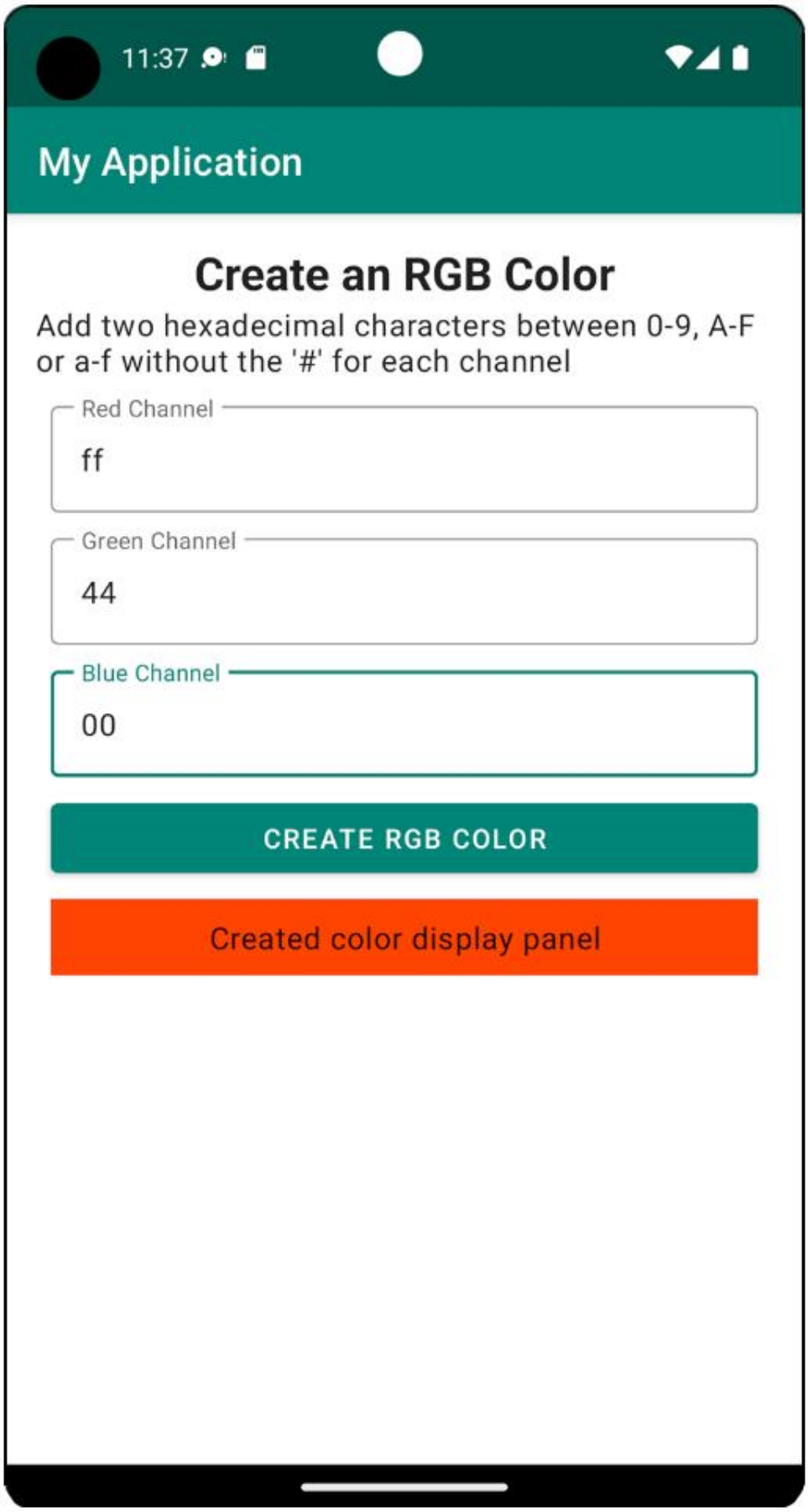
First name:


10:27
My Application
First name:
Last name:
ENTER

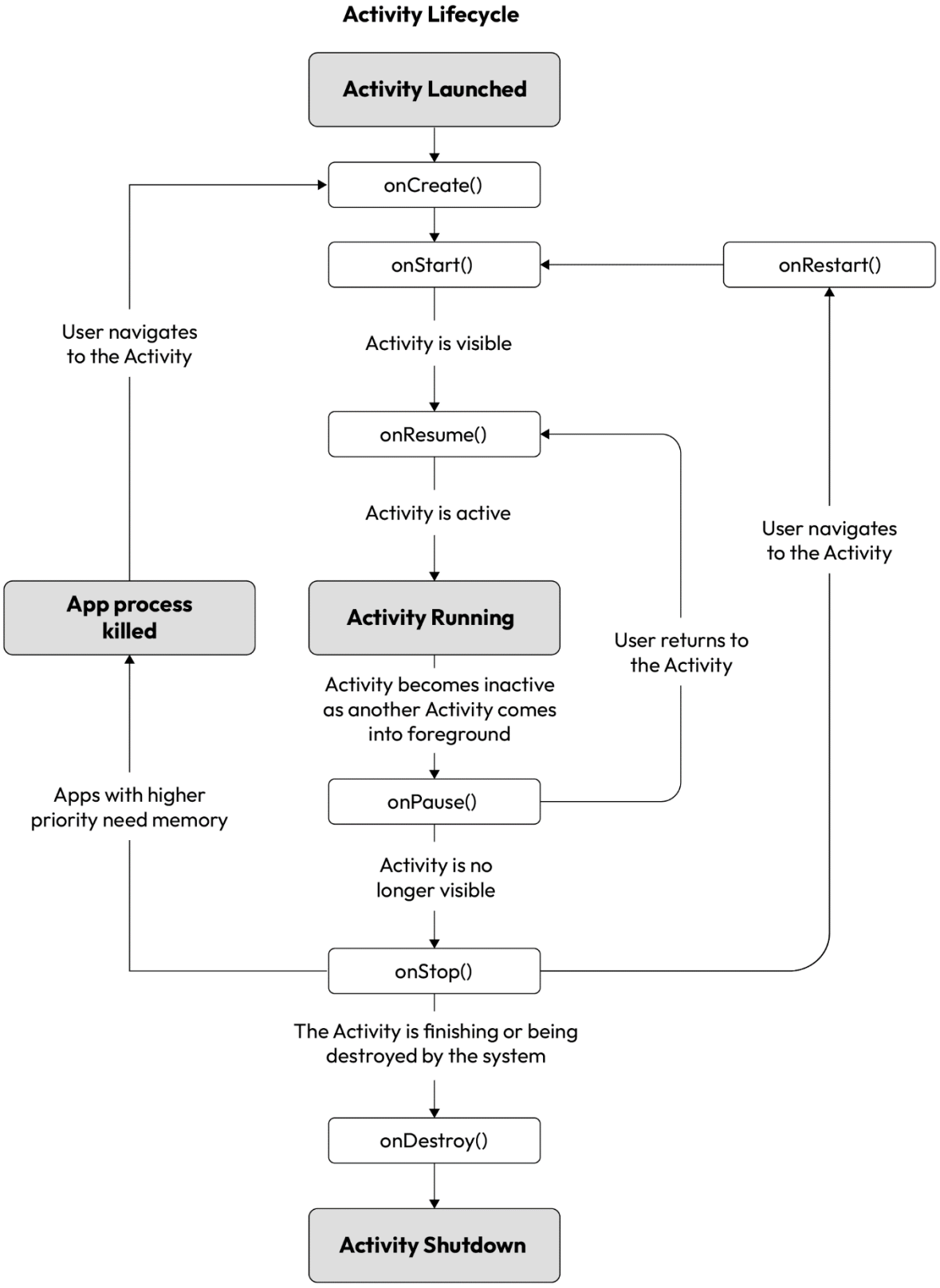

10:28
My Application
First name:
Last name:
ENTER
MainActivity

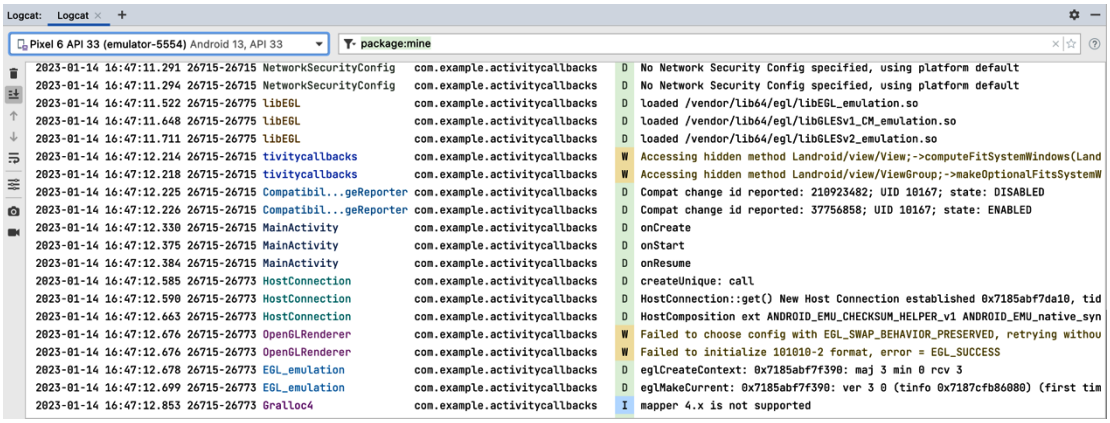

10:29
My Application
First name:
Alex
Last name:
Forrester
ENTER
Welcome to the app Alex Forrester!
MainActivity

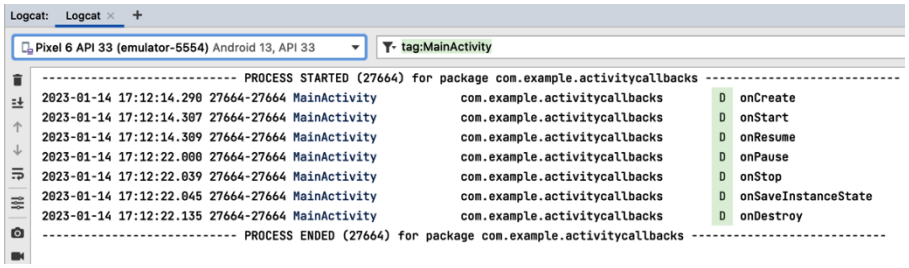

10:30
My Application
First name:
Alex
Last name:
ENTER
MainActivity
Please enter a full name!

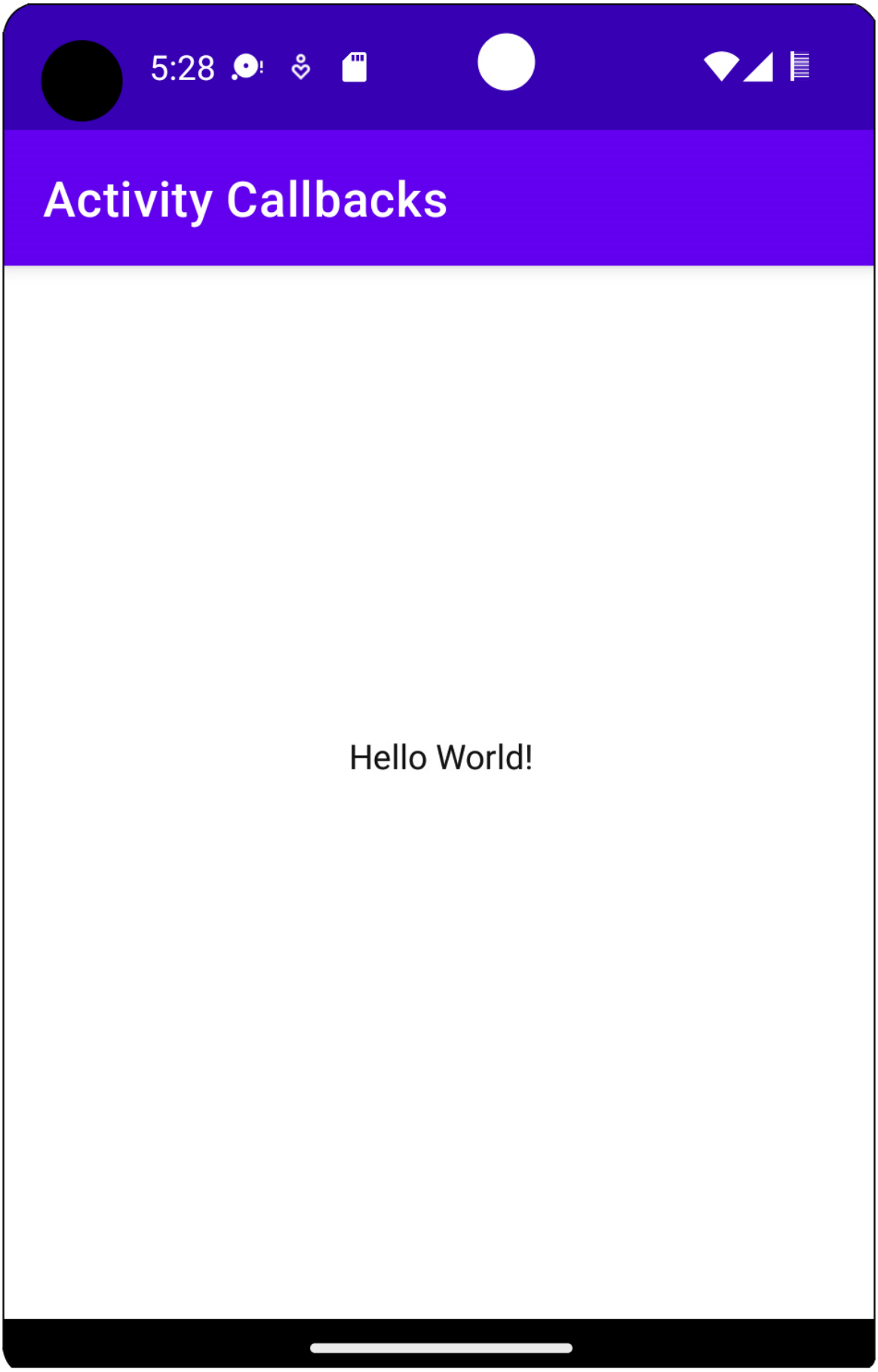

11:37
My Application
Create an RGB Color
Add two hexadecimal characters between 0-9, A-F or a-f without the '#' for each channel
Red Channel
ff
Green Channel
44
Blue Channel
00
CREATE RGB COLOR
Created color display panel

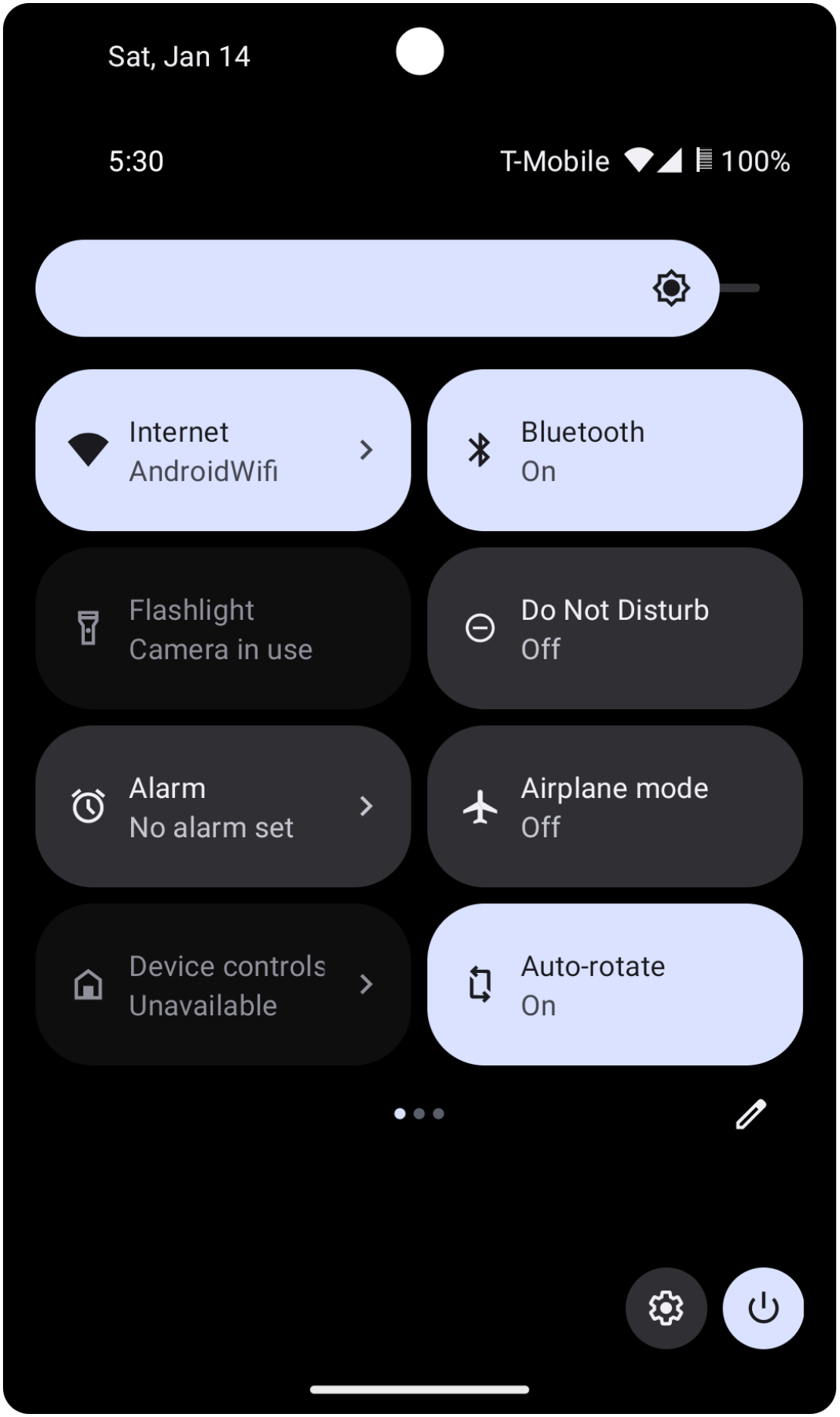
Chapter 02: Building User Screen Flows

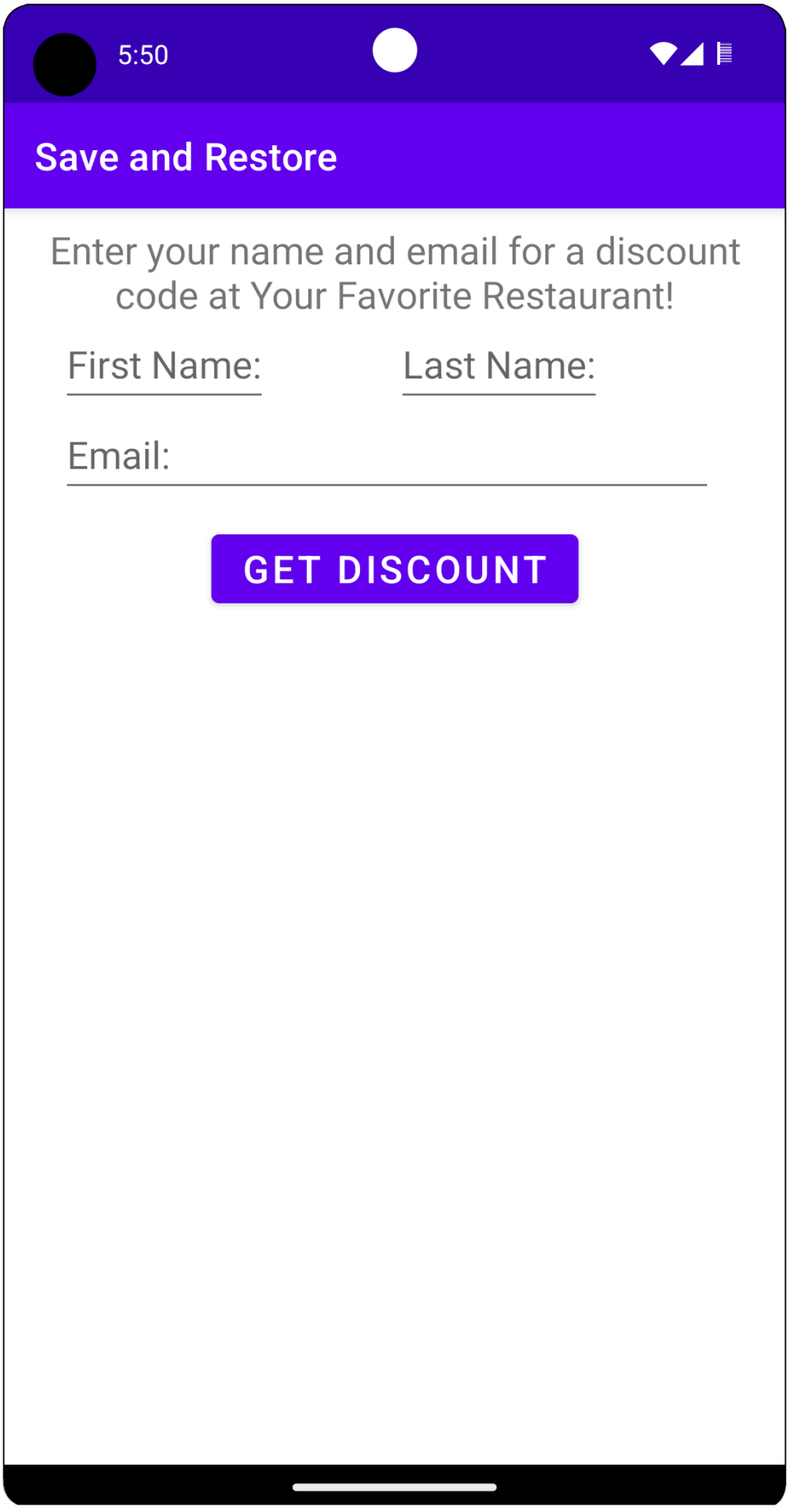


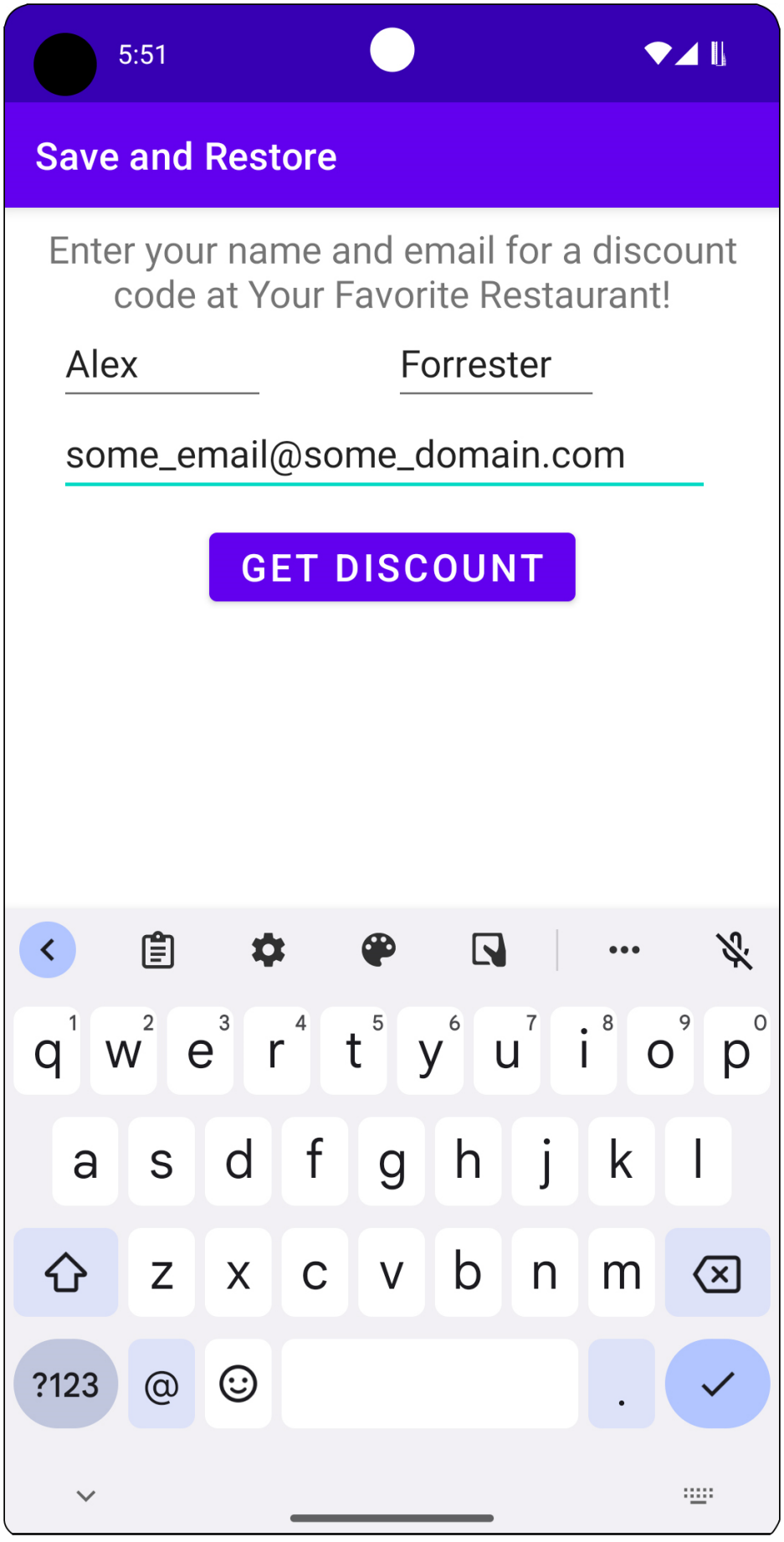

Logcat: Logcat
Pixel 6 API 33 (emulator-5554) Android 13, API 33
package:mine
2023-01-14 16:47:11.291 26715-26715 NetworkSecurityConfig com.example.activitycallbacks D No Network Security Config specified, using platform default
2023-01-14 16:47:11.294 26715-26715 NetworkSecurityConfig com.example.activitycallbacks D No Network Security Config specified, using platform default
2023-01-14 16:47:11.522 26715-26775 libEGL com.example.activitycallbacks D loaded /vendor/lib64/egl/libEGL_emulation.so
2023-01-14 16:47:11.648 26715-26775 libEGL com.example.activitycallbacks D loaded /vendor/lib64/egl/libGLESv1_CM_emulation.so
2023-01-14 16:47:11.711 26715-26775 libEGL com.example.activitycallbacks D loaded /vendor/lib64/egl/libGLESv2_emulation.so
2023-01-14 16:47:12.214 26715-26715 tivitycallbacks com.example.activitycallbacks W Accessing hidden method Landroid/view/View;->computeFitSystemWindows(Land
2023-01-14 16:47:12.218 26715-26715 tivitycallbacks com.example.activitycallbacks W Accessing hidden method Landroid/view/ViewGroup;->makeOptionalFitsSystemW
2023-01-14 16:47:12.225 26715-26715 Compatibil...geReporter com.example.activitycallbacks D Compat change id reported: 210923482; UID 10167; state: DISABLED
2023-01-14 16:47:12.226 26715-26715 Compatibil...geReporter com.example.activitycallbacks D Compat change id reported: 37756858; UID 10167; state: ENABLED
2023-01-14 16:47:12.330 26715-26715 MainActivity com.example.activitycallbacks D onCreate
2023-01-14 16:47:12.375 26715-26715 MainActivity com.example.activitycallbacks D onStart
2023-01-14 16:47:12.384 26715-26715 MainActivity com.example.activitycallbacks D onResume
2023-01-14 16:47:12.585 26715-26773 HostConnection com.example.activitycallbacks D createUnique: call
2023-01-14 16:47:12.590 26715-26773 HostConnection com.example.activitycallbacks D HostConnection::get() New Host Connection established 0x7185abf7da10, tid
2023-01-14 16:47:12.663 26715-26773 HostConnection com.example.activitycallbacks D HostComposition ext ANDROID_EMU_CHECKSUM_HELPER_v1 ANDROID_EMU_native_syn
2023-01-14 16:47:12.676 26715-26773 OpenGLRenderer com.example.activitycallbacks W Failed to choose config with EGL_SWAP_BEHAVIOR_PRESERVED, retrying withou
2023-01-14 16:47:12.676 26715-26773 OpenGLRenderer com.example.activitycallbacks W Failed to initialize 101010-2 format, error = EGL_SUCCESS
2023-01-14 16:47:12.678 26715-26773 EGL_emulation com.example.activitycallbacks D eglCreateContext: 0x7185abf7f390: maj 3 min 0 rcv 3
2023-01-14 16:47:12.699 26715-26773 EGL_emulation com.example.activitycallbacks D eglMakeCurrent: 0x7185abf7f390: ver 3 0 (tinfo 0x7187cfb86080) (first tim
2023-01-14 16:47:12.853 26715-26773 Gralloc4 com.example.activitycallbacks I mapper 4.x is not supported

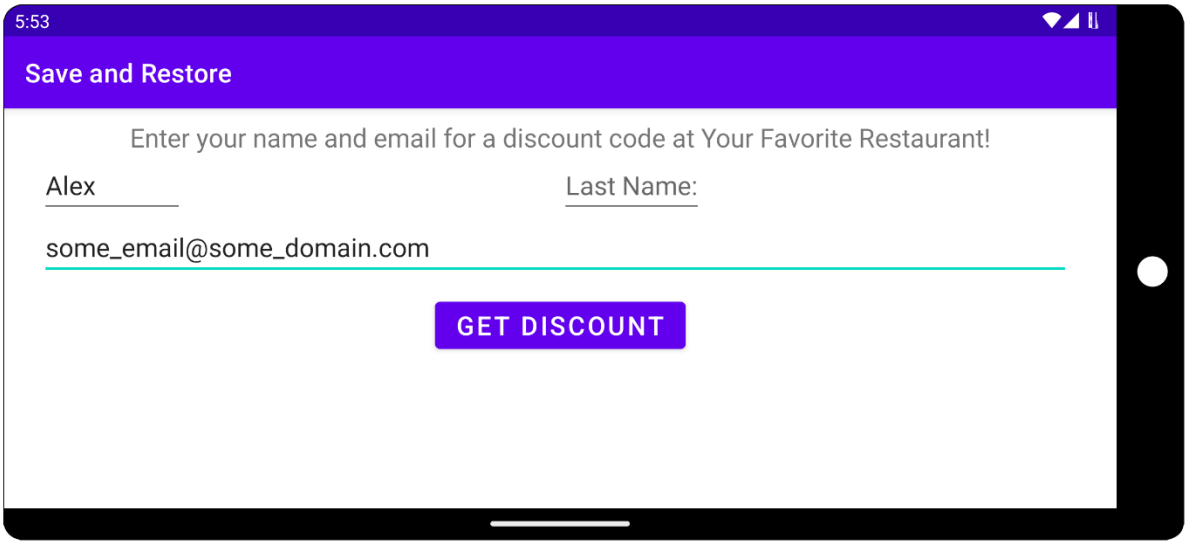

Logcat: Logcat
Pixel 6 API 33 (emulator-5554) Android 13, API 33
tag:MainActivity
---------- PROCESS STARTED (27664) for package com.example.activitycallbacks ----------
2023-01-14 17:12:14.290 27664-27664 MainActivity com.example.activitycallbacks D onCreate
2023-01-14 17:12:14.307 27664-27664 MainActivity com.example.activitycallbacks D onStart
2023-01-14 17:12:14.309 27664-27664 MainActivity com.example.activitycallbacks D onResume
2023-01-14 17:12:22.000 27664-27664 MainActivity com.example.activitycallbacks D onPause
2023-01-14 17:12:22.039 27664-27664 MainActivity com.example.activitycallbacks D onStop
2023-01-14 17:12:22.045 27664-27664 MainActivity com.example.activitycallbacks D onSaveInstanceState
2023-01-14 17:12:22.135 27664-27664 MainActivity com.example.activitycallbacks D onDestroy
---------- PROCESS ENDED (27664) for package com.example.activitycallbacks ----------

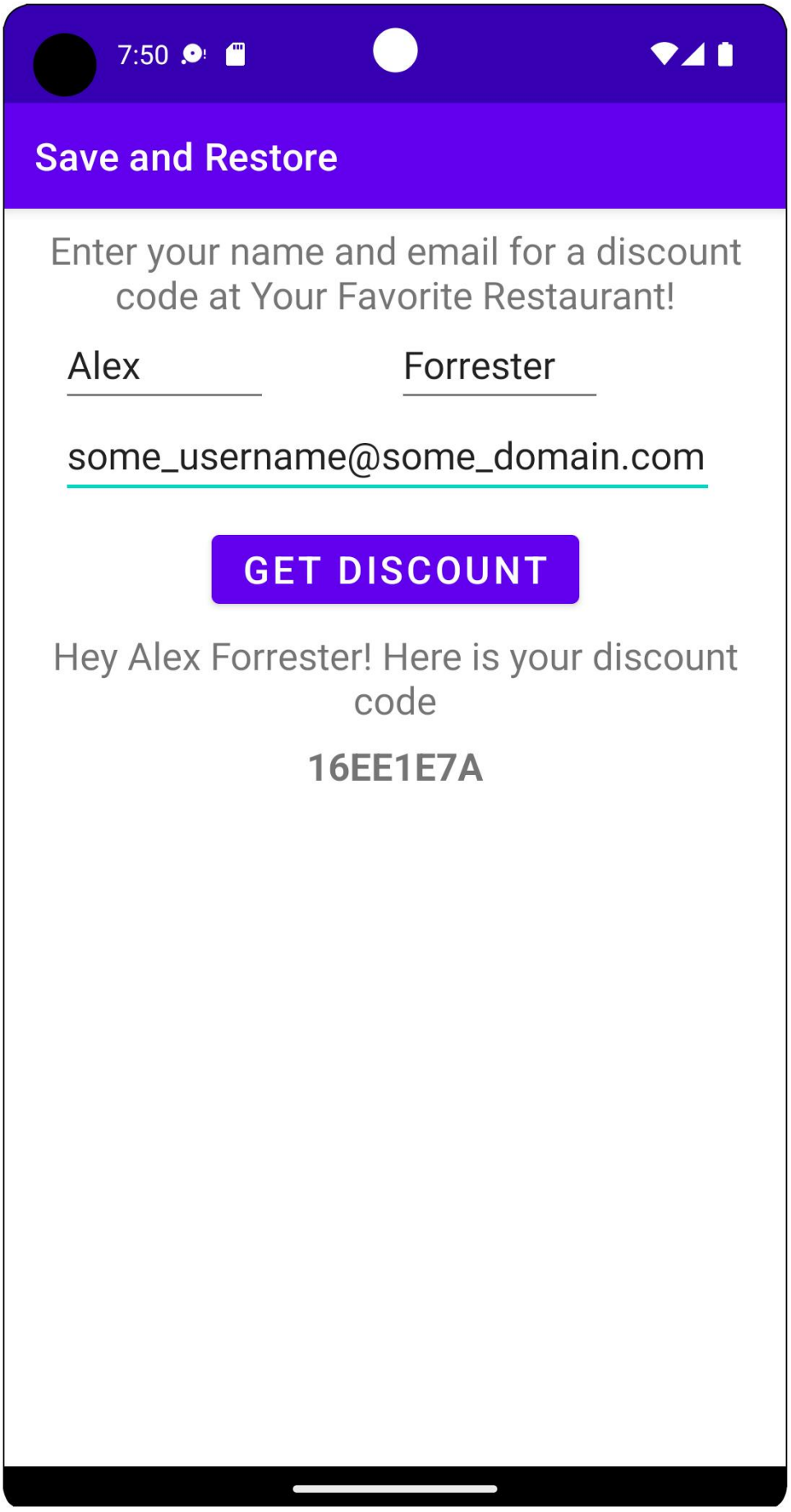

5:28
Activity Callbacks
Hello World!

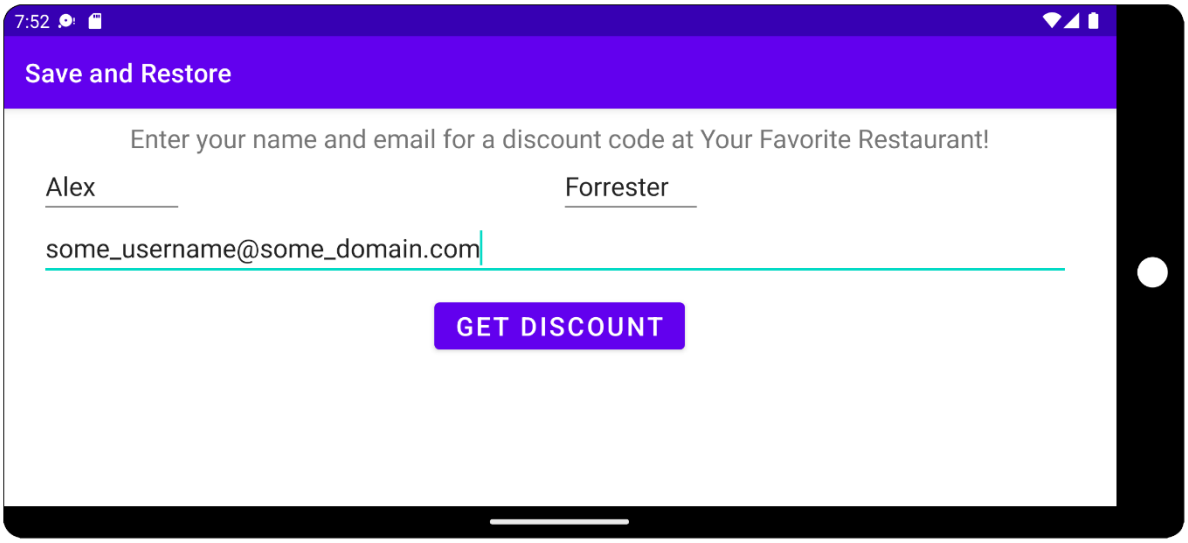

Sat, Jan 14
5:30
T-Mobile
100%
Internet
AndroidWifi
Bluetooth
On
Flashlight
Camera in use
Do Not Disturb
Off
Alarm
No alarm set
Airplane mode
Off
Device controls
Unavailable
Auto-rotate
On

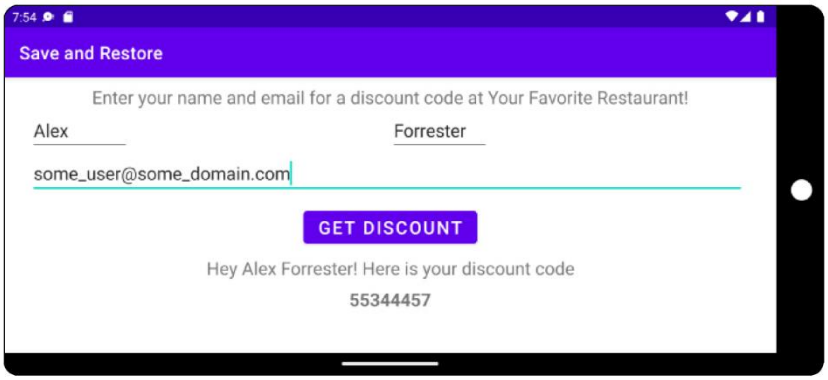

5:50
Save and Restore
Enter your name and email for a discount code at Your Favorite Restaurant!
First Name:
Last Name:
Email:
GET DISCOUNT

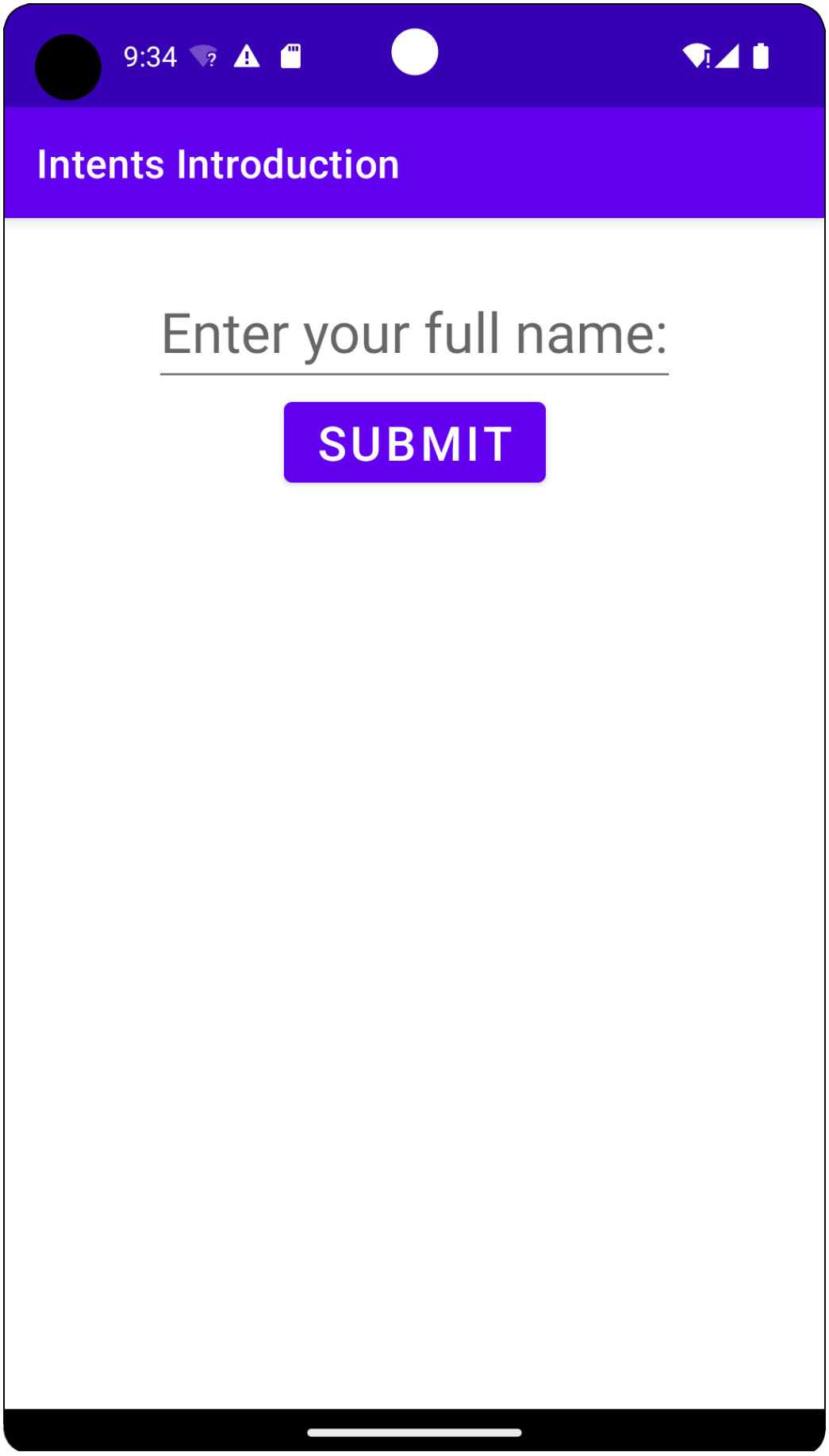

5:51
Save and Restore
Enter your name and email for a discount code at Your Favorite Restaurant!
Alex
Forrester
some_email@some_domain.com
GET DISCOUNT
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
?123
@
.


5:53
Save and Restore
Enter your name and email for a discount code at Your Favorite Restaurant!
Alex
Last Name:
some_email@some_domain.com
GET DISCOUNT

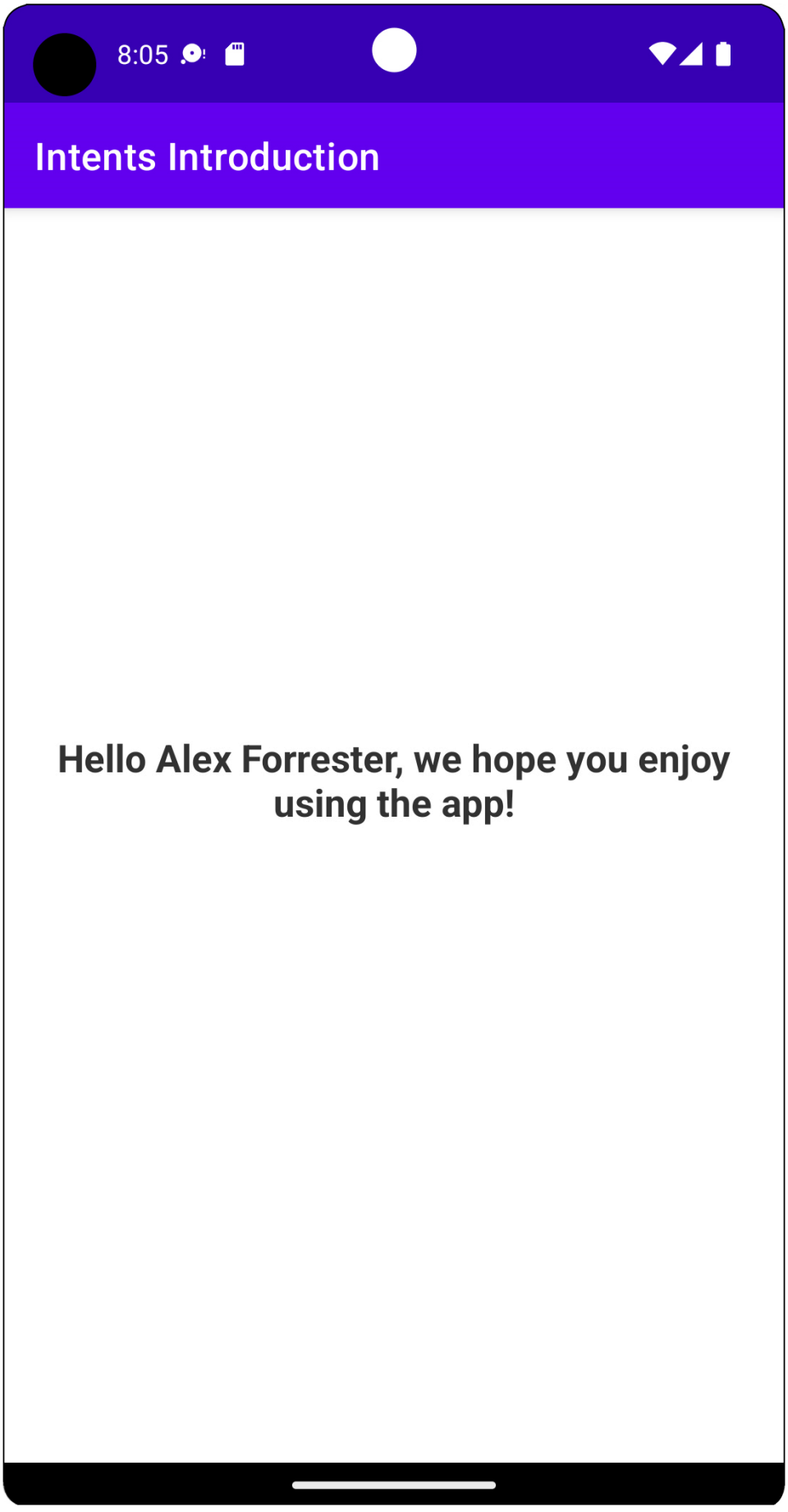

7:50
Save and Restore
Enter your name and email for a discount code at Your Favorite Restaurant!
Alex
Forrester
some_username@some_domain.com
GET DISCOUNT
Hey Alex Forrester! Here is your discount code
16EE1E7A

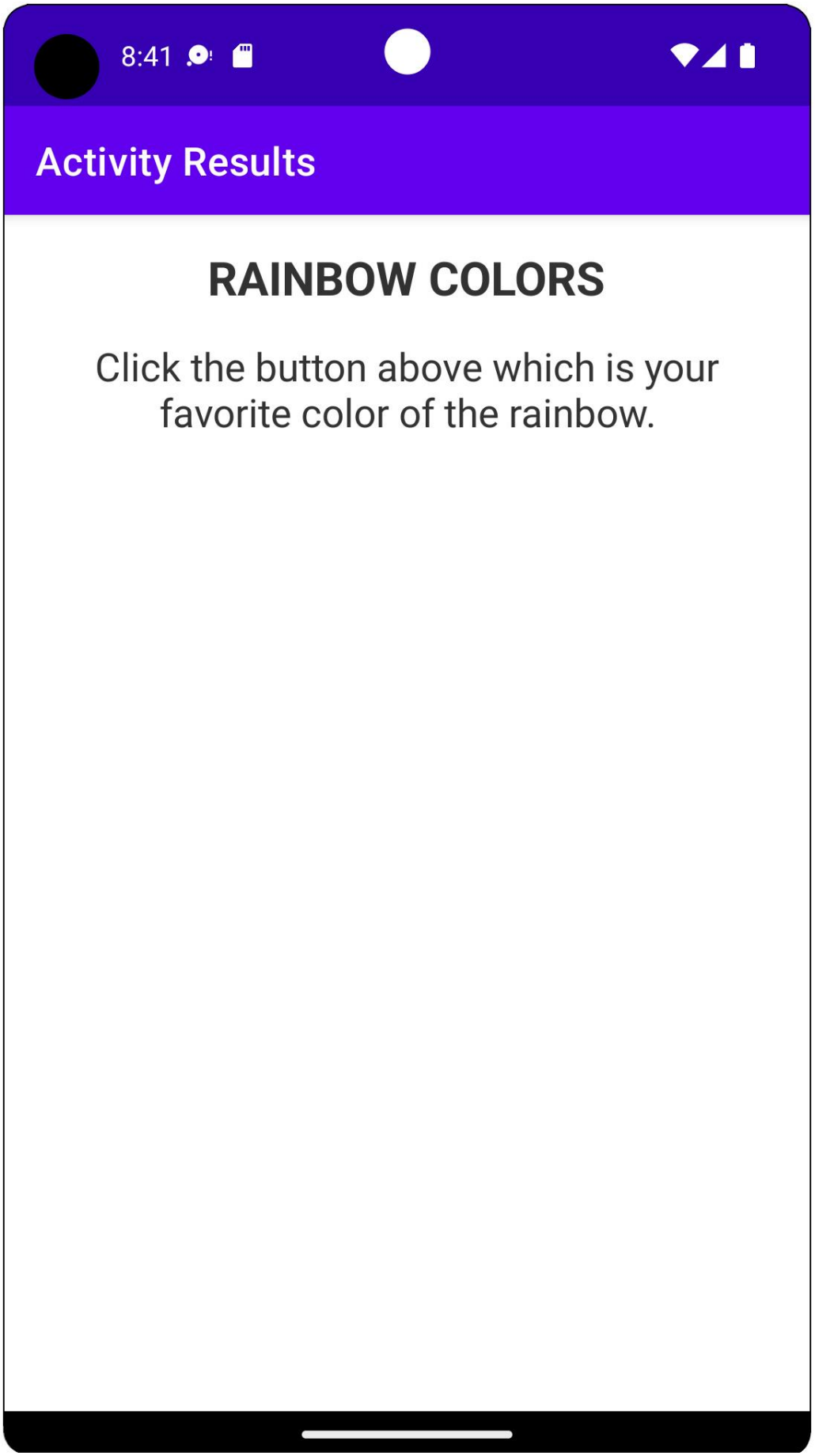

7:52
Save and Restore
Enter your name and email for a discount code at Your Favorite Restaurant!
Alex
Forrester
some_username@some_domain.com
GET DISCOUNT

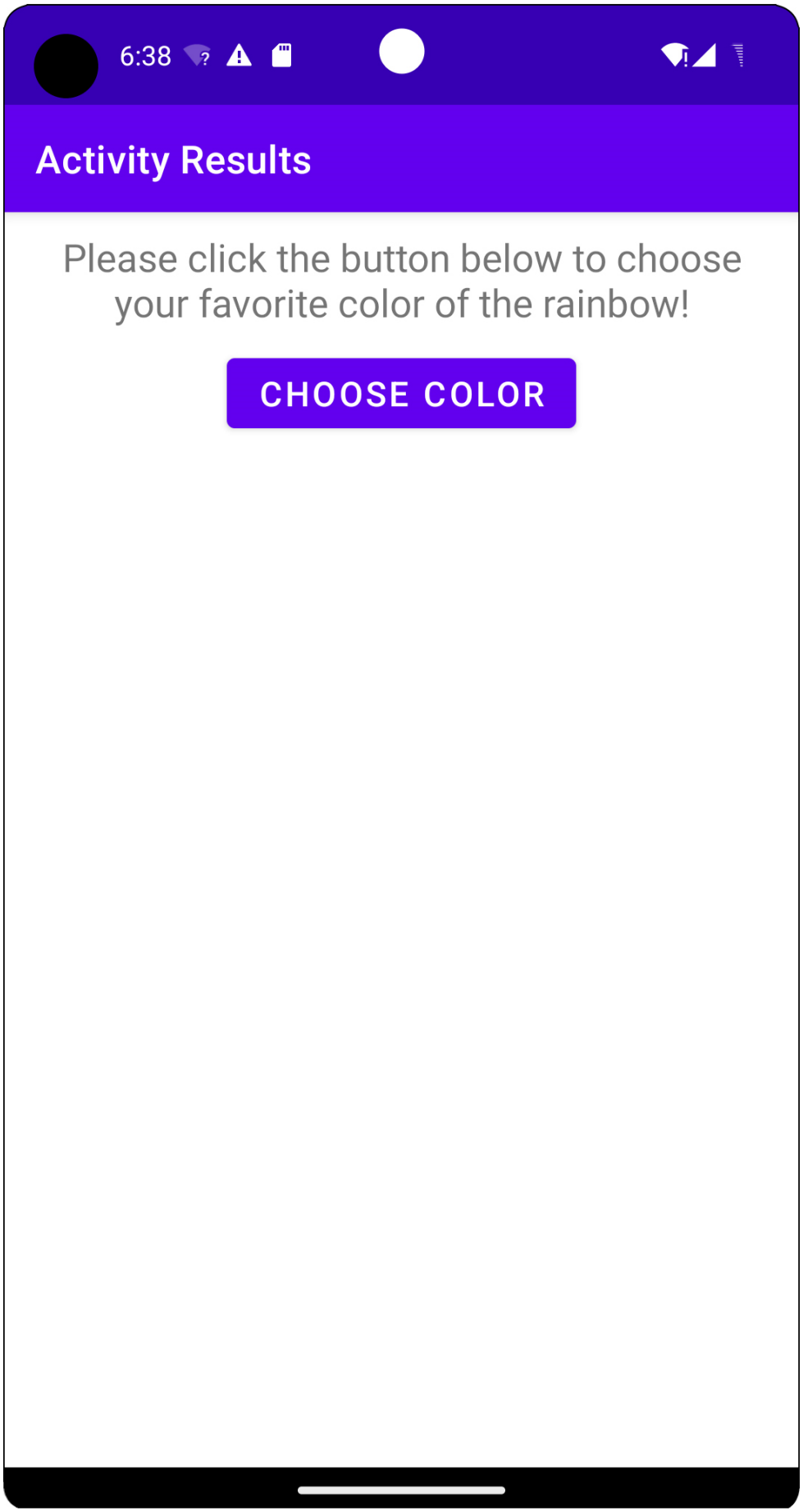

7:54
Save and Restore
Enter your name and email for a discount code at Your Favorite Restaurant!
Alex
Forrester
some_user@some_domain.com
GET DISCOUNT
Hey Alex Forrester! Here is your discount code
55344457

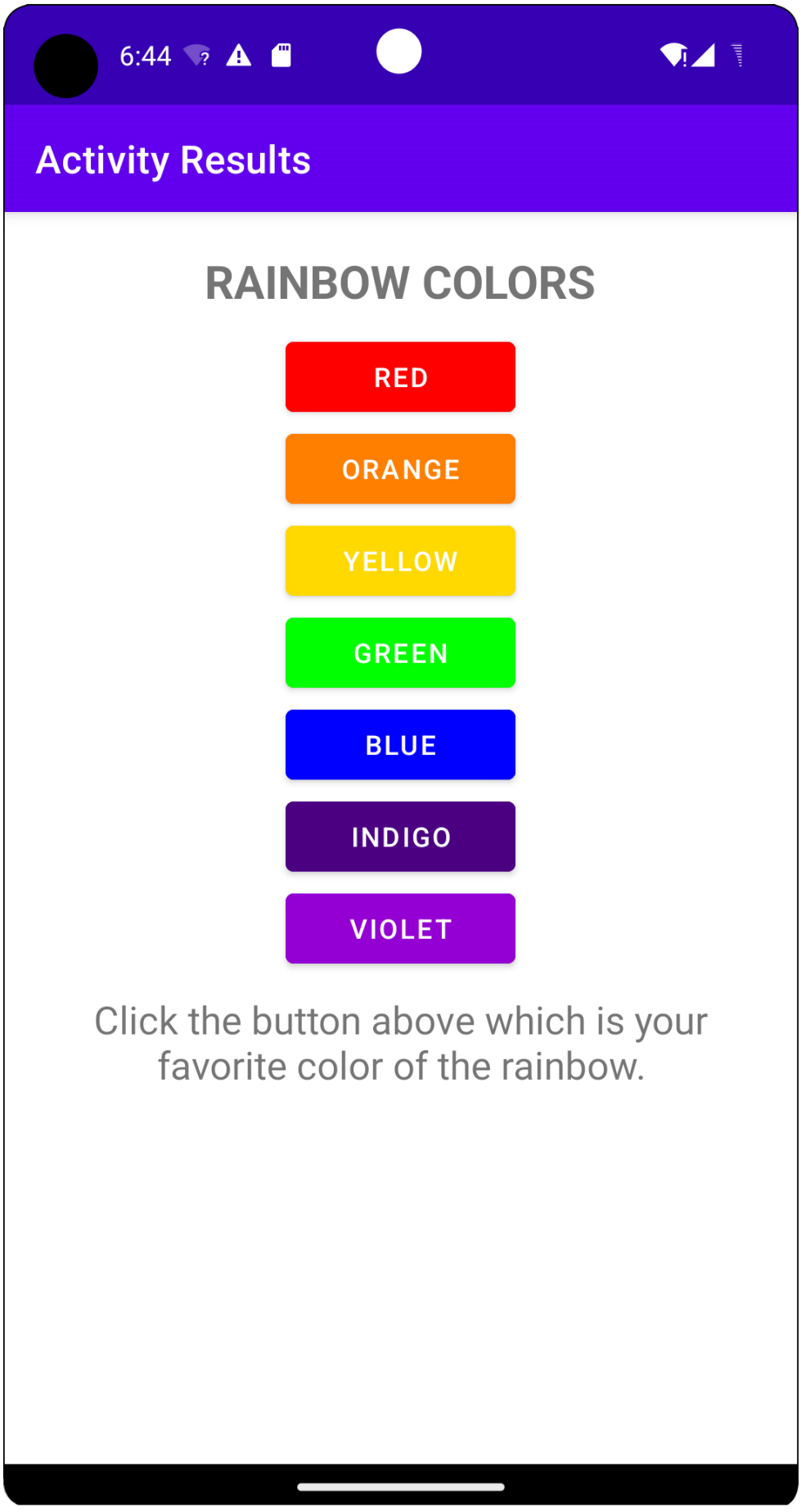

9:34
Intents Introduction
Enter your full name:
SUBMIT

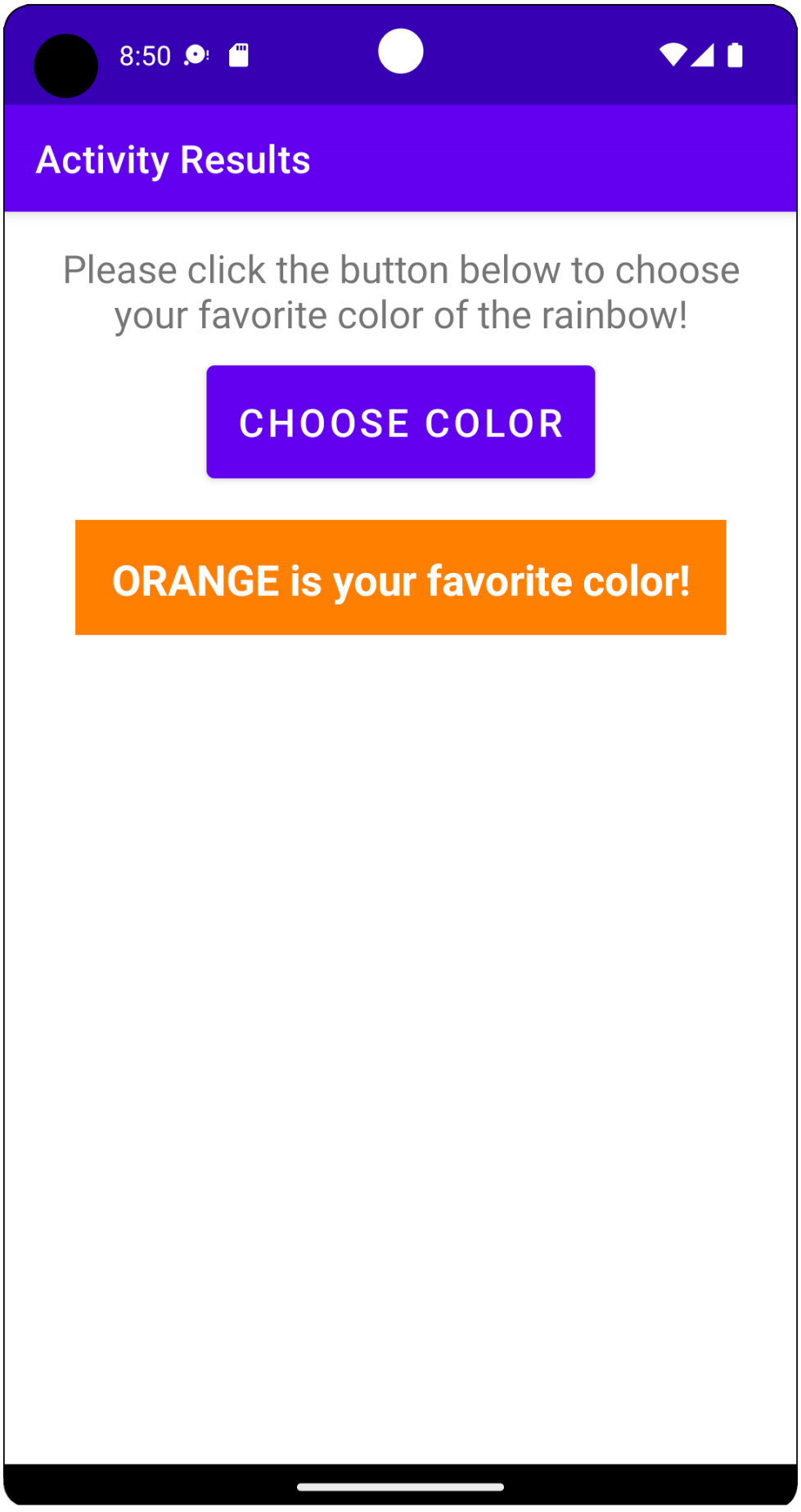
8:03
Intents Introduction

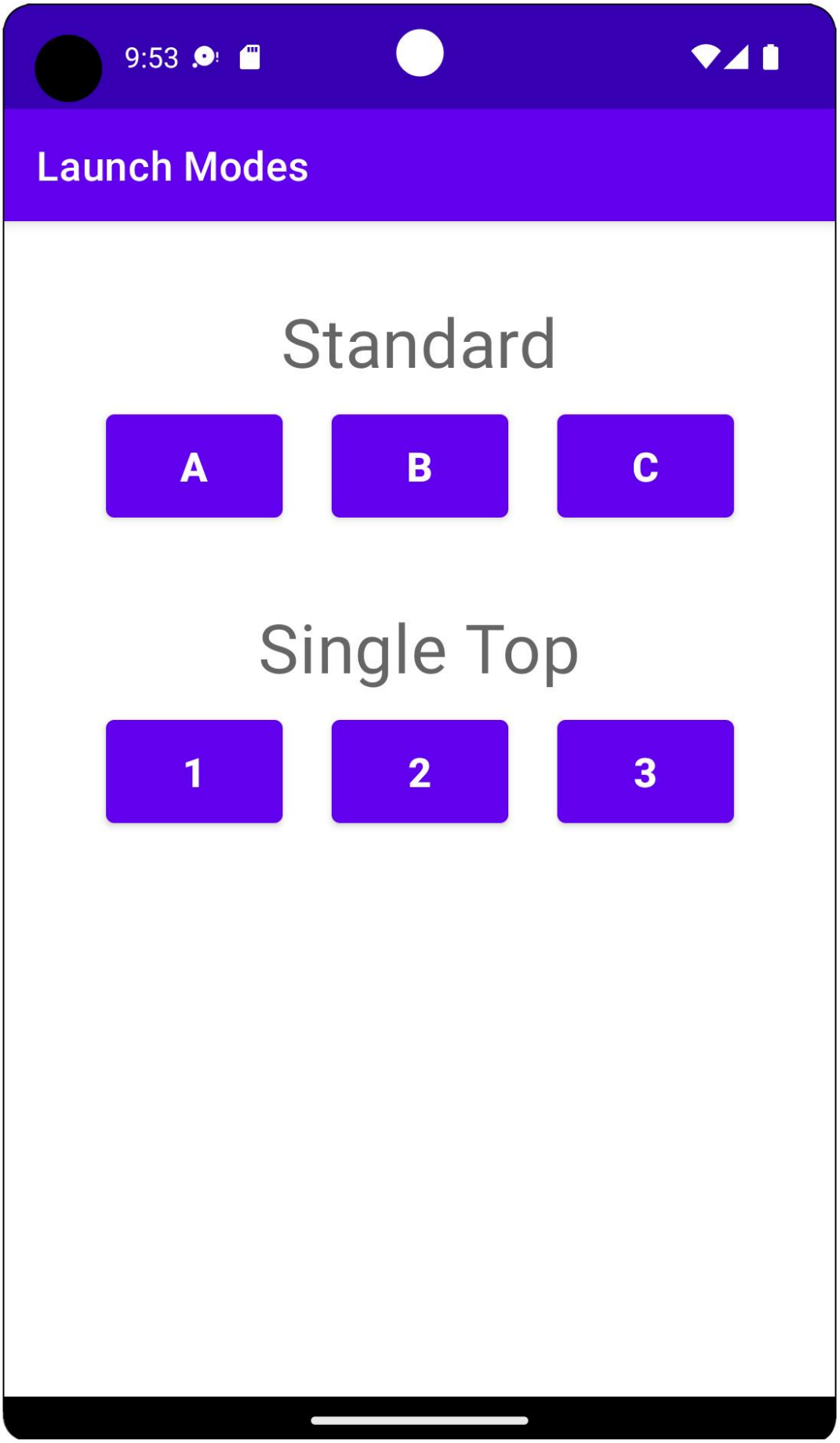

8:05
Intents Introduction
Hello Alex Forrester, we hope you enjoy using the app!

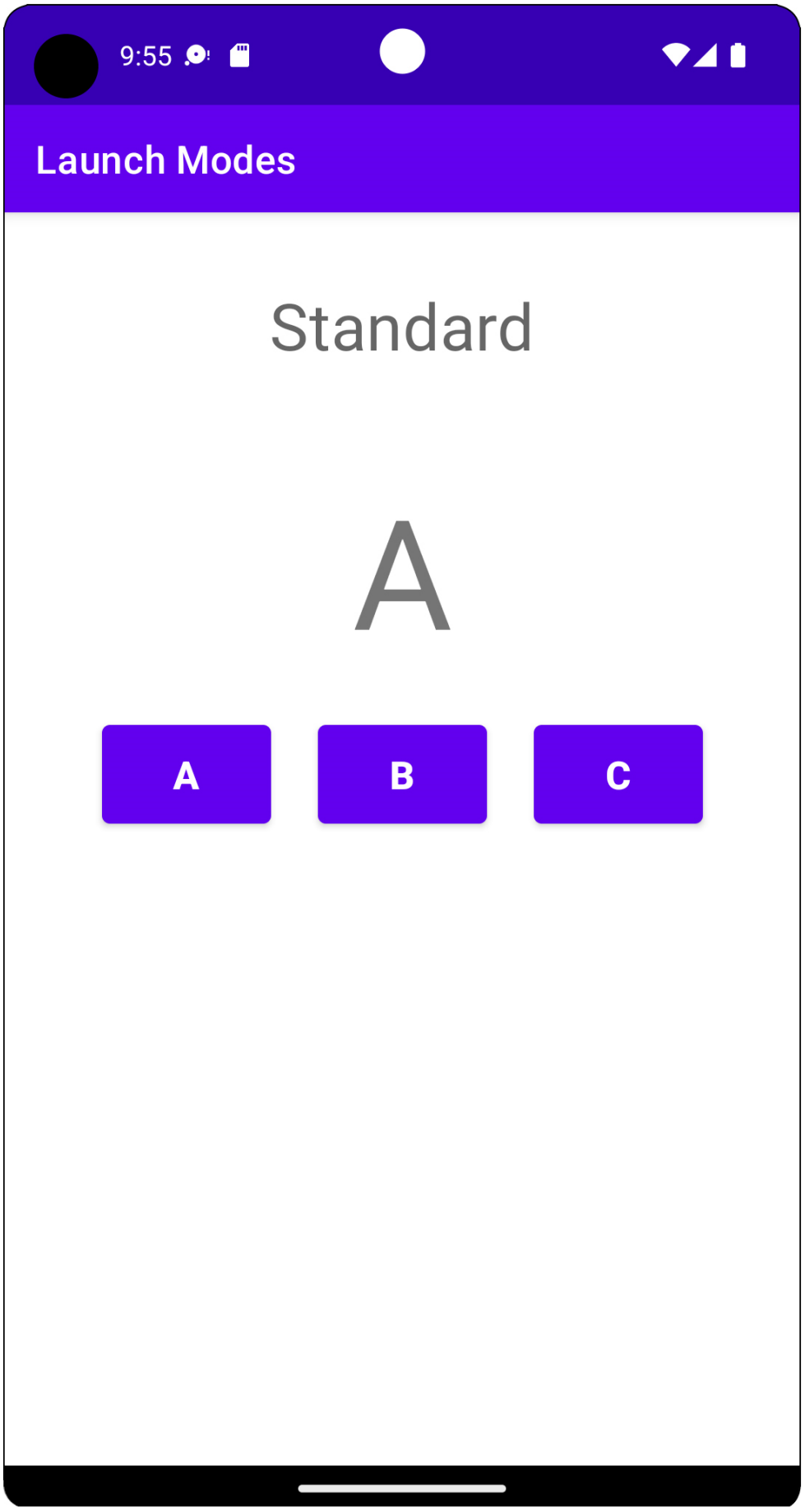

8:41
Activity Results
RAINBOW COLORS
Click the button above which is your favorite color of the rainbow.

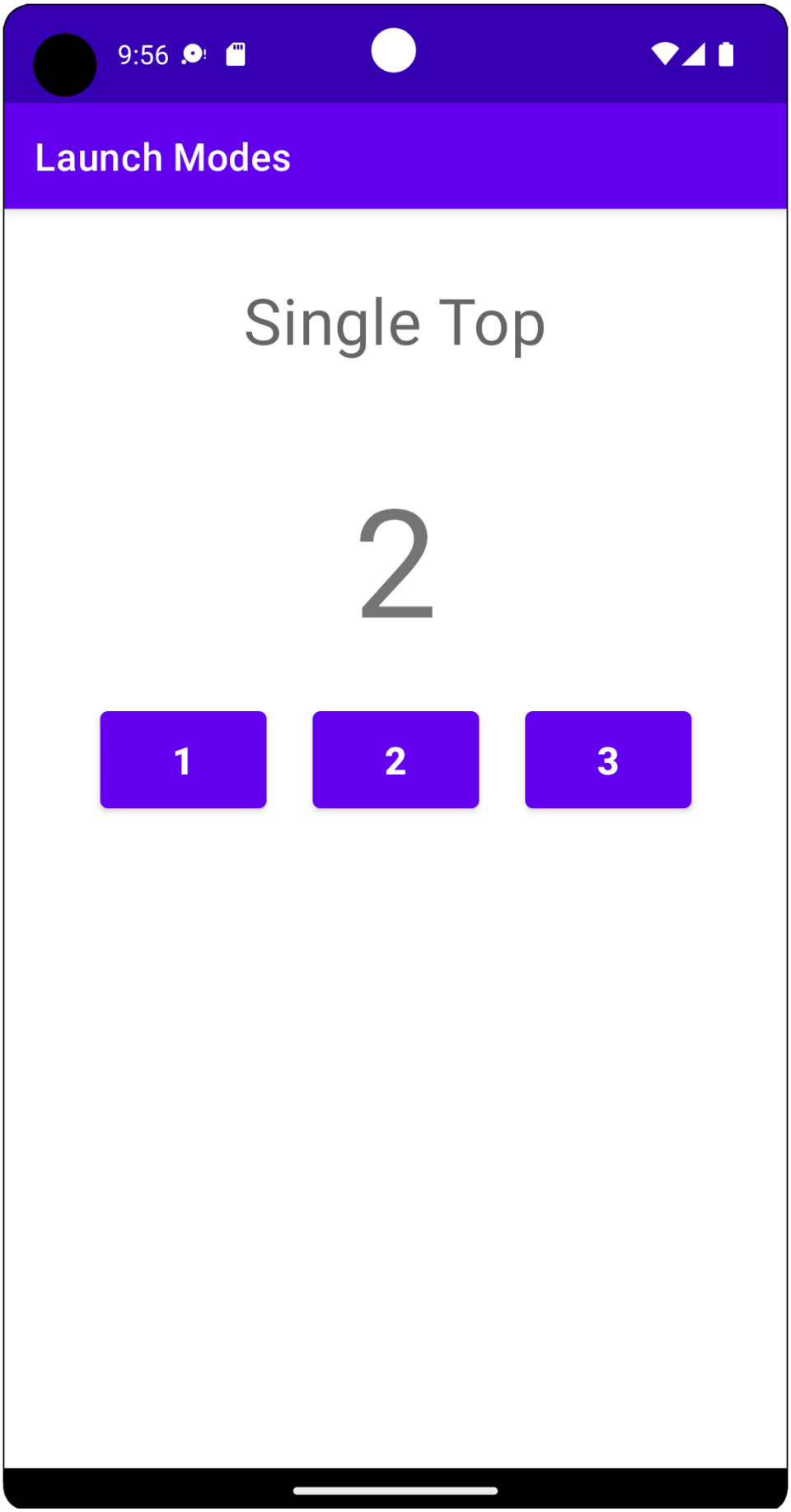

6:38
Activity Results
Please click the button below to choose your favorite color of the rainbow!
CHOOSE COLOR

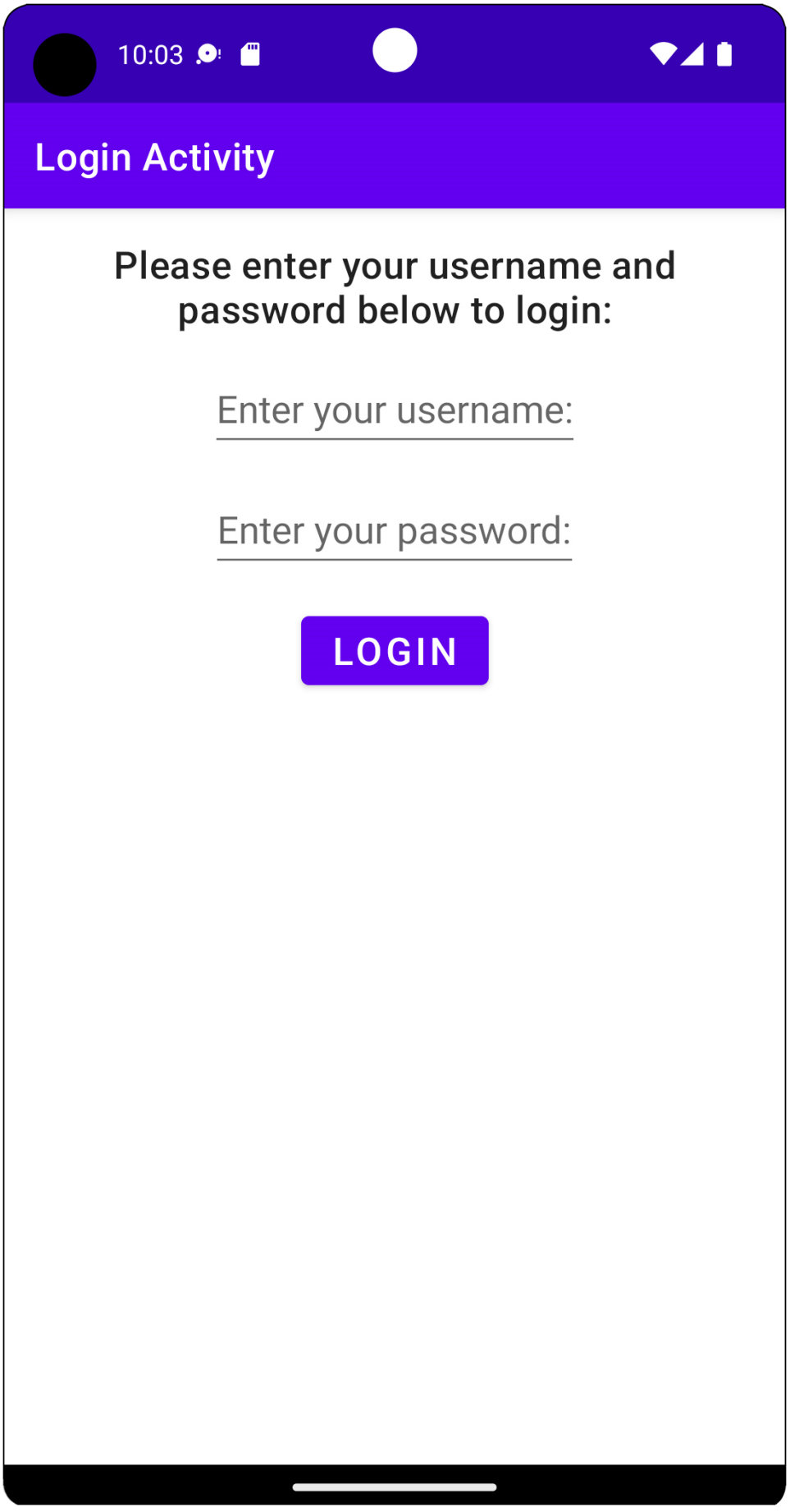

6:44
Activity Results
RAINBOW COLORS
RED
ORANGE
YELLOW
GREEN
BLUE
INDIGO
VIOLET
Click the button above which is your favorite color of the rainbow.


8:50
Activity Results
Please click the button below to choose your favorite color of the rainbow!
CHOOSE COLOR
ORANGE is your favorite color!

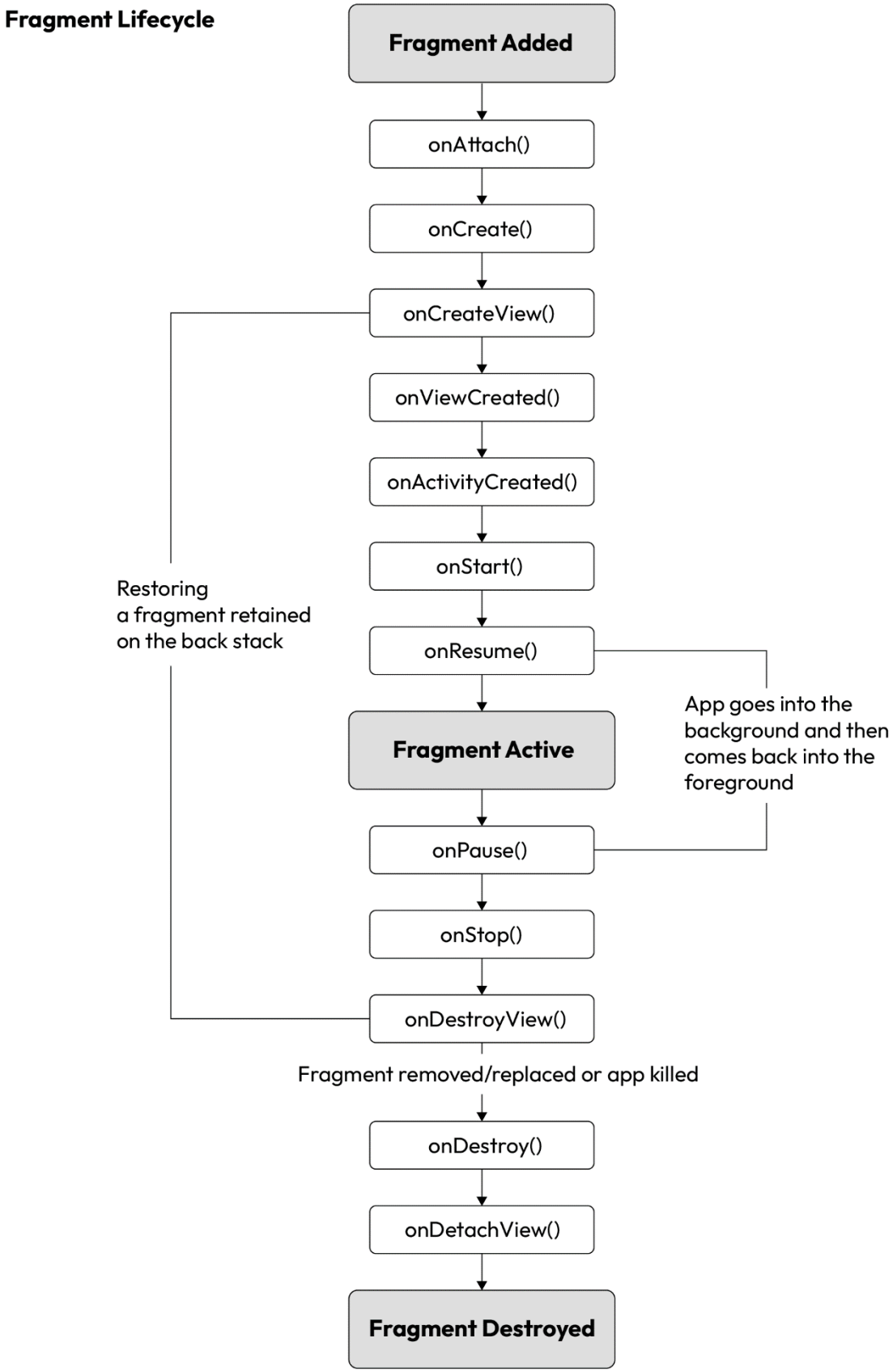

9:53
Launch Modes
Standard
A
B
C
Single Top
1
2
3

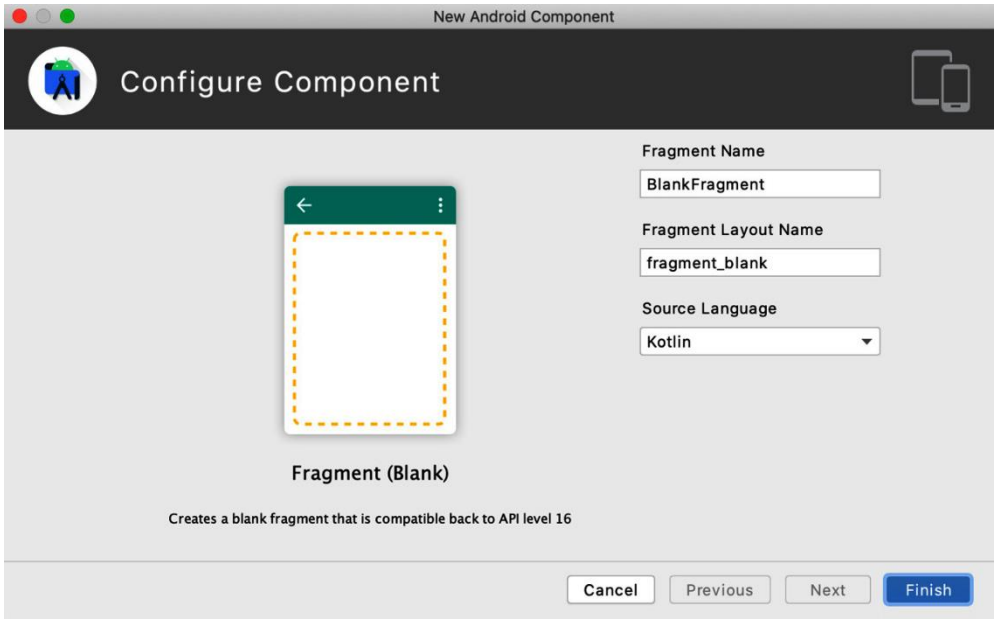

9:55
Launch Modes
Standard
A
A
B
C

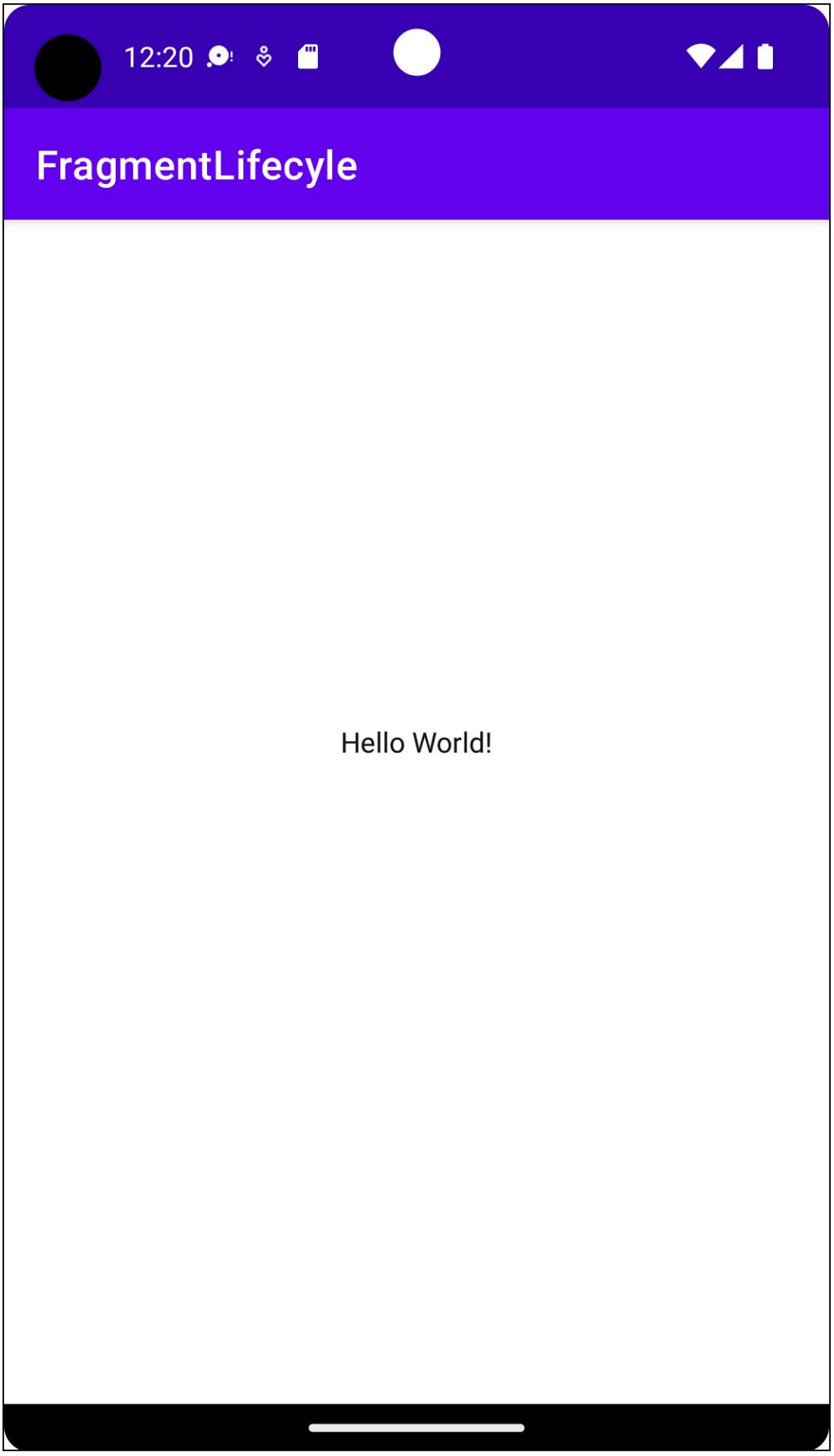

9:56
Launch Modes
Single Top
2
1
2
3

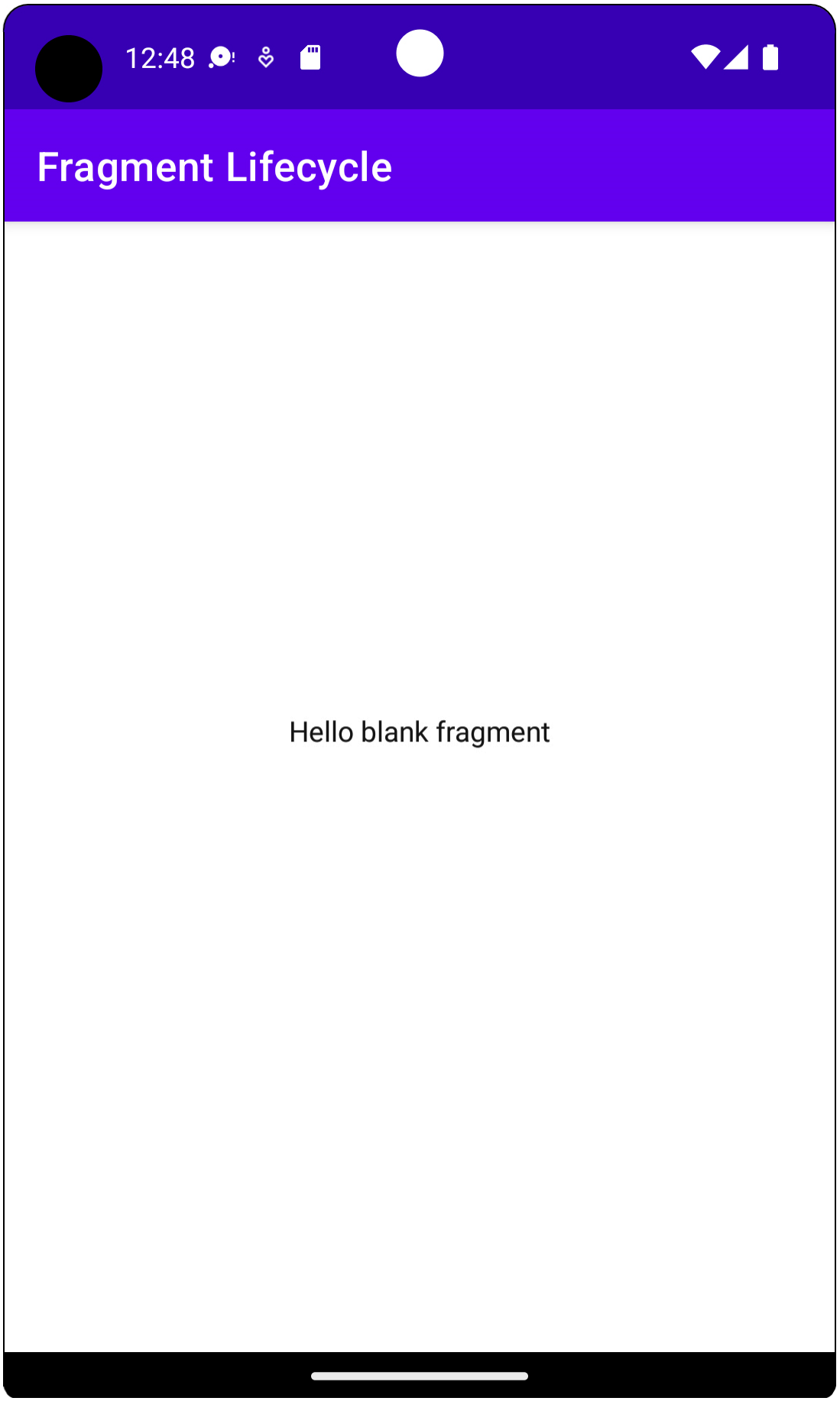

10:03
Login Activity
Please enter your username and password below to login:
Enter your username:
Enter your password:
LOGIN

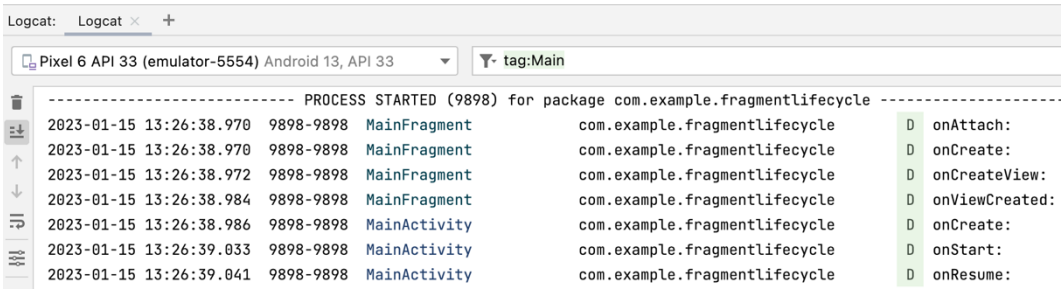
Chapter 03: Developing the UI with Fragments

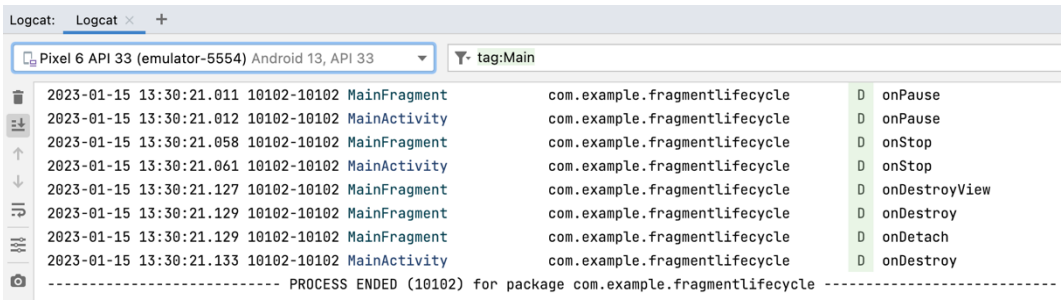


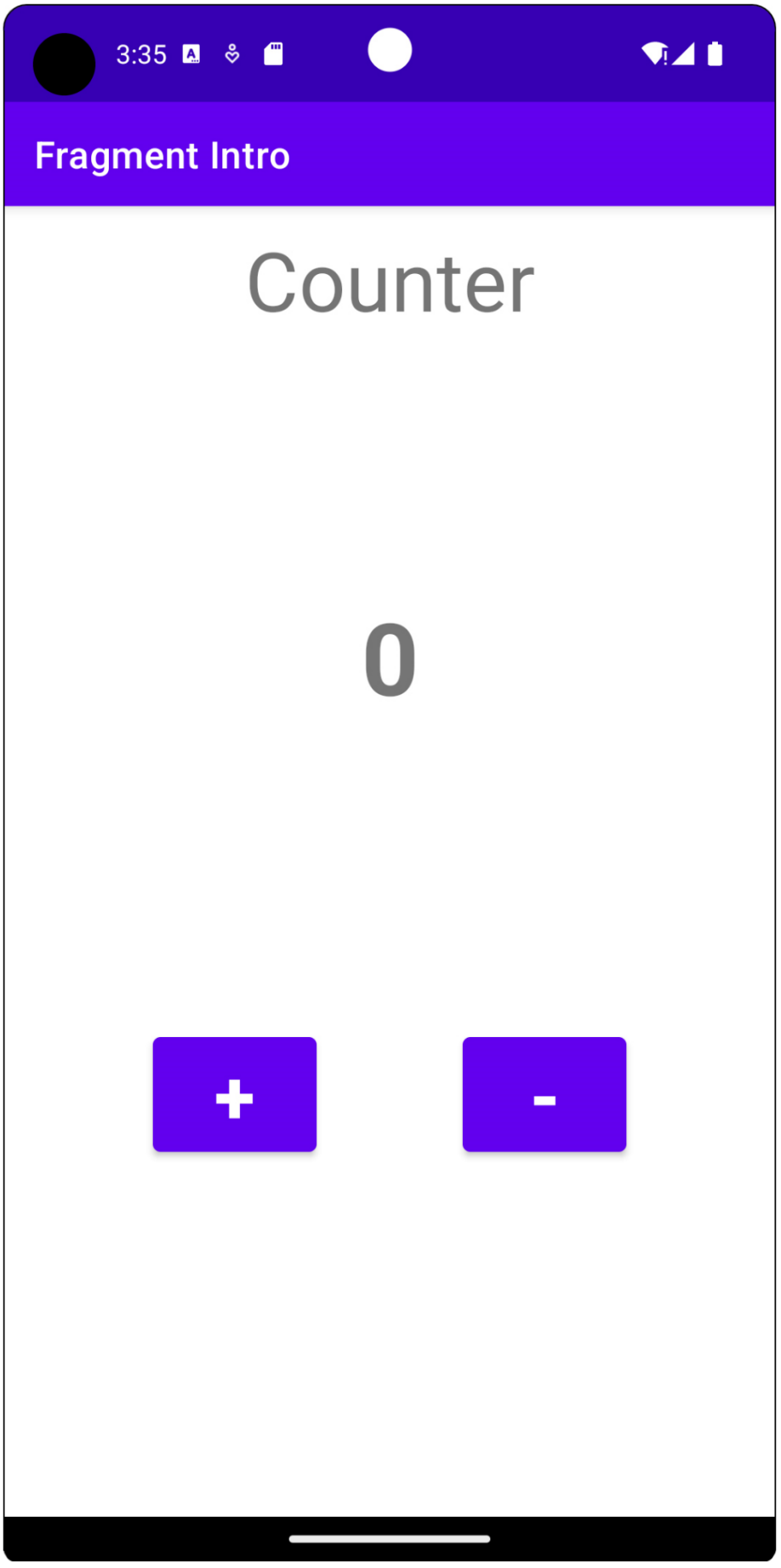

New Android Component
Configure Component
Fragment Name
BlankFragment
Fragment Layout Name
fragment_blank
Source Language
Kotlin
Fragment (Blank)
Creates a blank fragment that is compatible back to API level 16
Cancel
Previous
Next
Finish

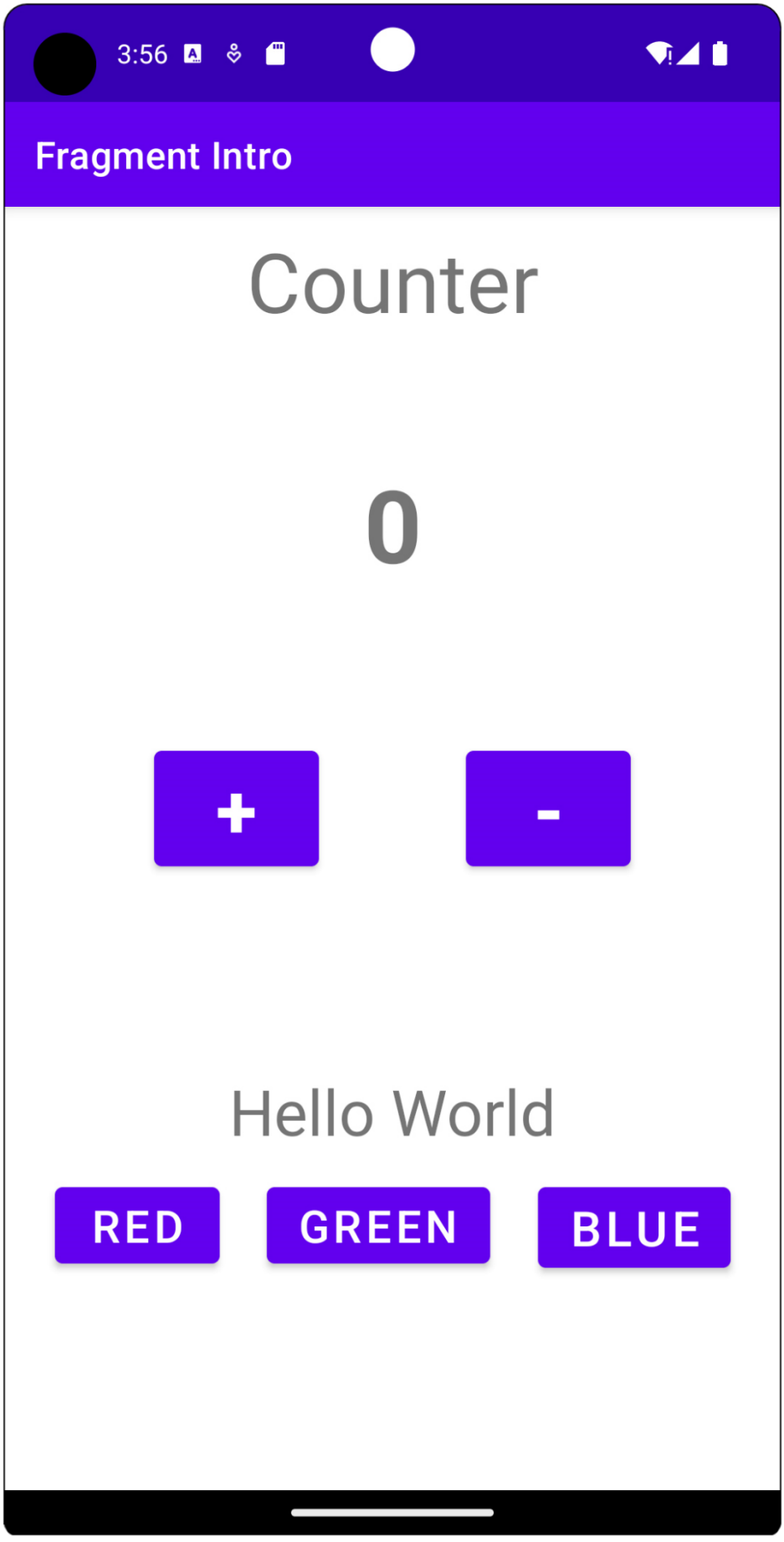

12:20
FragmentLifecyle
Hello World!

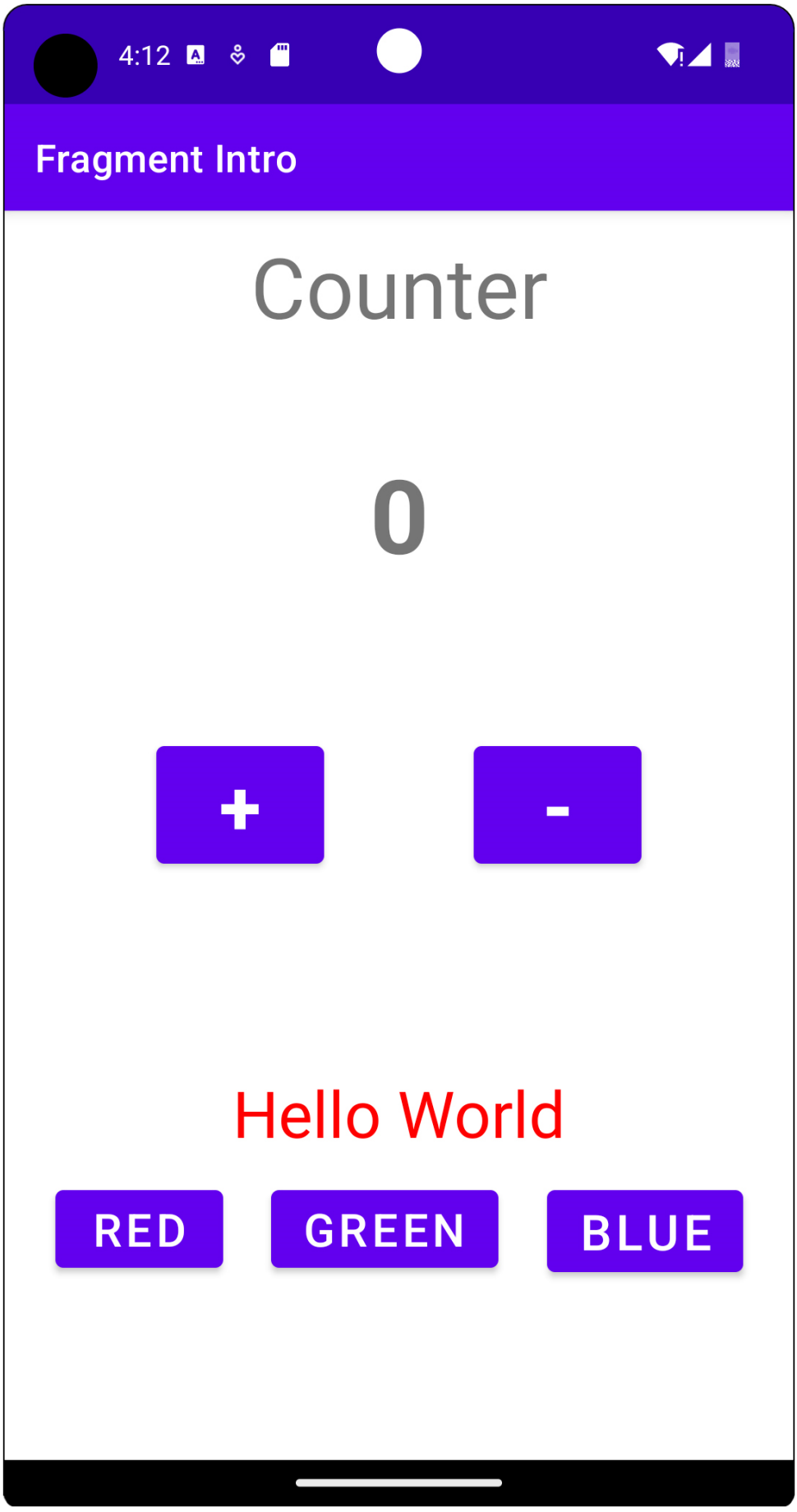

12:48
Fragment Lifecycle
Hello blank fragment

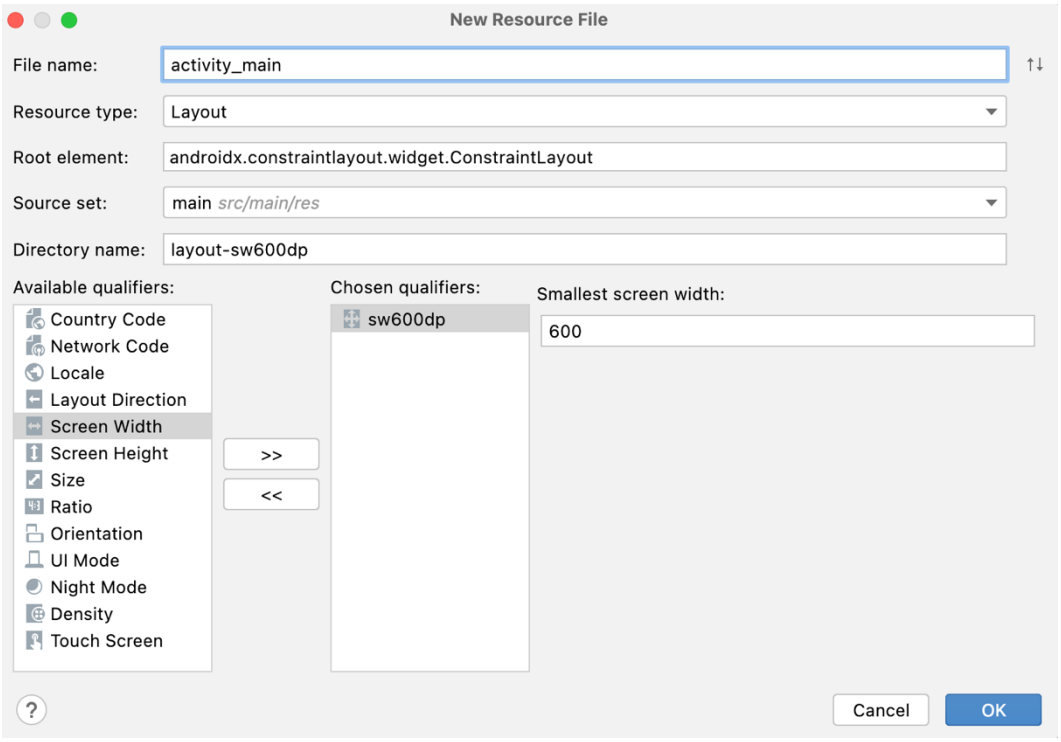

Logcat: Logcat
Pixel 6 API 33 (emulator-5554) Android 13, API 33
tag:Main
---------- PROCESS STARTED (9898) for package com.example.fragmentlifecycle ----------
2023-01-15 13:26:38.970 9898-9898 MainFragment com.example.fragmentlifecycle D onAttach:
2023-01-15 13:26:38.970 9898-9898 MainFragment com.example.fragmentlifecycle D onCreate:
2023-01-15 13:26:38.972 9898-9898 MainFragment com.example.fragmentlifecycle D onCreateView:
2023-01-15 13:26:38.984 9898-9898 MainFragment com.example.fragmentlifecycle D onViewCreated:
2023-01-15 13:26:38.986 9898-9898 MainActivity com.example.fragmentlifecycle D onCreate:
2023-01-15 13:26:39.033 9898-9898 MainActivity com.example.fragmentlifecycle D onStart:
2023-01-15 13:26:39.041 9898-9898 MainActivity com.example.fragmentlifecycle D onResume:

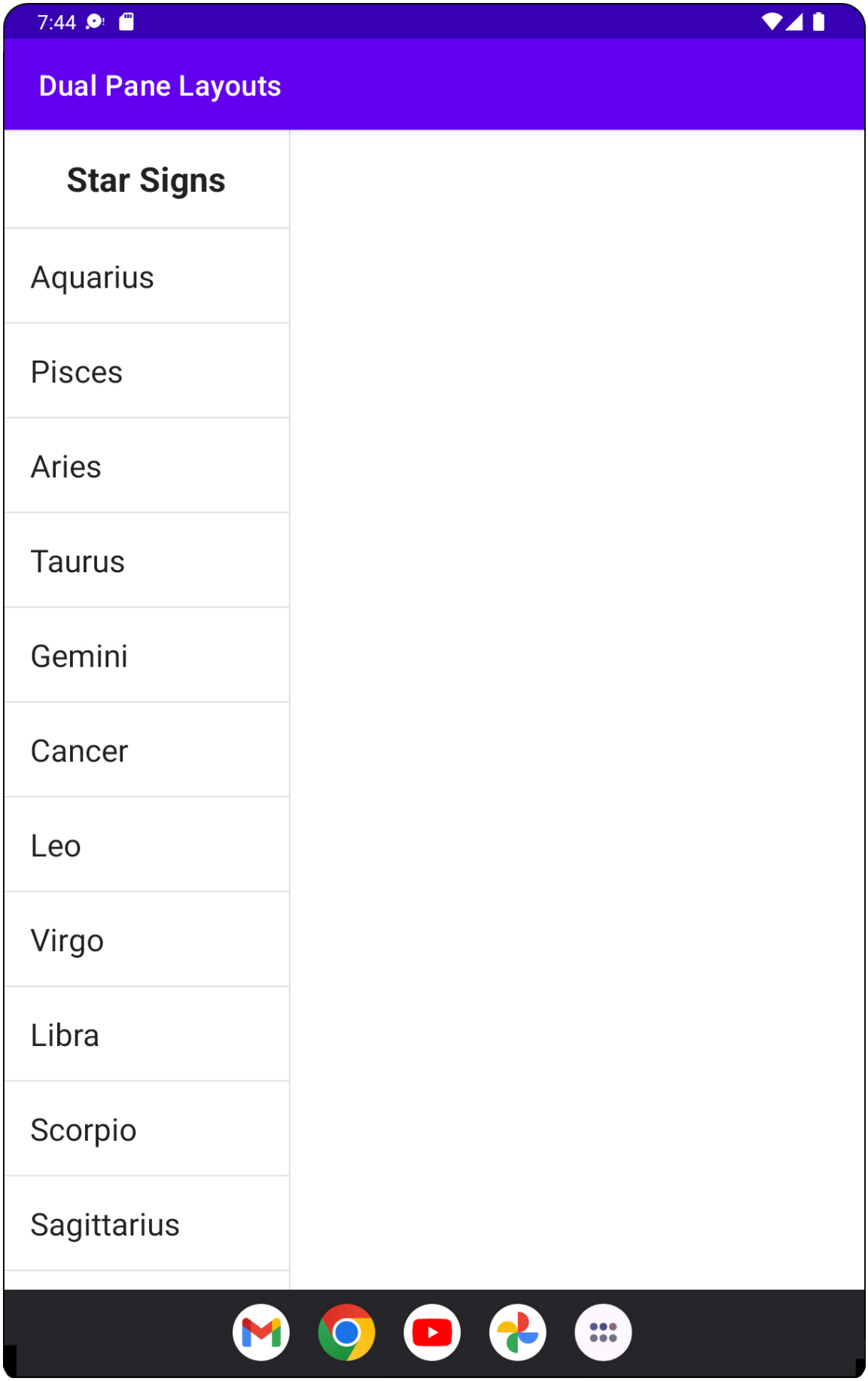

Logcat: Logcat
Pixel 6 API 33 (emulator-5554) Android 13, API 33
tag:Main
2023-01-15 13:30:21.011 10102-10102 MainFragment com.example.fragmentlifecycle D onPause
2023-01-15 13:30:21.012 10102-10102 MainActivity com.example.fragmentlifecycle D onPause
2023-01-15 13:30:21.058 10102-10102 MainFragment com.example.fragmentlifecycle D onStop
2023-01-15 13:30:21.061 10102-10102 MainActivity com.example.fragmentlifecycle D onStop
2023-01-15 13:30:21.127 10102-10102 MainFragment com.example.fragmentlifecycle D onDestroyView
2023-01-15 13:30:21.129 10102-10102 MainFragment com.example.fragmentlifecycle D onDestroy
2023-01-15 13:30:21.129 10102-10102 MainFragment com.example.fragmentlifecycle D onDetach
2023-01-15 13:30:21.133 10102-10102 MainActivity com.example.fragmentlifecycle D onDestroy
---------- PROCESS ENDED (10102) for package com.example.fragmentlifecycle ----------

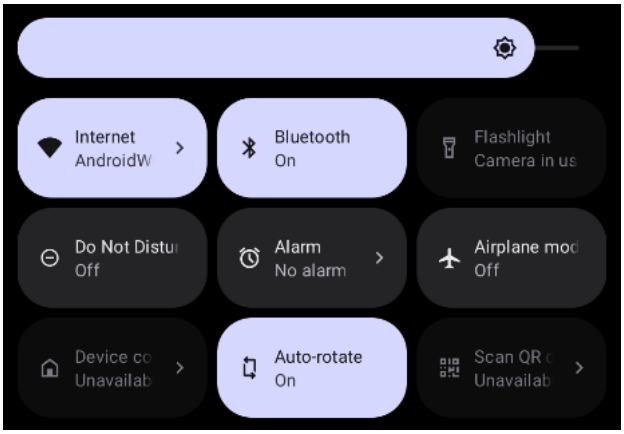

3:35
Fragment Intro
Counter
0
+
-

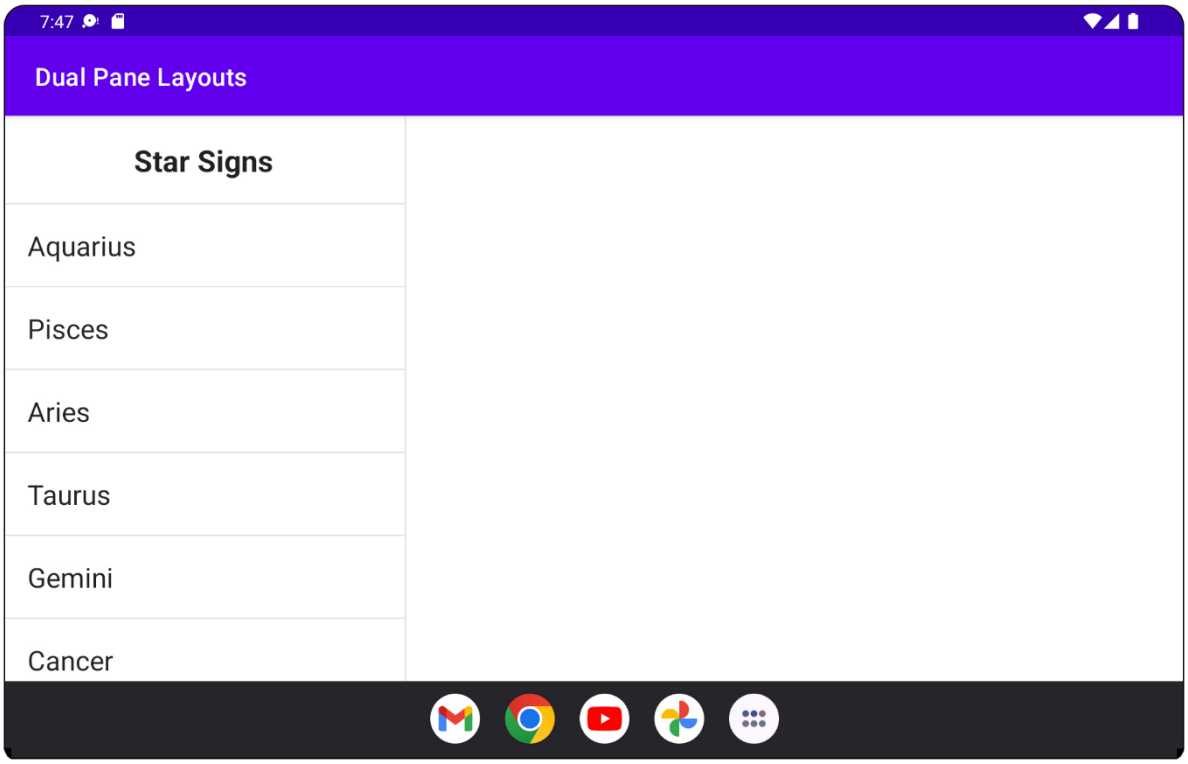

3:56
Fragment Intro
Counter
0
+
-
Hello World
RED
GREEN
BLUE

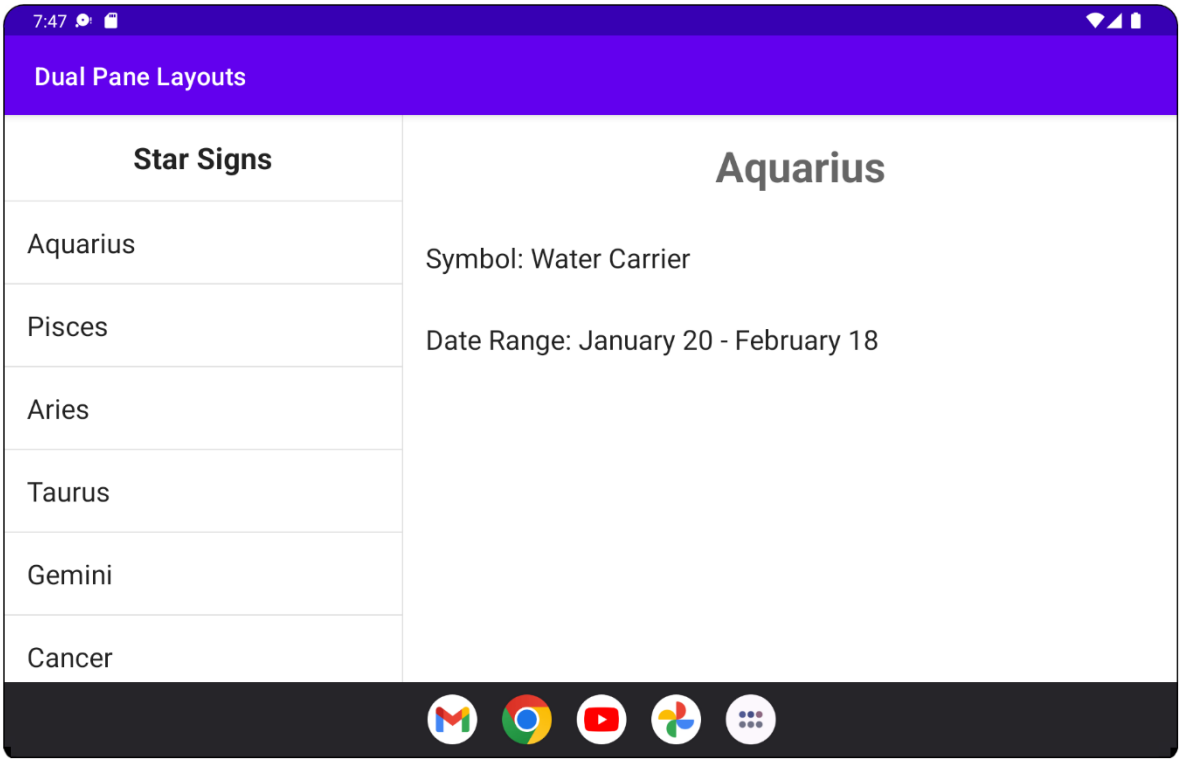

4:12
Fragment Intro
Counter
0
+
-
Hello World
RED
GREEN
BLUE

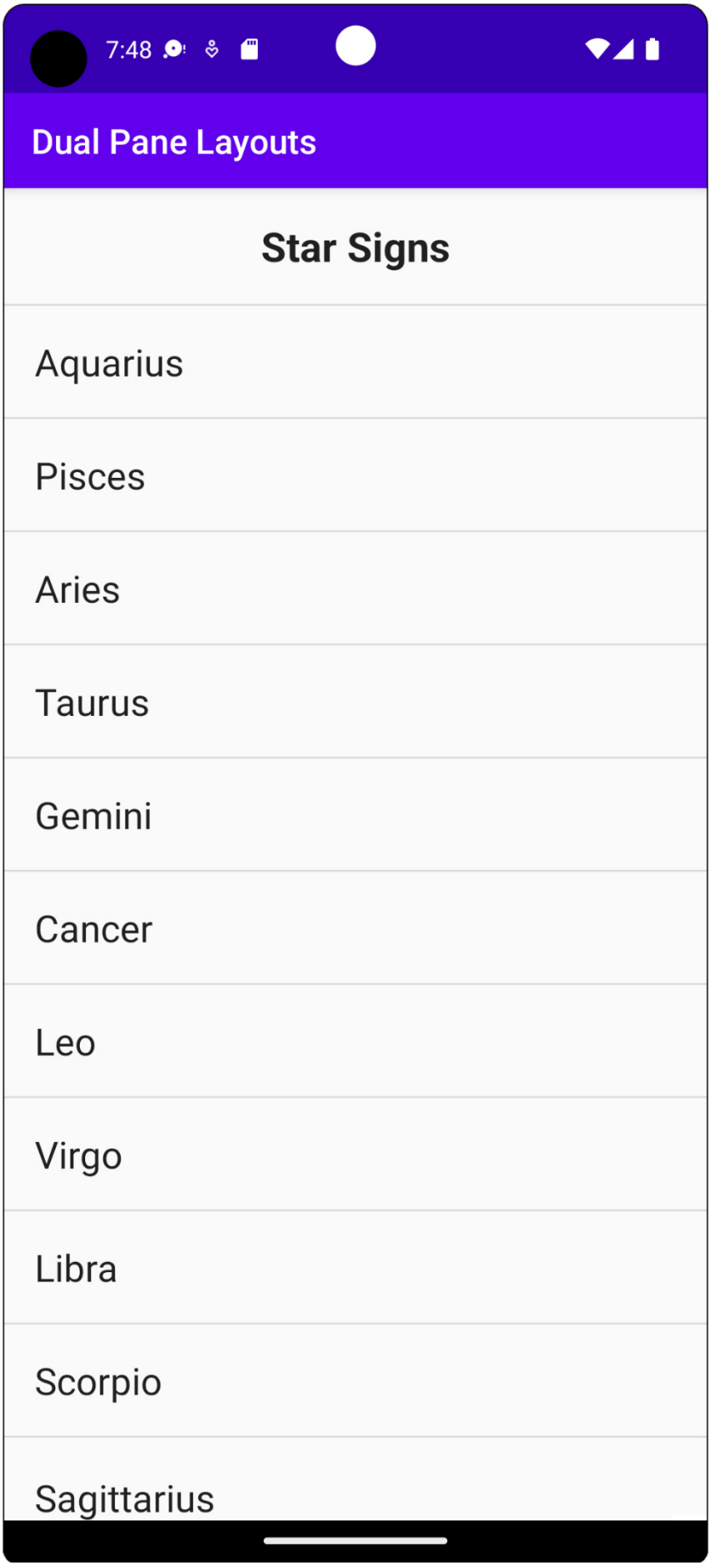

New Resource File
File name:
activity_main
Resource type:
Layout
Root element:
androidx.constraintlayout.widget.ConstraintLayout
Source set:
main src/main/res
Directory name:
layout-sw600dp
Available qualifiers:
Country Code
Network Code
Locale
Layout Direction
Screen Width
Screen Height
Size
Ratio
Orientation
UI Mode
Night Mode
Density
Touch Screen
>>
<<
Chosen qualifiers:
sw600dp
Smallest screen width:
600
Cancel
OK

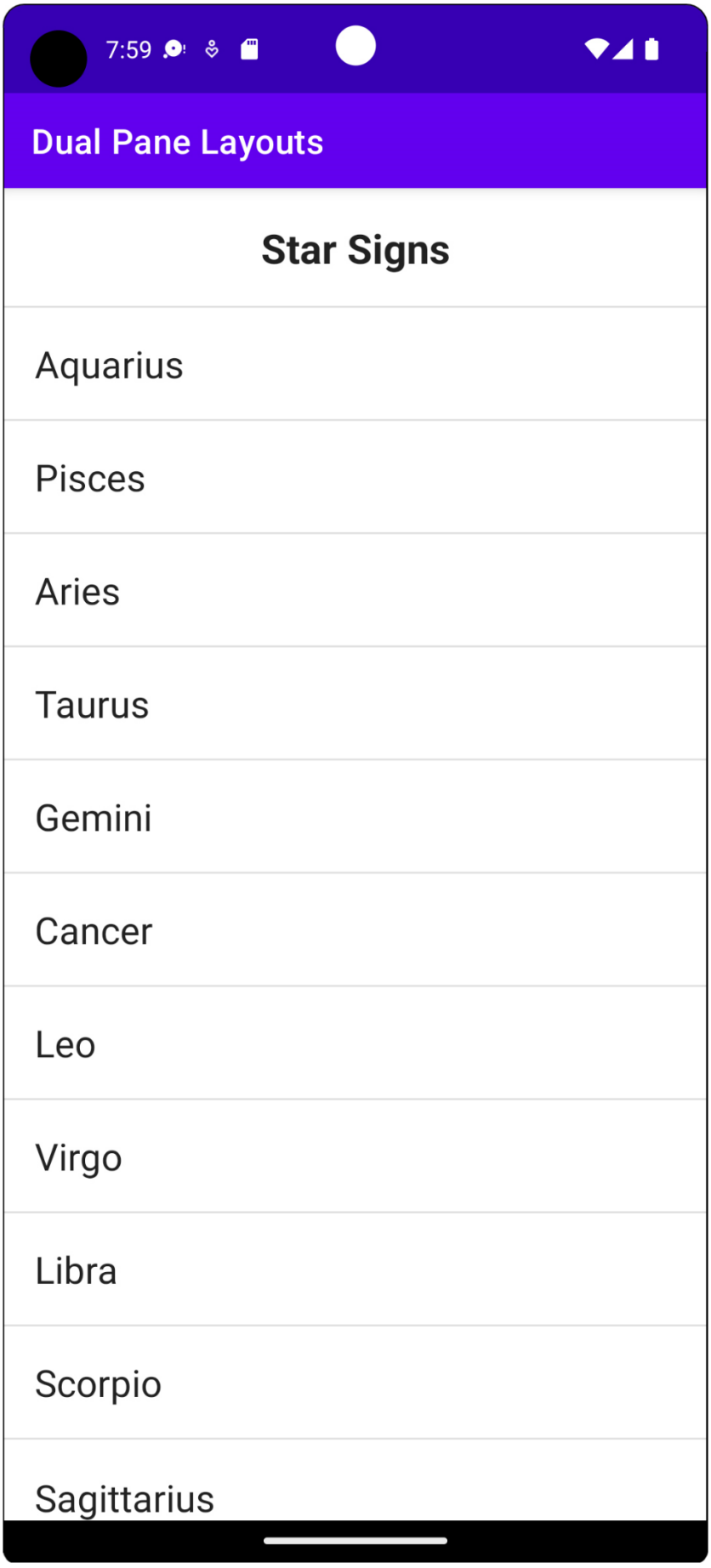

7:44
Dual Pane Layouts
Star Signs
Aquarius
Pisces
Aries
Taurus
Gemini
Cancer
Leo
Virgo
Libra
Scorpio
Sagittarius

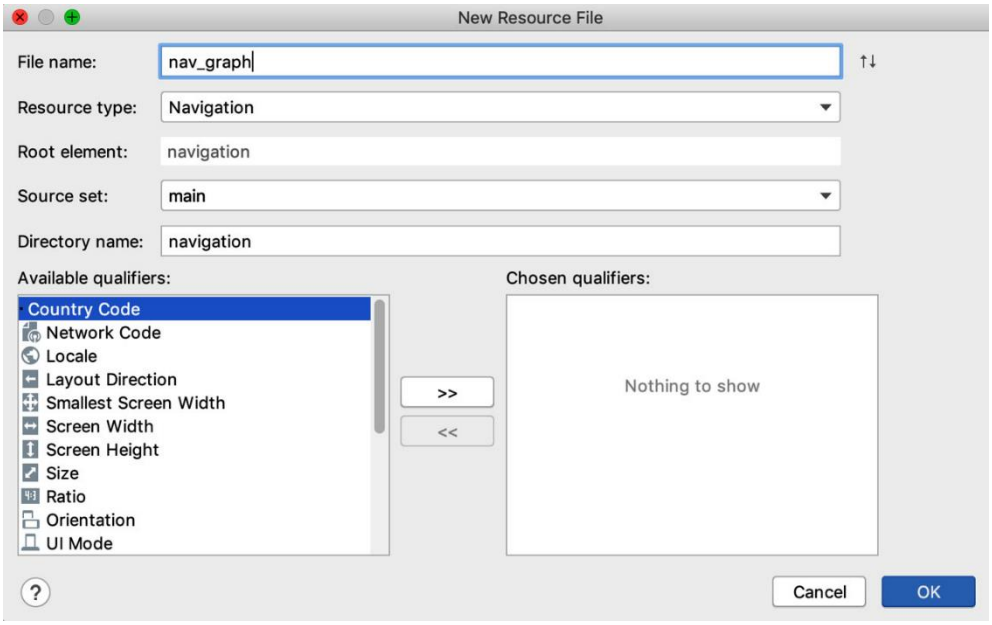

Internet
AndroidW
Bluetooth
On
Flashlight
Camera in us
Do Not Distur
Off
Alarm
No alarm
Airplane mod
Off
Device co
Unavailab
Auto-rotate
On
Scan QR
Unavailab

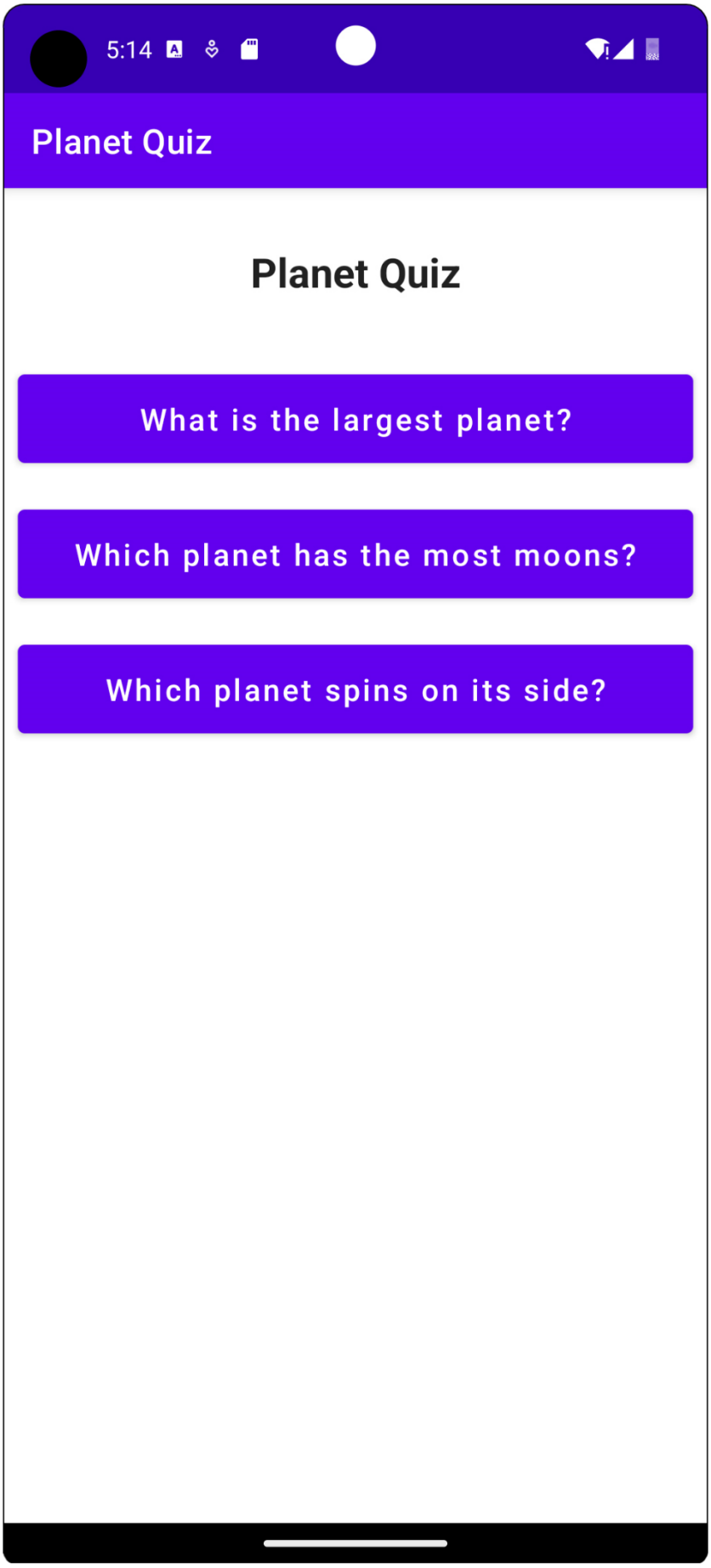

7:47
Dual Pane Layouts
Star Signs
Aquarius
Pisces
Aries
Taurus
Gemini
Cancer

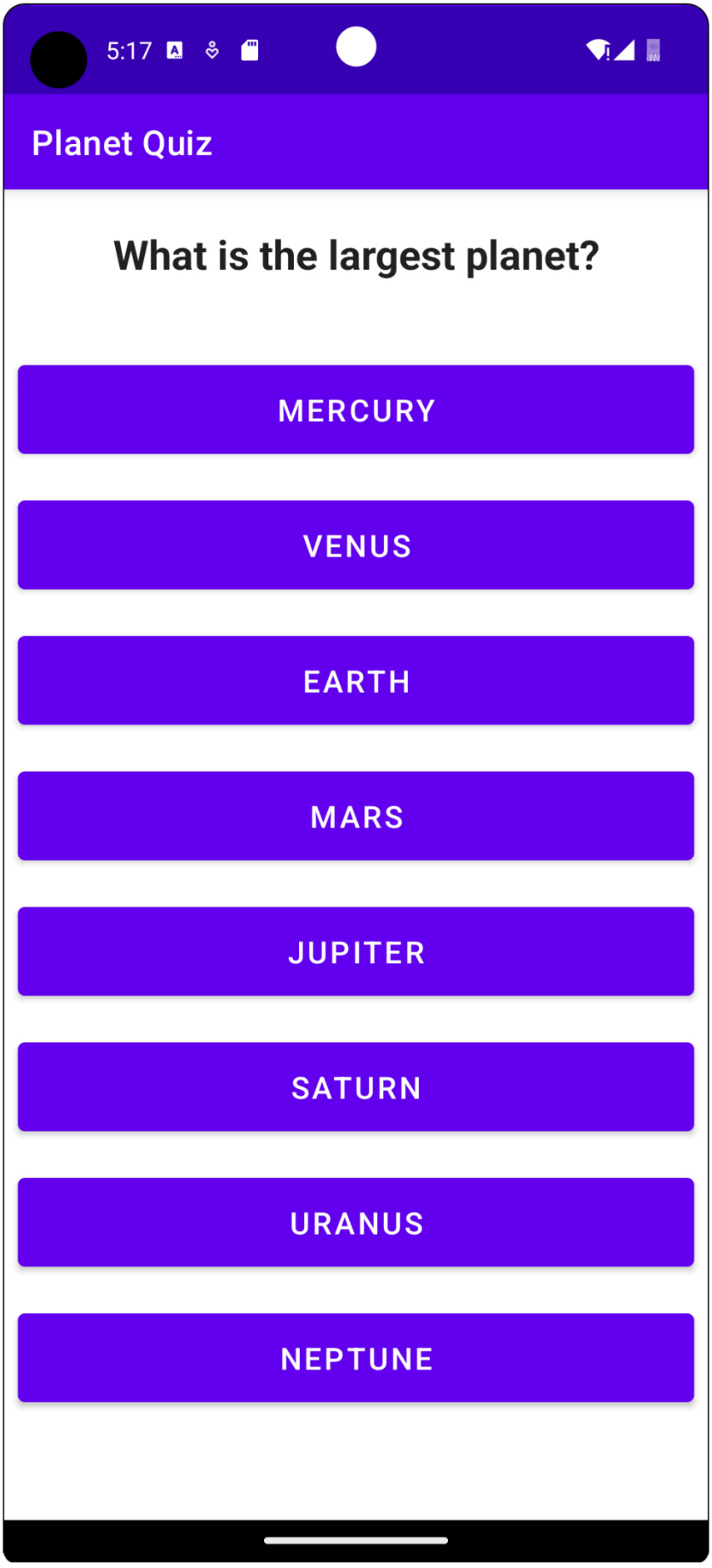

7:47
Dual Pane Layouts
Star Signs
Aquarius
Pisces
Aries
Taurus
Gemini
Cancer
Aquarius
Symbol: Water Carrier
Date Range: January 20 - February 18

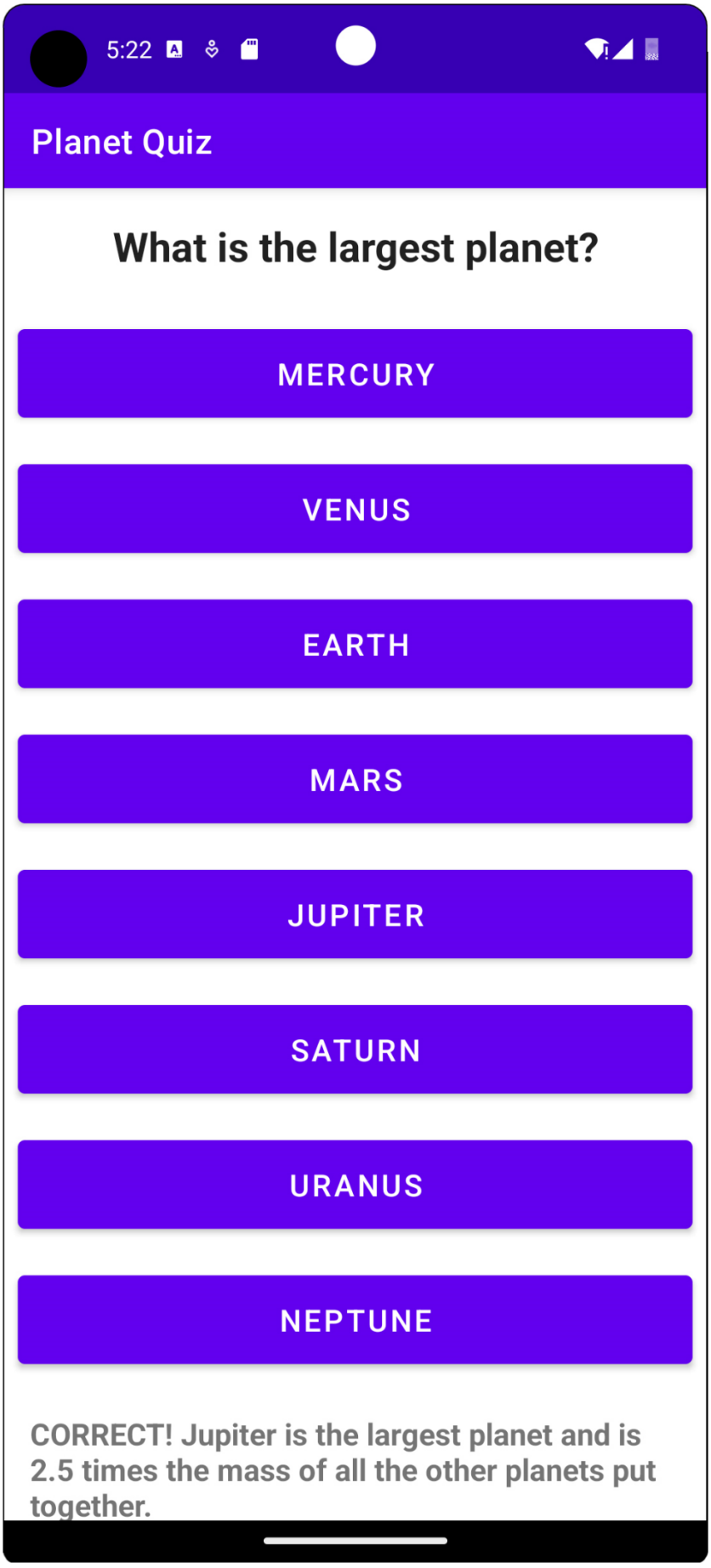

7:48
Dual Pane Layouts
Star Signs
Aquarius
Pisces
Aries
Taurus
Gemini
Cancer
Leo
Virgo
Libra
Scorpio
Sagittarius


7:59
Dual Pane Layouts
Star Signs
Aquarius
Pisces
Aries
Taurus
Gemini
Cancer
Leo
Virgo
Libra
Scorpio
Sagittarius

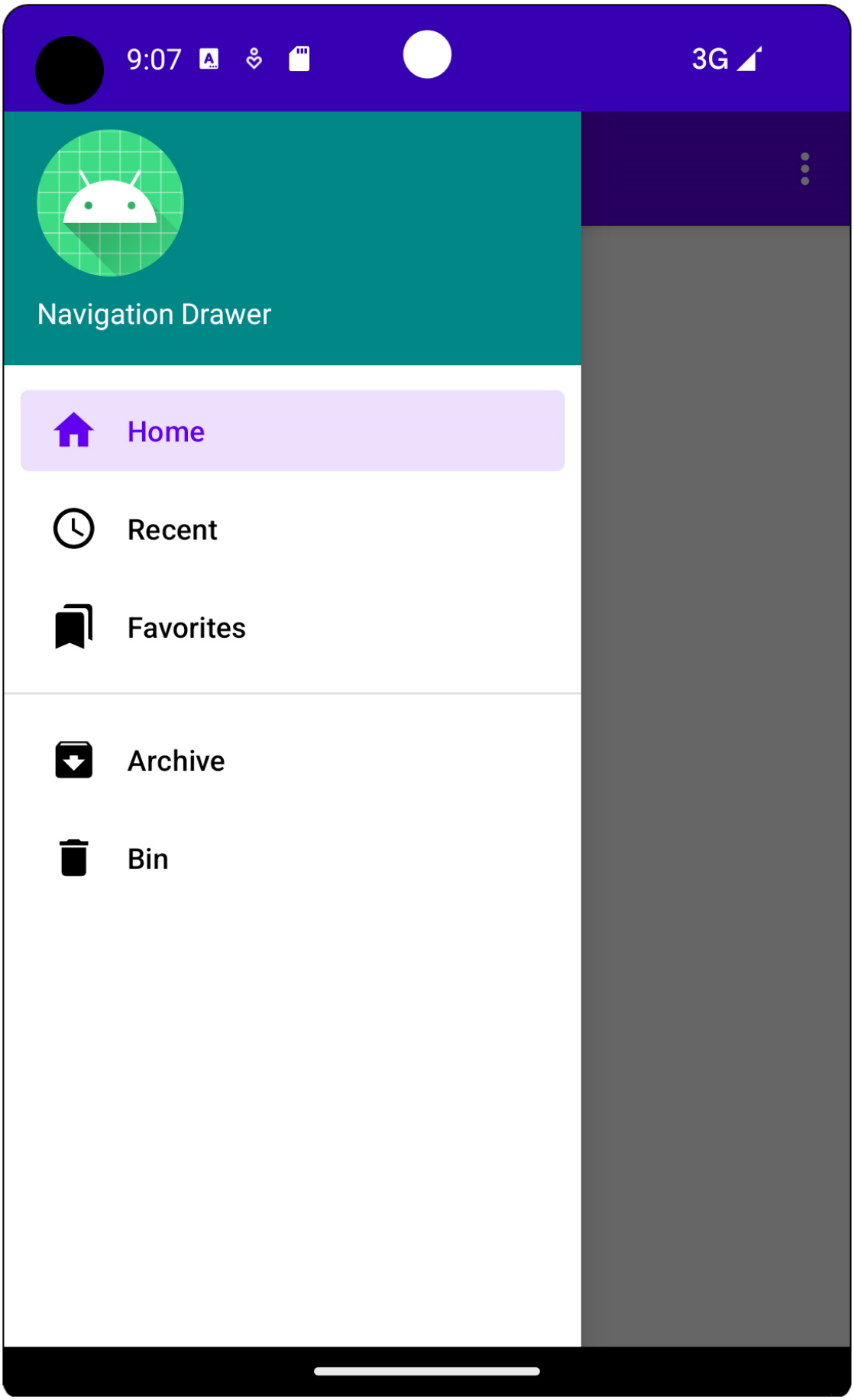

New Resource File
File name:
nav_graph
Resource type:
Navigation
Root element:
navigation
Source set:
main
Directory name:
navigation
Available qualifiers:
Country Code
Network Code
Locale
Layout Direction
Smallest Screen Width
Screen Width
Screen Height
Size
Ratio
Orientation
UI Mode
>>
<<
Chosen qualifiers:
Nothing to show
Cancel
OK

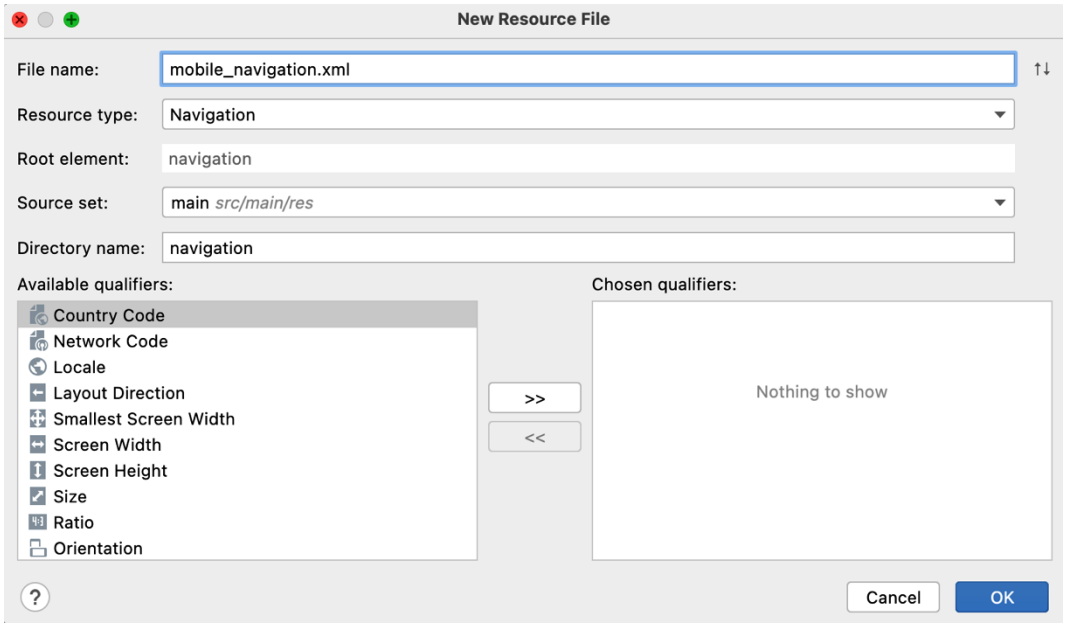

5:14
Planet Quiz
Planet Quiz
What is the largest planet?
Which planet has the most moons?
Which planet spins on its side?

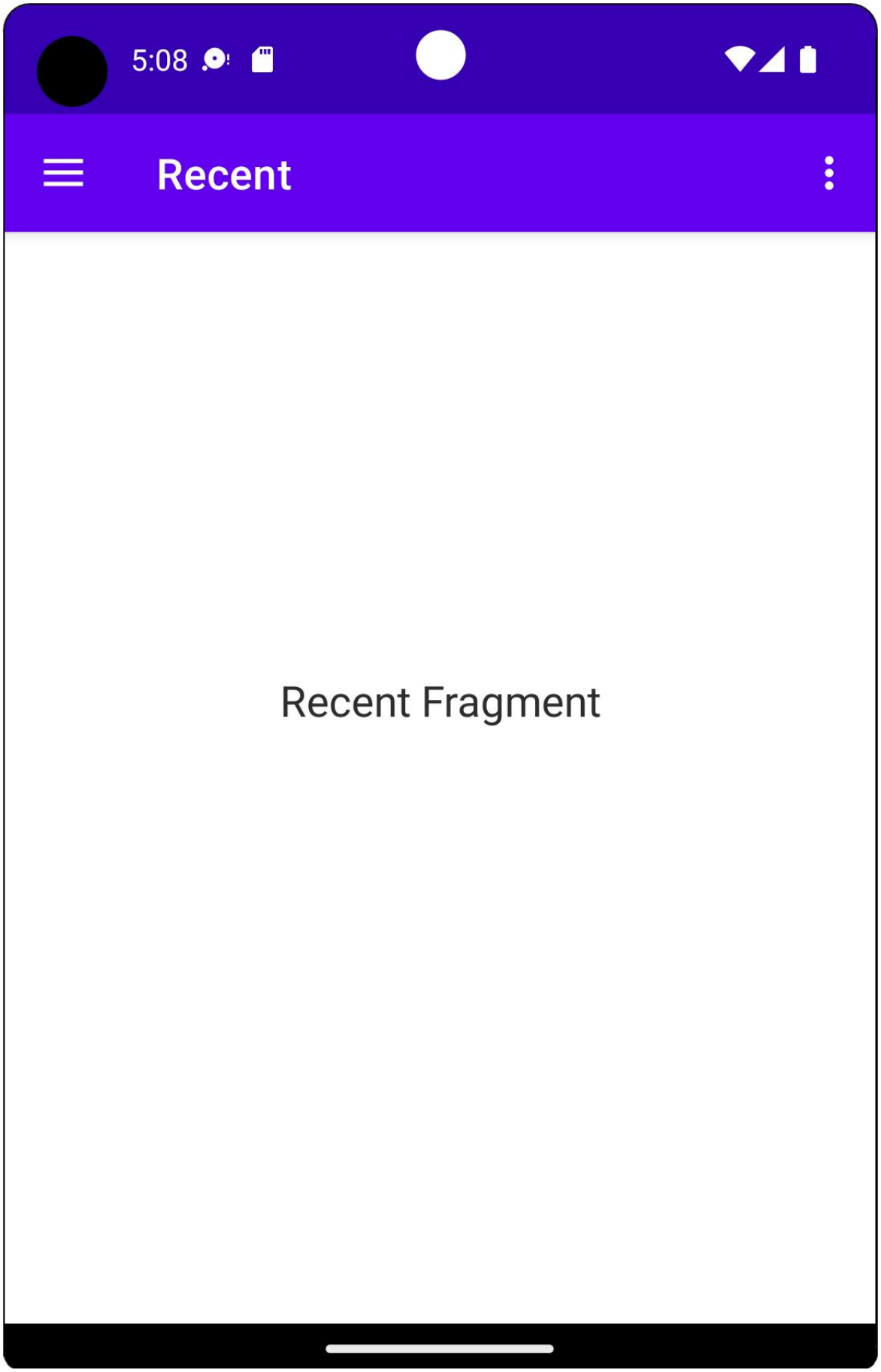

5:17
Planet Quiz
What is the largest planet?
MERCURY
VENUS
EARTH
MARS
JUPITER
SATURN
URANUS
NEPTUNE

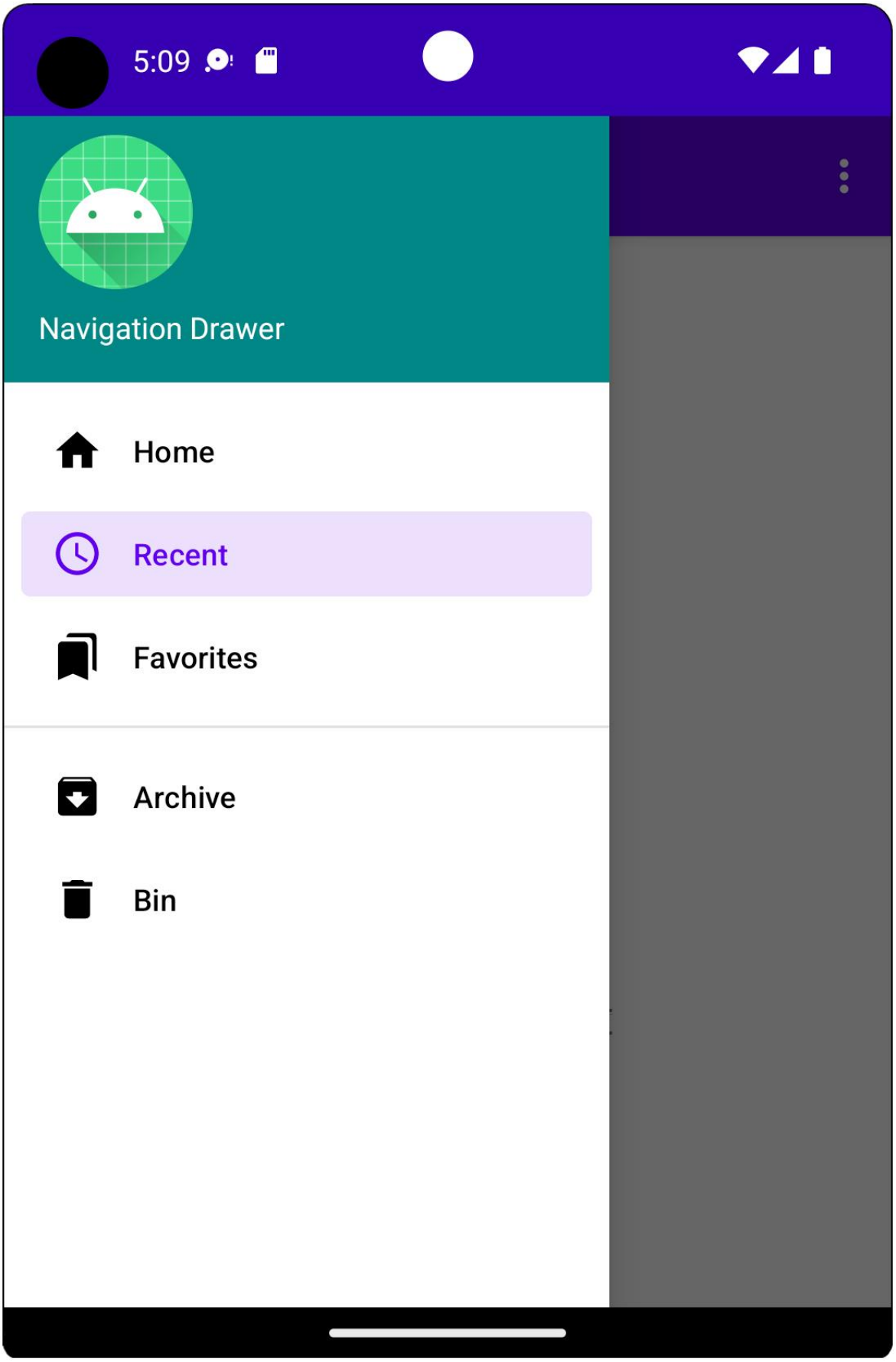

5:22
Planet Quiz
What is the largest planet?
MERCURY
VENUS
EARTH
MARS
JUPITER
SATURN
URANUS
NEPTUNE
CORRECT! Jupiter is the largest planet and is 2.5 times the mass of all the other planets put together.

Chapter 04: Building App Navigation

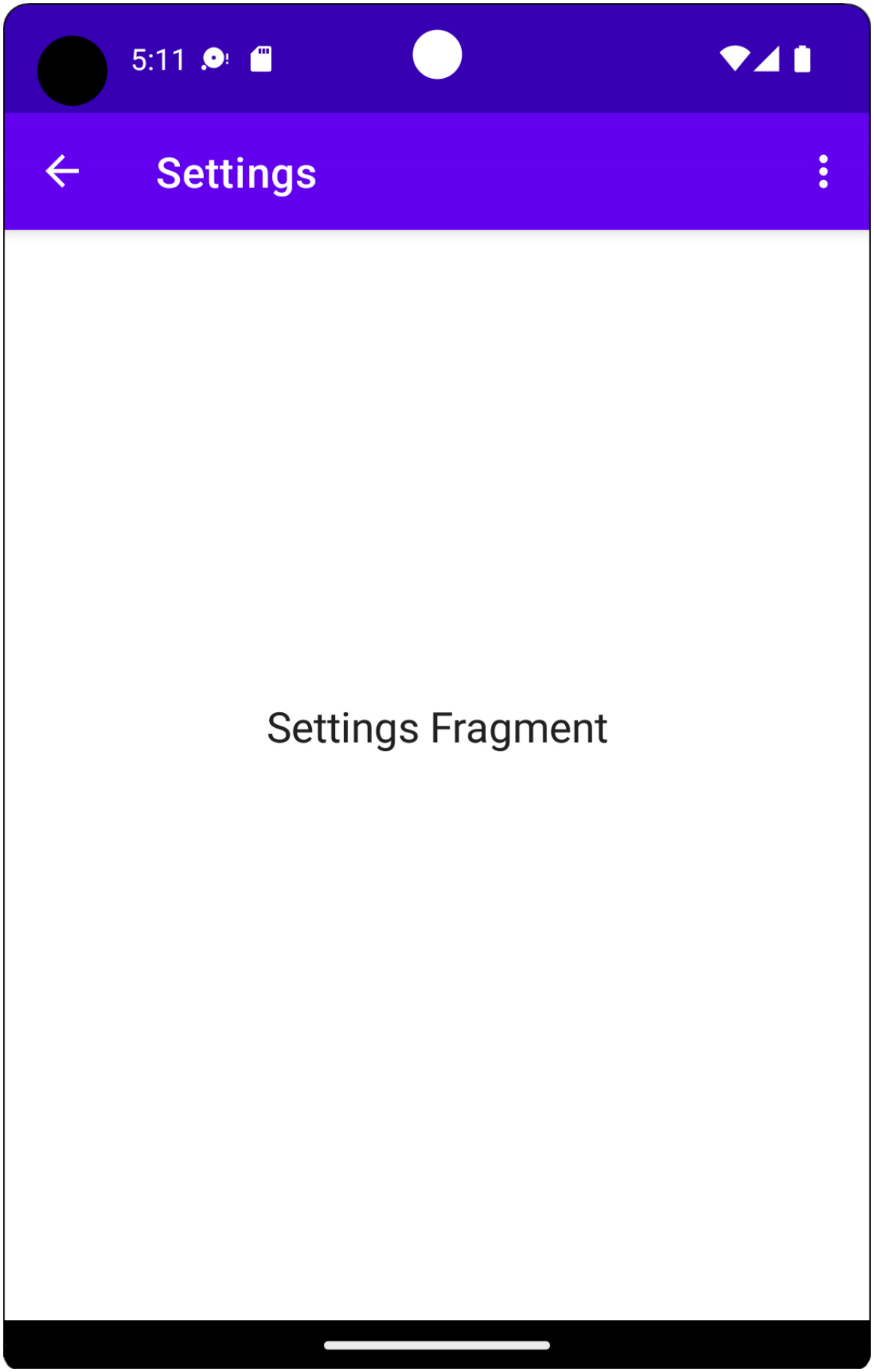

9:07
3G
Navigation Drawer
Home
Recent
Favorites
Archive
Bin

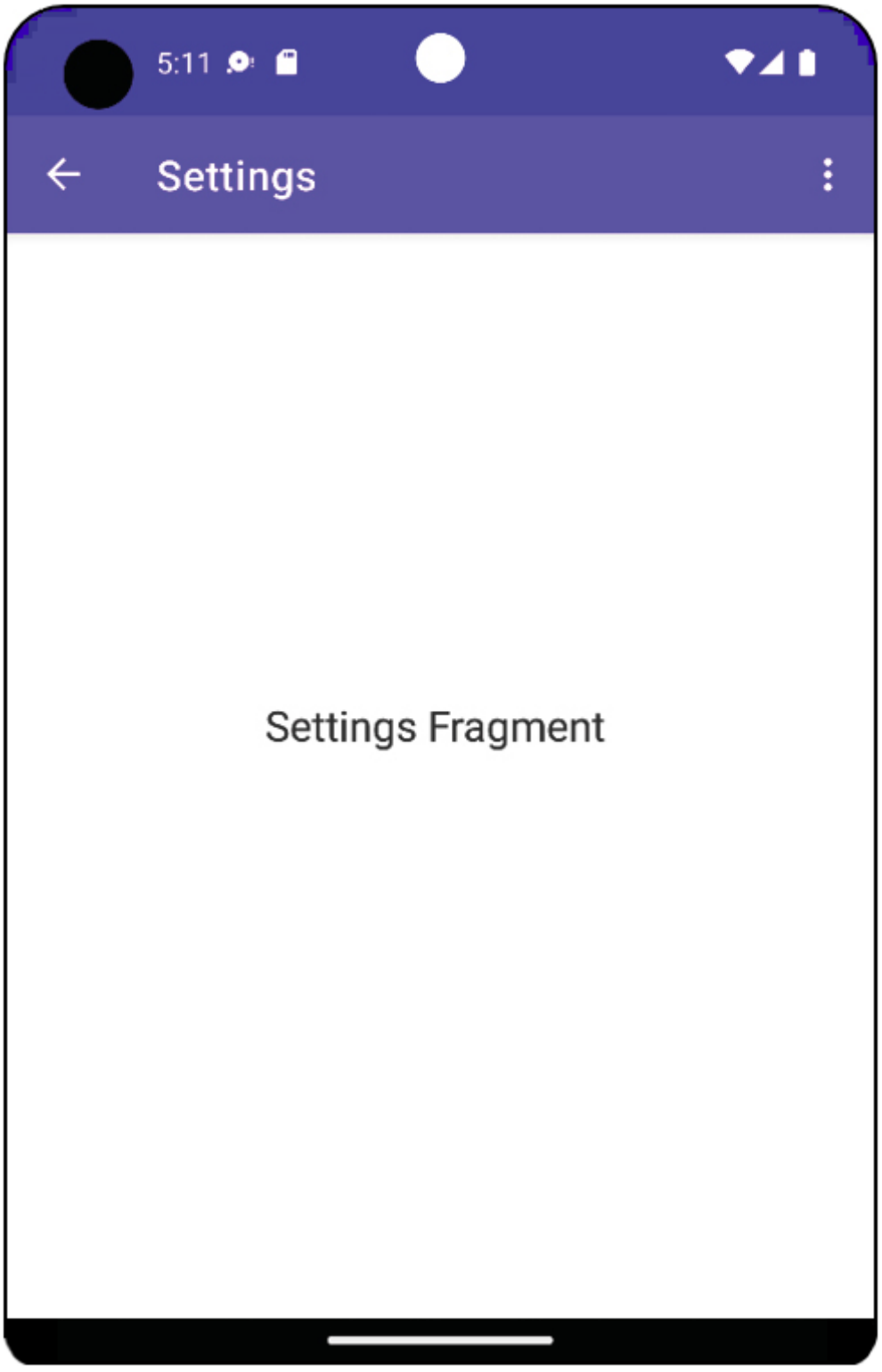

New Resource File
File name:
mobile_navigation.xml
Resource type:
Navigation
Root element:
navigation
Source set:
main src/main/res
Directory name:
navigation
Available qualifiers:
Country Code
Network Code
Locale
Layout Direction
Smallest Screen Width
Screen Width
Screen Height
Size
Ratio
Orientation
>>
<<
Chosen qualifiers:
Nothing to show
Cancel
OK

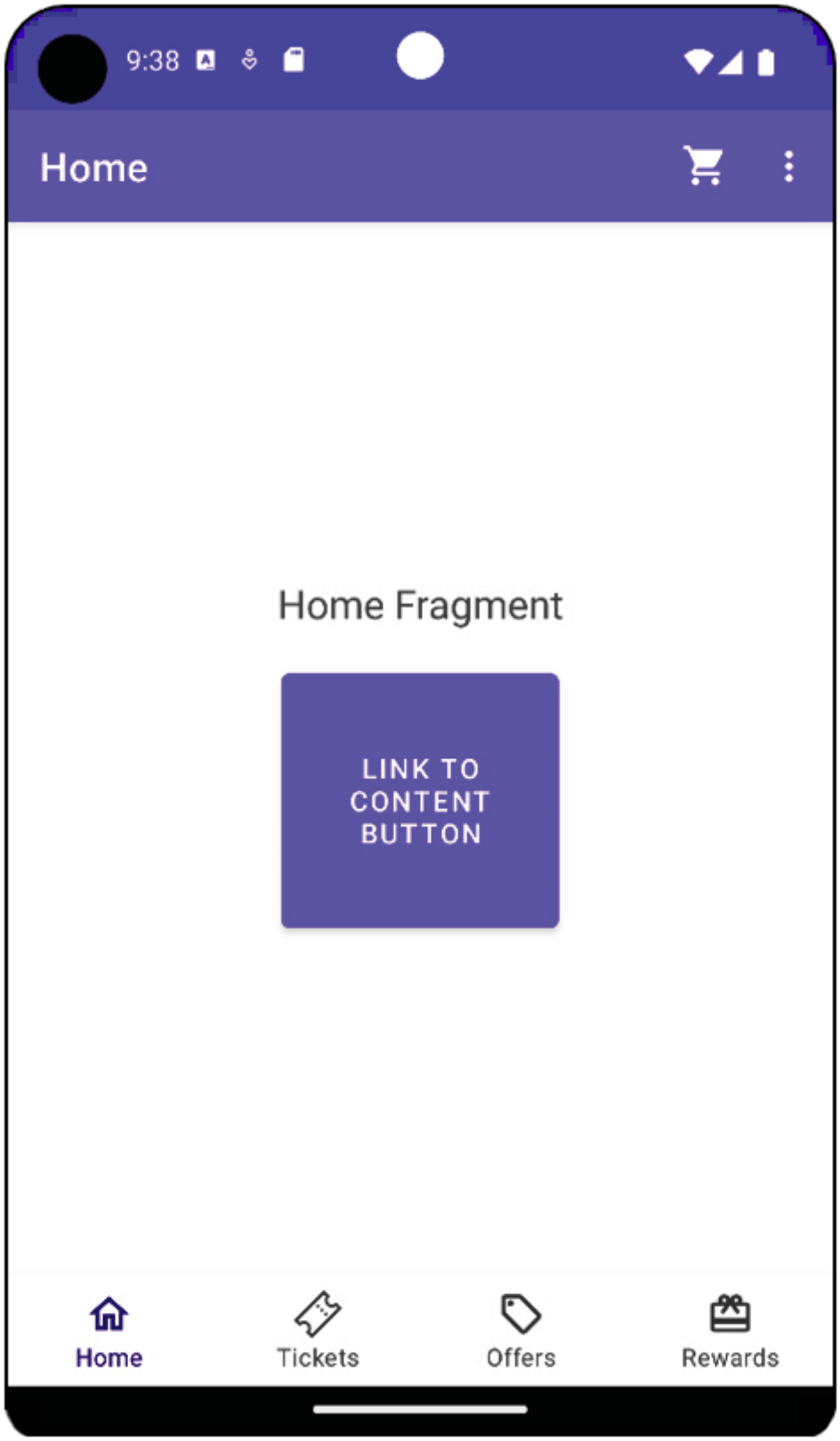

5:08
Recent
Recent Fragment

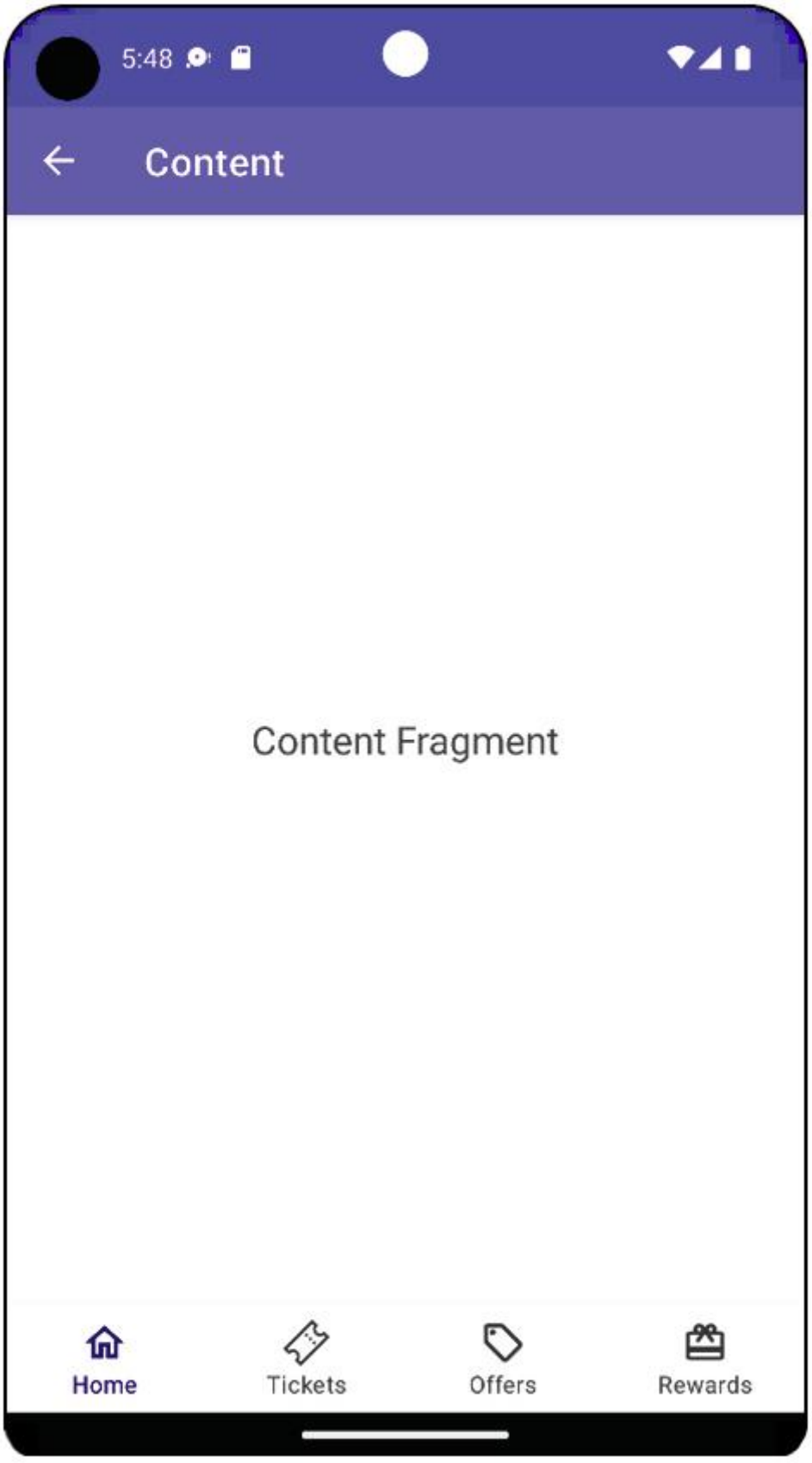

5:09
Navigation Drawer
Home
Recent
Favorites
Archive
Bin

9:05
3G
Home
Home Fragment
LINK TO CONTENT BUTTON

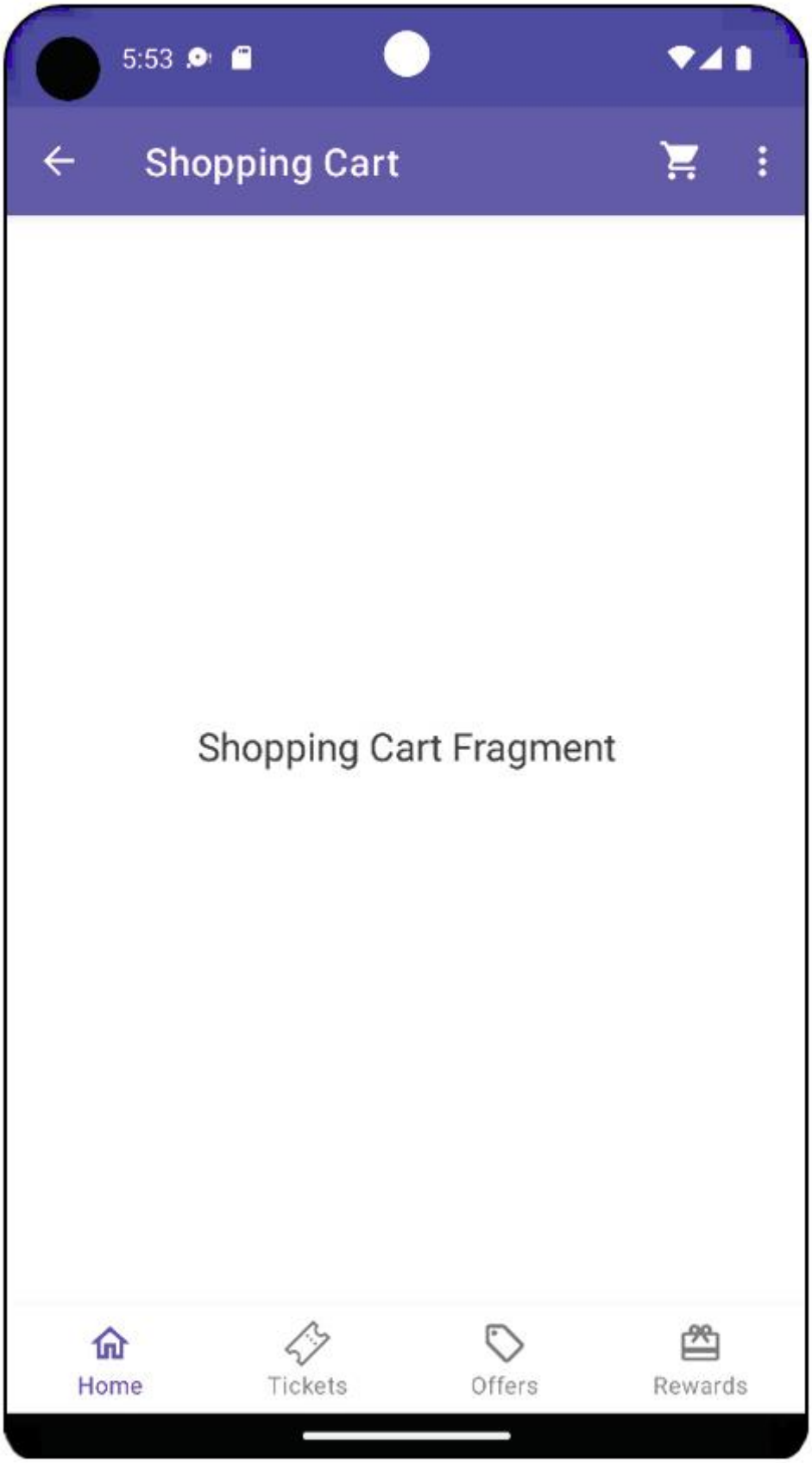

5:11
Settings
Settings Fragment

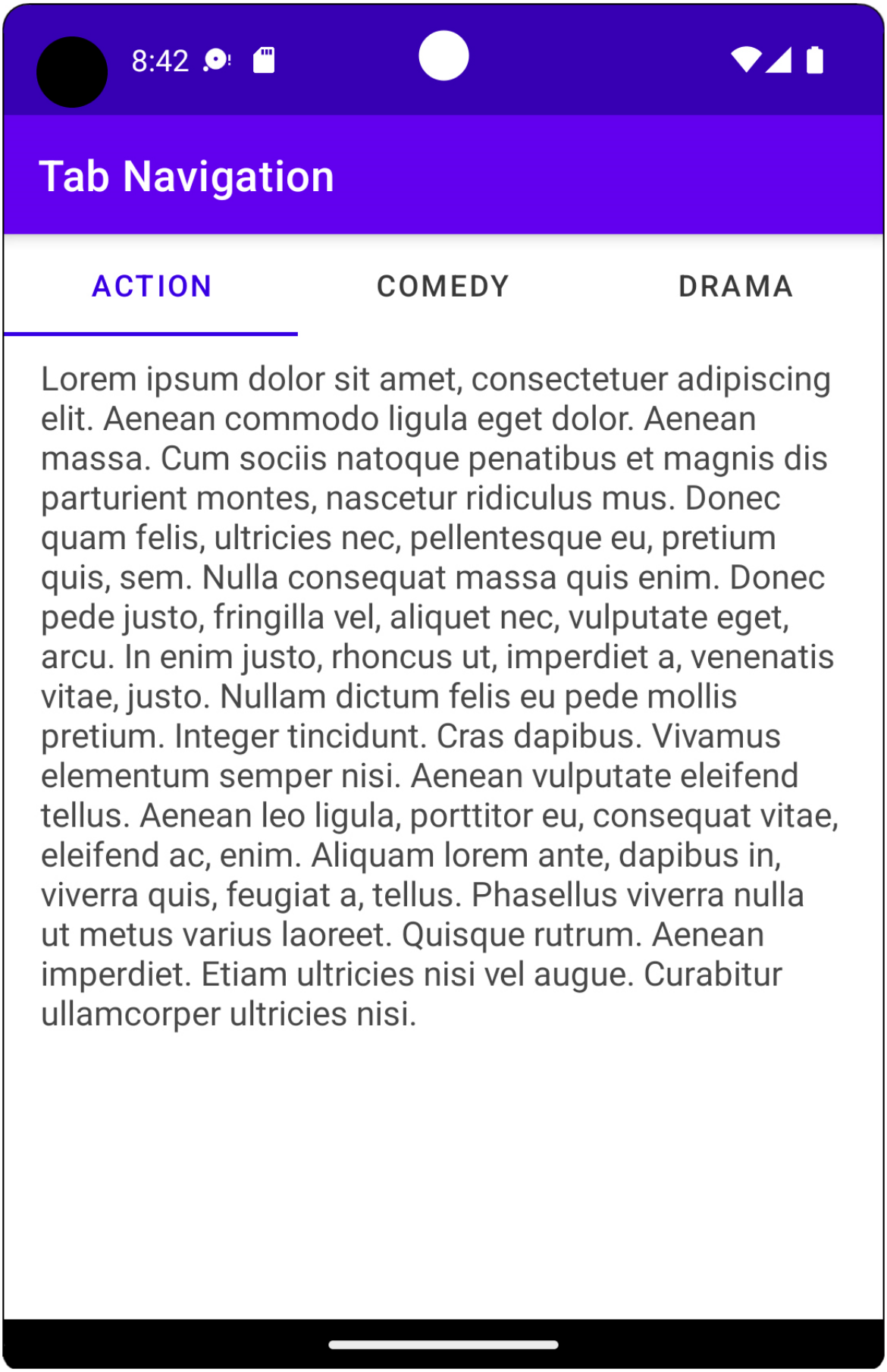

5:11
Settings
Settings Fragment

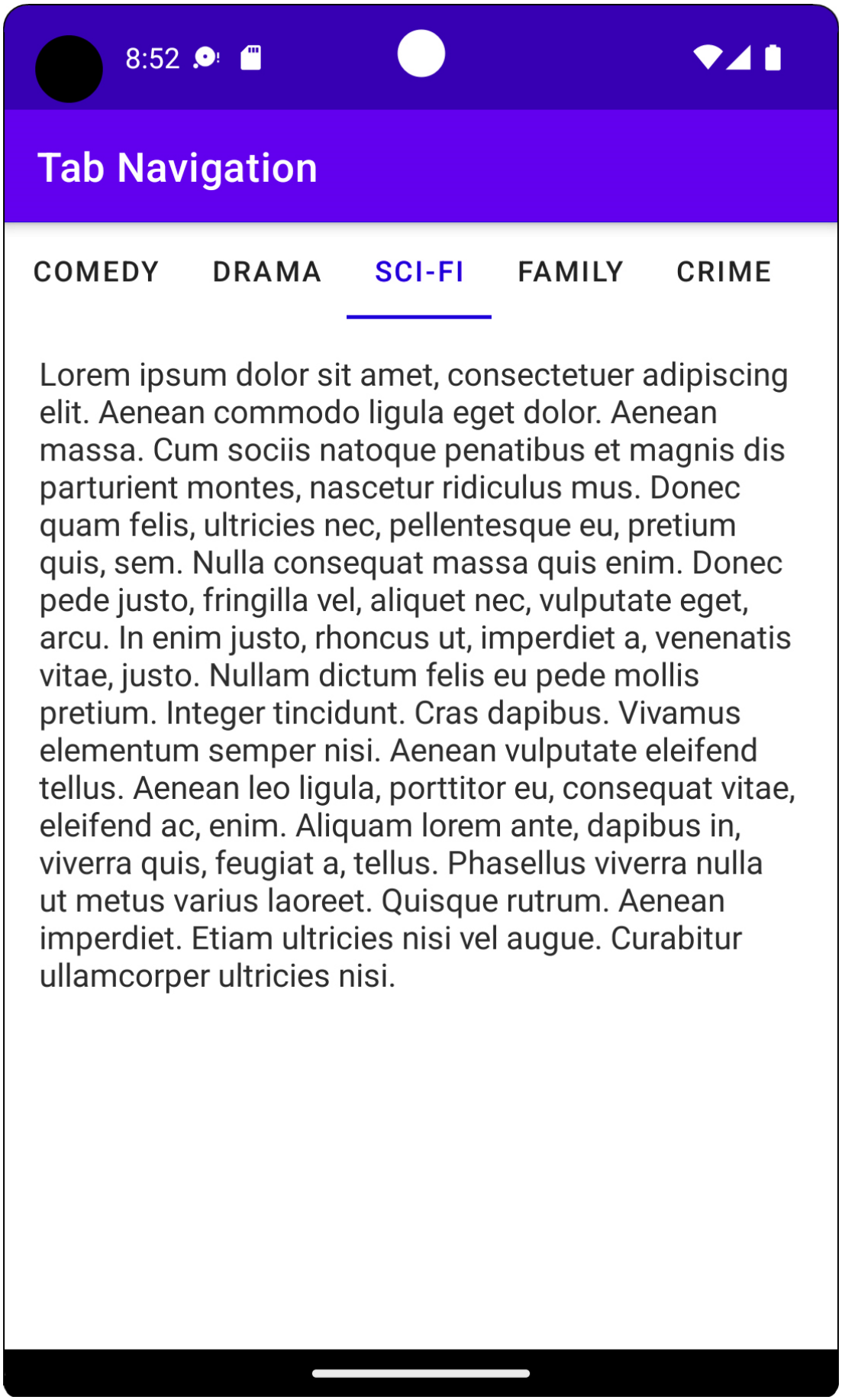

9:38
Home
Home Fragment
LINK TO CONTENT BUTTON
Home
Tickets
Offers
Rewards

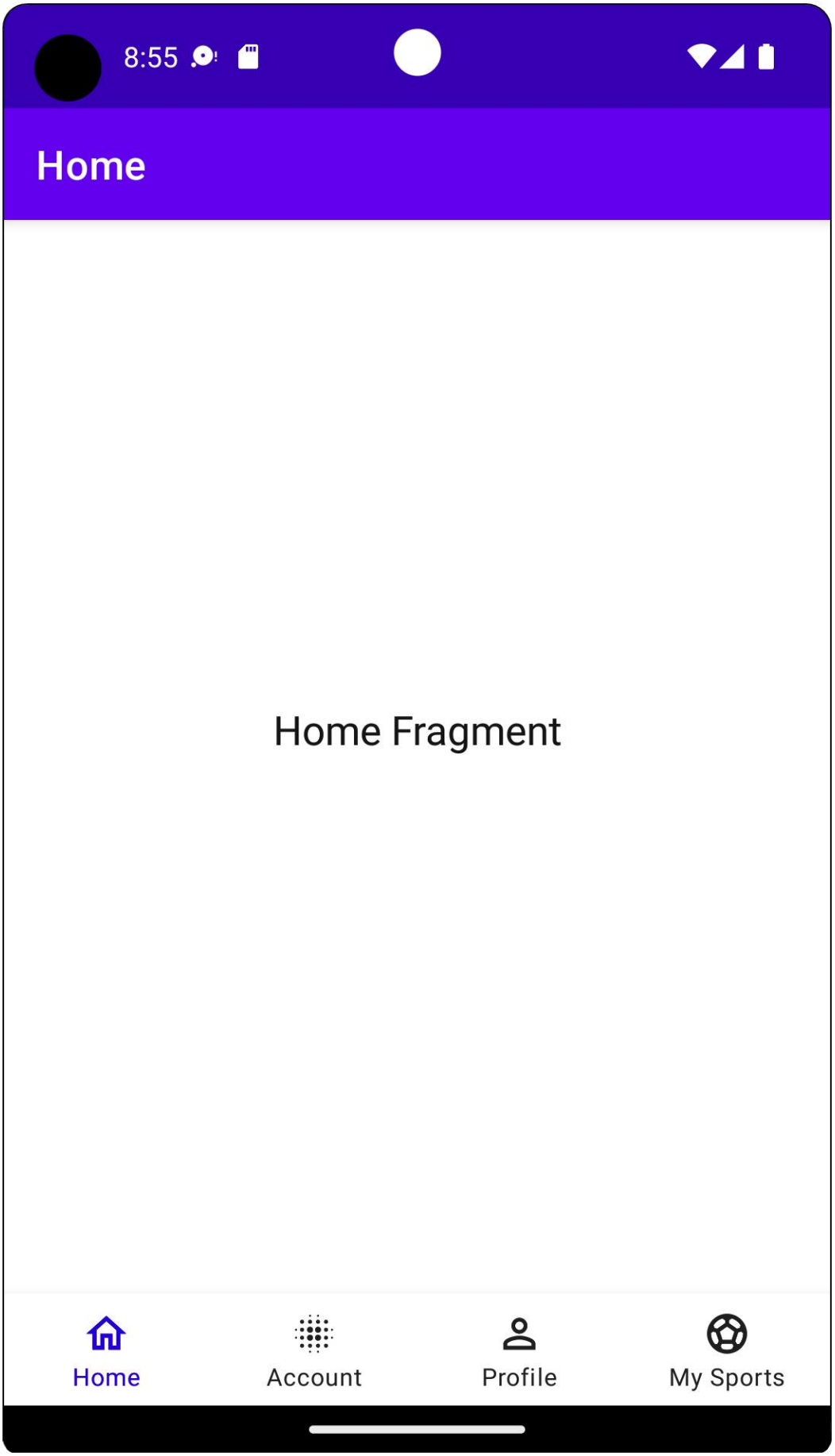

5:48
Content
Content Fragment
Home
Tickets
Offers
Rewards

9:58
Home
Home Fragment
LINK TO CONTENT BUTTON
Home
Tickets
Offers
Rewards

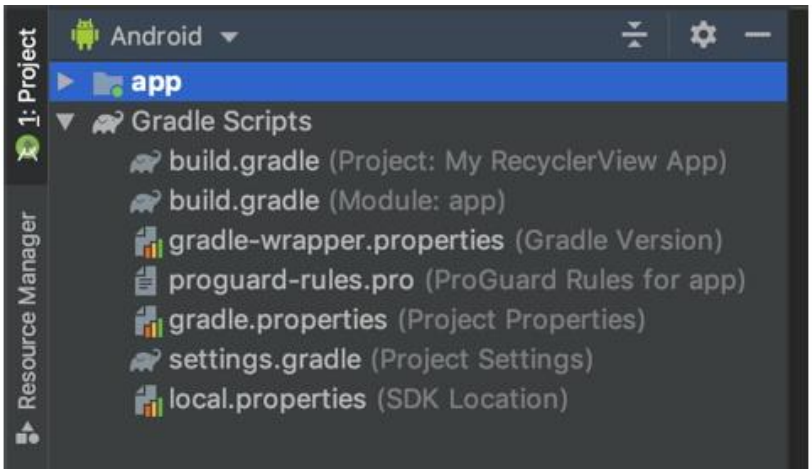

5:53
Shopping Cart
Shopping Cart Fragment
Home
Tickets
Offers
Rewards

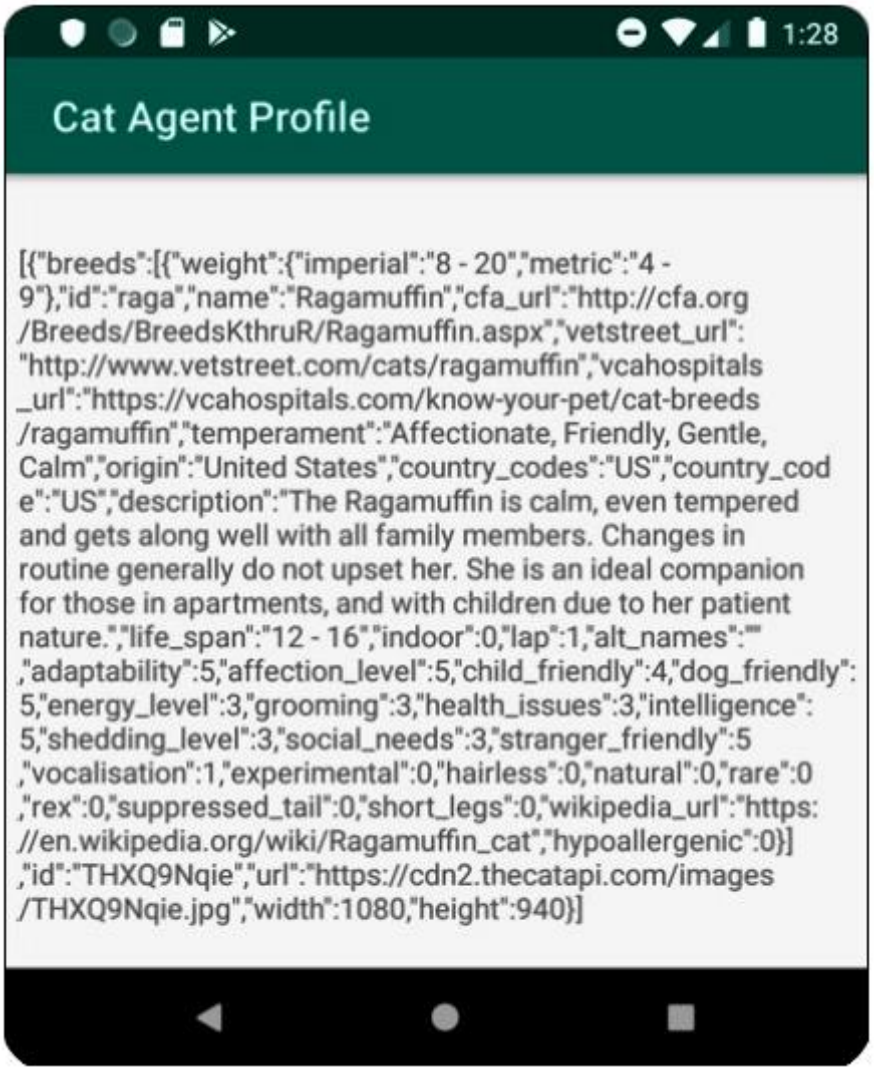

8:42
Tab Navigation
ACTION
COMEDY
DRAMA
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi.

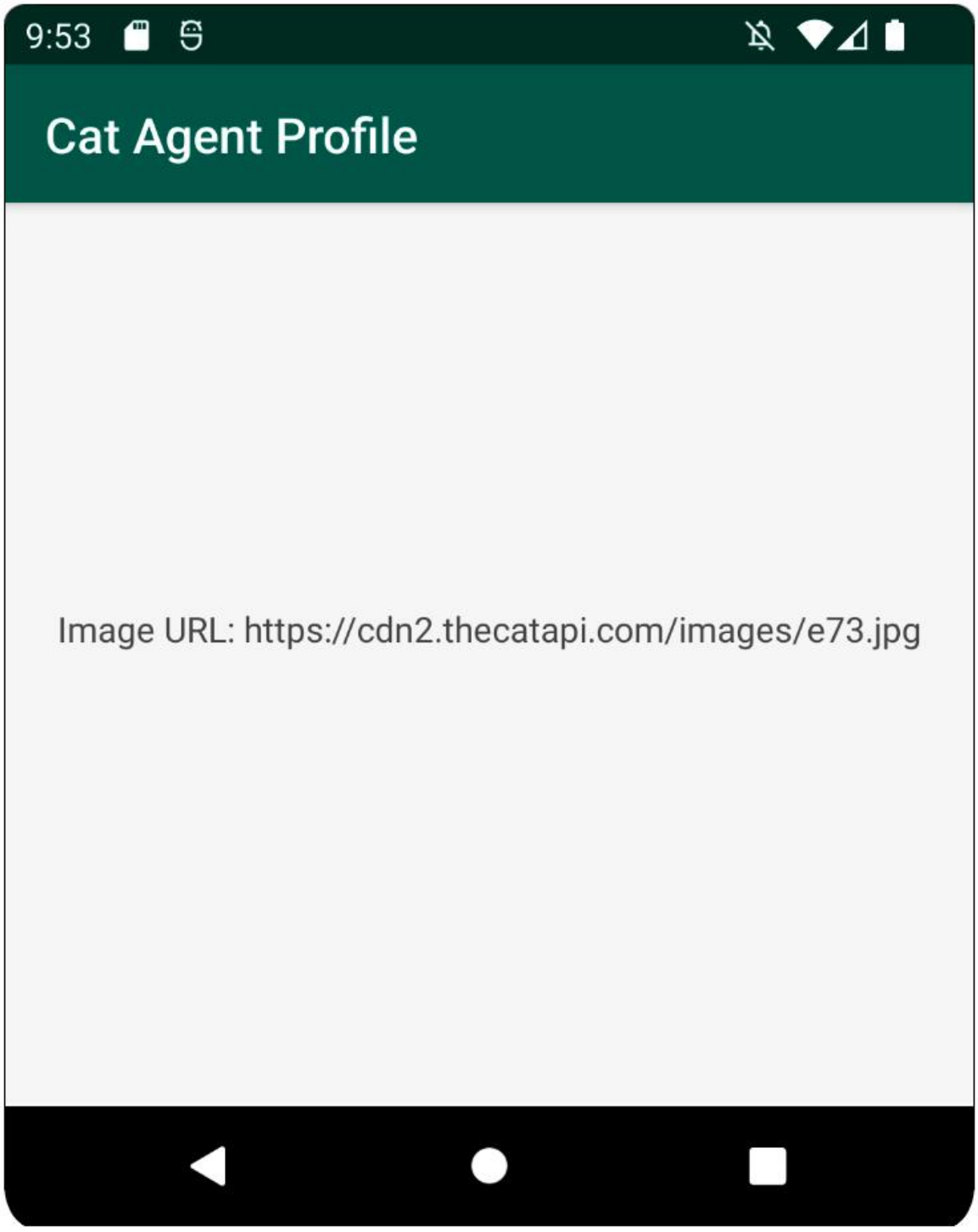

8:52
Tab Navigation
COMEDY
DRAMA
SCI-FI
FAMILY
CRIME
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi.

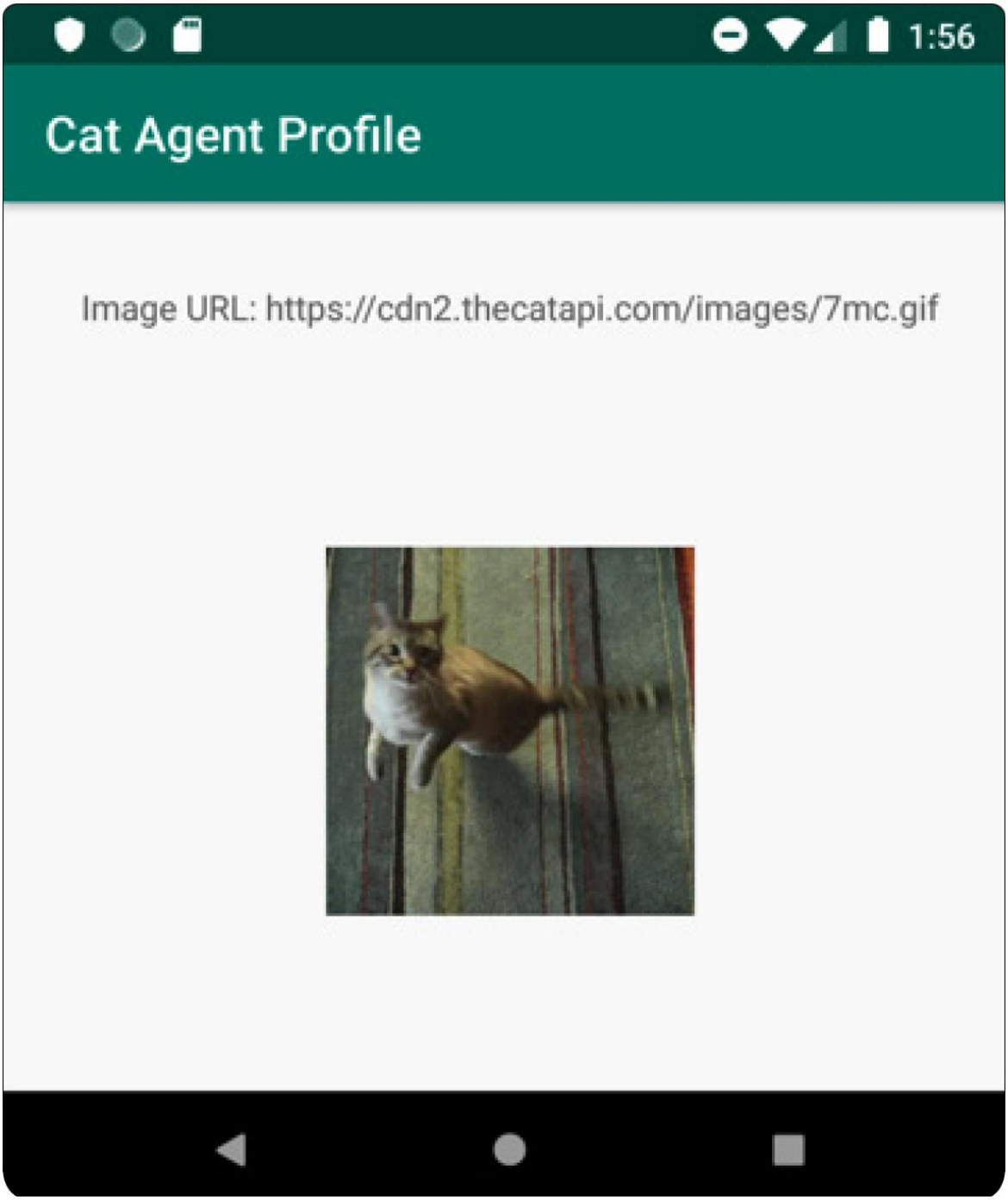

8:55
Home
Home Fragment
Home
Account
Profile
My Sports

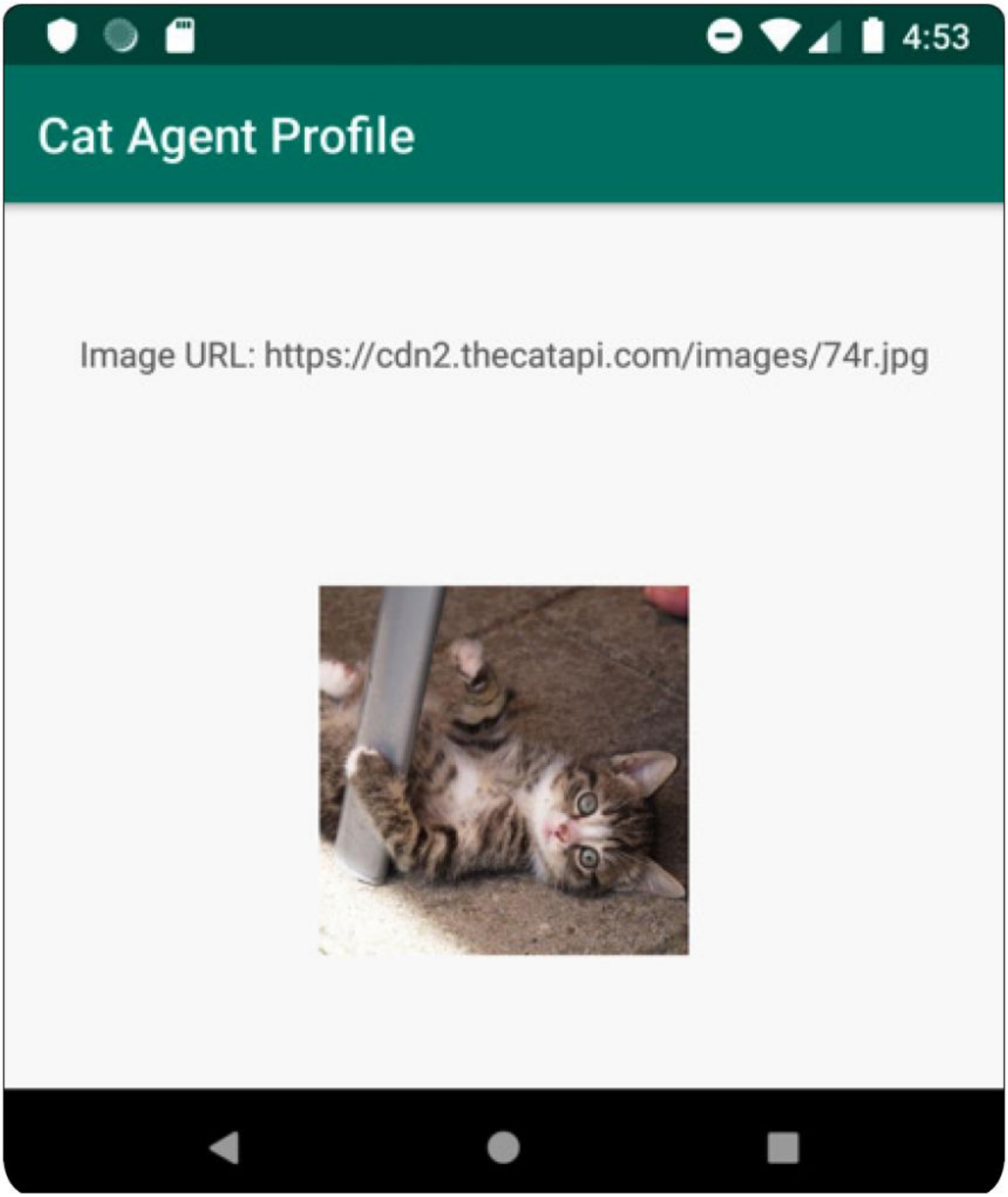
Chapter 05: Essential Libraries: Retrofit, Moshi, and Glide

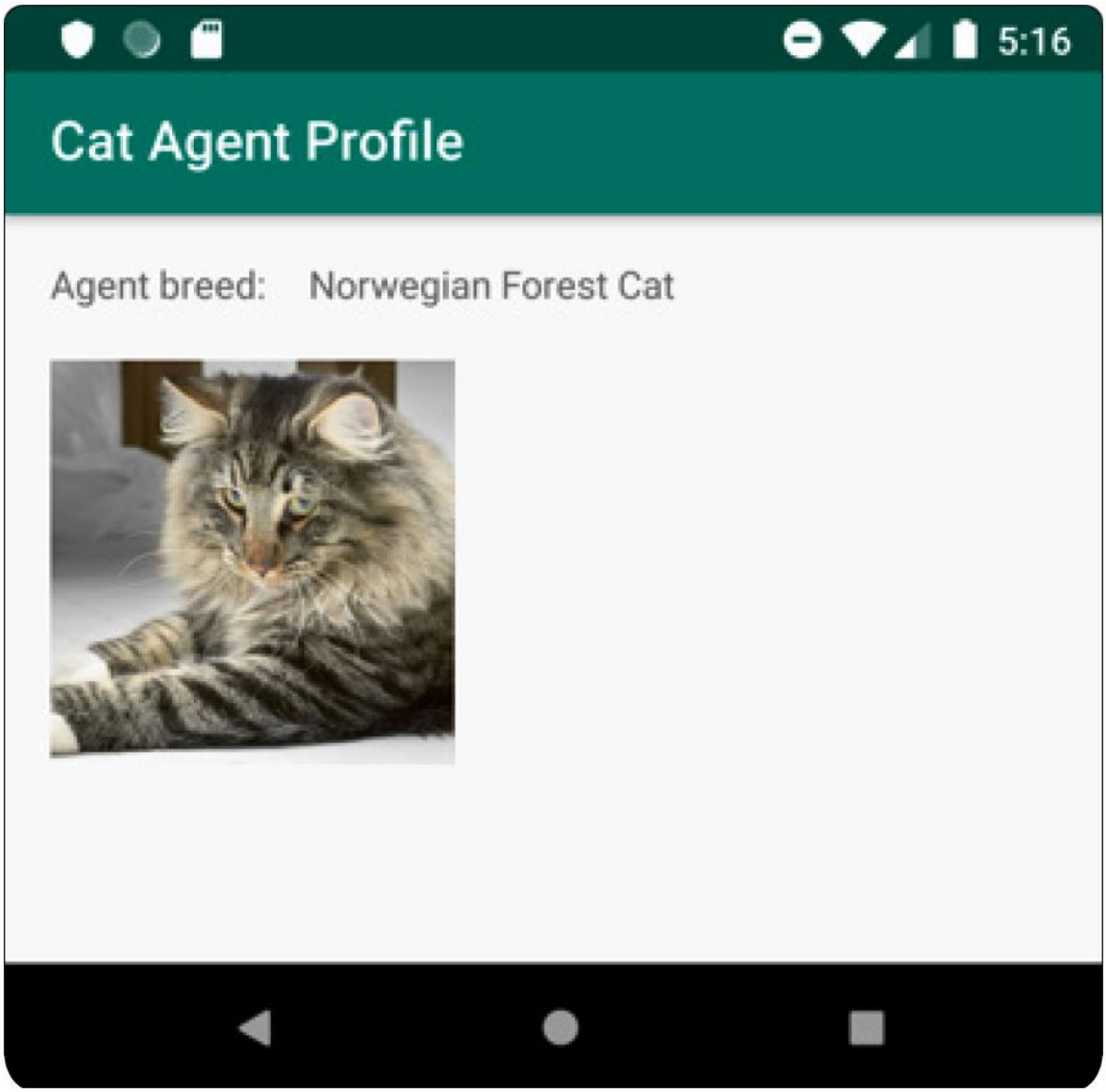


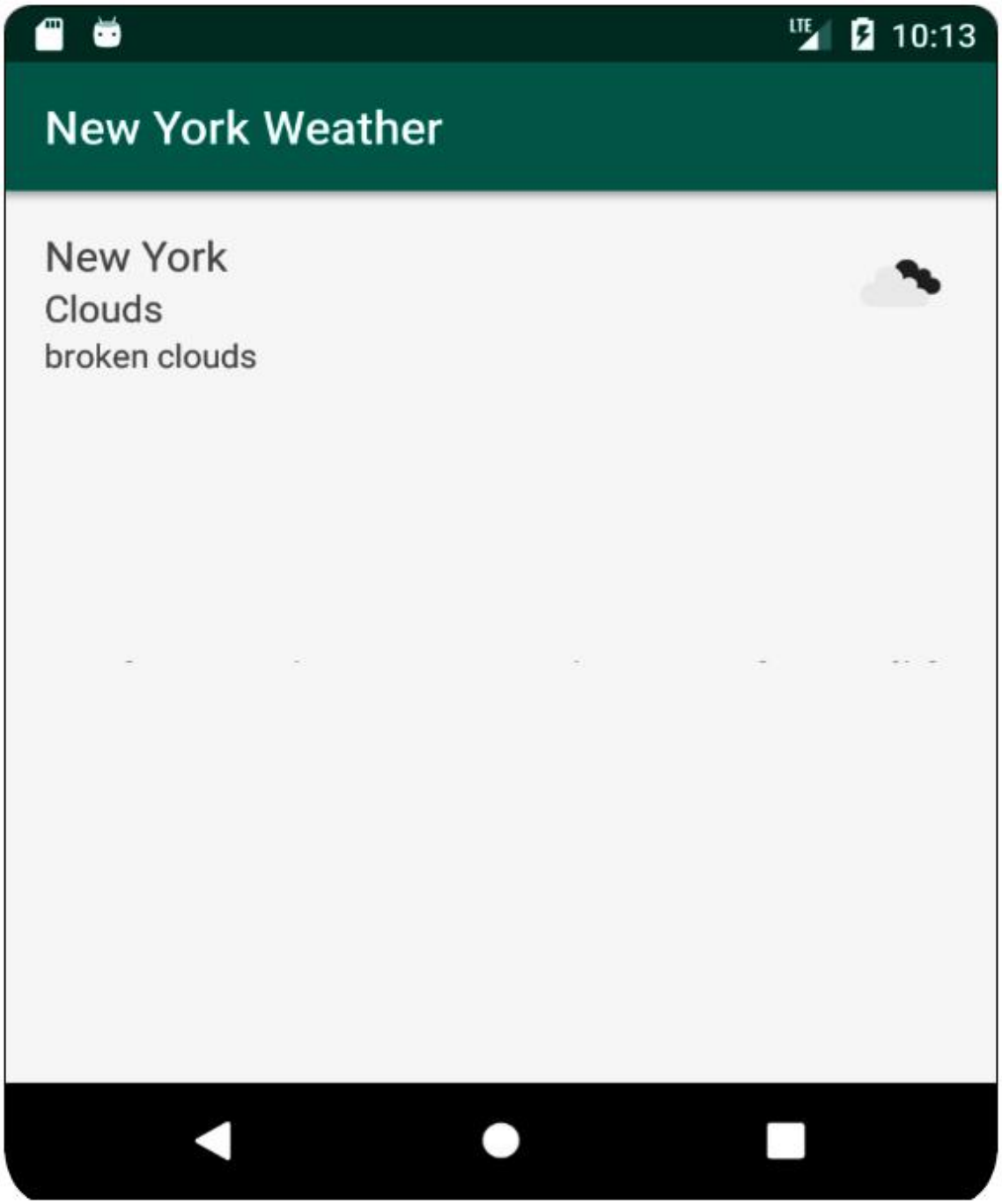



9:53
Cat Agent Profile
Image URL: https://cdn2.thecatapi.com/images/e73.jpg

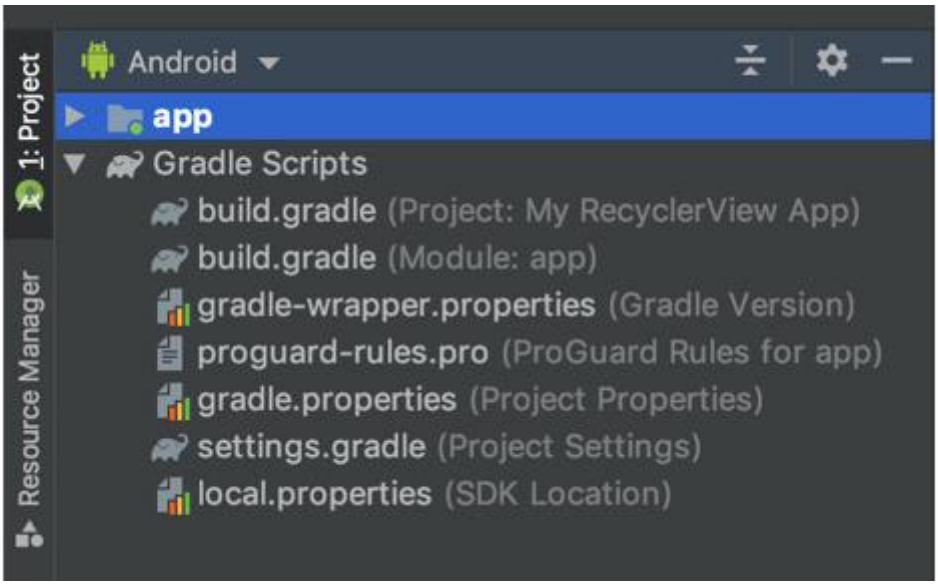

1:56
Cat Agent Profile
Image URL: https://cdn2.thecatapi.com/images/7mc.gif

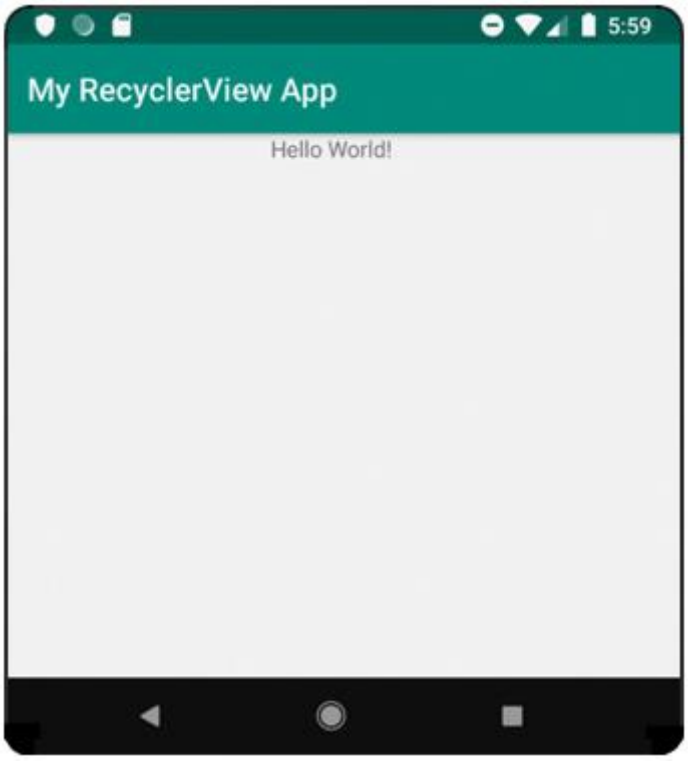

4:53
Cat Agent Profile
Image URL: https://cdn2.thecatapi.com/images/74r.jpg

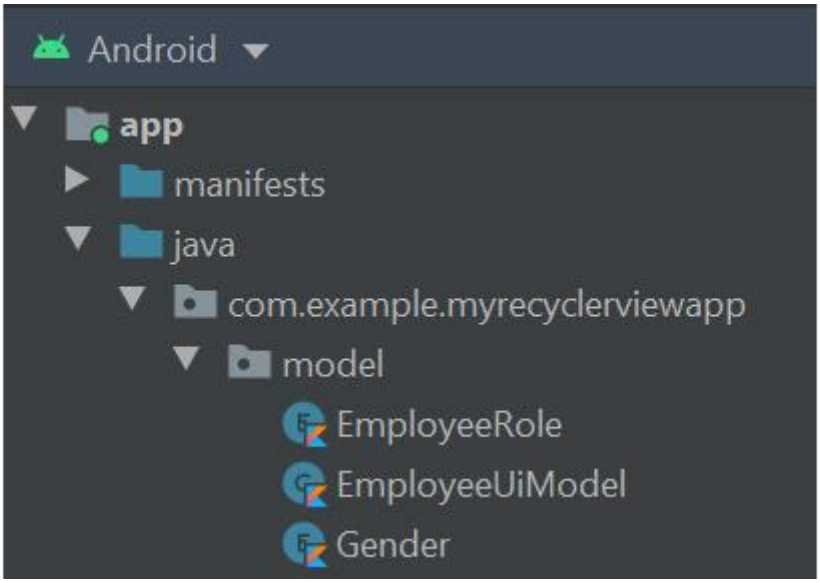

5:16
Cat Agent Profile
Agent breed:
Norwegian Forest Cat

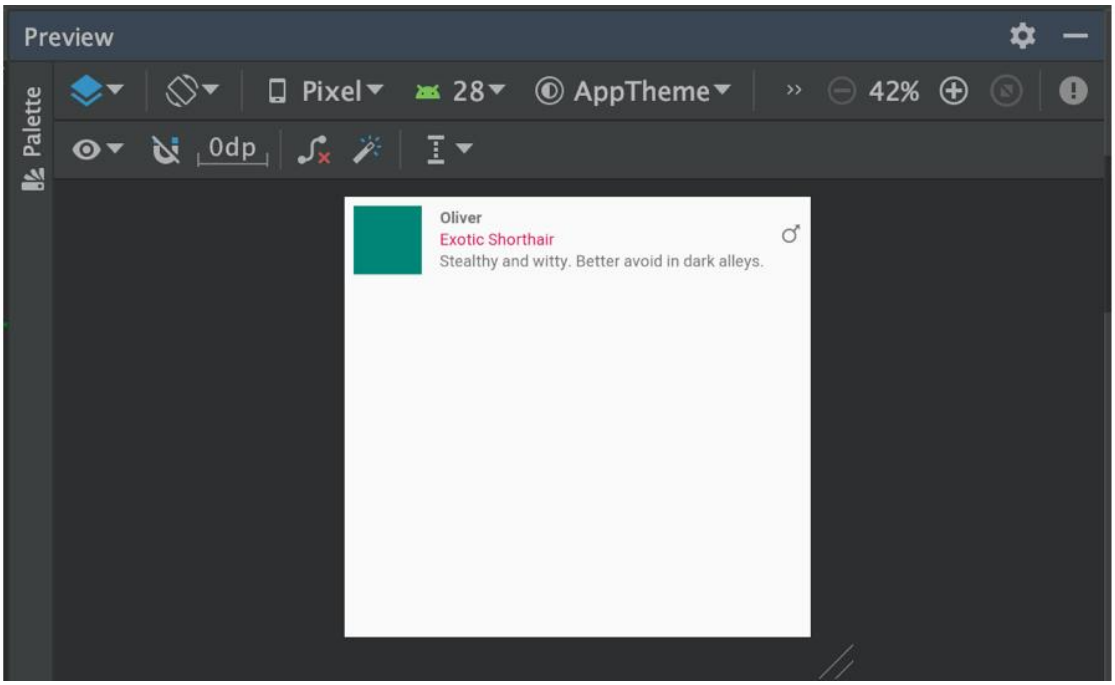

10:13
New York Weather
New York
Clouds
broken clouds

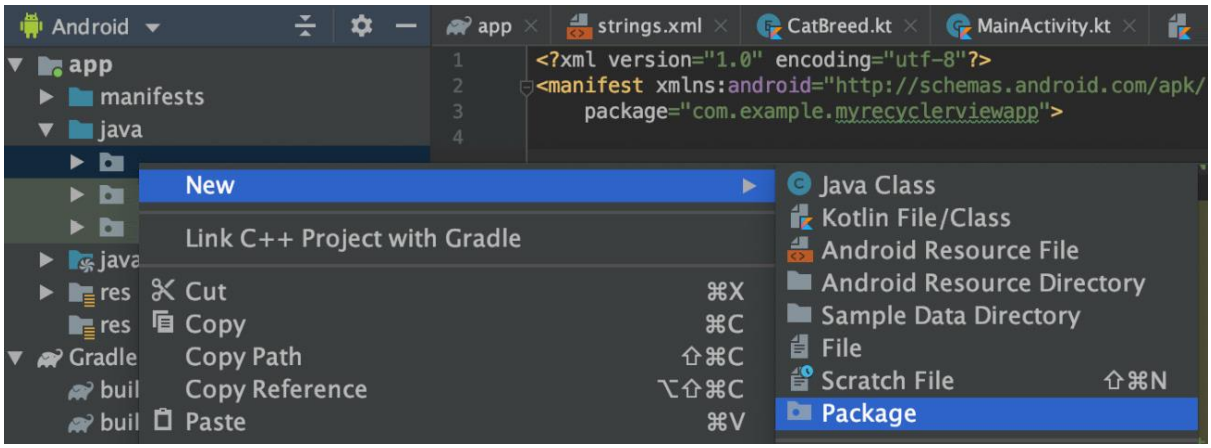
Chapter 06: Adding and Interacting with RecyclerView

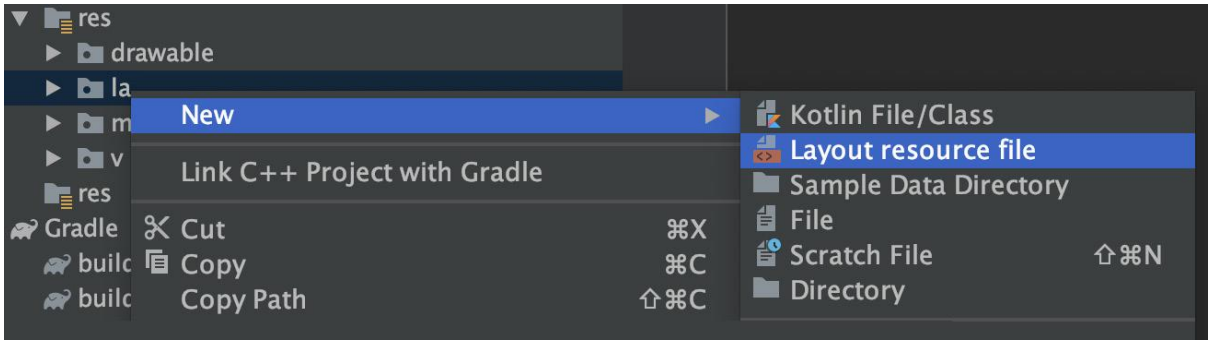


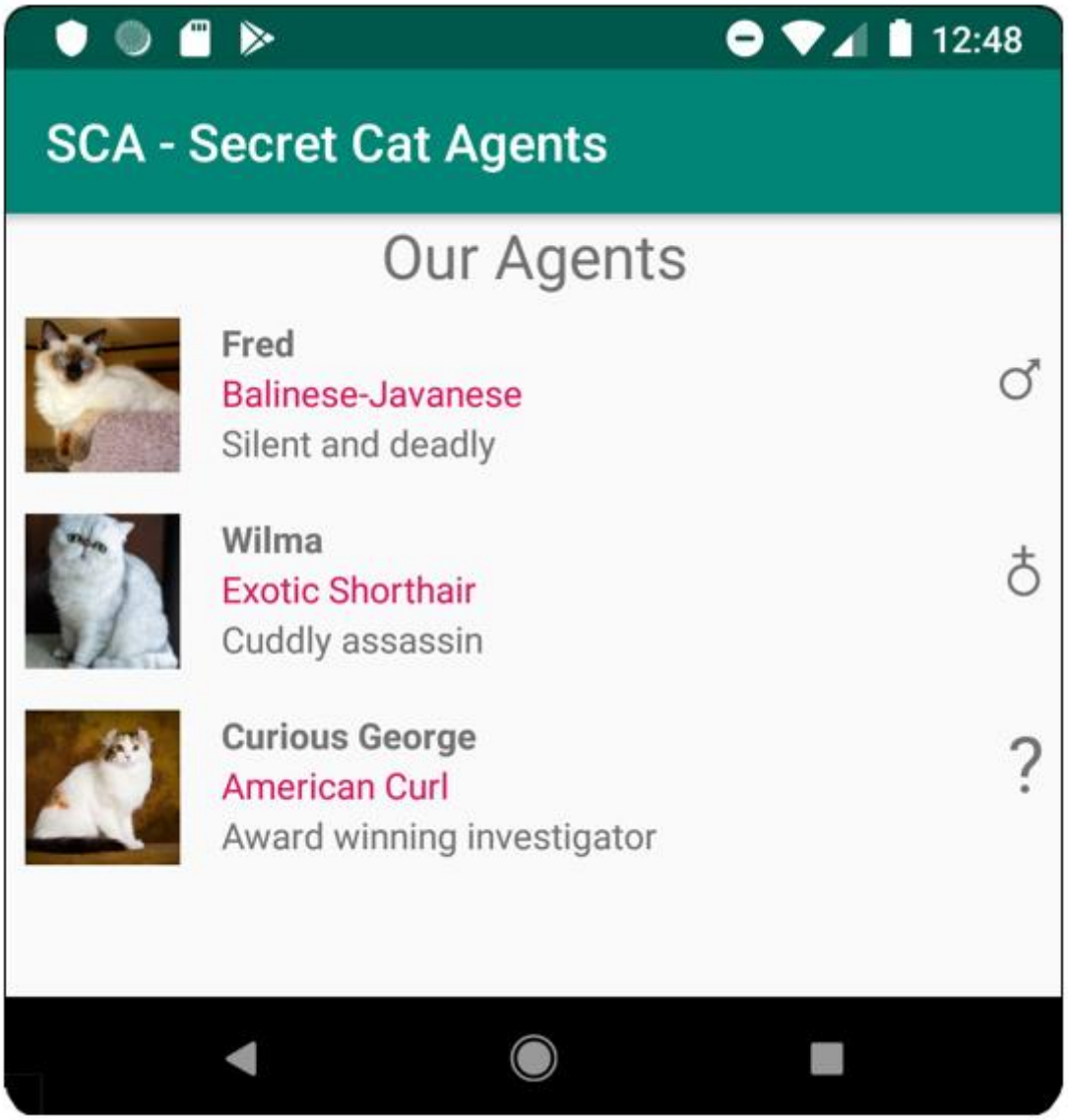


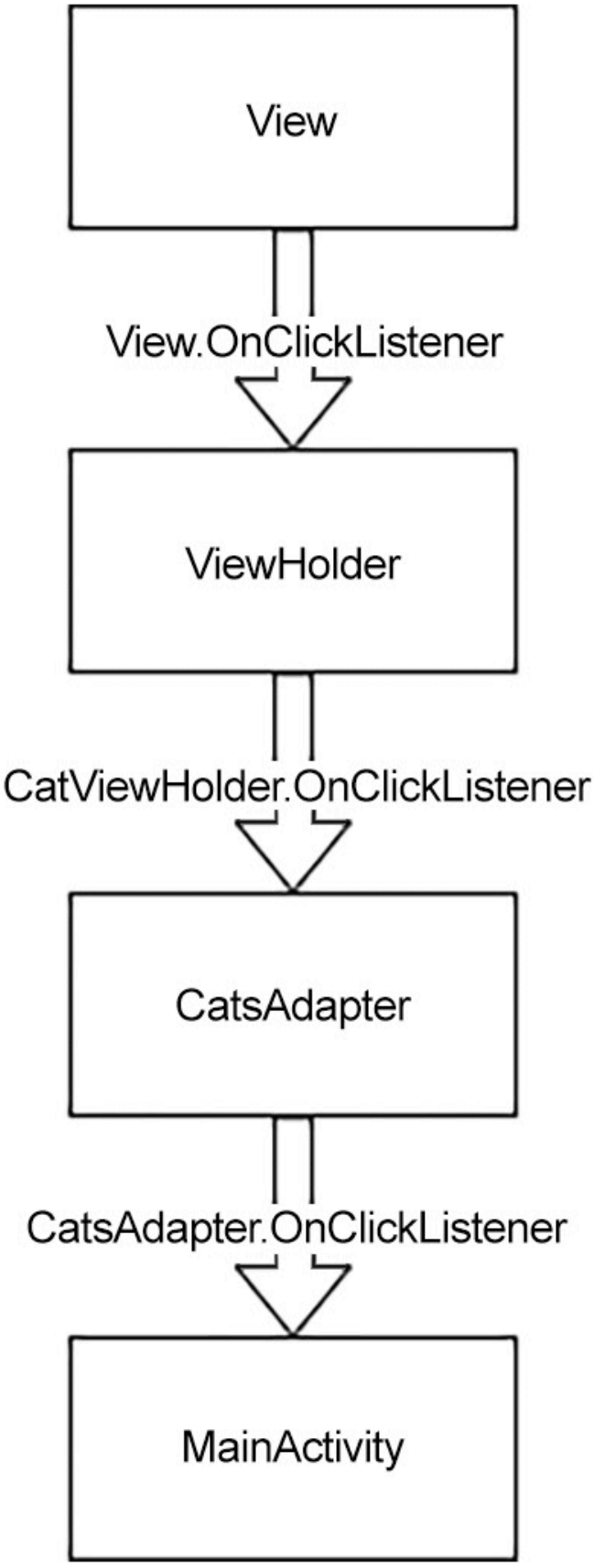

Android
app
manifests
java
com.example.myrecyclerviewapp
model
EmployeeRole
EmployeeUiModel
Gender

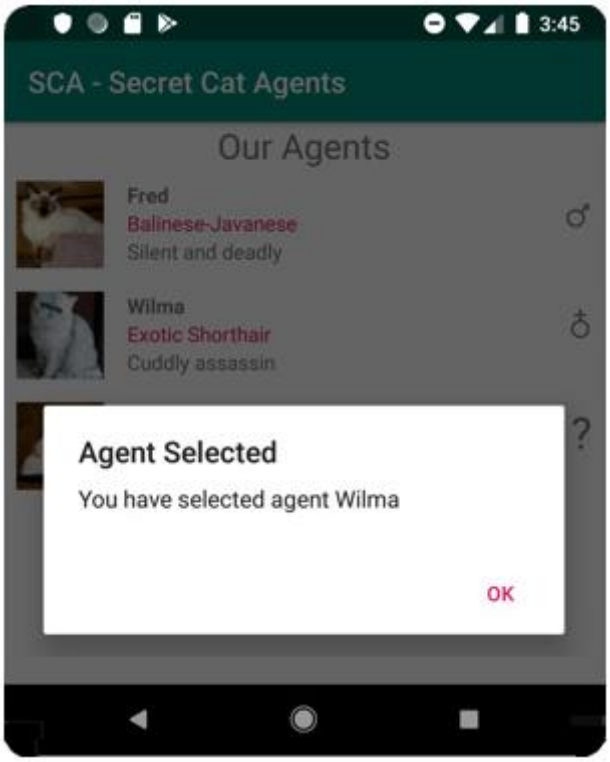

Preview
Palette
Pixel
28
AppTheme
42%
0dp
Oliver
Exotic Shorthair
Stealthy and witty. Better avoid in dark alleys.

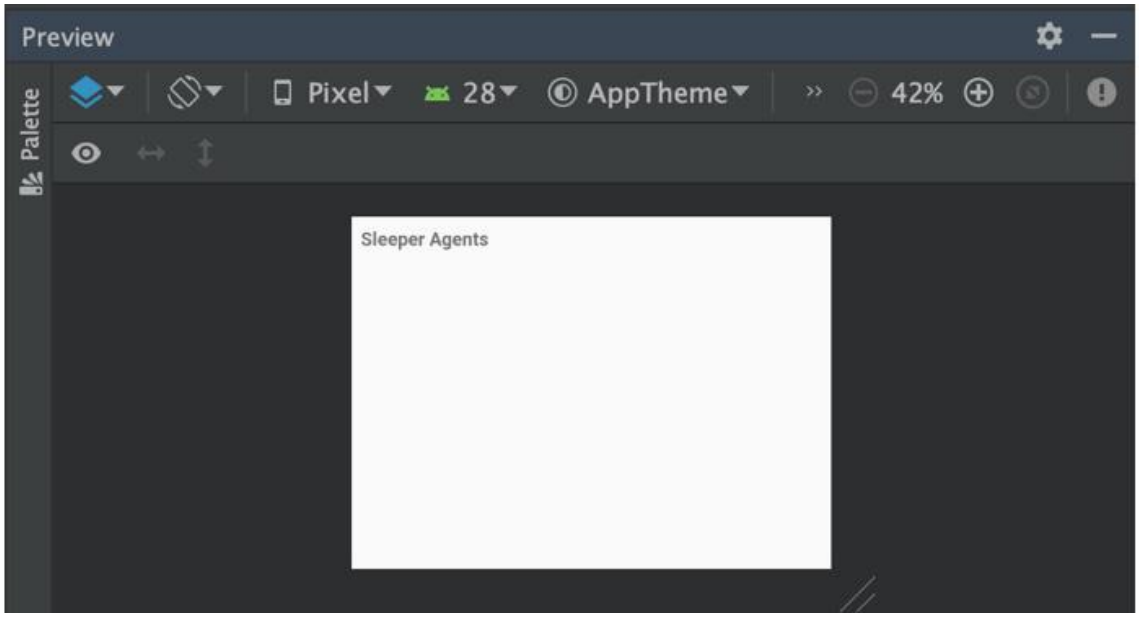

Android
app
manifests
java
res
res
Gradle
app
strings.xml
CatBreed.kt
MainActivity.kt
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/
package="com.example.myrecyclerviewapp">
New
Link C++ Project with Gradle
Cut ⌘X
Copy ⌘C
Copy Path ⇧⌘C
Copy Reference ⌥⇧⌘C
Paste ⌘V
Java Class
Kotlin File/Class
Android Resource File
Android Resource Directory
Sample Data Directory
File
Scratch File ⇧⌘N
Package

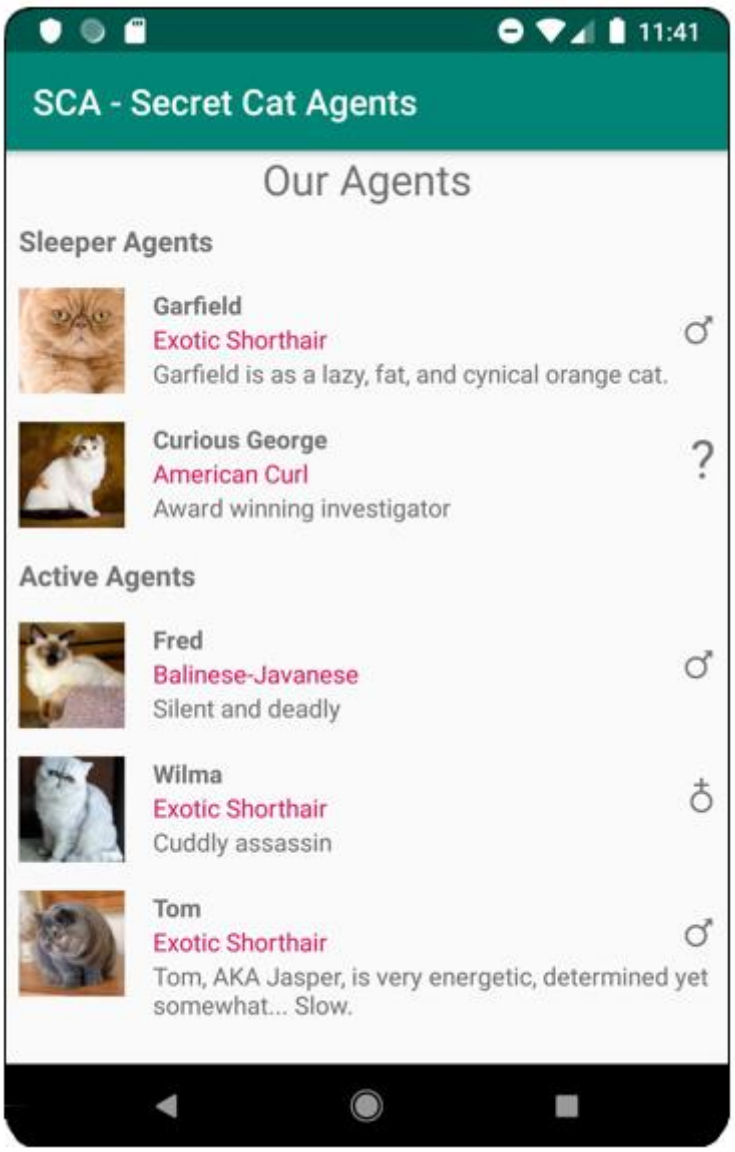

res
drawable
la
m
v
res
Gradle
build
build
New
Link C++ Project with Gradle
Cut ⌘X
Copy ⌘C
Copy Path ⇧⌘C
Kotlin File/Class
Layout resource file
Sample Data Directory
File
Scratch File ⇧⌘N
Directory

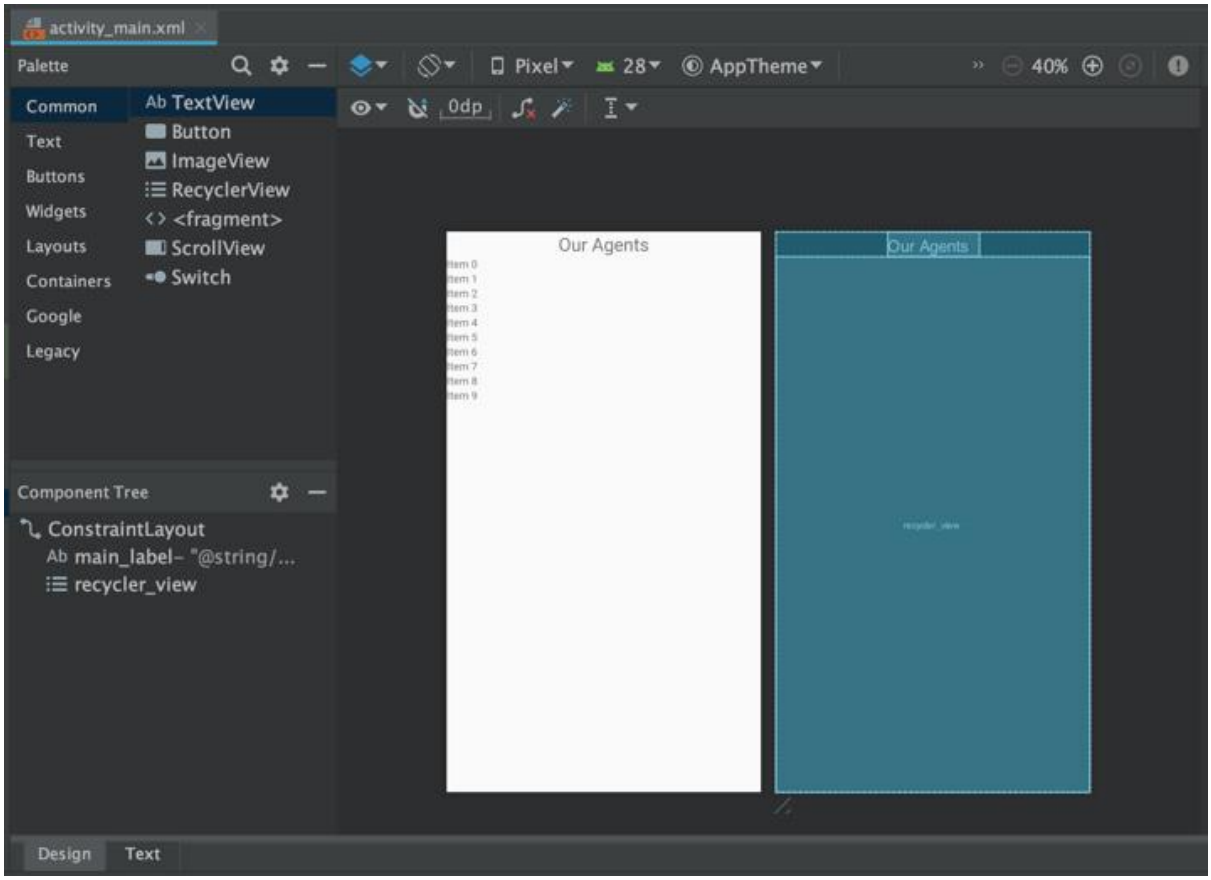

12:48
SCA - Secret Cat Agents
Our Agents
Fred
Balinese-Javanese
Silent and deadly
Wilma
Exotic Shorthair
Cuddly assassin
Curious George
American Curl
Award winning investigator

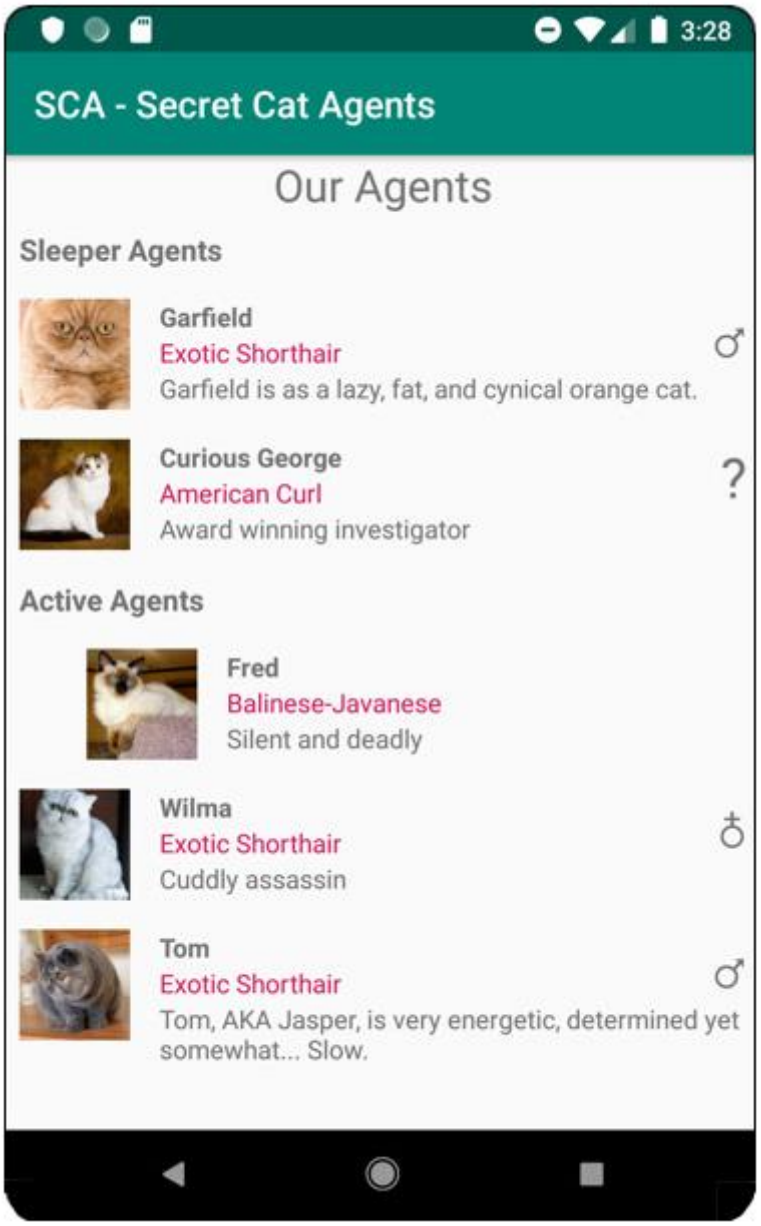

View
View.OnClickListener
ViewHolder
CatViewHolder.OnClickListener
CatsAdapter
CatsAdapter.OnClickListener
MainActivity

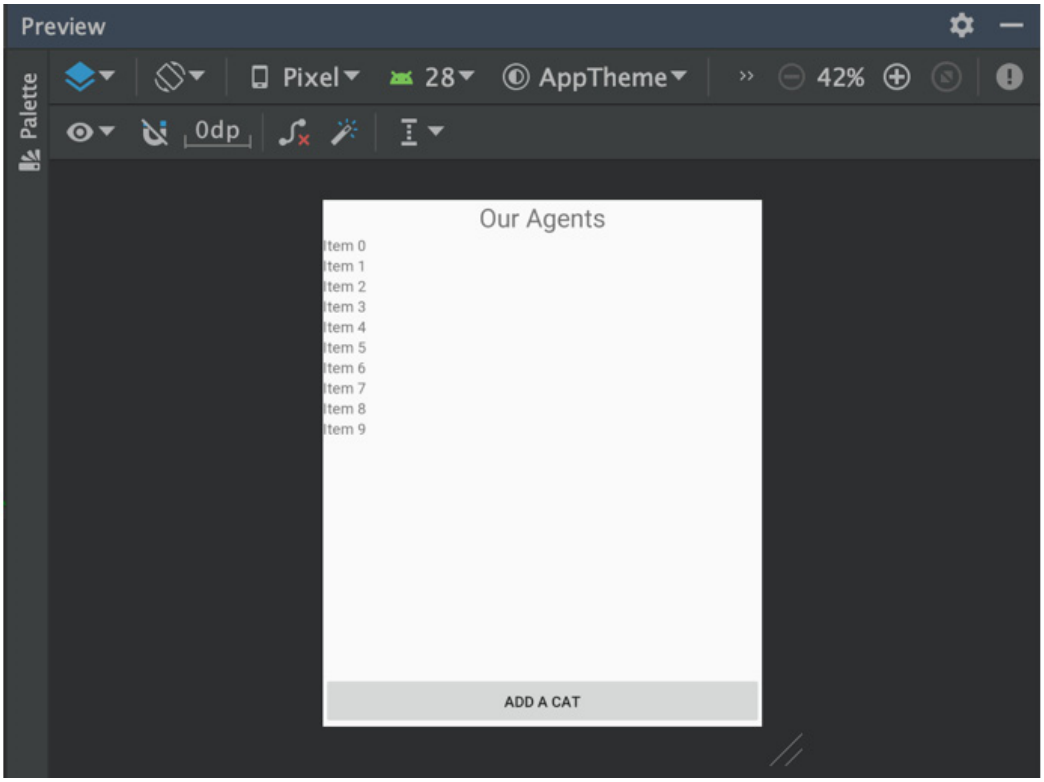

3:45
SCA - Secret Cat Agents
Our Agents
Fred
Balinese-Javanese
Silent and deadly
Wilma
Exotic Shorthair
Cuddly assassin
Agent Selected
You have selected agent Wilma
OK

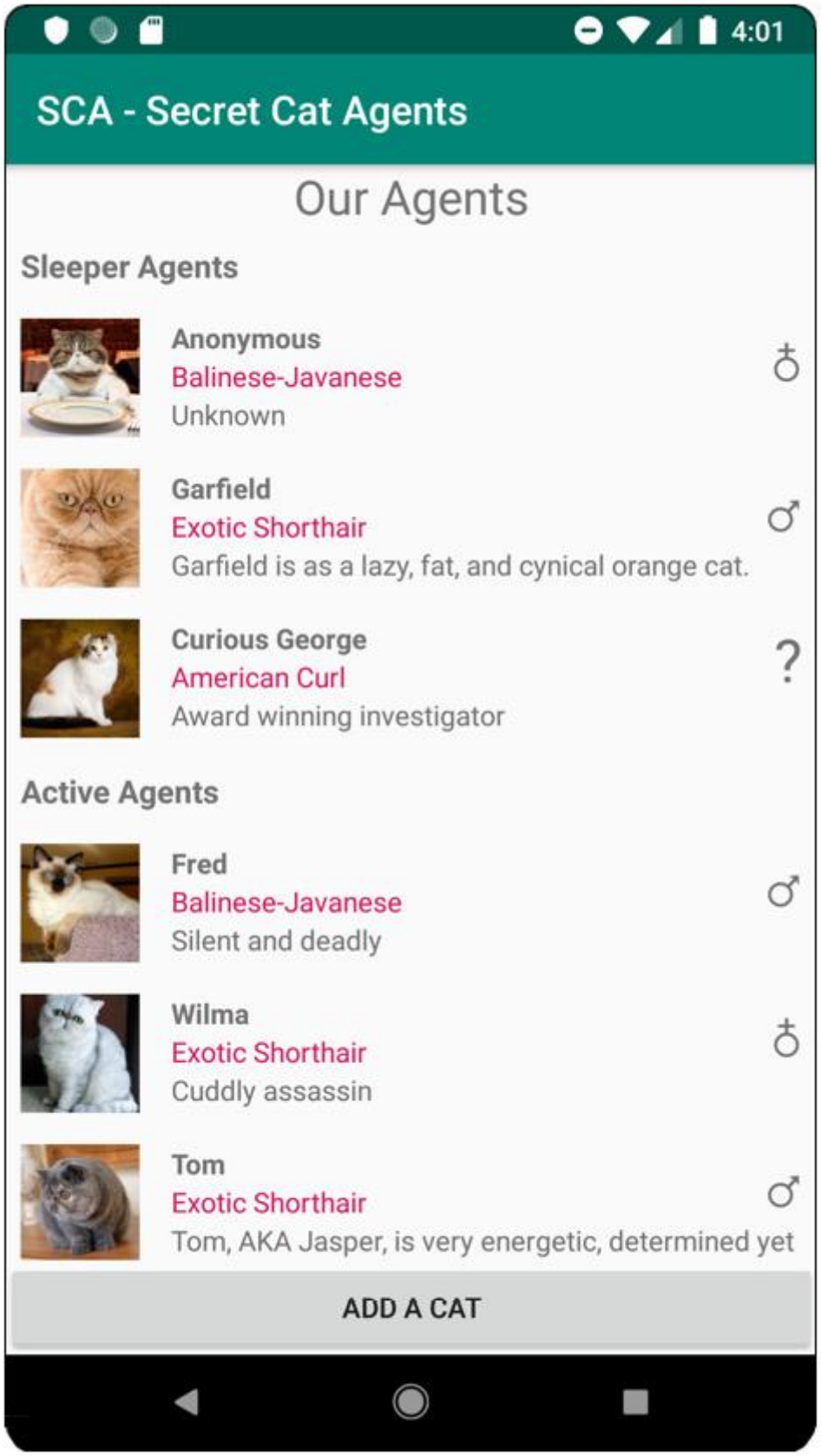

Preview
Palette
Pixel
28
AppTheme
42%
Sleeper Agents

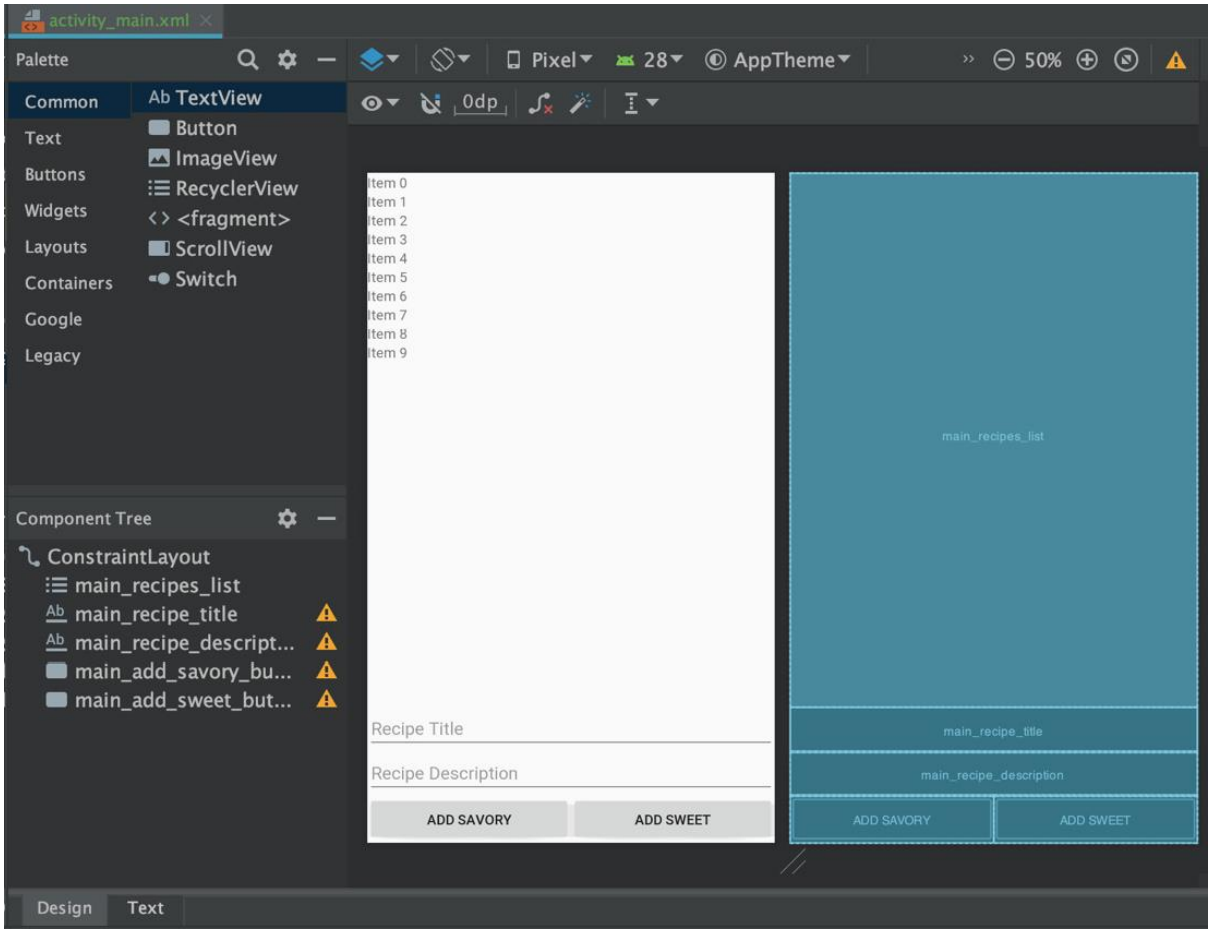

11:41
SCA - Secret Cat Agents
Our Agents
Sleeper Agents
Garfield
Exotic Shorthair
Garfield is as a lazy, fat, and cynical orange cat.
Curious George
American Curl
Award winning investigator
Active Agents
Fred
Balinese-Javanese
Silent and deadly
Wilma
Exotic Shorthair
Cuddly assassin
Tom
Exotic Shorthair
Tom, AKA Jasper, is very energetic, determined yet somewhat... Slow.

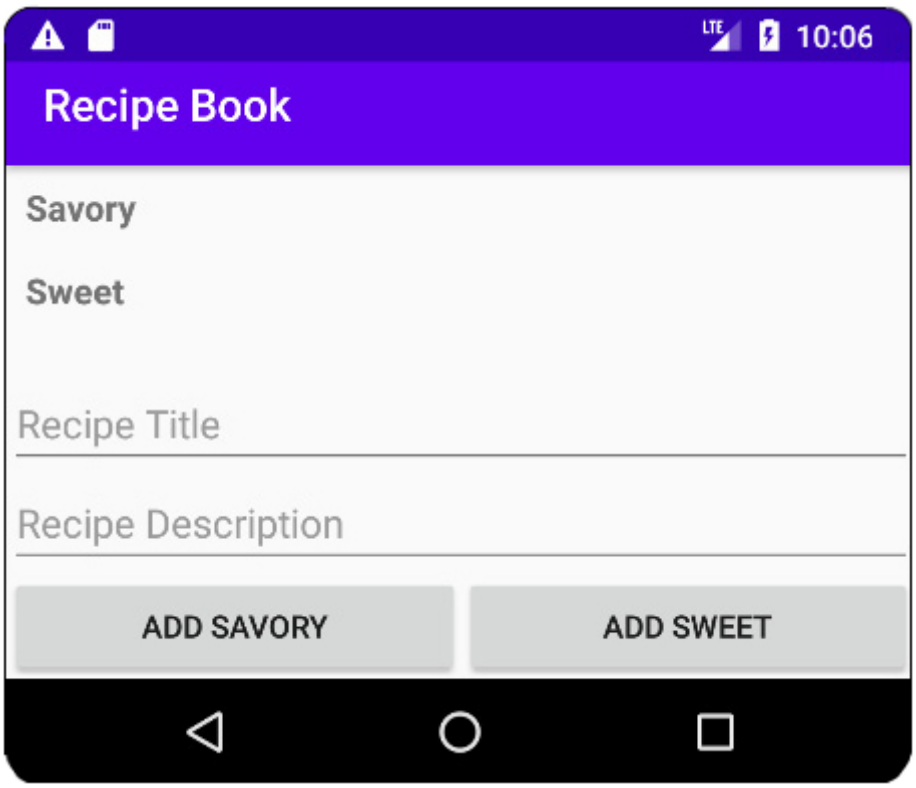

activity_main.xml
Palette
Common
Text
Buttons
Widgets
Layouts
Containers
Google
Legacy
Ab TextView
Button
ImageView
RecyclerView
<fragment>
ScrollView
Switch
Component Tree
ConstraintLayout
Ab main_label– "@string/...
recycler_view
Pixel
28
AppTheme
40%
0dp
Our Agents
Our Agents
Design
Text


3:28
SCA - Secret Cat Agents
Our Agents
Sleeper Agents
Garfield
Exotic Shorthair
Garfield is as a lazy, fat, and cynical orange cat.
Curious George
American Curl
Award winning investigator
Active Agents
Fred
Balinese-Javanese
Silent and deadly
Wilma
Exotic Shorthair
Cuddly assassin
Tom
Exotic Shorthair
Tom, AKA Jasper, is very energetic, determined yet somewhat... Slow.

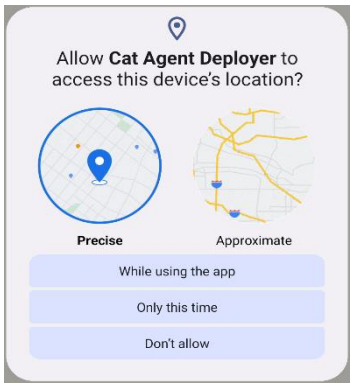

Preview
Palette
Pixel
28
AppTheme
42%
0dp
Our Agents
Item 0
Item 1
Item 2
Item 3
Item 4
Item 5
Item 6
Item 7
Item 8
Item 9
ADD A CAT

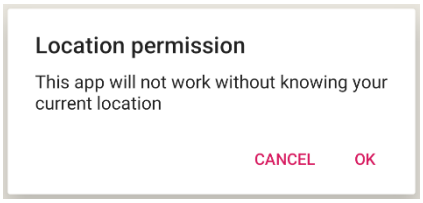

4:01
SCA - Secret Cat Agents
Our Agents
Sleeper Agents
Anonymous
Balinese-Javanese
Unknown
Garfield
Exotic Shorthair
Garfield is as a lazy, fat, and cynical orange cat.
Curious George
American Curl
Award winning investigator
Active Agents
Fred
Balinese-Javanese
Silent and deadly
Wilma
Exotic Shorthair
Cuddly assassin
Tom
Exotic Shorthair
Tom, AKA Jasper, is very energetic, determined yet
ADD A CAT

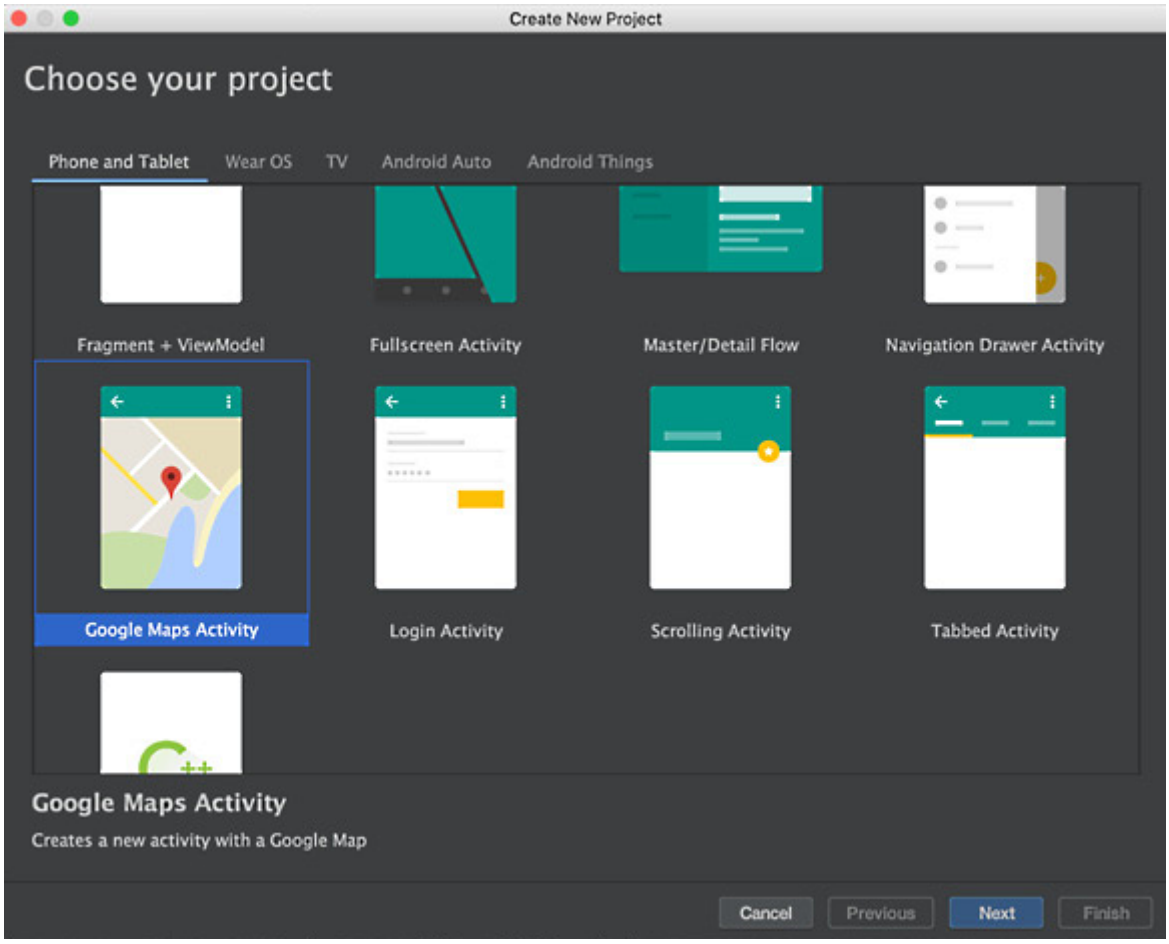

activity_main.xml
Palette
Common
Text
Buttons
Widgets
Layouts
Containers
Google
Legacy
TextView
Button
ImageView
RecyclerView
<fragment>
ScrollView
Switch
Pixel
28
AppTheme
50%
0dp
Item 0
Item 1
Item 2
Item 3
Item 4
Item 5
Item 6
Item 7
Item 8
Item 9
Recipe Title
Recipe Description
ADD SAVORY
ADD SWEET
Component Tree
ConstraintLayout
main_recipes_list
main_recipe_title
main_recipe_descript...
main_add_savory_bu...
main_add_sweet_but...
main_recipes_list
main_recipe_title
main_recipe_description
ADD SAVORY
ADD SWEET
Design
Text

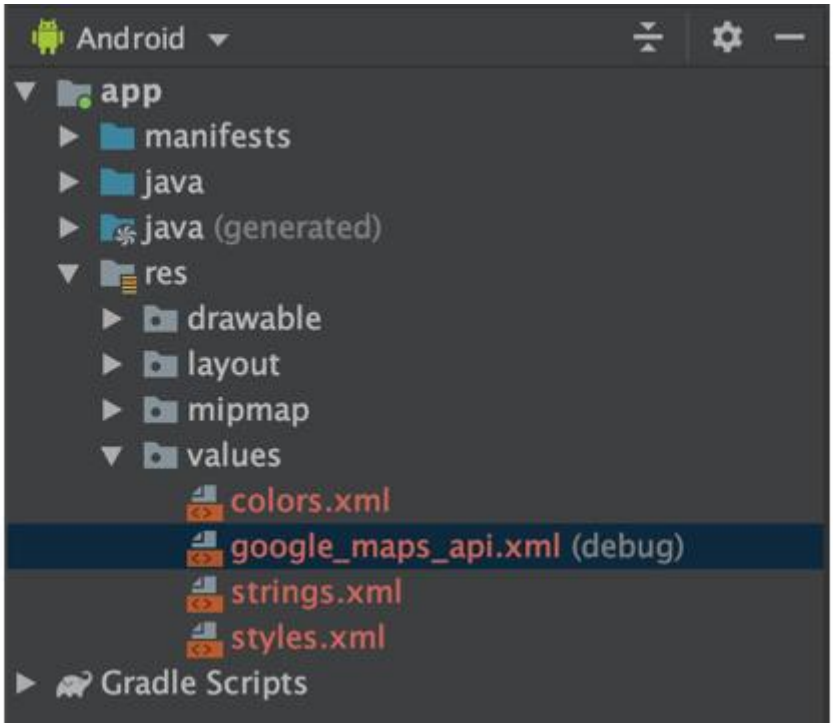

10:06
Recipe Book
Savory
Sweet
Recipe Title
Recipe Description
ADD SAVORY
ADD SWEET

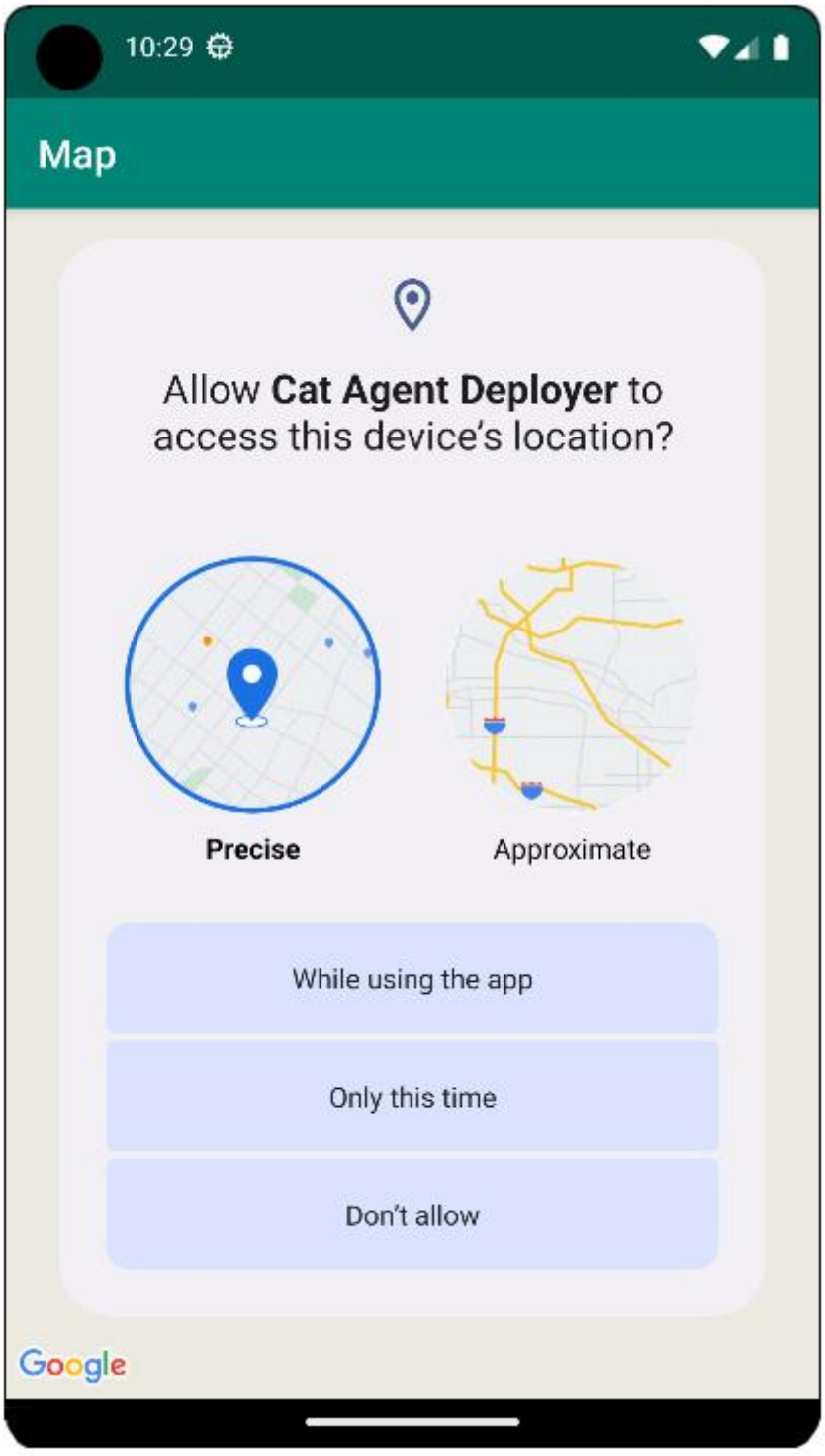
Chapter 07: Android Permissions and Google Maps

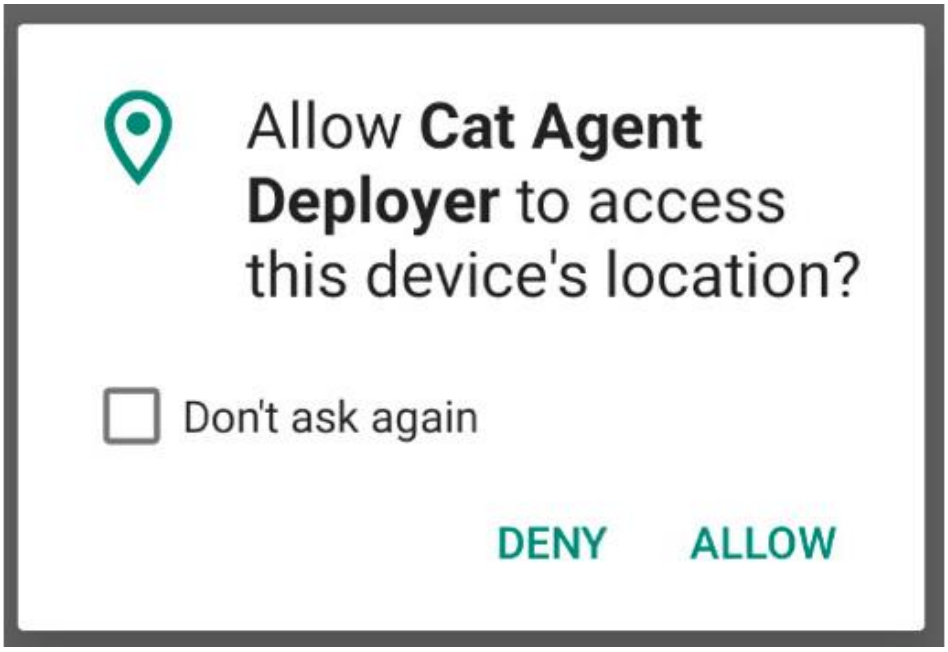




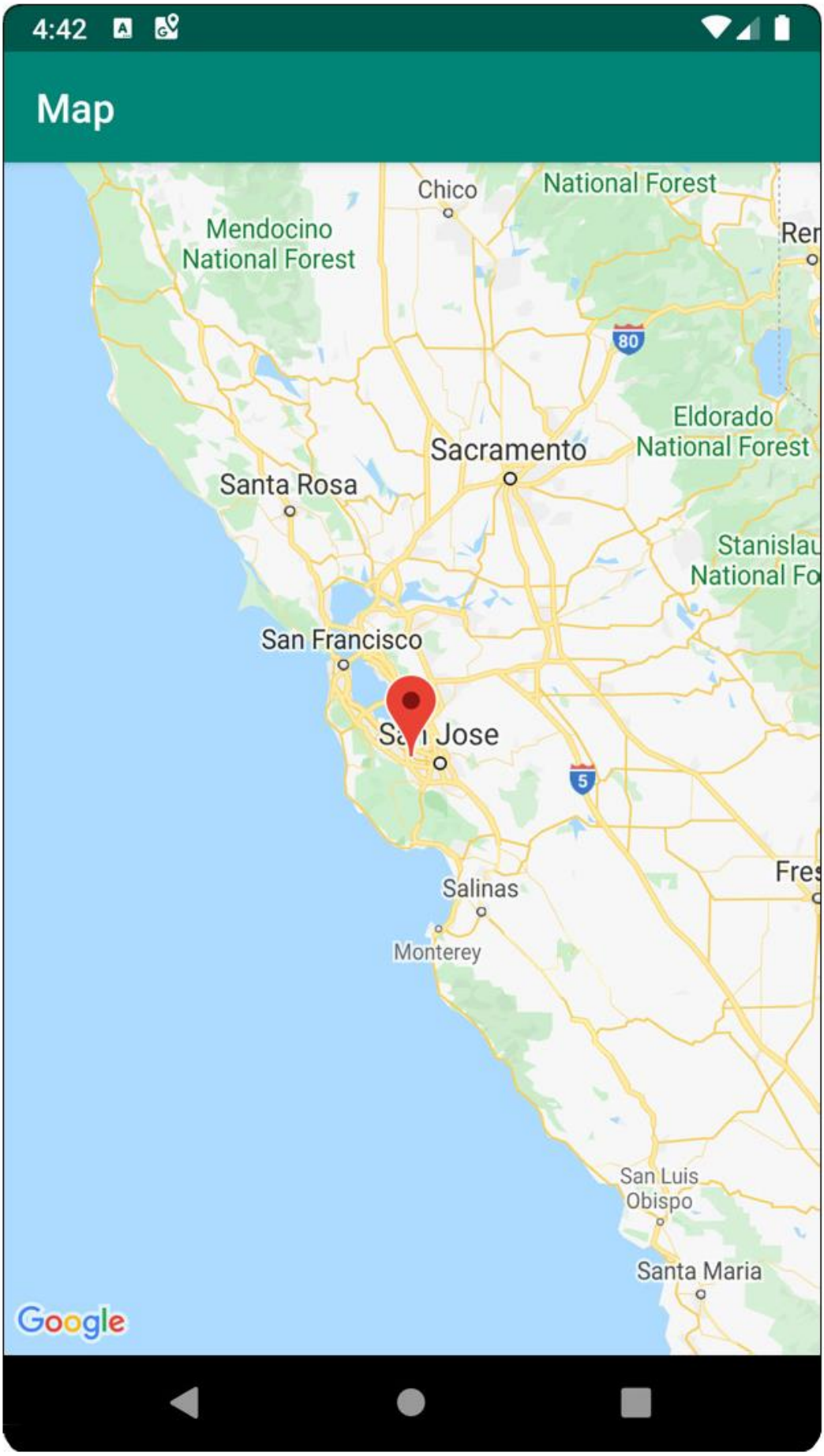


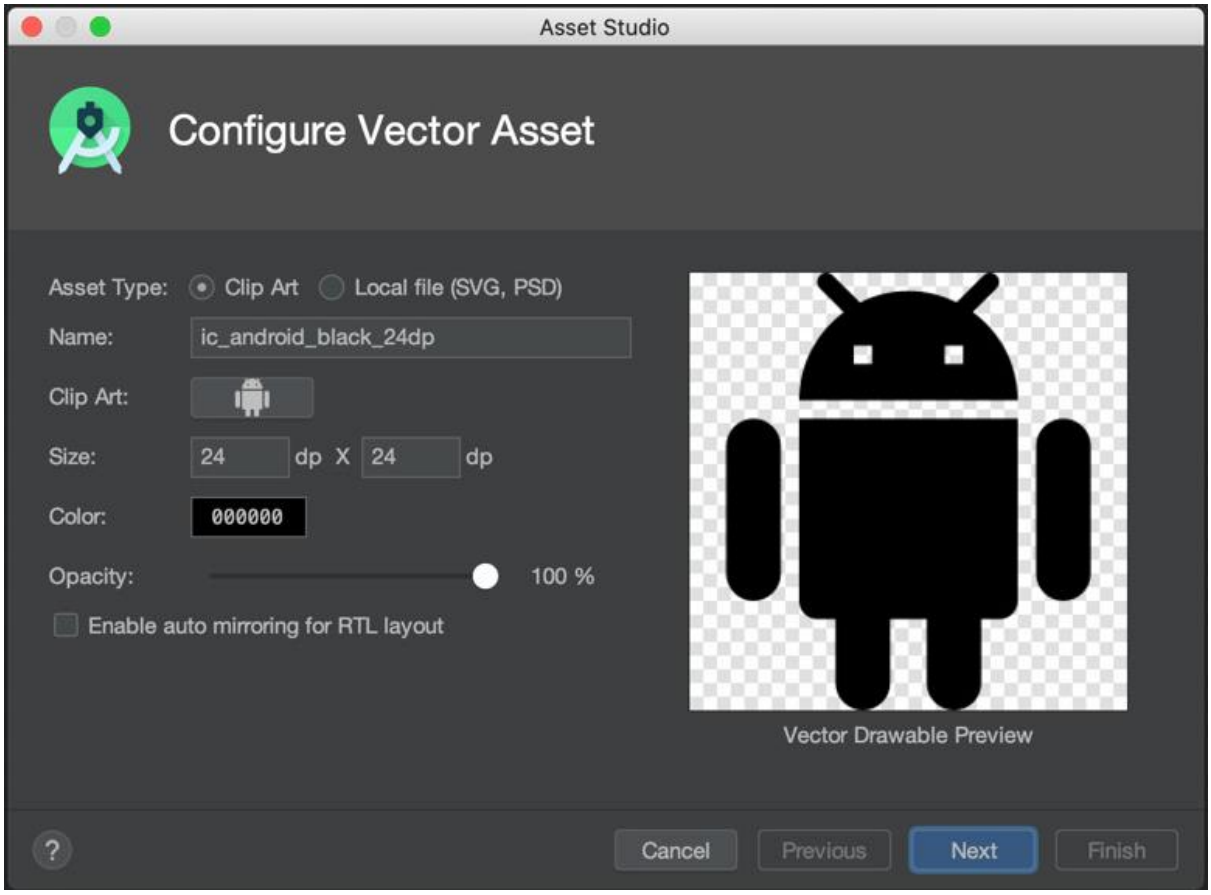

Android
app
manifests
java
java (generated)
res
drawable
layout
mipmap
values
colors.xml
google_maps_api.xml (debug)
strings.xml
styles.xml
Gradle Scripts

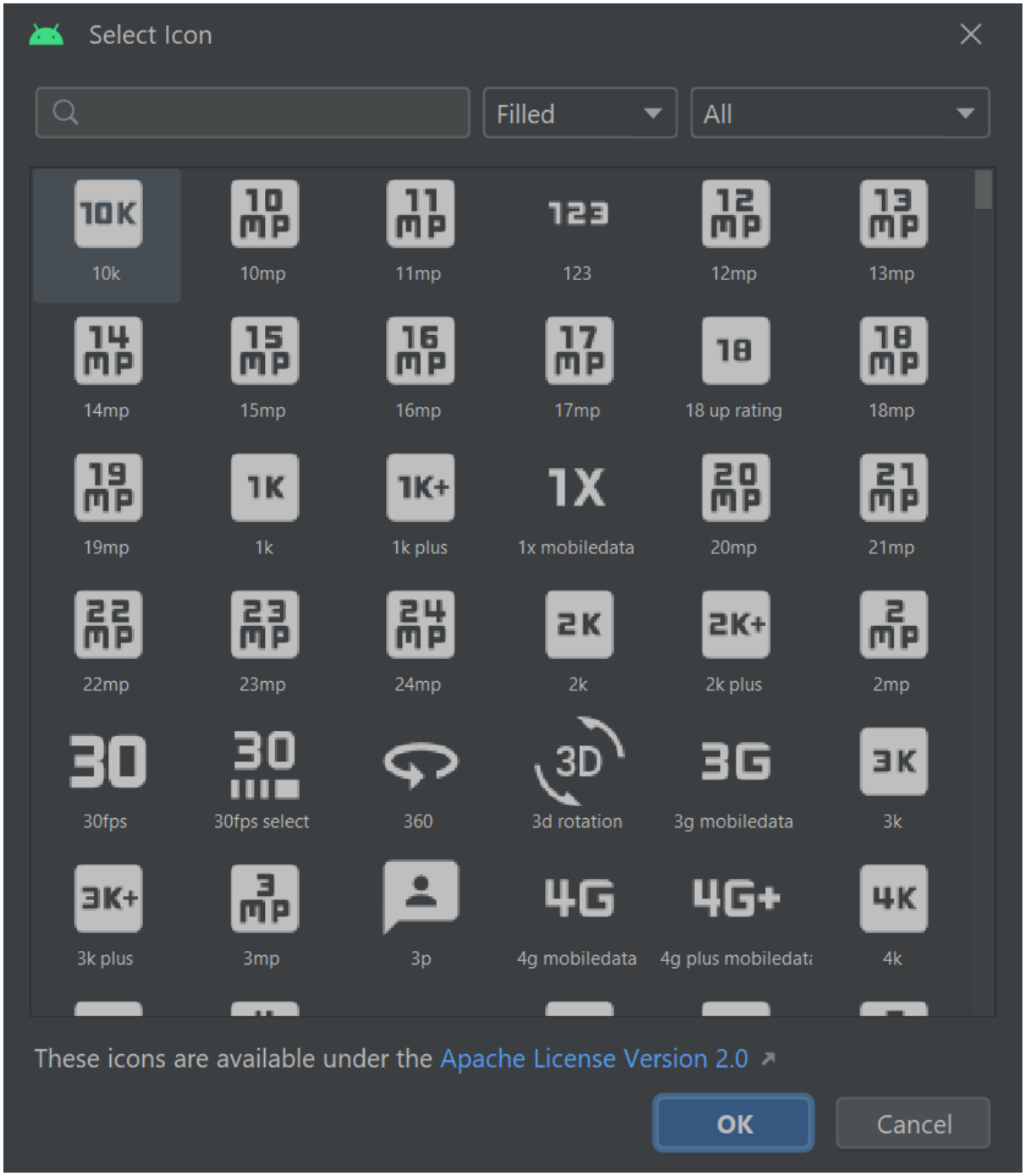

10:29
Map
Allow **Cat Agent Deployer** to access this device's location?
Precise
Approximate
While using the app
Only this time
Don't allow
Google

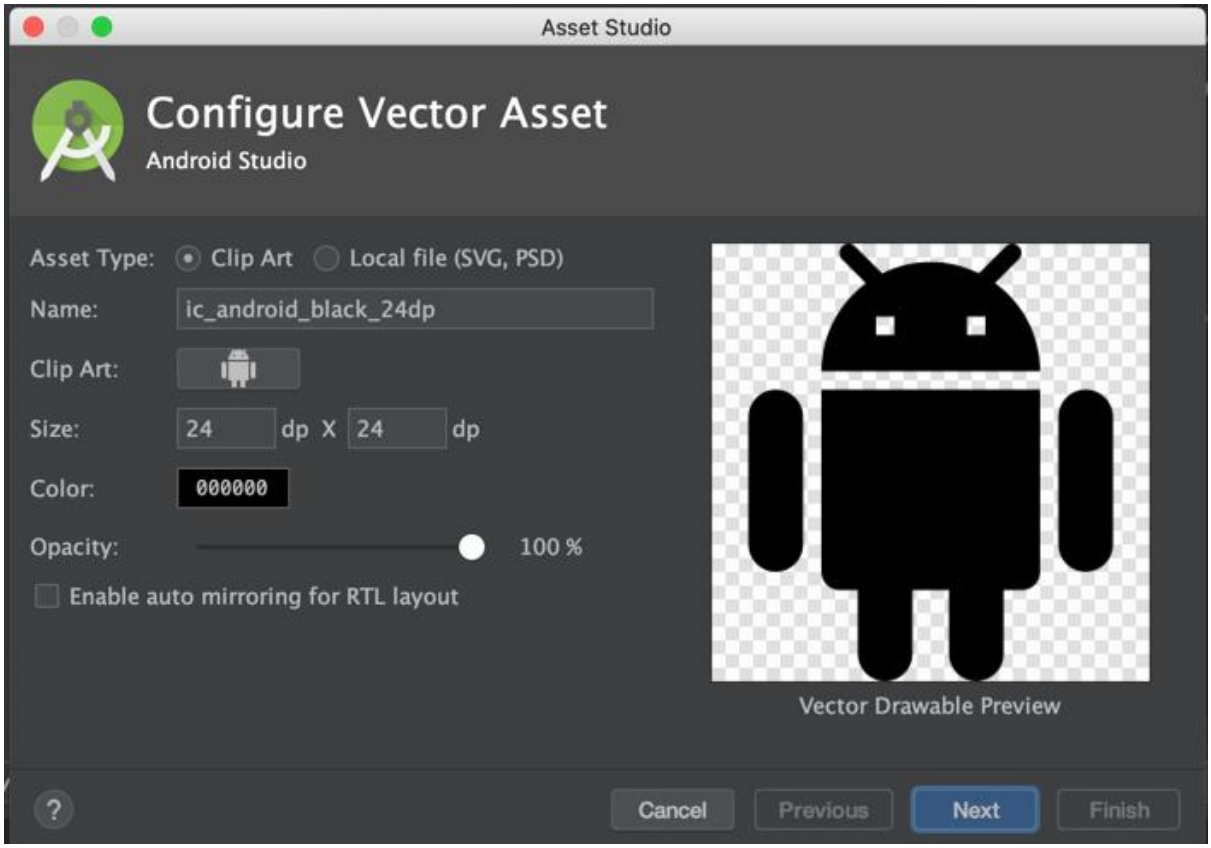

Allow **Cat Agent Deployer** to access this device's location?
Don't ask again
DENY
ALLOW

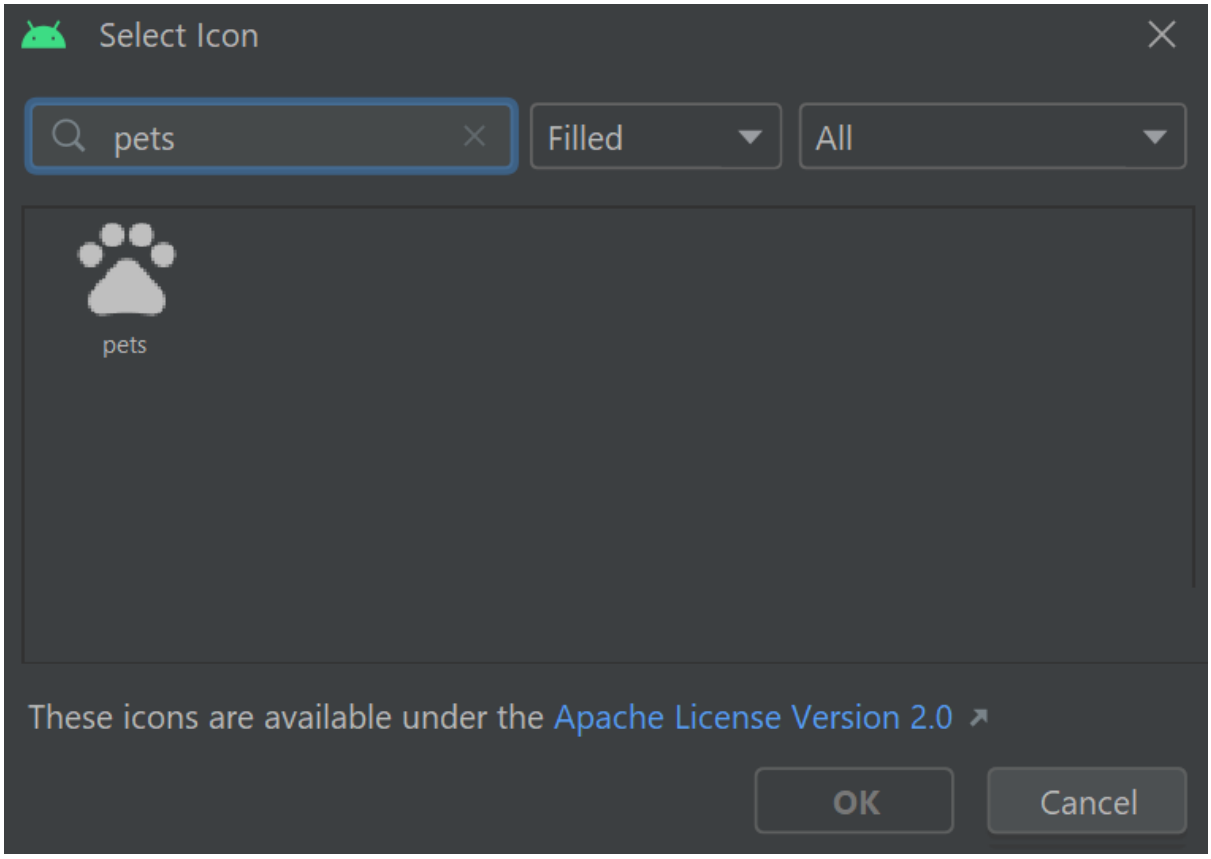
4:05
Map
Sweden
Norway
United Kingdom
France
Spain
North Atlantic Ocean
Algeria
Libya
Mali
Niger
Chad
Nigeria
DRC
Brazil
Angola
South Atlantic Ocean
South Africa
Google

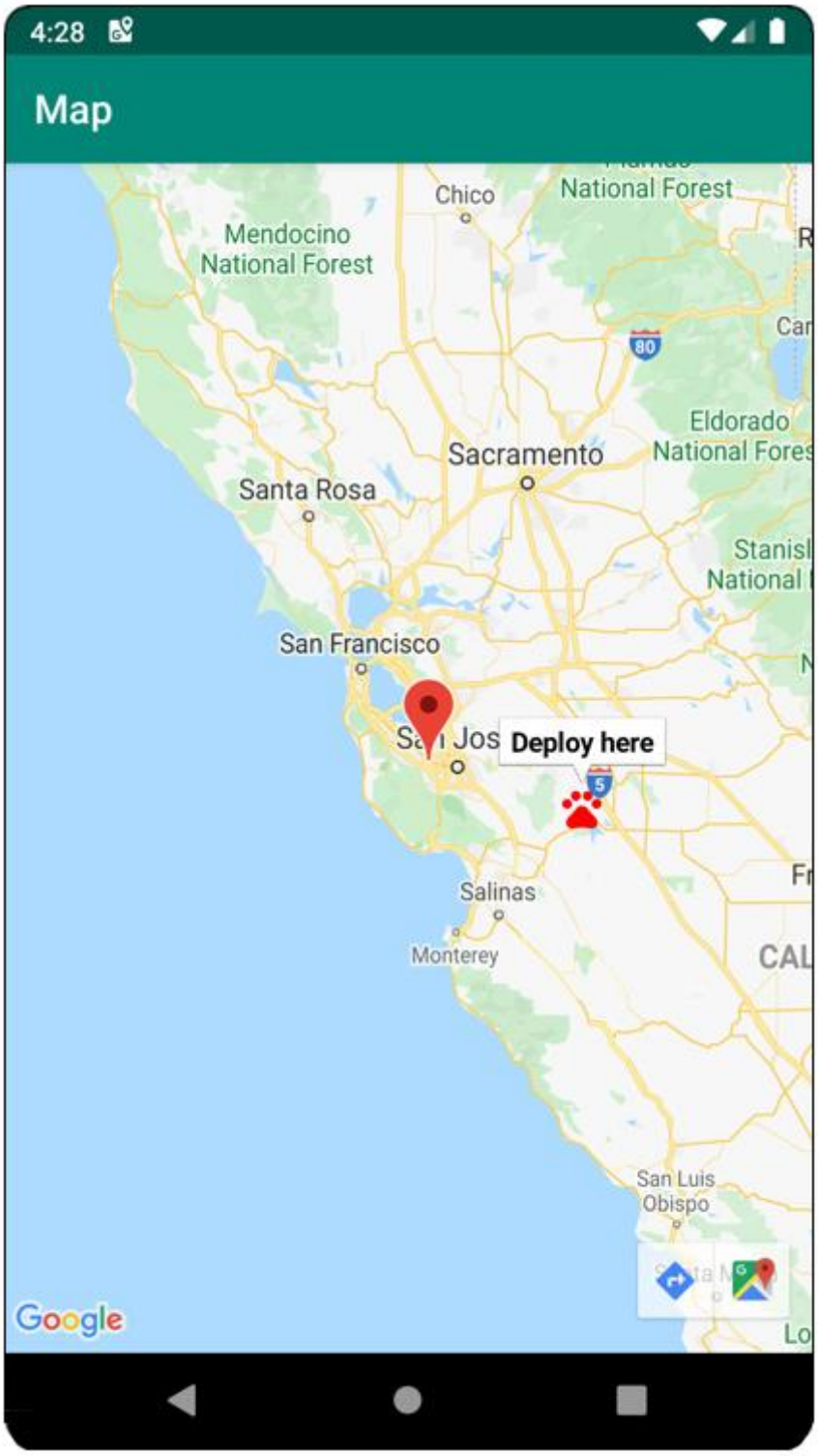

4:42
Map
Chico
National Forest
Mendocino
National Forest
80
Eldorado
National Forest
Sacramento
Santa Rosa
San Francisco
San Jose
5
Salinas
Monterey
San Luis
Obispo
Santa Maria
Google


Asset Studio
Configure Vector Asset
Asset Type:
Clip Art
Local file (SVG, PSD)
Name:
ic_android_black_24dp
Clip Art:
Size:
24
dp X
24
dp
Color:
000000
Opacity:
100 %
Enable auto mirroring for RTL layout
Vector Drawable Preview
?
Cancel
Previous
Next
Finish

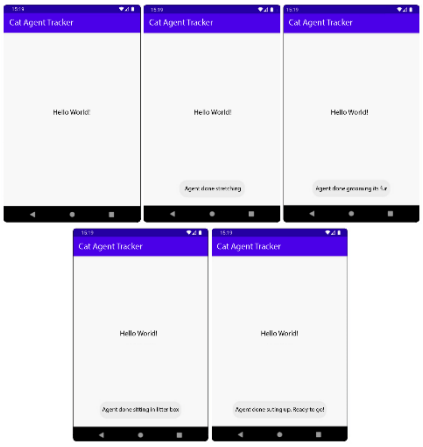

Select Icon
Filled
All
10k
10mp
11mp
123
12mp
13mp
14mp
15mp
16mp
17mp
18 up rating
18mp
19mp
1k
1k plus
1x mobiledata
20mp
21mp
22mp
23mp
24mp
2k
2k plus
2mp
30fps
30fps select
360
3d rotation
3g mobiledata
3k
3k plus
3mp
3p
4g mobiledata
4g plus mobiledata
4k
These icons are available under the Apache License Version 2.0
OK
Cancel

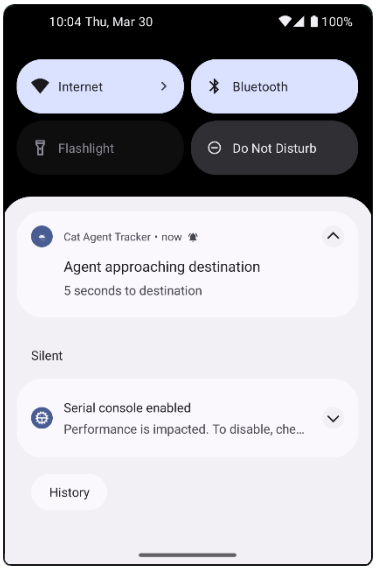

Asset Studio
Configure Vector Asset
Android Studio
Asset Type:
Clip Art
Local file (SVG, PSD)
Name:
ic_android_black_24dp
Clip Art:
Size:
24
dp X
24
dp
Color:
000000
Opacity:
100 %
Enable auto mirroring for RTL layout
Vector Drawable Preview
Cancel
Previous
Next
Finish


Select Icon
pets
Filled
All
pets
These icons are available under the Apache License Version 2.0
OK
Cancel

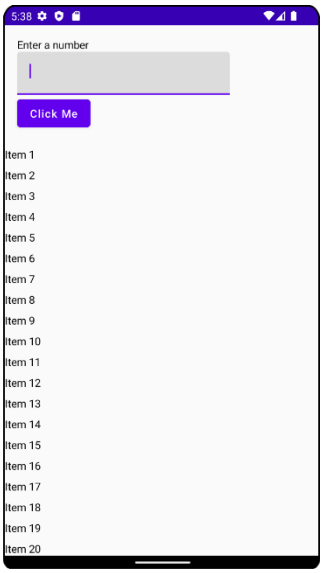

4:28
Map
Chico
National Forest
Mendocino
National Forest
Sacramento
Eldorado
Santa Rosa
San Francisco
Deploy here
Salinas
Monterey
San Luis
Obispo
Google

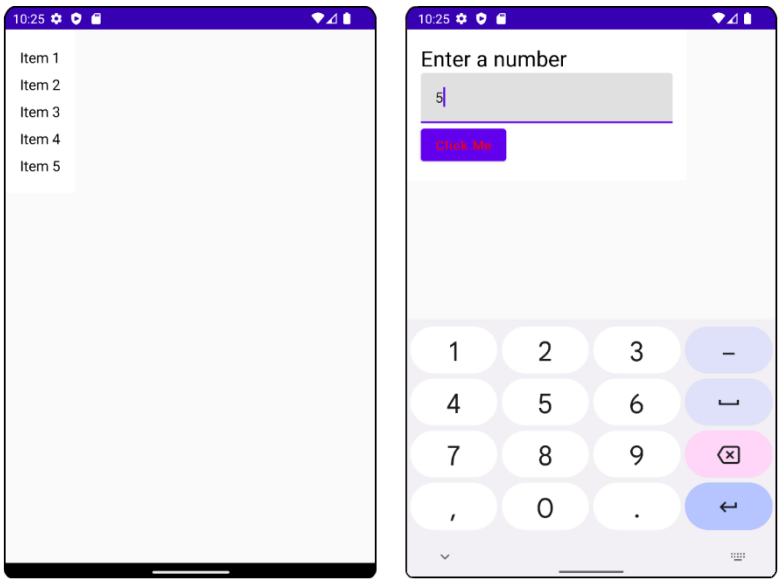
Chapter 08: Services, WorkManager, and Notifications



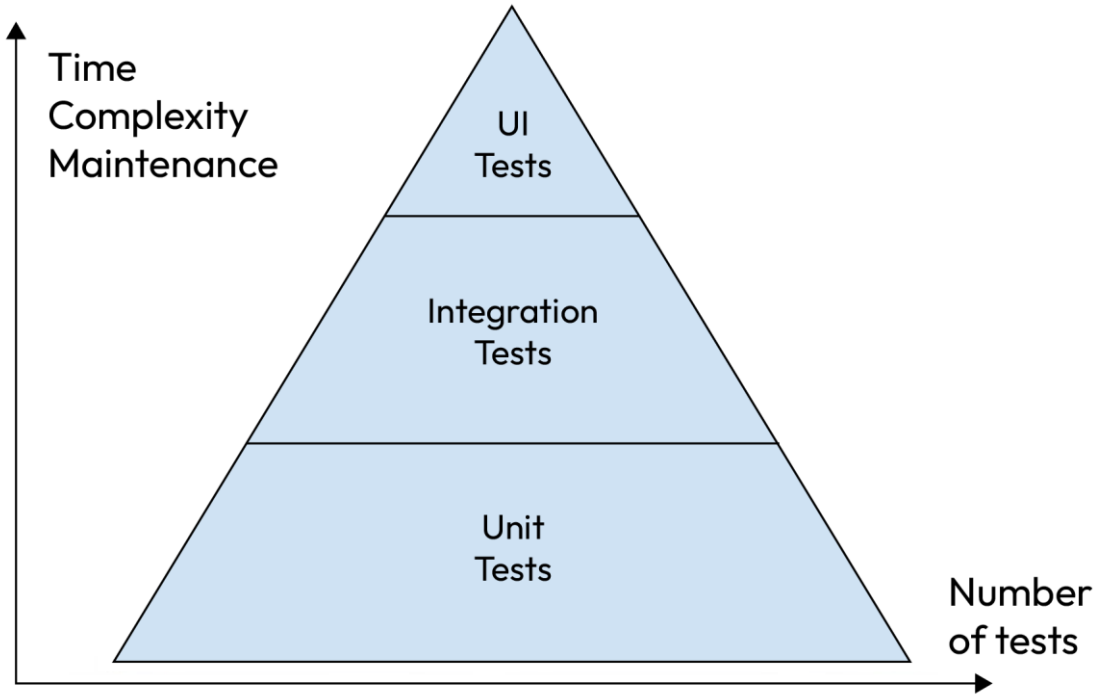


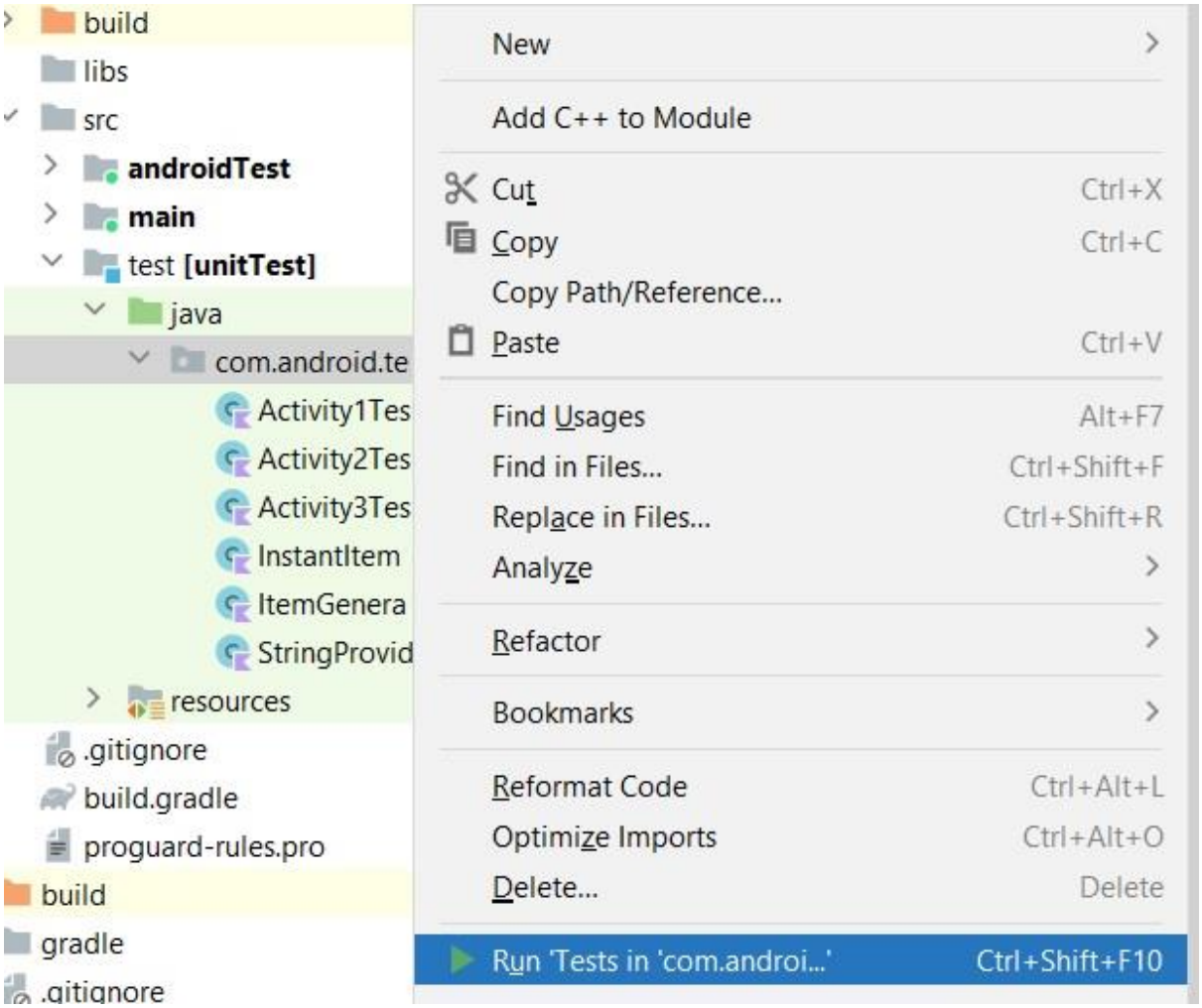
Chapter 09: Building User Interfaces Using Jetpack Compose



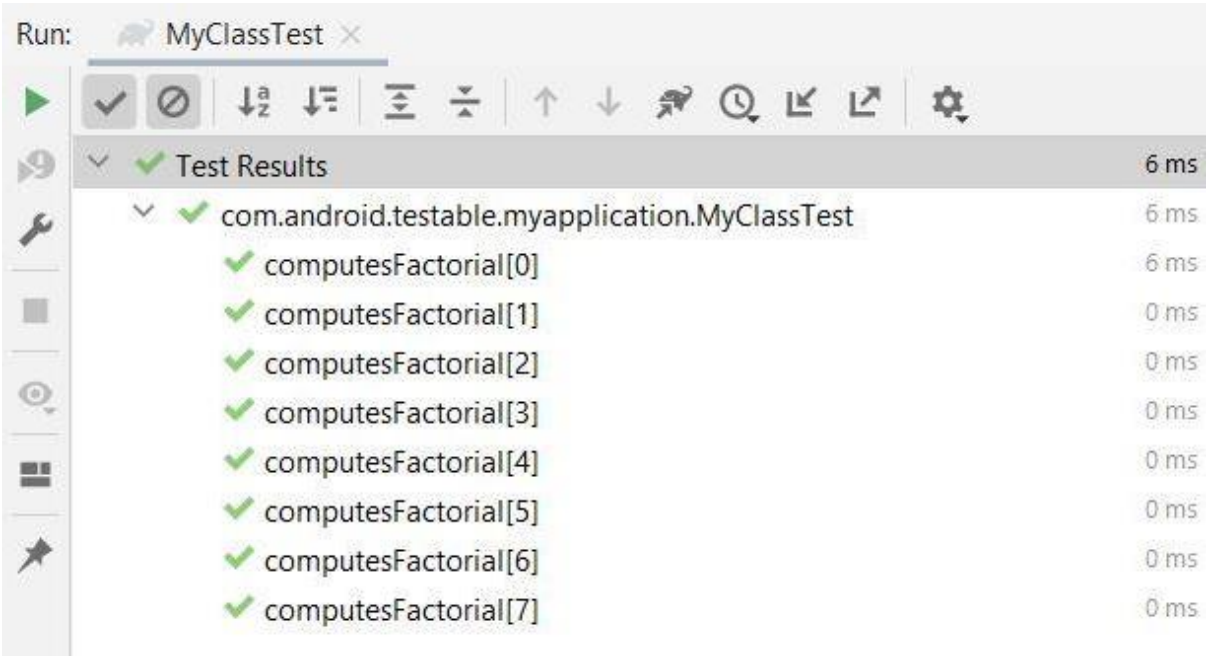

10:25
Item 1
Item 2
Item 3
Item 4
Item 5
10:25
Enter a number
5
Click Me
1
2
3
4
5
6
7
8
9
,
0
.

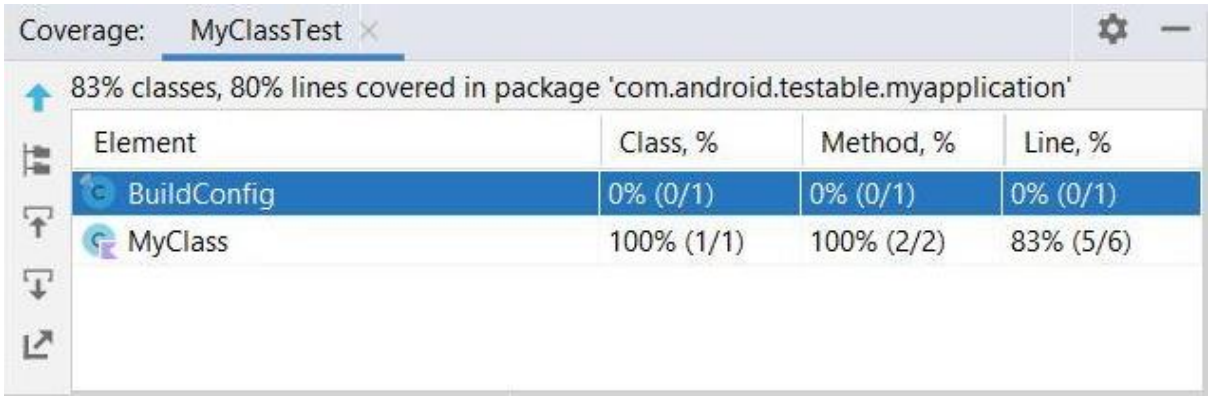
Chapter 10: Unit Tests and Integration Tests with JUnit, Mockito, and Espresso

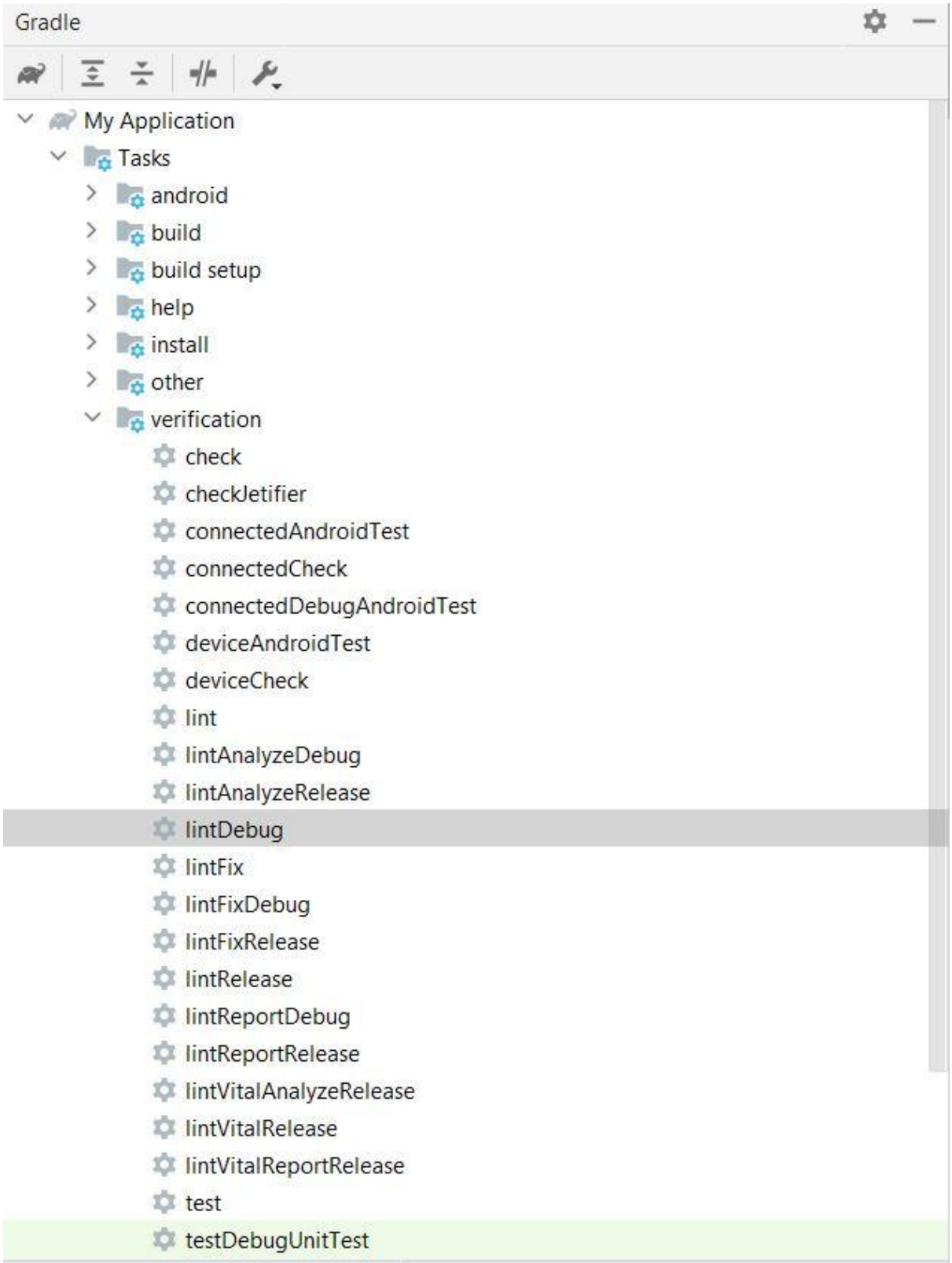


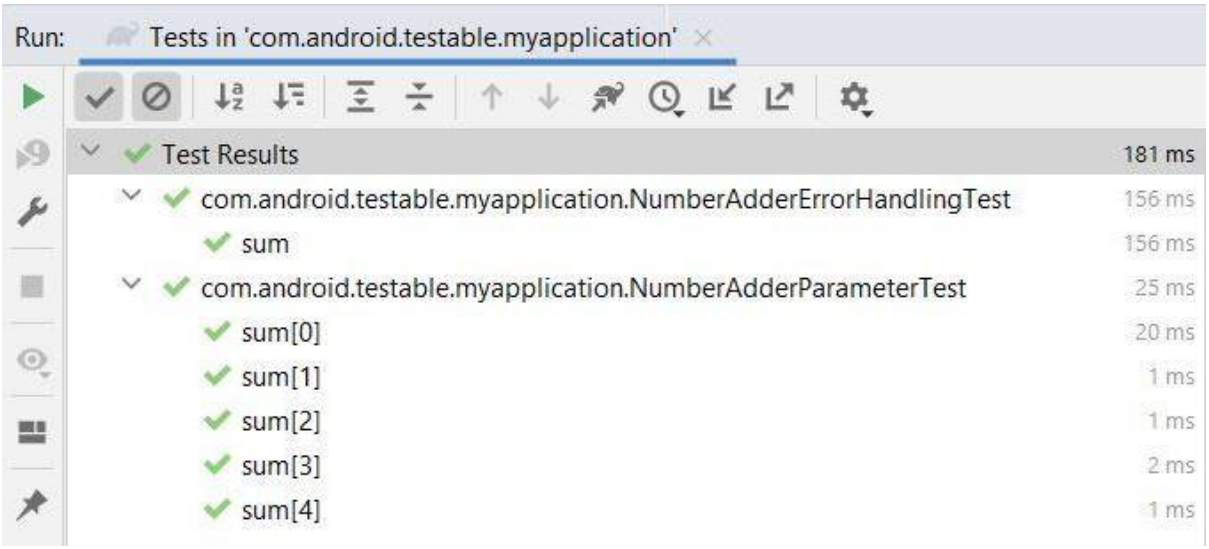

build
libs
src
androidTest
main
test [unitTest]
java
com.android.te
Activity1Tes
Activity2Tes
Activity3Tes
InstantItem
ItemGenera
StringProvid
resources
.gitignore
build.gradle
proguard-rules.pro
build
gradle
.gitignore
New
Add C++ to Module
Cut Ctrl+X
Copy Ctrl+C
Copy Path/Reference...
Paste Ctrl+V
Find Usages Alt+F7
Find in Files... Ctrl+Shift+F
Replace in Files... Ctrl+Shift+R
Analyze
Refactor
Bookmarks
Reformat Code Ctrl+Alt+L
Optimize Imports Ctrl+Alt+O
Delete... Delete
Run 'Tests in 'com.androi...' Ctrl+Shift+F10

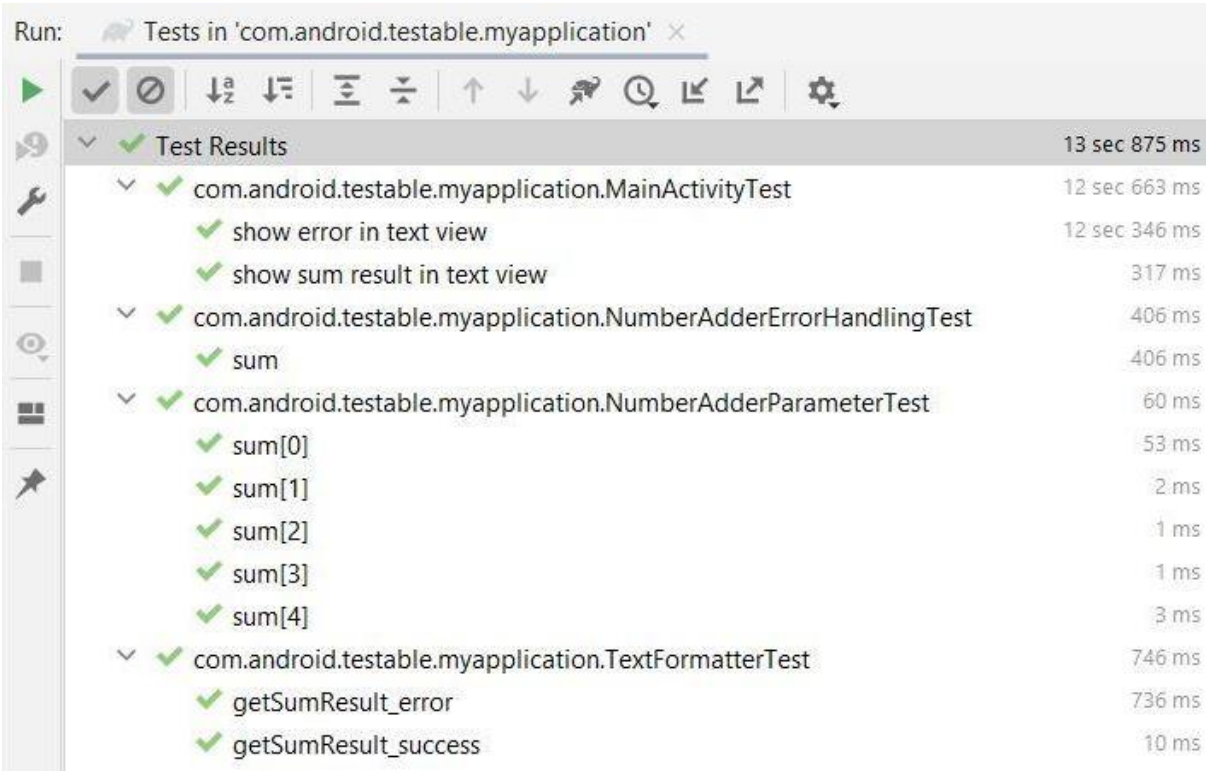
```kotlin
@RunWith(MockitoJUnitRunner::class)
class StringProviderTest {

    @InjectMocks
    lateinit var stringProvider: StringProvider

    @Mock
    lateinit var context: Context

    @Test
    fun provideItemString() {
        val number = 5
        val expected = "expected"
        whenever("Item {5}").thenReturn(expected)

        val result = stringProvider.provideItemString(number)

        assertEquals(expected, result)
    }
```

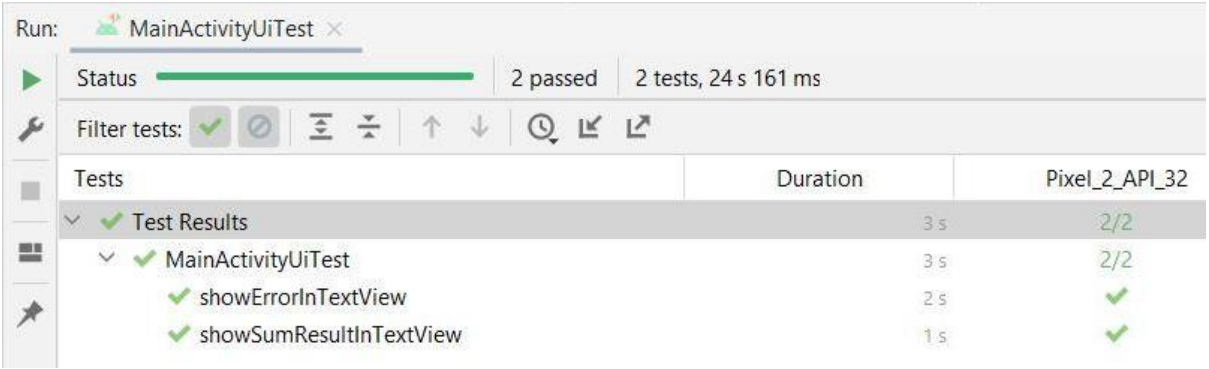


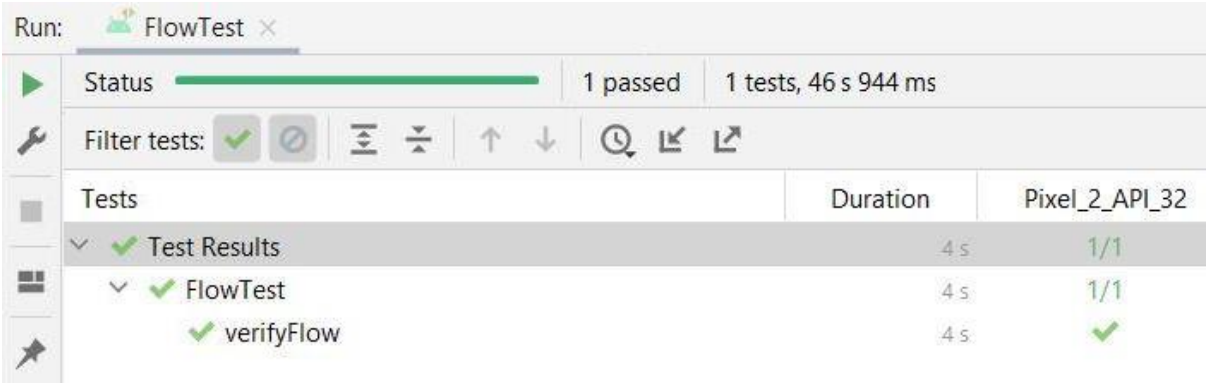

Coverage:
MyClassTest
83% classes, 80% lines covered in package 'com.android.testable.myapplication'
Element
Class, %
Method, %
Line, %
BuildConfig
0% (0/1)
0% (0/1)
0% (0/1)
MyClass
100% (1/1)
100% (2/2)
83% (5/6)

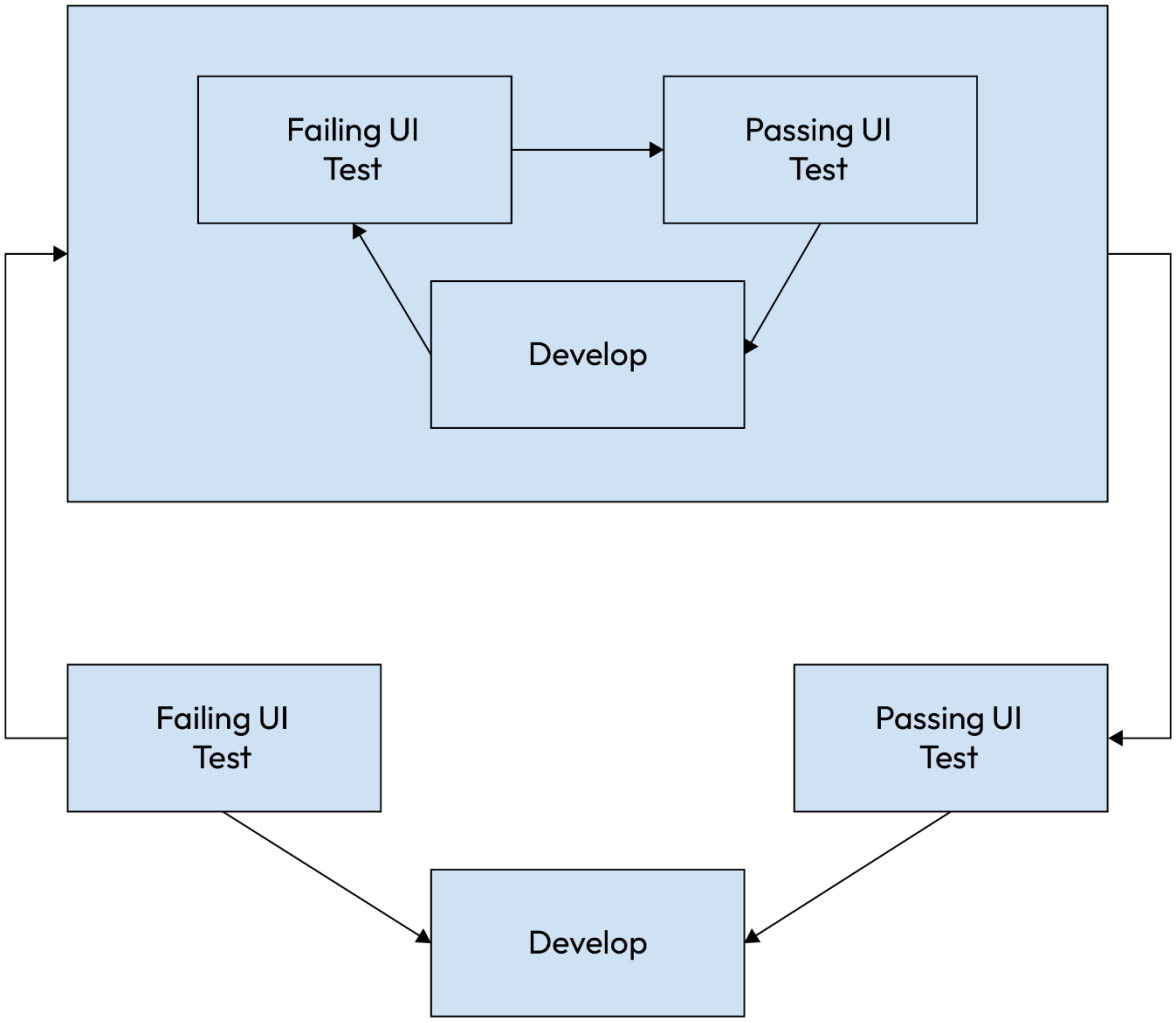

Gradle
My Application
Tasks
android
build
build setup
help
install
other
verification
check
checkJetifier
connectedAndroidTest
connectedCheck
connectedDebugAndroidTest
deviceAndroidTest
deviceCheck
lint
lintAnalyzeDebug
lintAnalyzeRelease
lintDebug
lintFix
lintFixDebug
lintFixRelease
lintRelease
lintReportDebug
lintReportRelease
lintVitalAnalyzeRelease
lintVitalRelease
lintVitalReportRelease
test
testDebugUnitTest

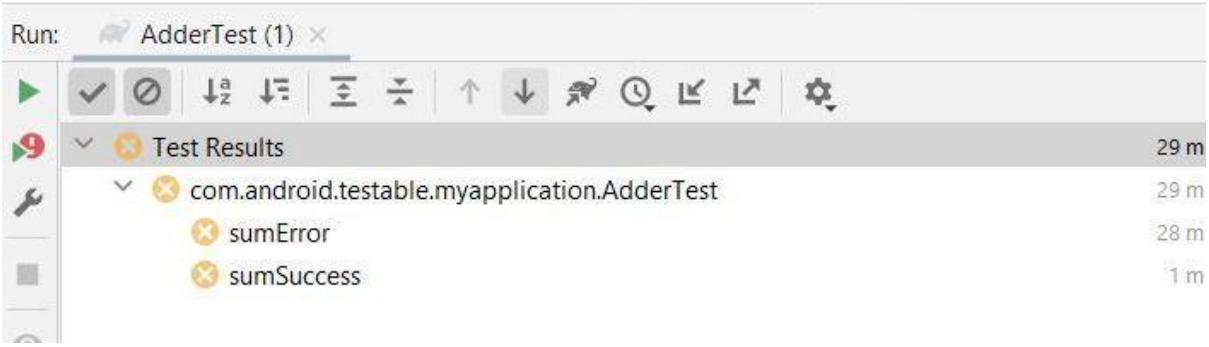

Run: Tests in 'com.android.testable.myapplication'
Test Results 181 ms
com.android.testable.myapplication.NumberAdderErrorHandlingTest 156 ms
sum 156 ms
com.android.testable.myapplication.NumberAdderParameterTest 25 ms
sum[0] 20 ms
sum[1] 1 ms
sum[2] 1 ms
sum[3] 2 ms
sum[4] 1 ms

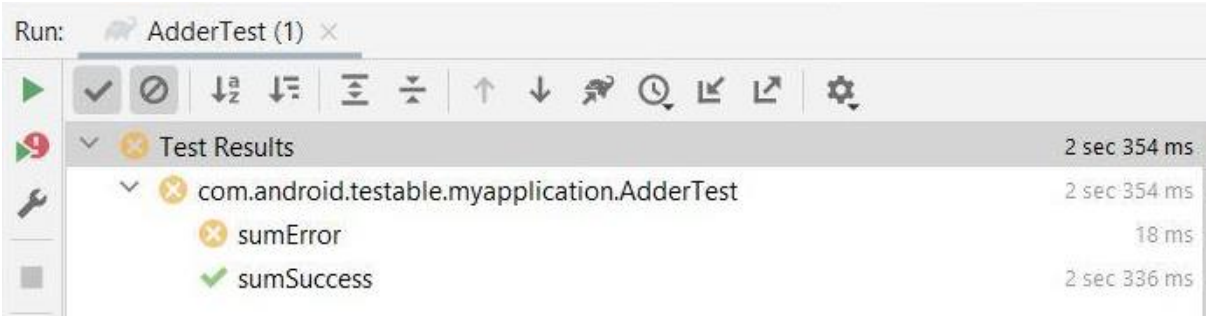

Run: Tests in 'com.android.testable.myapplication'
Test Results 13 sec 875 ms
com.android.testable.myapplication.MainActivityTest 12 sec 663 ms
show error in text view 12 sec 346 ms
show sum result in text view 317 ms
com.android.testable.myapplication.NumberAdderErrorHandlingTest 406 ms
sum 406 ms
com.android.testable.myapplication.NumberAdderParameterTest 60 ms
sum[0] 53 ms
sum[1] 2 ms
sum[2] 1 ms
sum[3] 1 ms
sum[4] 3 ms
com.android.testable.myapplication.TextFormatterTest 746 ms
getSumResult_error 736 ms
getSumResult_success 10 ms

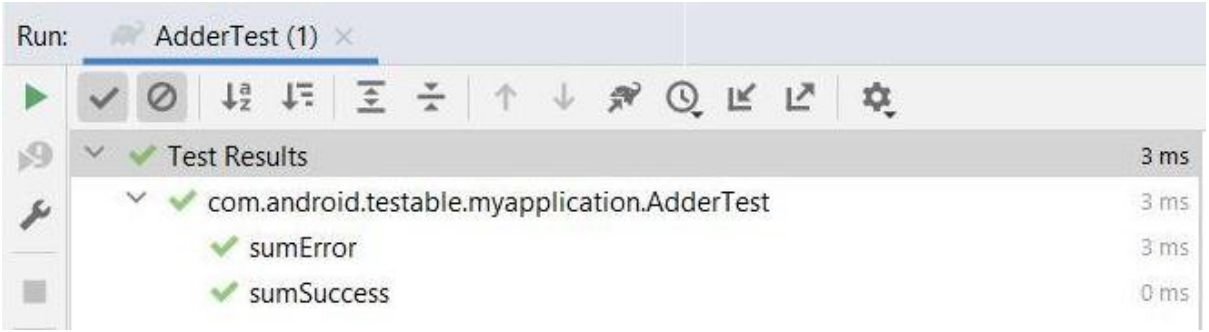

Run: MainActivityUiTest
Status 2 passed 2 tests, 24 s 161 ms
Filter tests:
Tests Duration Pixel_2_API_32
Test Results 3 s 2/2
MainActivityUiTest 3 s 2/2
showErrorInTextView 2 s
showSumResultInTextView 1 s


Run:
FlowTest
Status
1 passed
1 tests, 46 s 944 ms
Filter tests:
Tests
Duration
Pixel_2_API_32
Test Results
4 s
1/1
FlowTest
4 s
1/1
verifyFlow
4 s

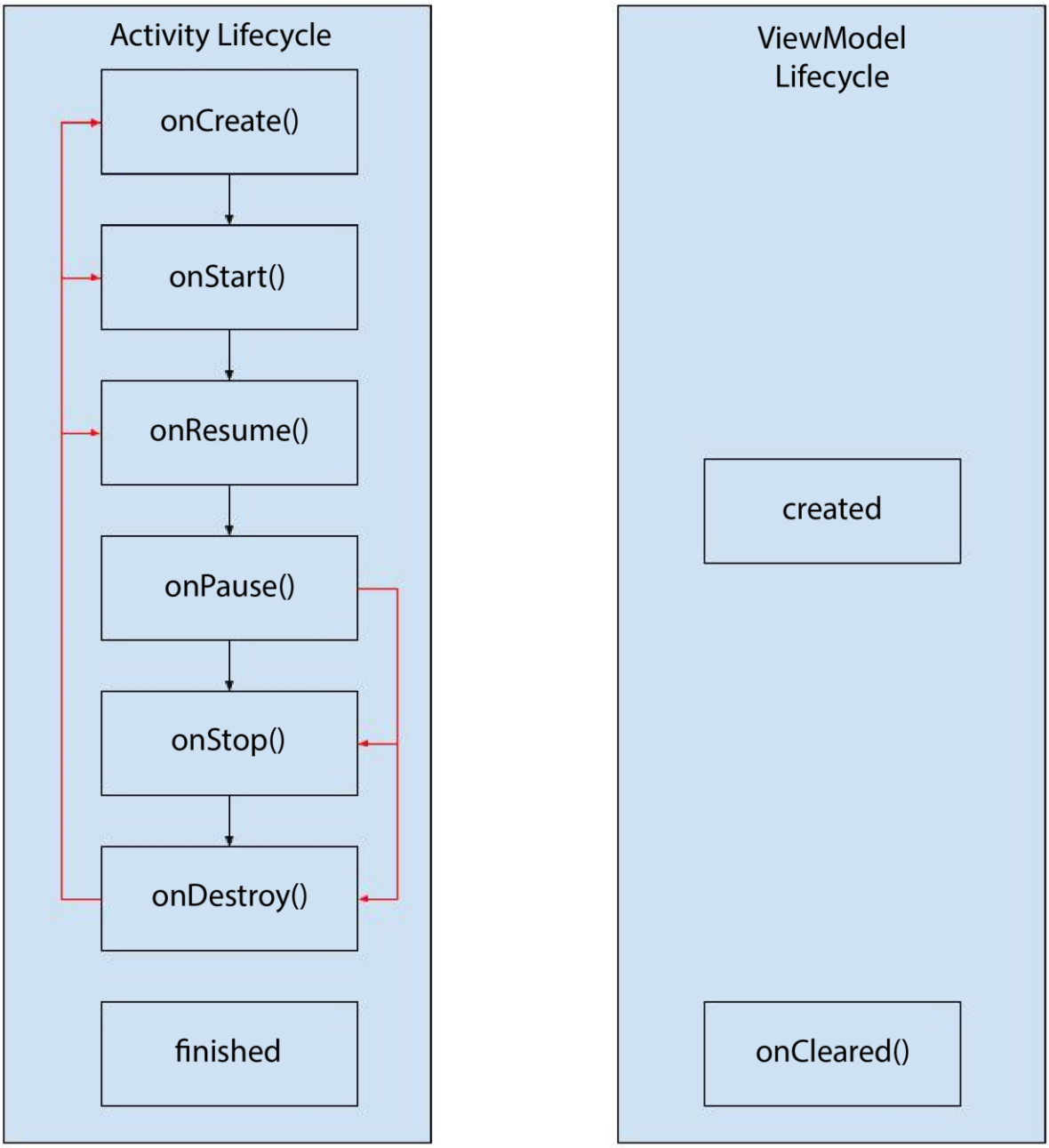

Failing UI Test
Passing UI Test
Develop
Failing UI Test
Passing UI Test
Develop

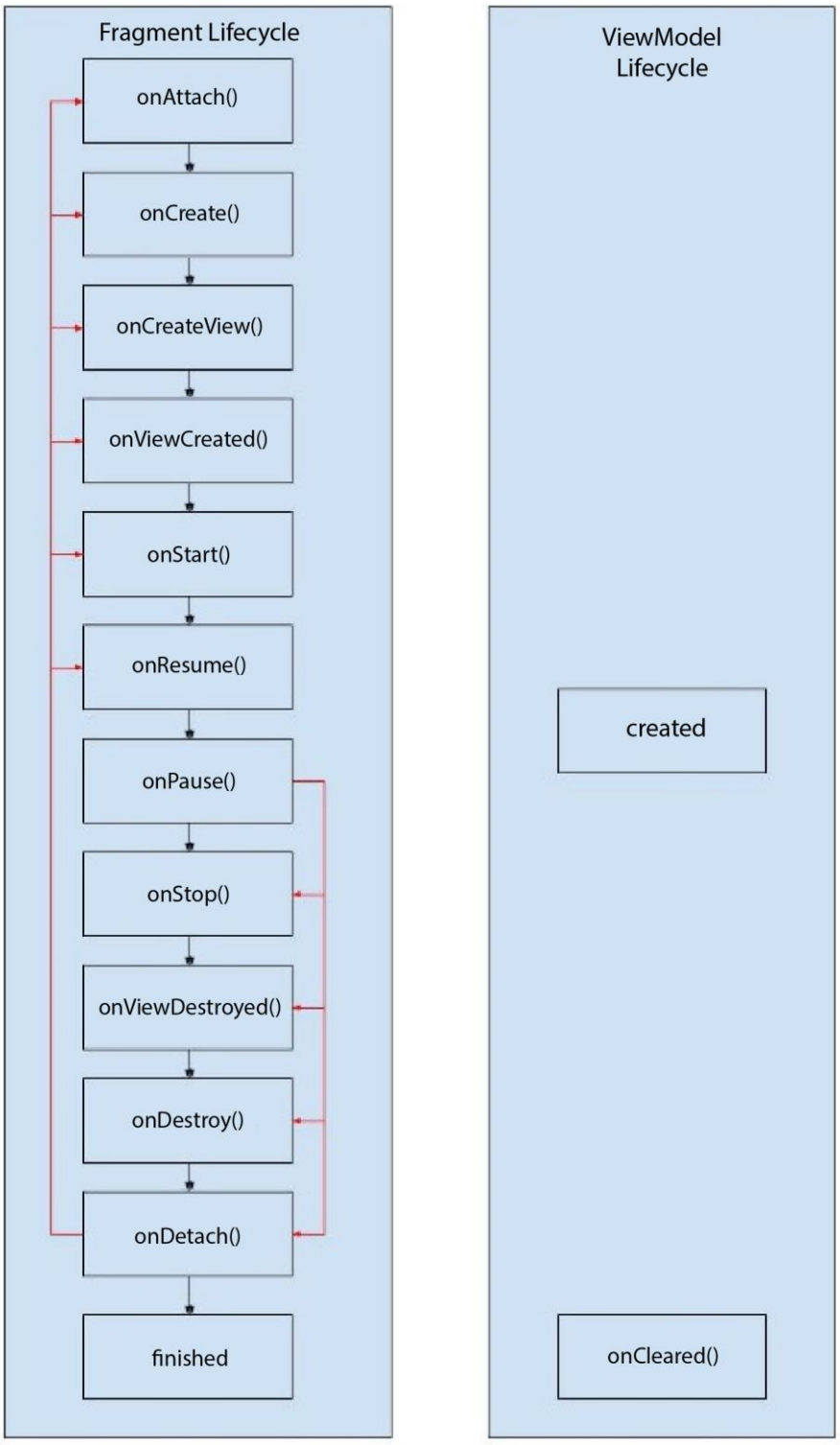

Run:
AdderTest (1)
Test Results
29 m
com.android.testable.myapplication.AdderTest
29 m
sumError
28 m
sumSuccess
1 m

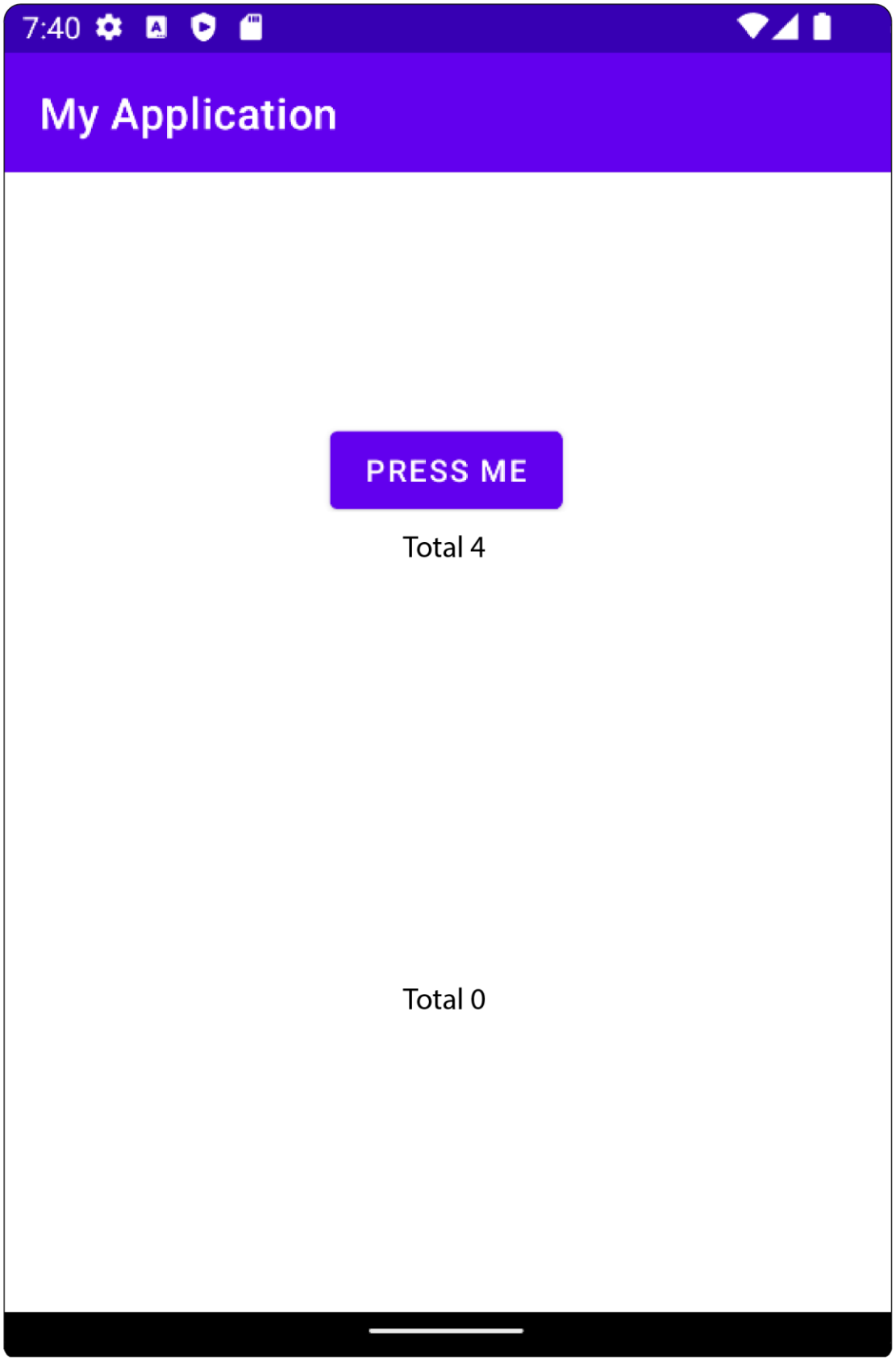

Run:
AdderTest (1)
Test Results
2 sec 354 ms
com.android.testable.myapplication.AdderTest
2 sec 354 ms
sumError
18 ms
sumSuccess
2 sec 336 ms

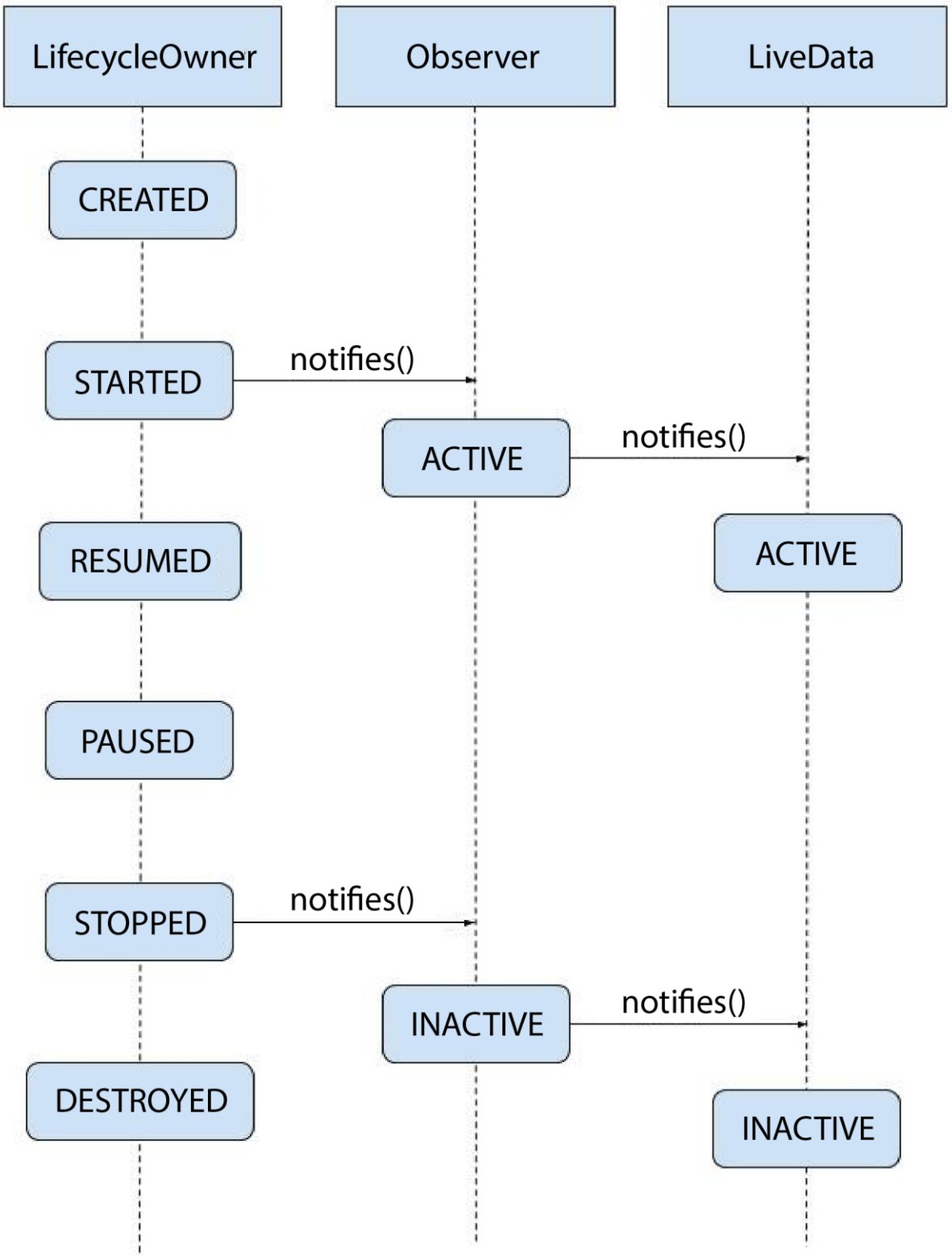

Run:
AdderTest (1)
Test Results
3 ms
com.android.testable.myapplication.AdderTest
3 ms
sumError
3 ms
sumSuccess
0 ms

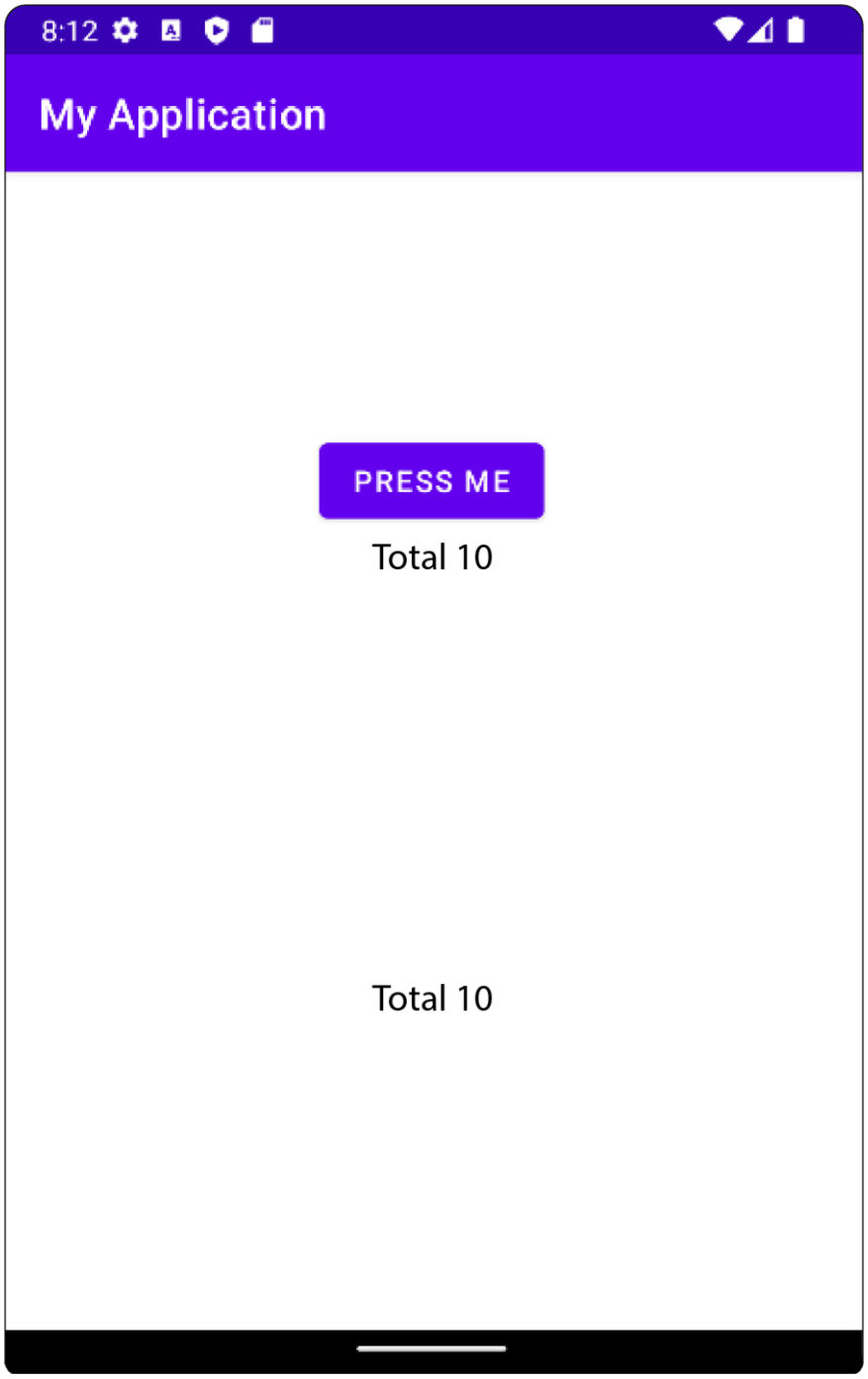
Chapter 11: Android Architecture Components

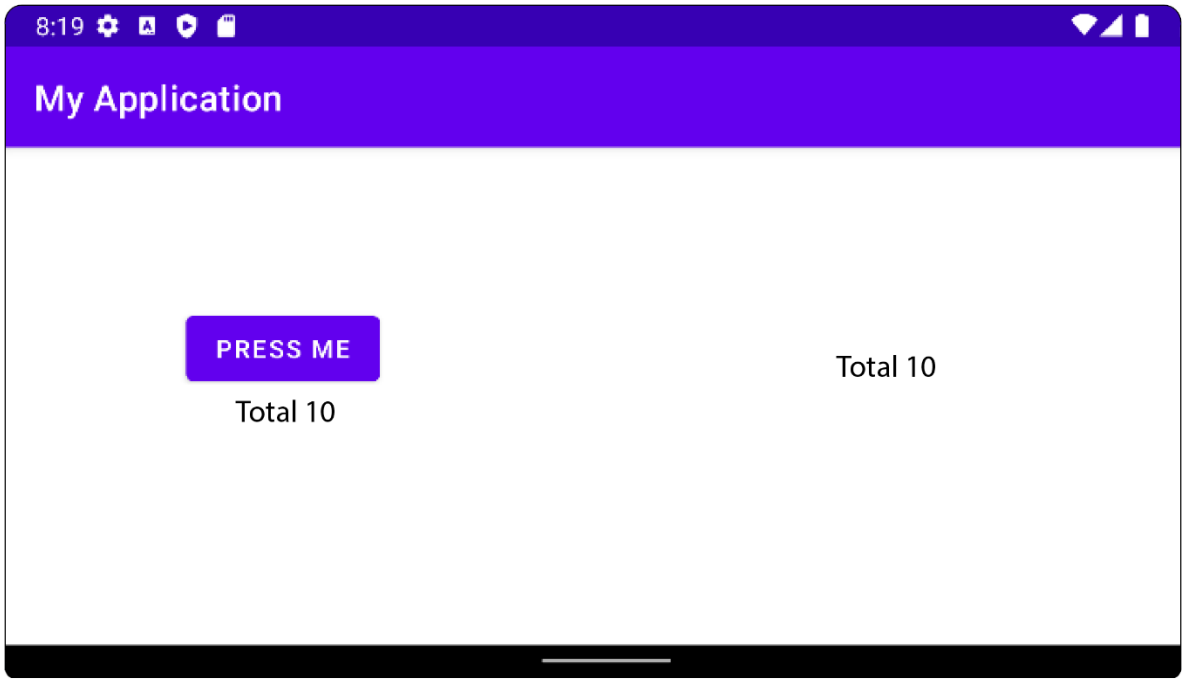


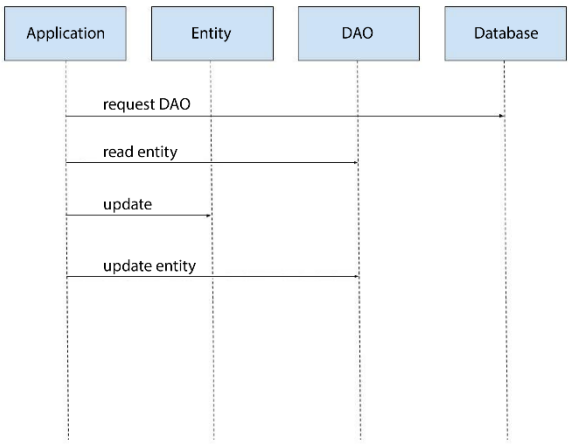

Fragment Lifecycle
onAttach()
onCreate()
onCreateView()
onViewCreated()
onStart()
onResume()
onPause()
onStop()
onViewDestroyed()
onDestroy()
onDetach()
finished
ViewModel Lifecycle
created
onCleared()


7:40
My Application
PRESS ME
Total 4
Total 0

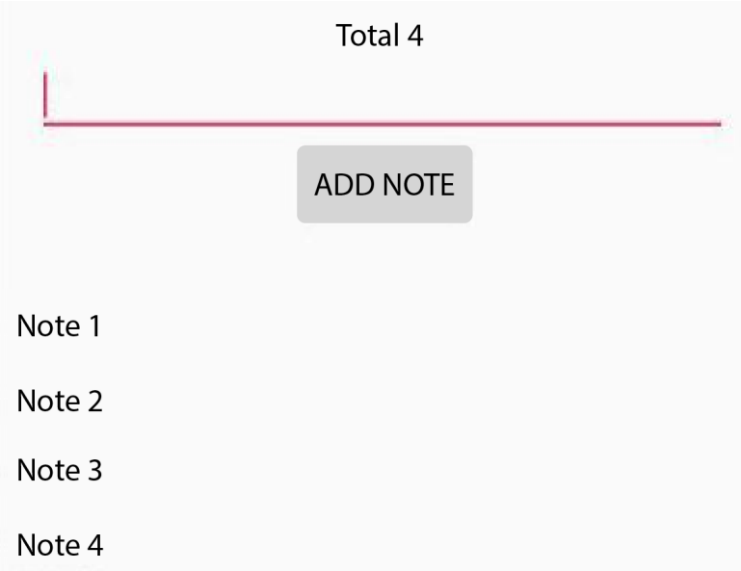

LifecycleOwner
Observer
LiveData
CREATED
STARTED
notifies()
ACTIVE
notifies()
RESUMED
ACTIVE
PAUSED
STOPPED
notifies()
INACTIVE
notifies()
DESTROYED
INACTIVE


8:12
My Application
PRESS ME
Total 10
Total 10

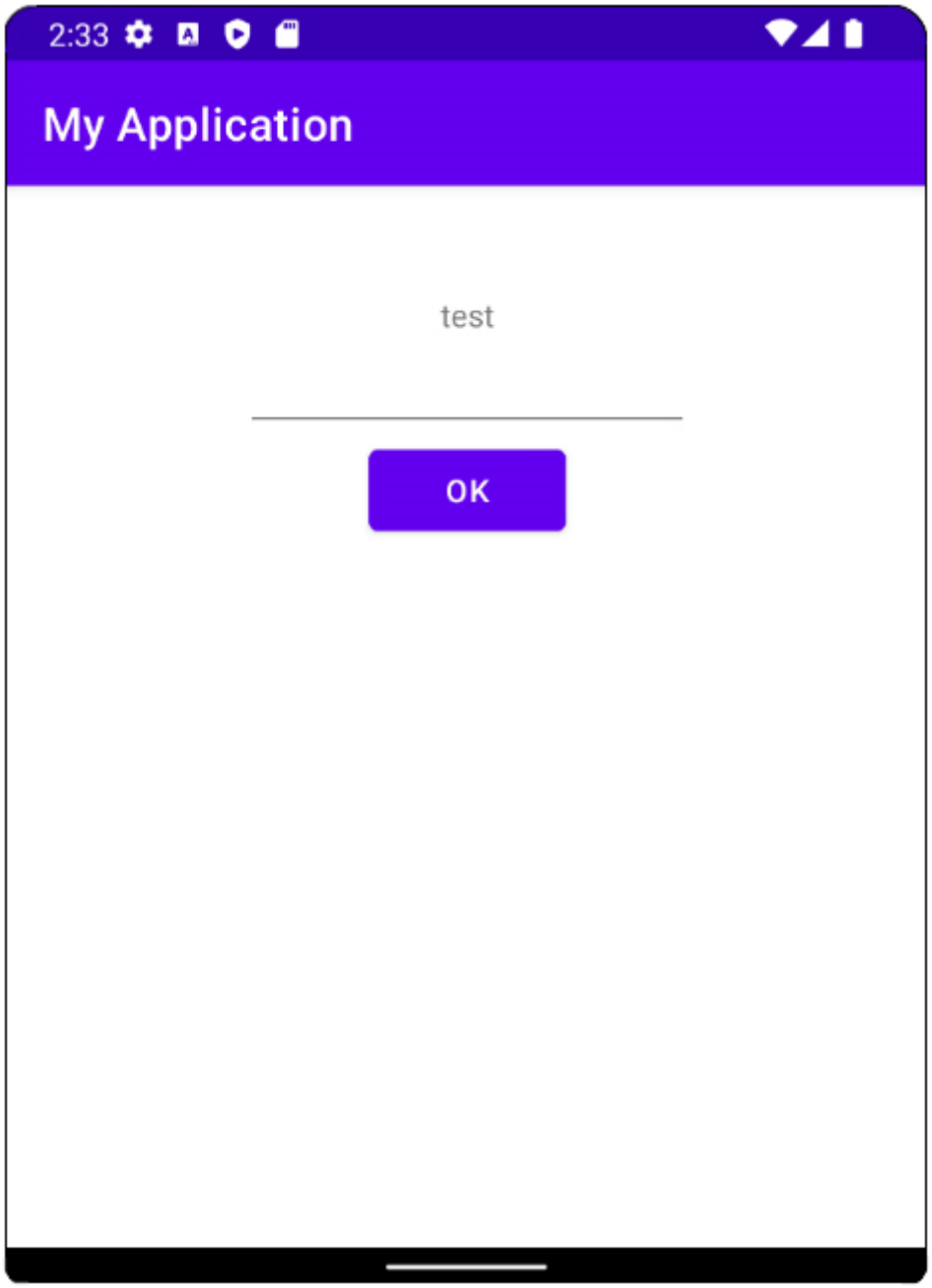

8:19
My Application
PRESS ME
Total 10
Total 10

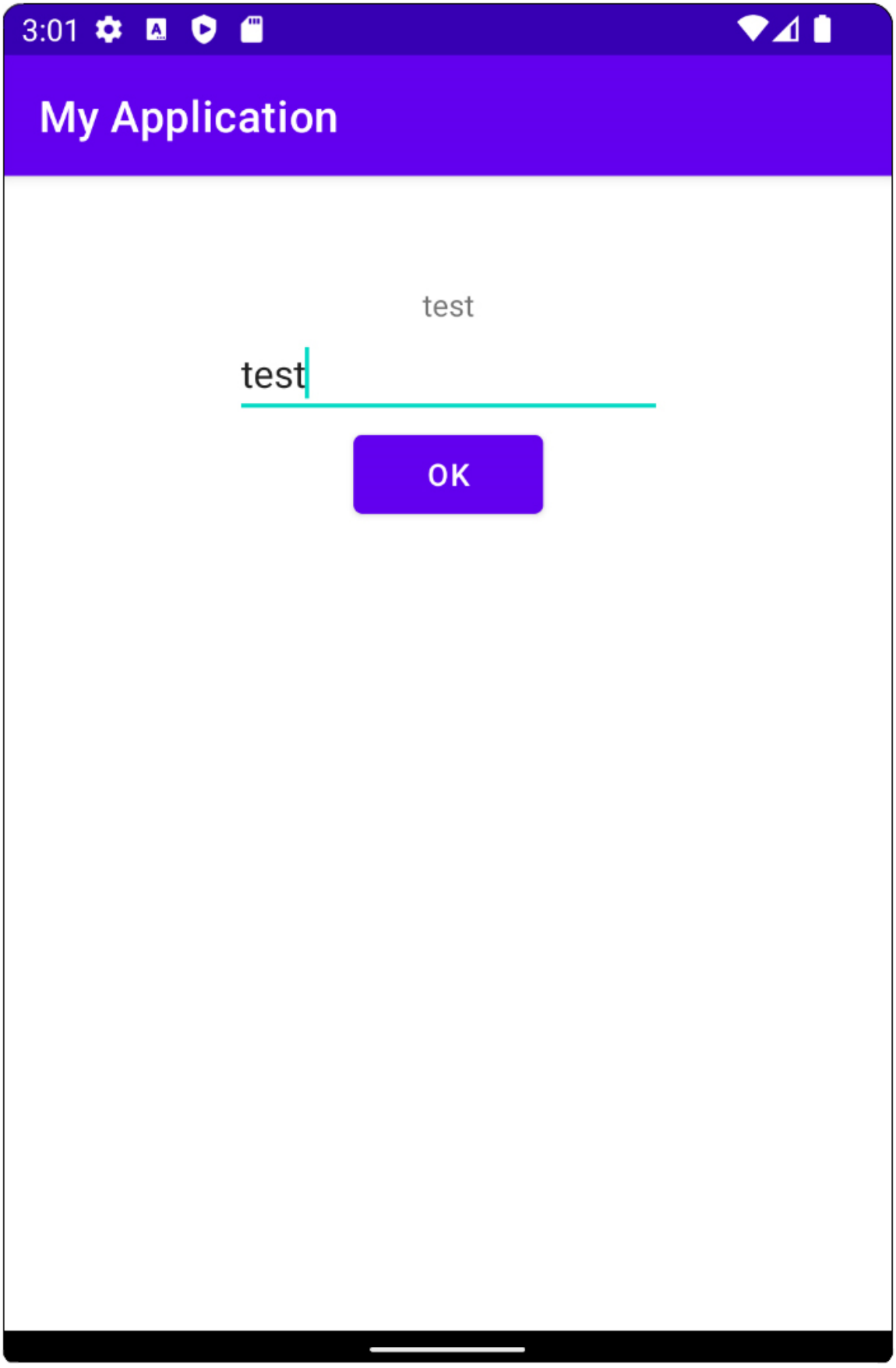

Application
Entity
DAO
Database
request DAO
read entity
update
update entity

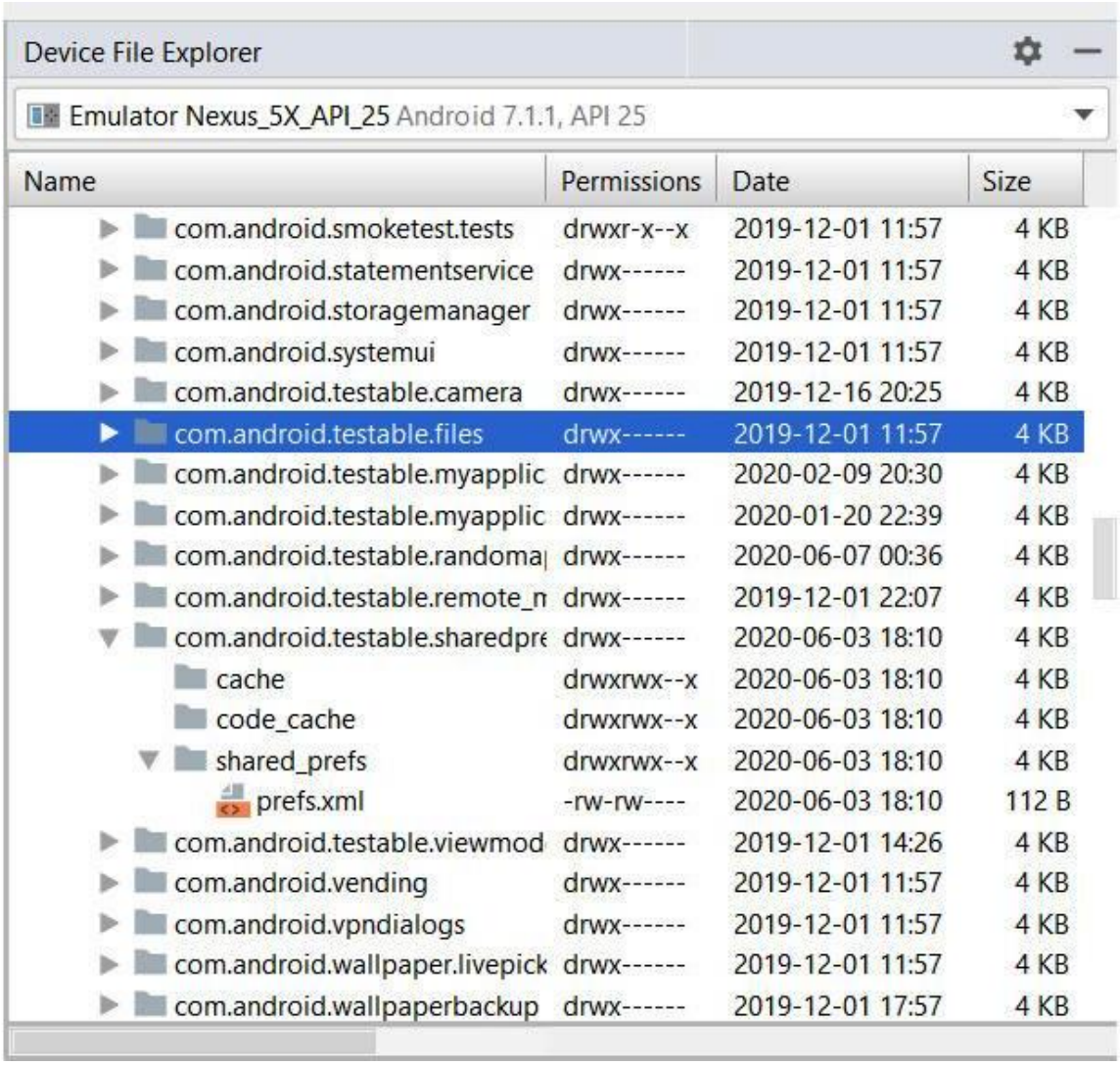
Java/Kotlin	SQLite
String	TEXT
Byte, Short, Integer, Long, Boolean	INTEGER
Double, Float	REAL
Array<Byte>	BLOB

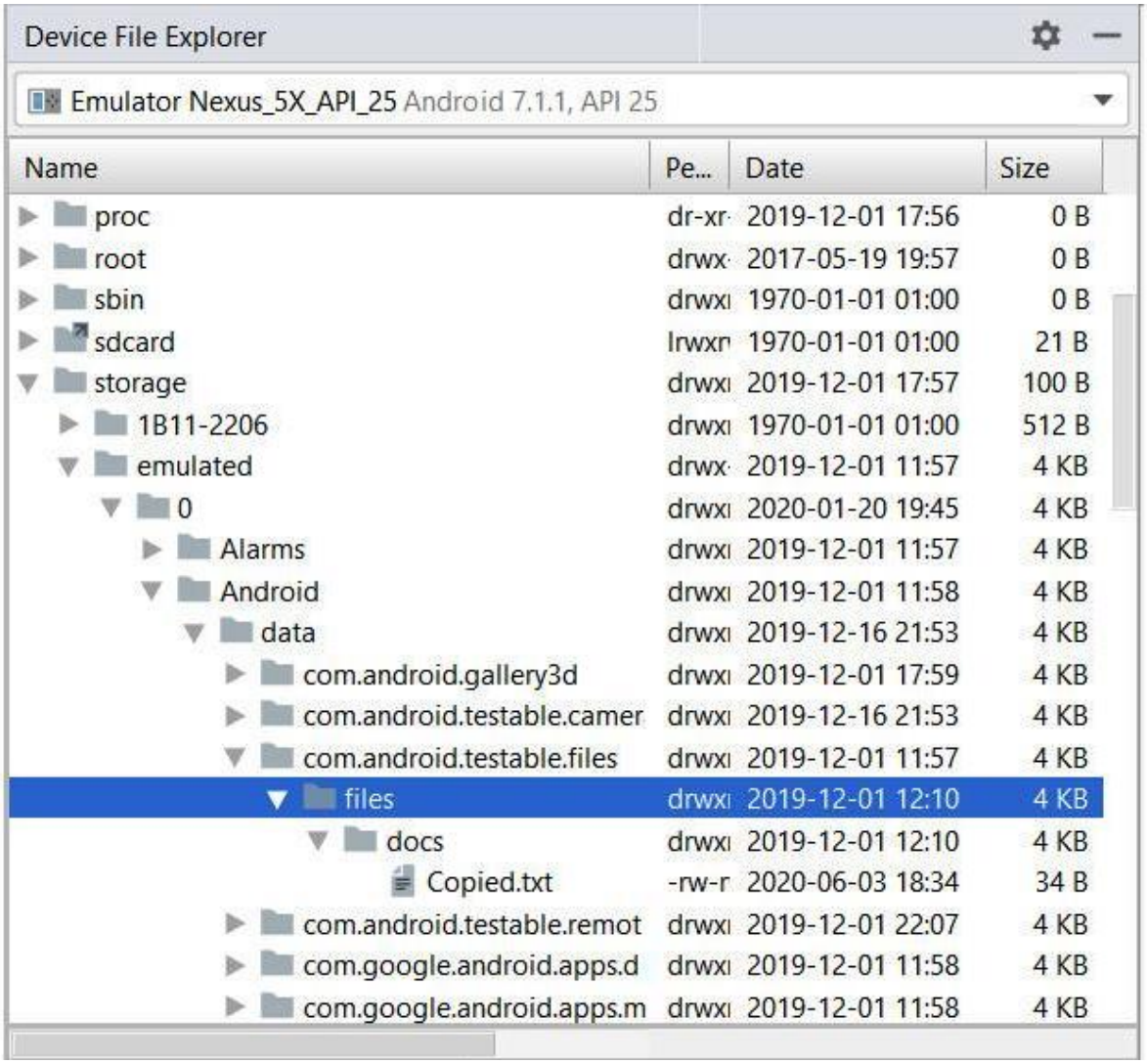


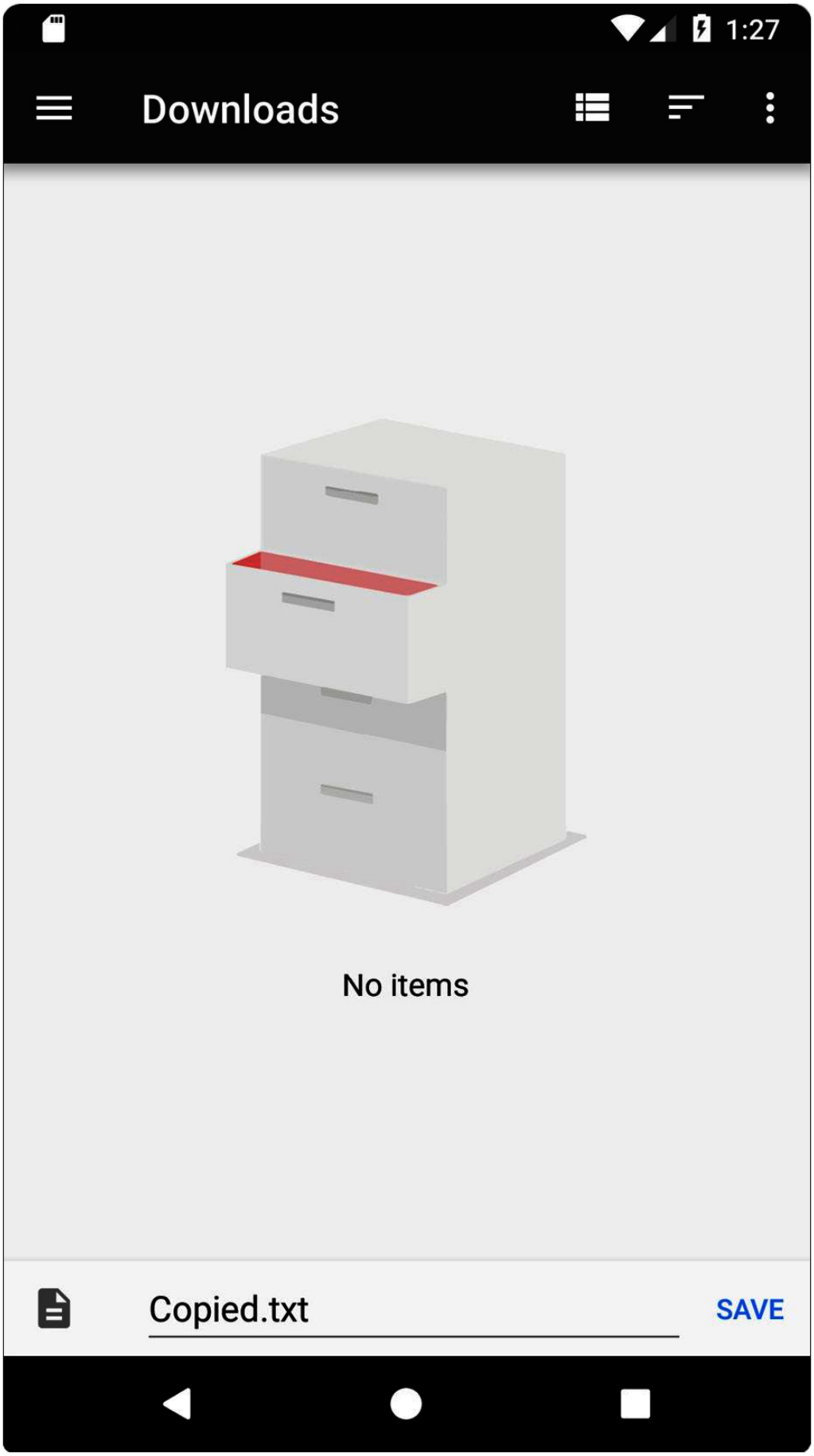
Chapter 12: Persisting Data

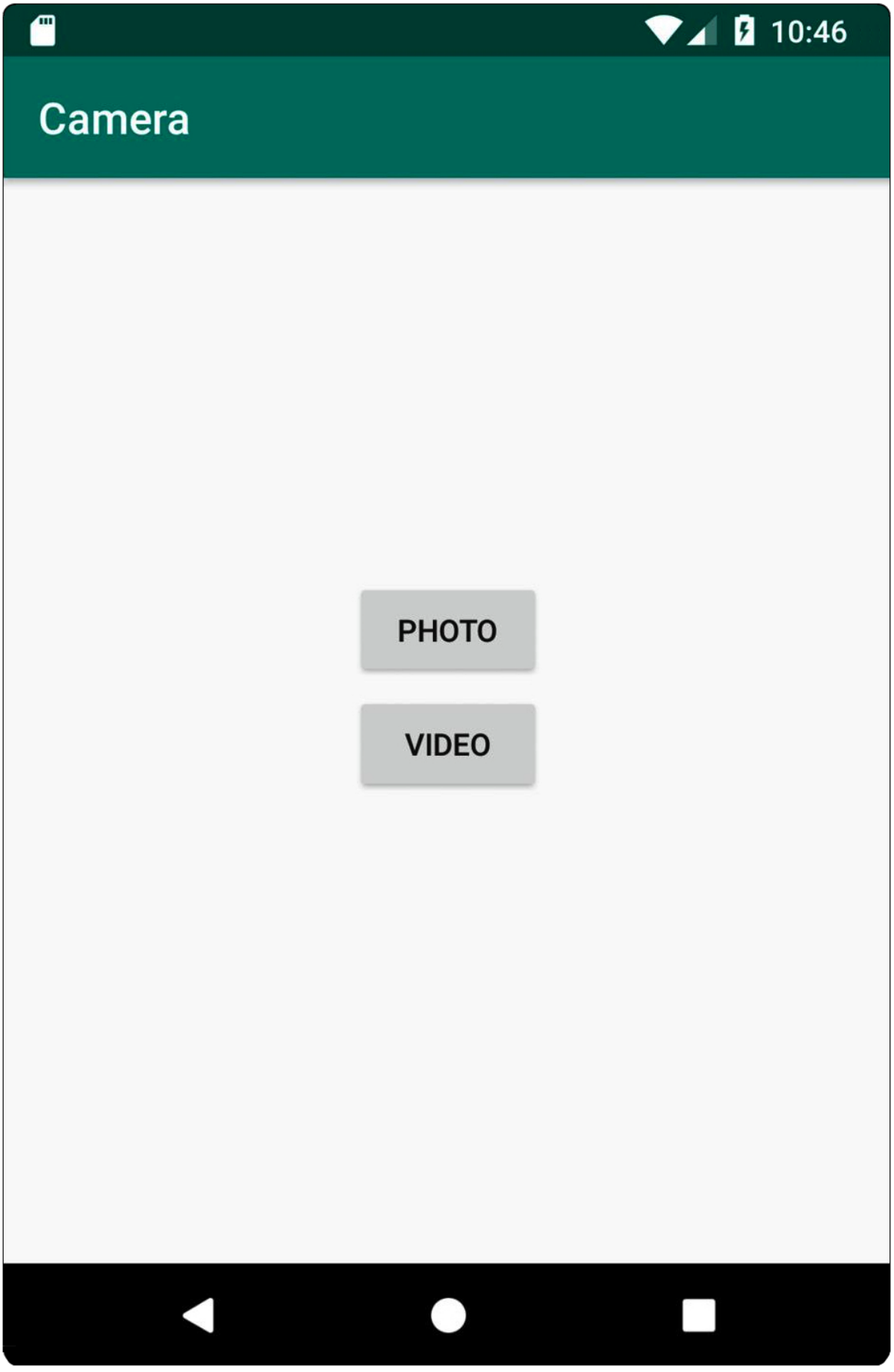


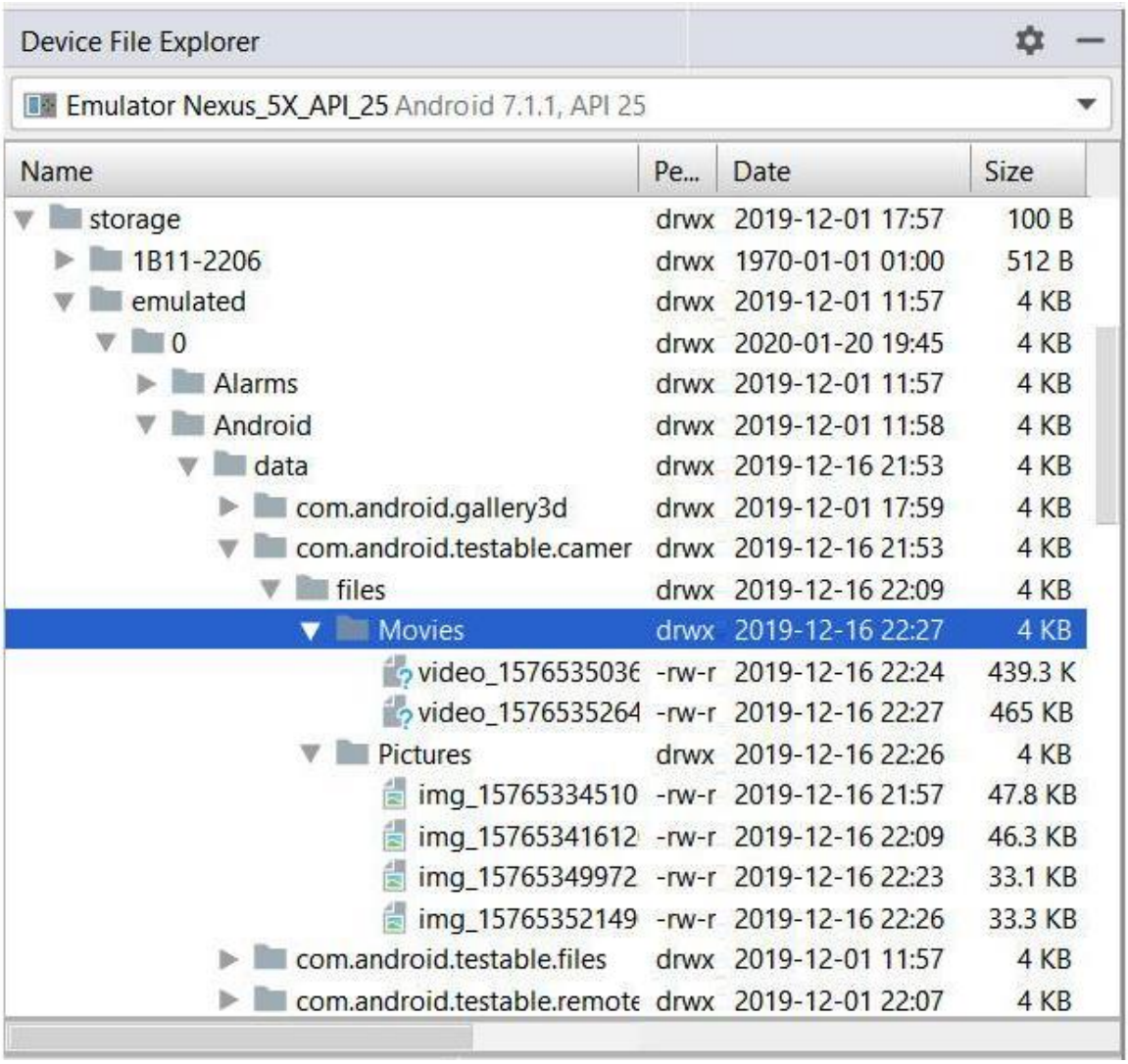

3:01
My Application
test
test
OK


Device File Explorer
Emulator Nexus_5X_API_25 Android 7.1.1, API 25
Name
Permissions
Date
Size
com.android.smoketest.tests drwxr-x--x 2019-12-01 11:57 4 KB
com.android.statementservice drwx------ 2019-12-01 11:57 4 KB
com.android.storagemanager drwx------ 2019-12-01 11:57 4 KB
com.android.systemui drwx------ 2019-12-01 11:57 4 KB
com.android.testable.camera drwx------ 2019-12-16 20:25 4 KB
com.android.testable.files drwx------ 2019-12-01 11:57 4 KB
com.android.testable.myapplic drwx------ 2020-02-09 20:30 4 KB
com.android.testable.myapplic drwx------ 2020-01-20 22:39 4 KB
com.android.testable.randoma drwx------ 2020-06-07 00:36 4 KB
com.android.testable.remote_n drwx------ 2019-12-01 22:07 4 KB
com.android.testable.sharedpre drwx------ 2020-06-03 18:10 4 KB
cache drwxrwx--x 2020-06-03 18:10 4 KB
code_cache drwxrwx--x 2020-06-03 18:10 4 KB
shared_prefs drwxrwx--x 2020-06-03 18:10 4 KB
prefs.xml -rw-rw---- 2020-06-03 18:10 112 B
com.android.testable.viewmod drwx------ 2019-12-01 14:26 4 KB
com.android.vending drwx------ 2019-12-01 11:57 4 KB
com.android.vpndialogs drwx------ 2019-12-01 11:57 4 KB
com.android.wallpaper.livepick drwx------ 2019-12-01 11:57 4 KB
com.android.wallpaperbackup drwx------ 2019-12-01 17:57 4 KB


Device File Explorer
Emulator Nexus_5X_API_25 Android 7.1.1, API 25
Name
Pe...
Date
Size
proc dr-xr 2019-12-01 17:56 0 B
root drwx 2017-05-19 19:57 0 B
sbin drwxr 1970-01-01 01:00 0 B
sdcard lrwxr 1970-01-01 01:00 21 B
storage drwxr 2019-12-01 17:57 100 B
1B11-2206 drwxr 1970-01-01 01:00 512 B
emulated drwx 2019-12-01 11:57 4 KB
0 drwxr 2020-01-20 19:45 4 KB
Alarms drwxr 2019-12-01 11:57 4 KB
Android drwxr 2019-12-01 11:58 4 KB
data drwxr 2019-12-16 21:53 4 KB
com.android.gallery3d drwxr 2019-12-01 17:59 4 KB
com.android.testable.camer drwxr 2019-12-16 21:53 4 KB
com.android.testable.files drwxr 2019-12-01 11:57 4 KB
files drwxr 2019-12-01 12:10 4 KB
docs drwxr 2019-12-01 12:10 4 KB
Copied.txt -rw-r 2020-06-03 18:34 34 B
com.android.testable.remot drwxr 2019-12-01 22:07 4 KB
com.google.android.apps.d drwxr 2019-12-01 11:58 4 KB
com.google.android.apps.m drwxr 2019-12-01 11:58 4 KB


1:27
Downloads
No items
Copied.txt
SAVE


10:46
Camera
PHOTO
VIDEO


Device File Explorer
Emulator Nexus_5X_API_25 Android 7.1.1, API 25
Name
Pe...
Date
Size
storage drwx 2019-12-01 17:57 100 B
1B11-2206 drwx 1970-01-01 01:00 512 B
emulated drwx 2019-12-01 11:57 4 KB
0 drwx 2020-01-20 19:45 4 KB
Alarms drwx 2019-12-01 11:57 4 KB
Android drwx 2019-12-01 11:58 4 KB
data drwx 2019-12-16 21:53 4 KB
com.android.gallery3d drwx 2019-12-01 17:59 4 KB
com.android.testable.camer drwx 2019-12-16 21:53 4 KB
files drwx 2019-12-16 22:09 4 KB
Movies drwx 2019-12-16 22:27 4 KB
video_157653503(-rw-r 2019-12-16 22:24 439.3 K
video_1576535264 -rw-r 2019-12-16 22:27 465 KB
Pictures drwx 2019-12-16 22:26 4 KB
img_15765334510 -rw-r 2019-12-16 21:57 47.8 KB
img_15765341612 -rw-r 2019-12-16 22:09 46.3 KB
img_15765349972 -rw-r 2019-12-16 22:23 33.1 KB
img_15765352149 -rw-r 2019-12-16 22:26 33.3 KB
com.android.testable.files drwx 2019-12-01 11:57 4 KB
com.android.testable.remote drwx 2019-12-01 22:07 4 KB

11:53

Pictures

Images > Pictures

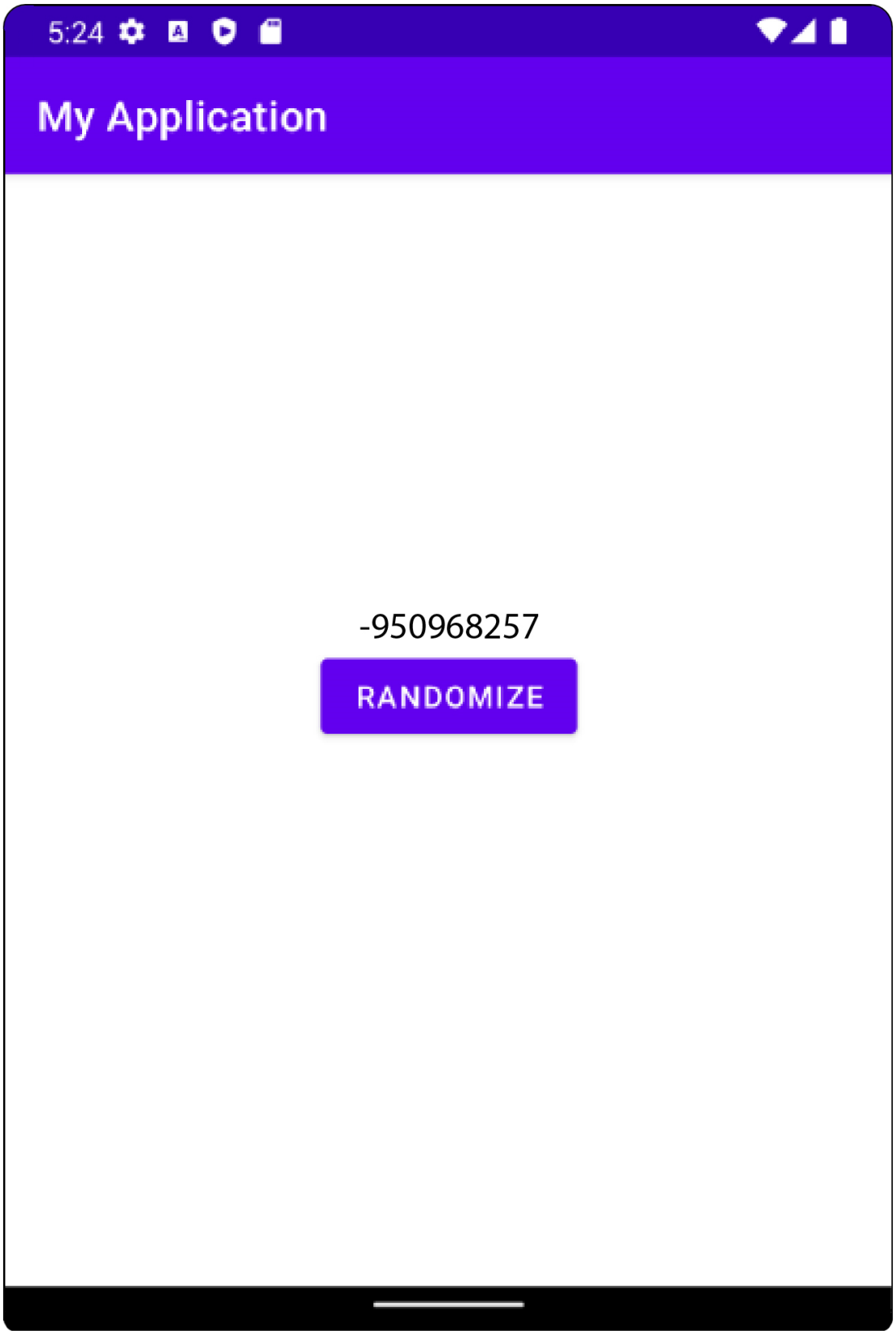
Large files | This week

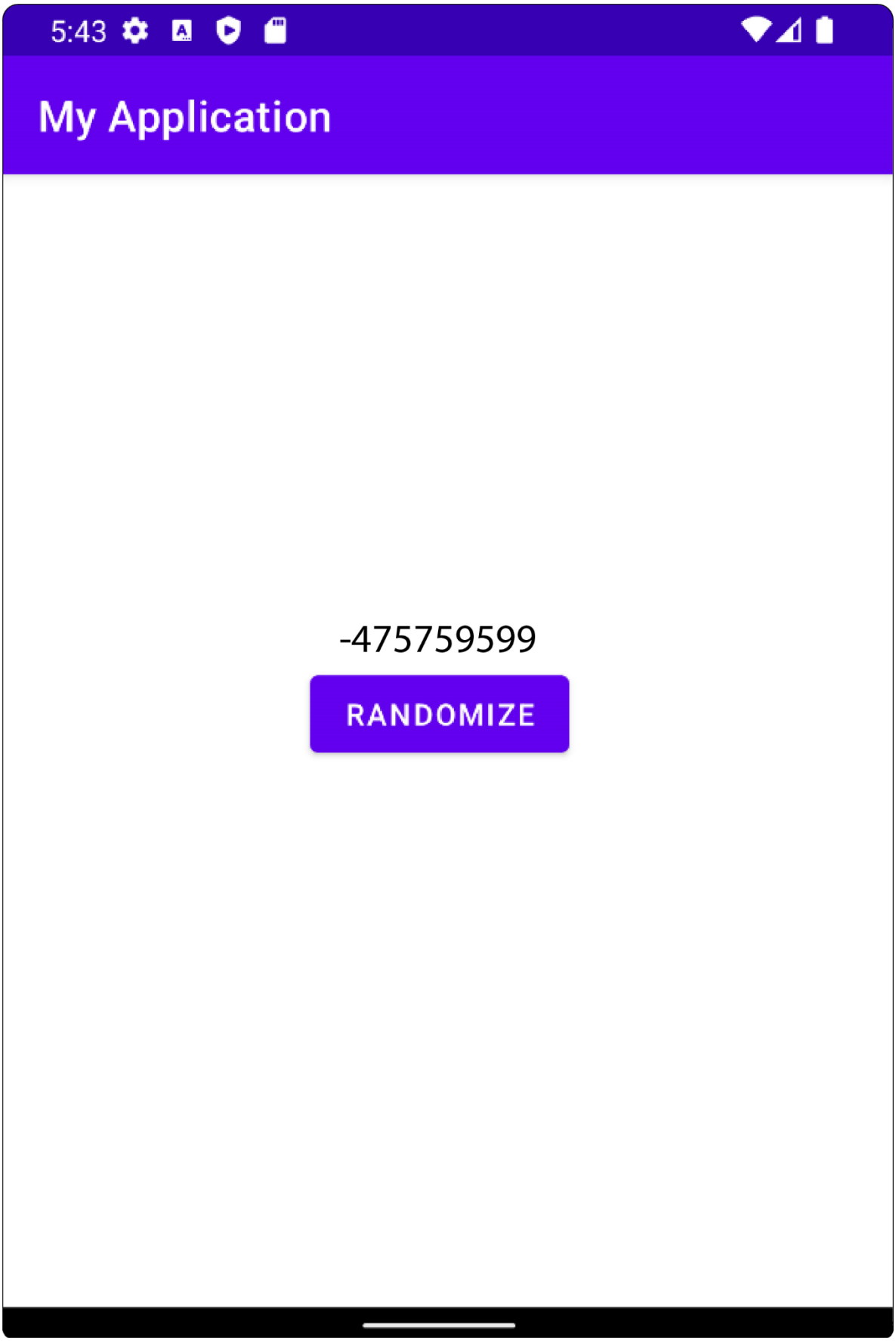
IMAGES

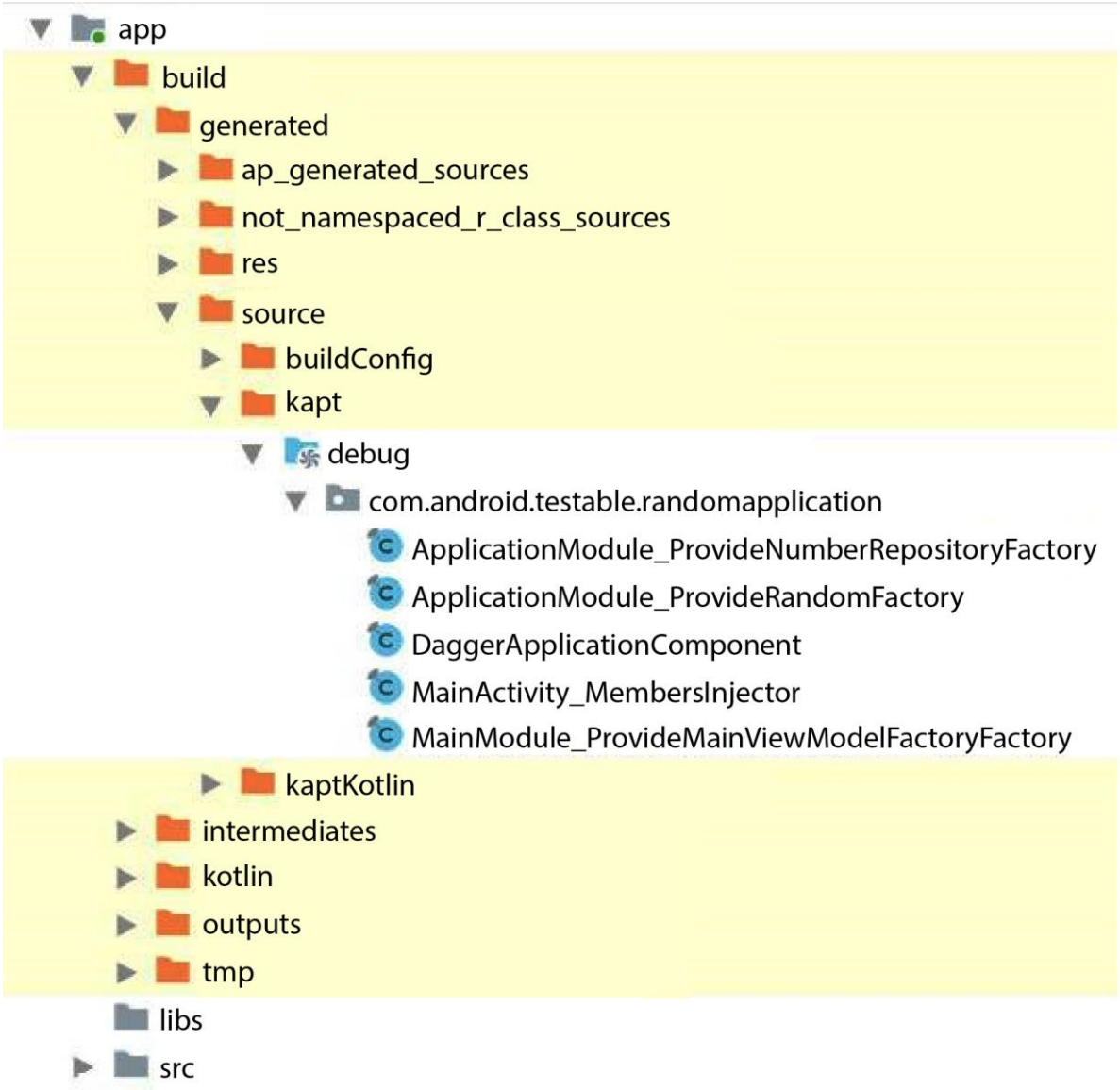
img_160487962...
198 kB 11:53 PM

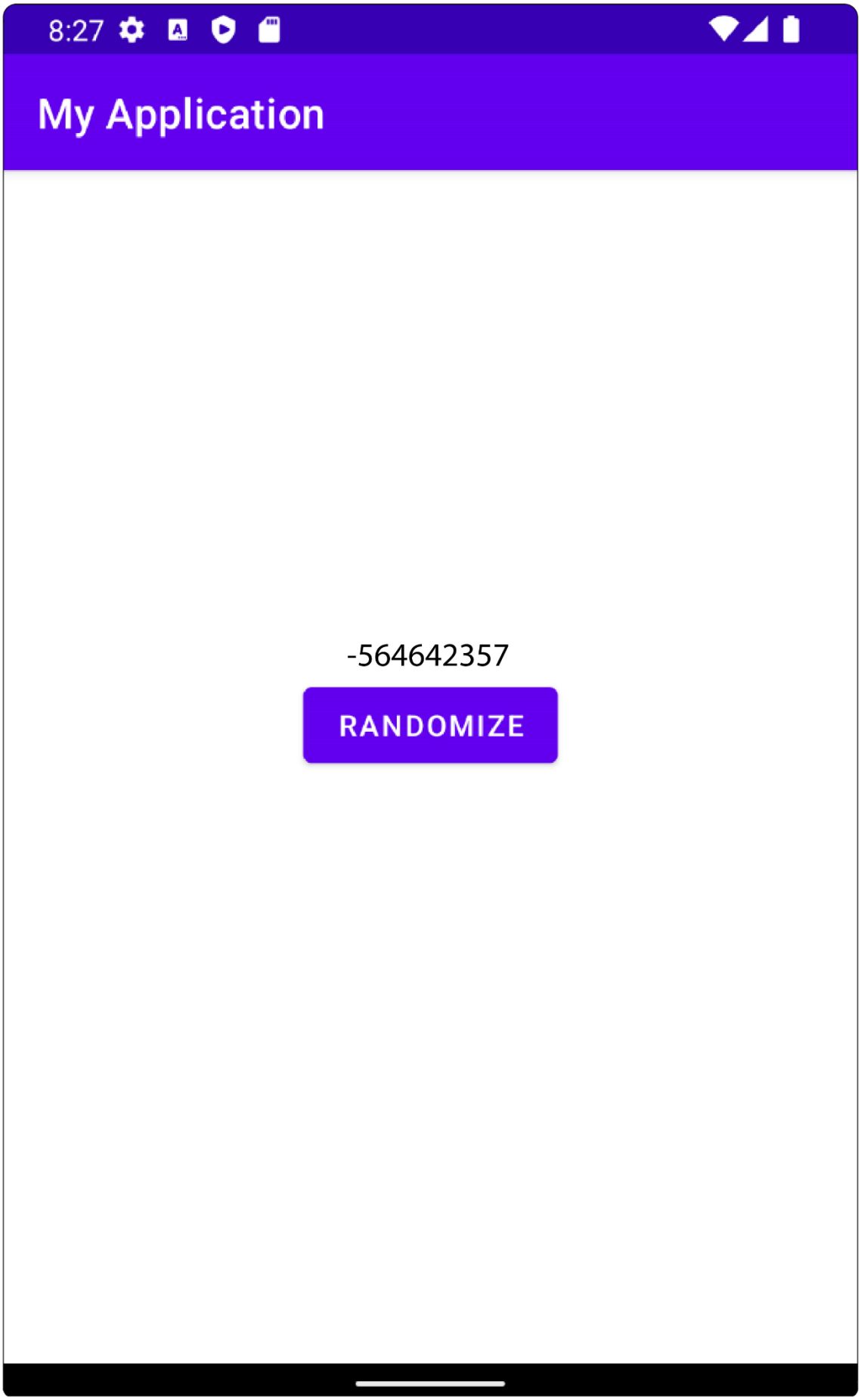
img_160487806...
198 kB 11:27 PM

Chapter 13: Dependency Injection with Dagger, Hilt, and Koin




5:43
My Application
-475759599
RANDOMIZE


app
build
generated
ap_generated_sources
not_namespaced_r_class_sources
res
source
buildConfig
kapt
debug
com.android.testable.randomapplication
ApplicationModule_ProvideNumberRepositoryFactory
ApplicationModule_ProvideRandomFactory
DaggerApplicationComponent
MainActivity_MembersInjector
MainModule_ProvideMainViewModelFactoryFactory
kaptKotlin
intermediates
kotlin
outputs
tmp
libs
src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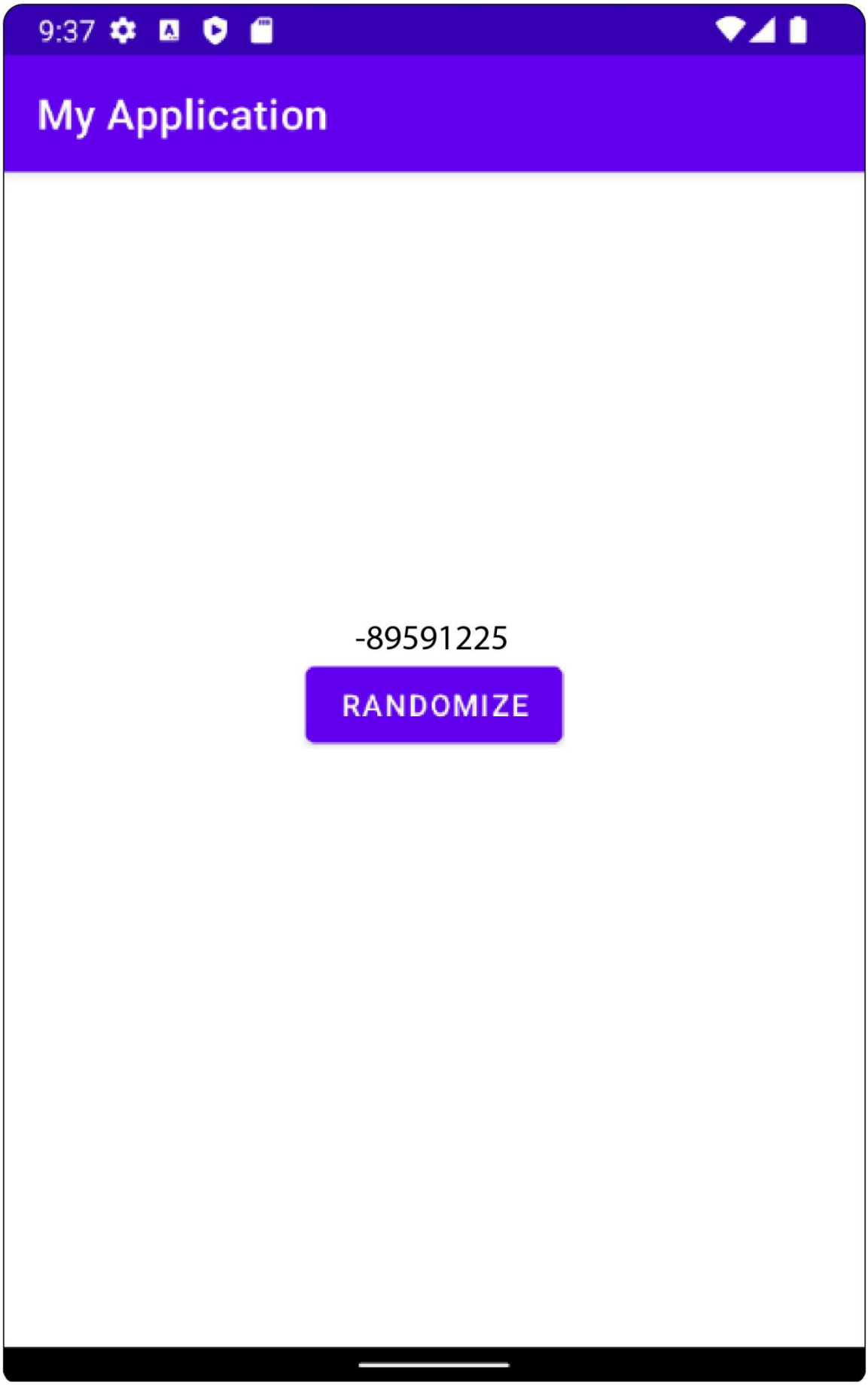
9:37
My Application
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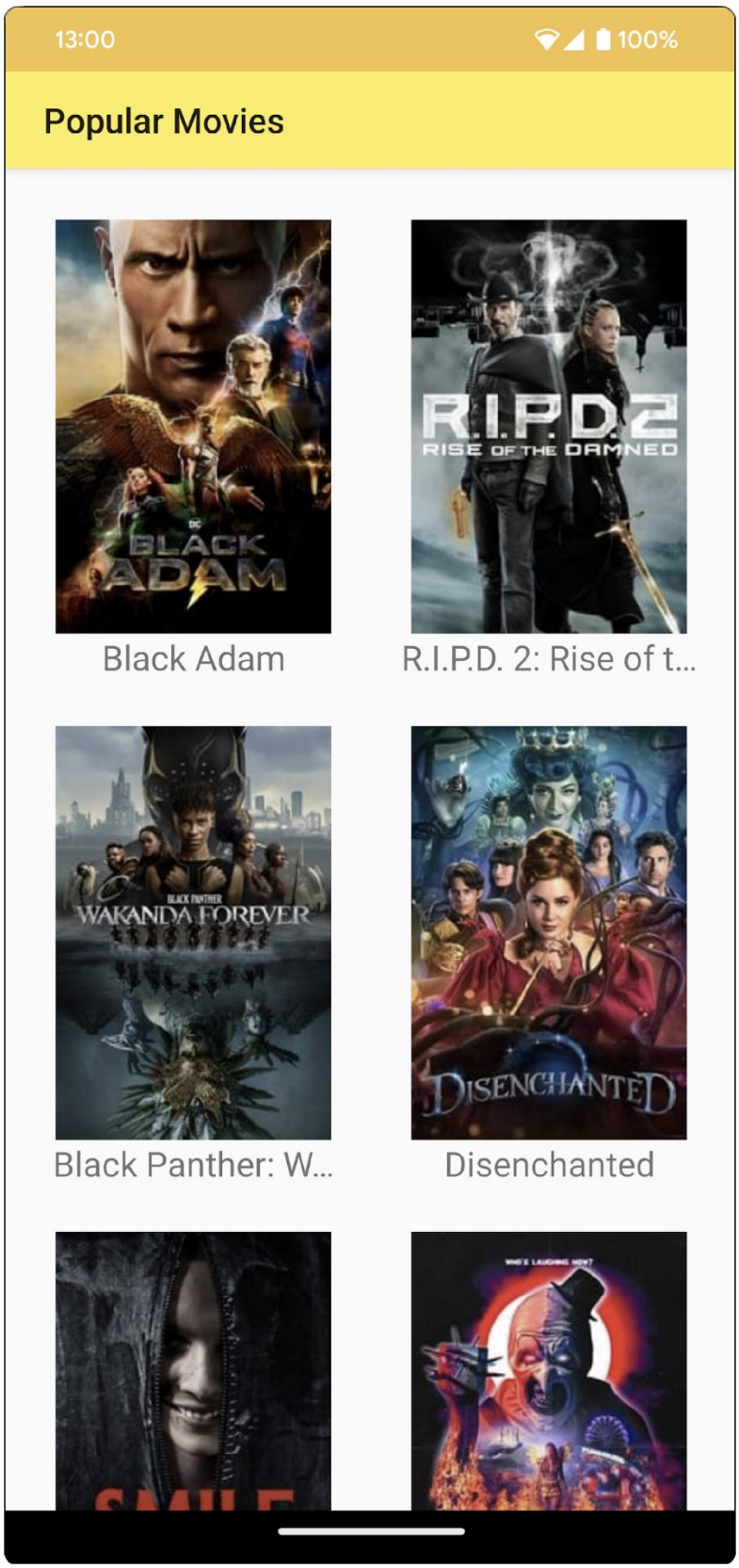
RANDOMIZE

Chapter 14: Coroutines and Flow



13:00 100%

Popular Movies

Black Panther: Wakanda Forever

2022

Overview: Queen Ramonda, Shuri, M'Baku, Okoye and the Dora Milaje fight to protect their nation from intervening world powers in the wake of King T'Challa's death. As the Wakandans strive to embrace their next chapter, the heroes must band together with the help of War Dog Nakia and Everett Ross and forge a new path for the kingdom of Wakanda.

13:00 100%

Popular Movies

Lost Bullet 2

Enola Holmes 2

Fall

On the Line

MexZombies

Margaux

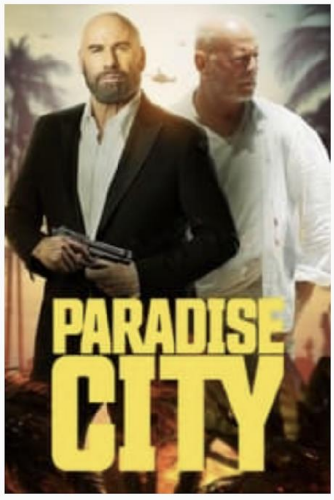
13:00 100%

Popular Movies

R.I.P.D. 2: Rise of t...

Black Panther: W...

Disenchanted



Paradise City

13:00 100%

TV Guide

The Peripheral

Rick and Morty

Darna

For You

Farma

Yellowstone

13:00 100%

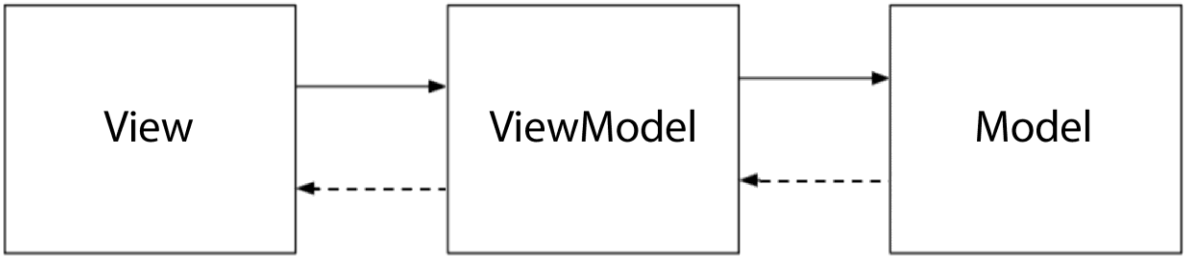
TV Guide

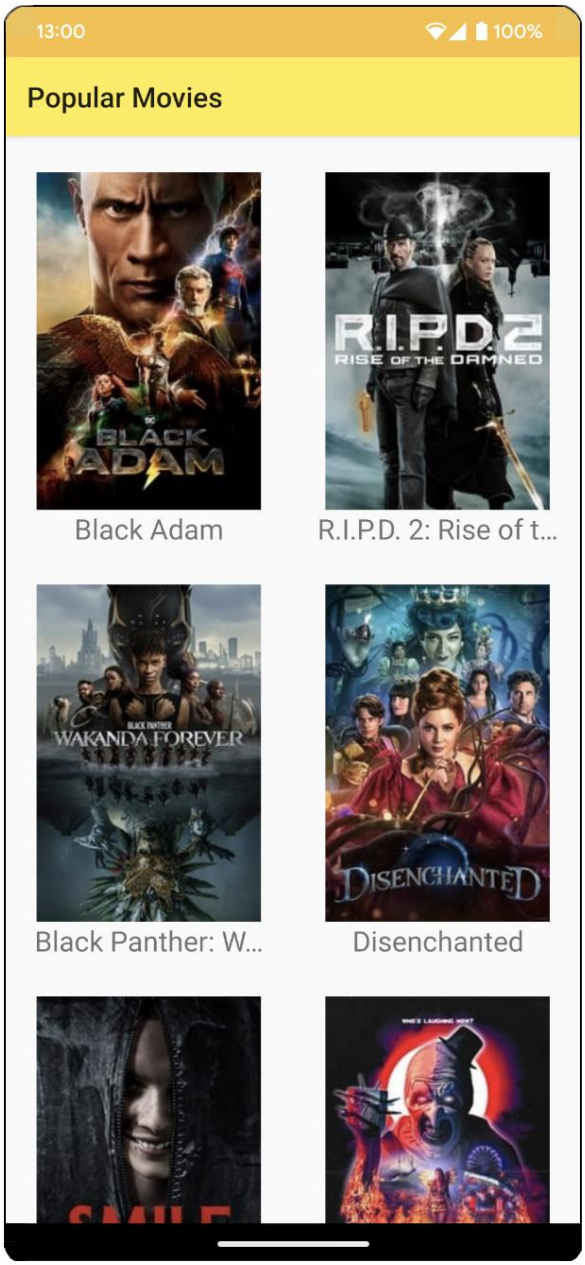
Yellowstone

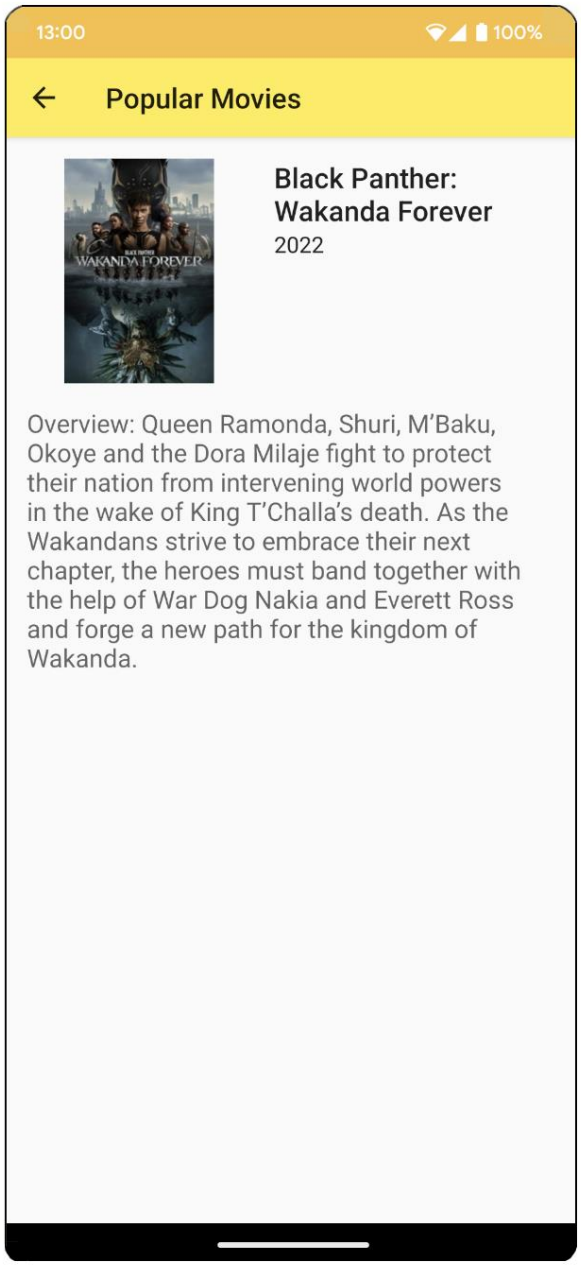
First Air Date: 2018

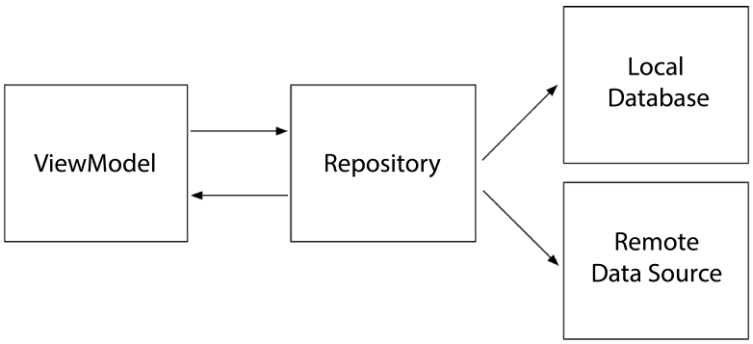
Overview: Follow the violent world of the Dutton family, who controls the largest contiguous ranch in the United States. Led by their patriarch John Dutton, the family defends their property against constant attack by land developers, an Indian reservation, and America's first National Park.

Chapter 15: Architecture Patterns








ViewModel
Repository
Local
Database
Remote
Data Source

13:00 100%

Popular Movies

Black Adam

R.I.P.D. 2: Rise of t...

Black Panther: W...

Disenchanted

13:00 100%

TV Guide

The Peripheral

Rick and Morty

Darna

For You

Farma

Yellowstone

13:00 100%

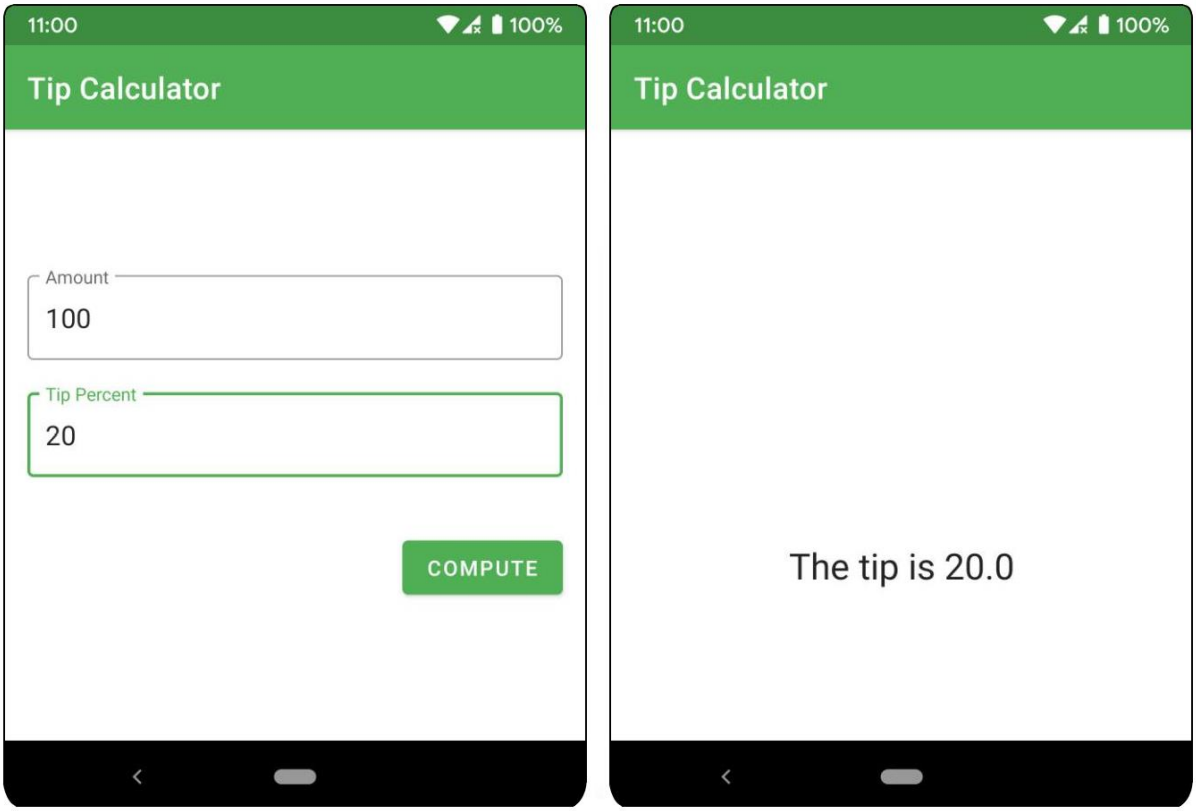
TV Guide

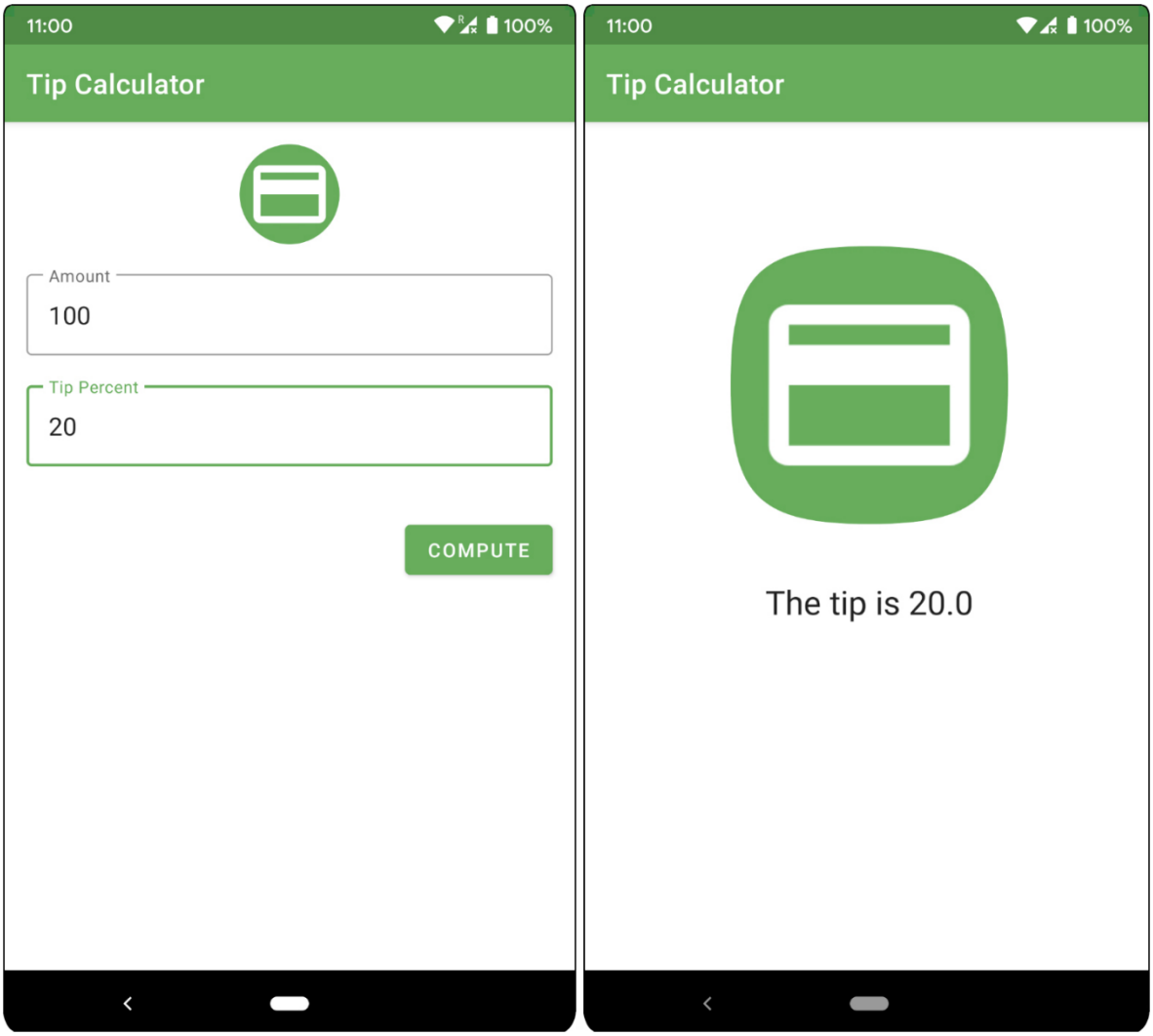
Yellowstone

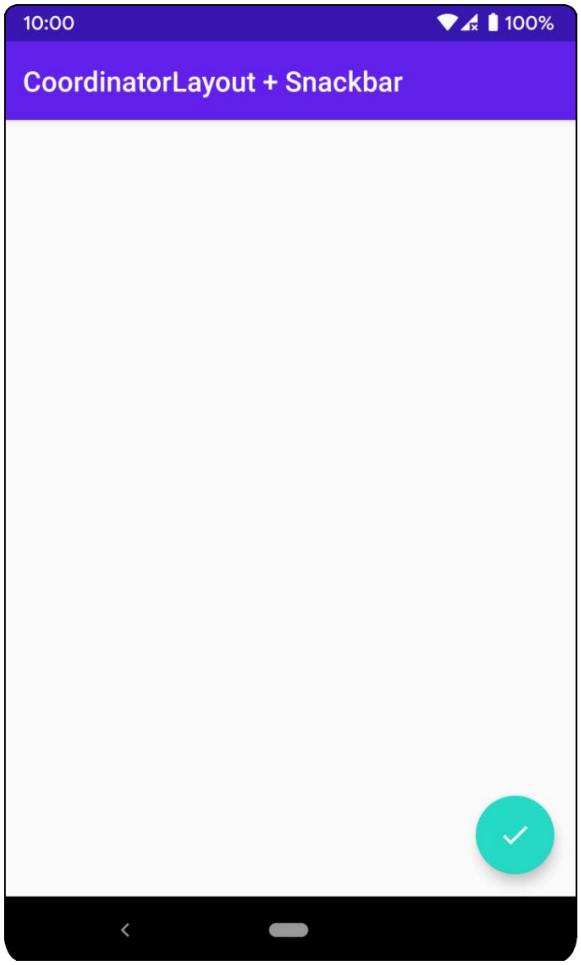
First Air Date: 2018

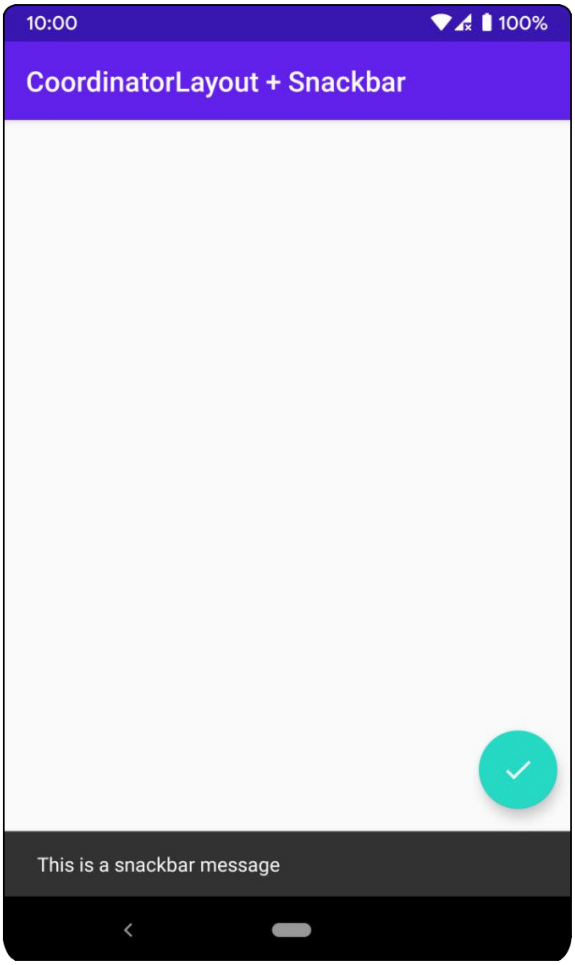
Overview: Follow the violent world of the Dutton family, who controls the largest contiguous ranch in the United States. Led by their patriarch John Dutton, the family defends their property against constant attack by land developers, an Indian reservation, and America's first National Park.

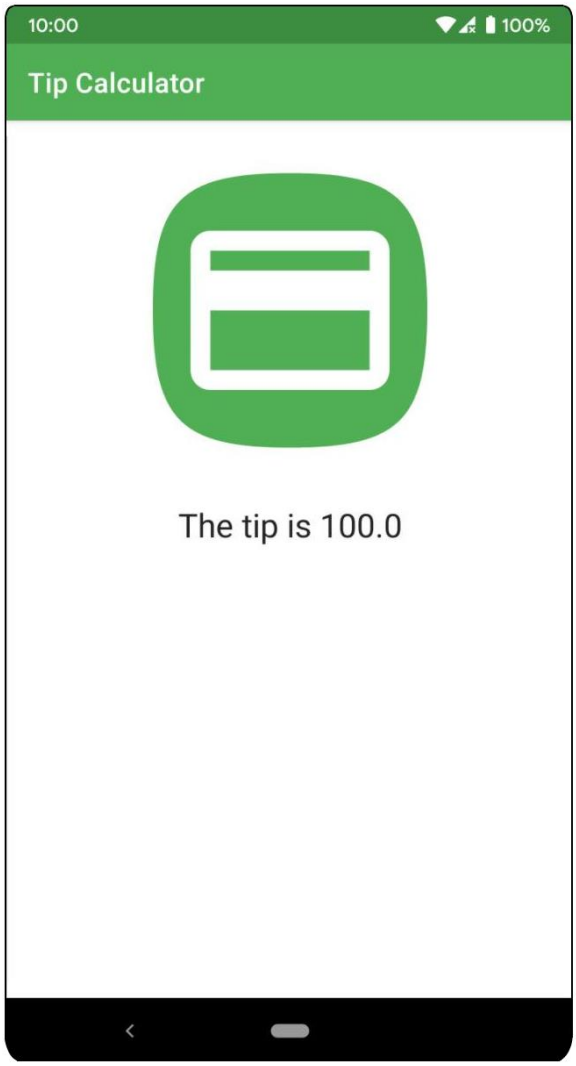
Chapter 16: Animations and Transitions with CoordinatorLayout and MotionLayout



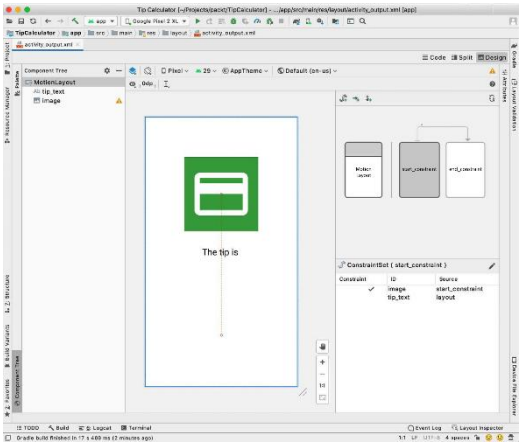

11:00
100%
Tip Calculator
Amount
100
Tip Percent
20
COMPUTE
11:00
100%
Tip Calculator
The tip is 20.0

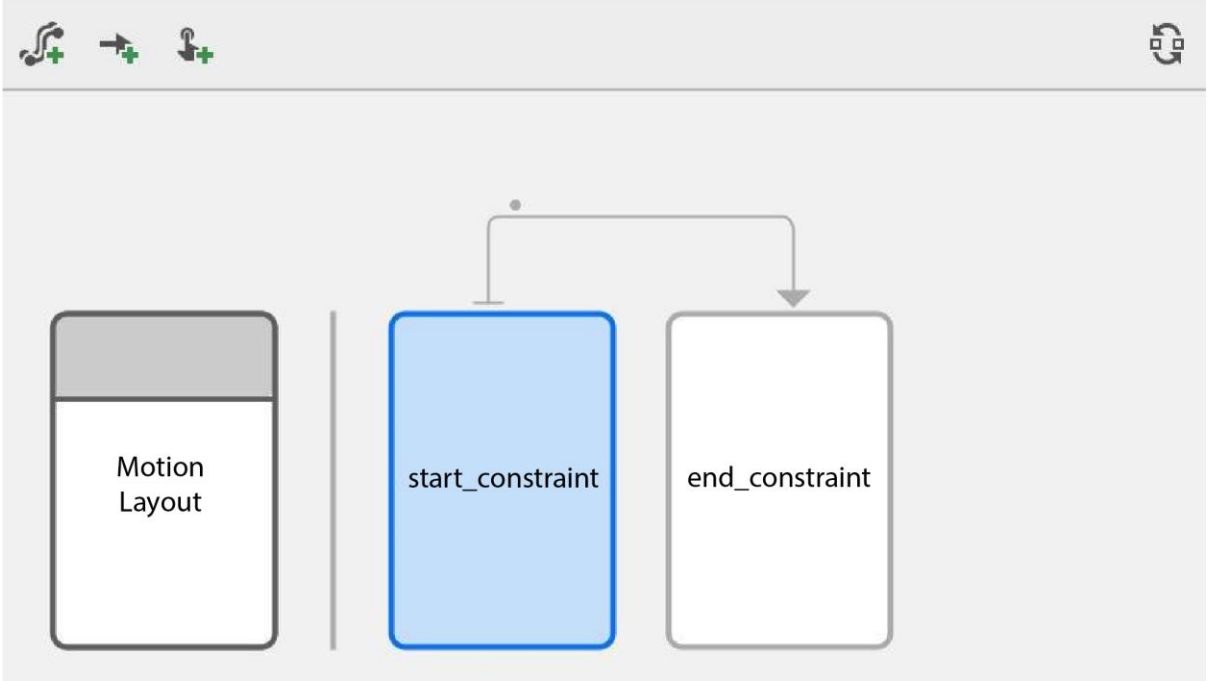

10:00
100%
CoordinatorLayout + Snackbar


10:00
100%
CoordinatorLayout + Snackbar
This is a snackbar message


10:00
100%
Tip Calculator
The tip is 100.0

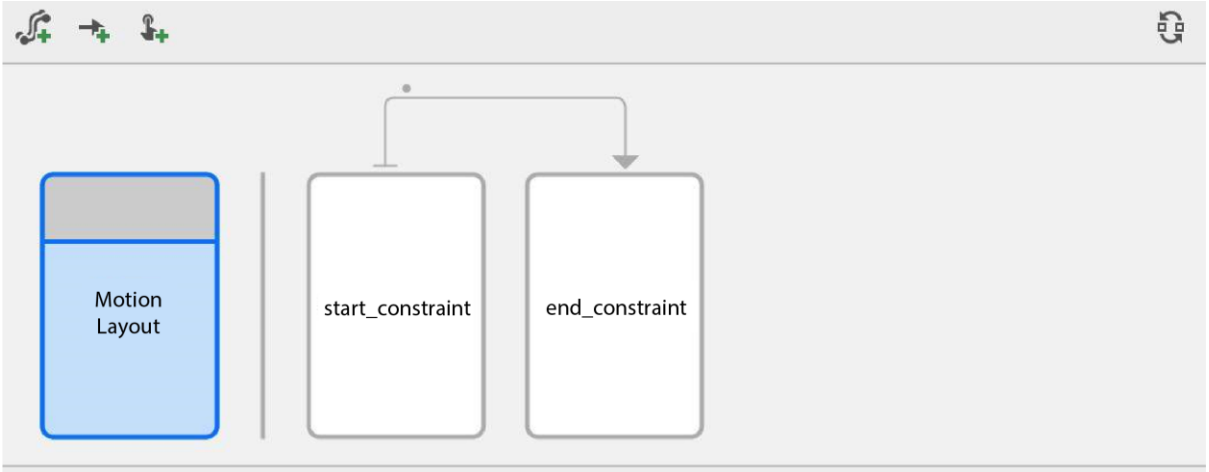
10:00
100%
Tip Calculator
The tip is 100.0


The tip is



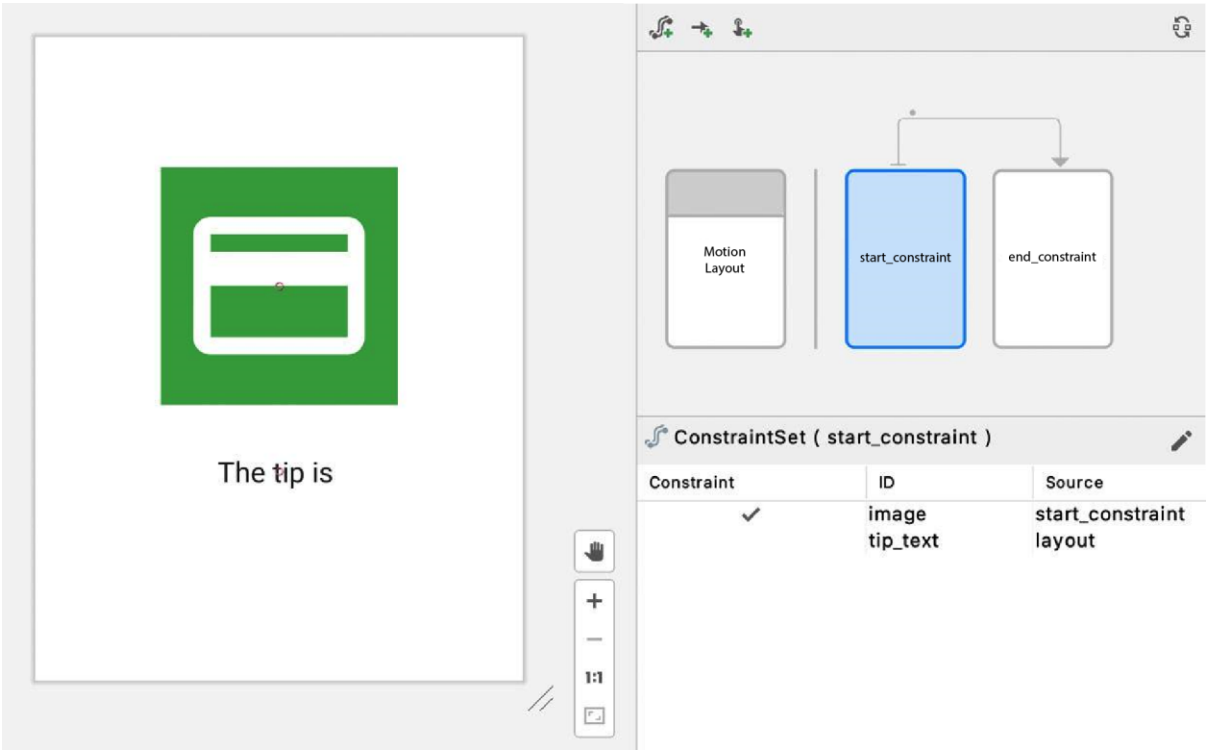
ConstraintSet (start_constraint)

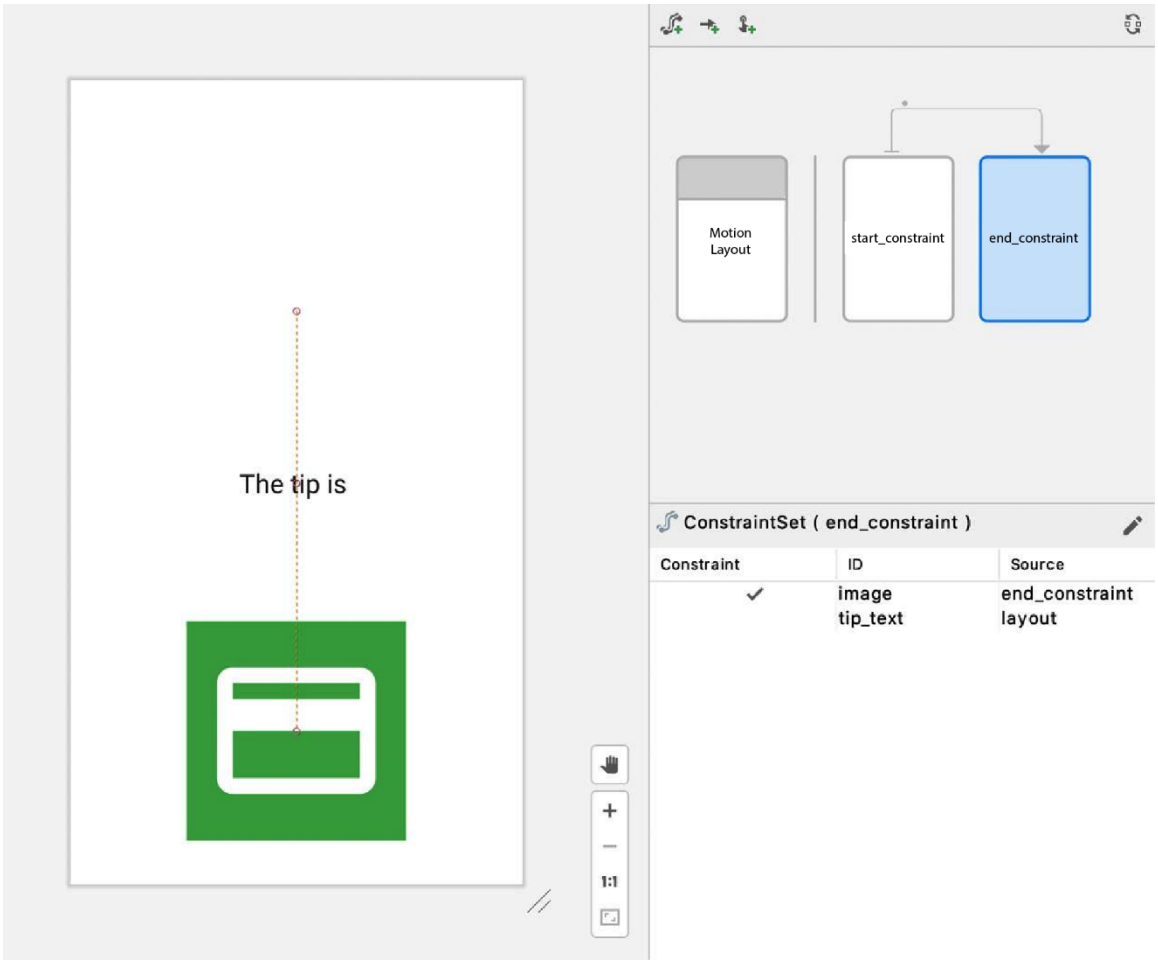
Constraint	ID	Source
✓	image	start_constraint
	tip_text	layout

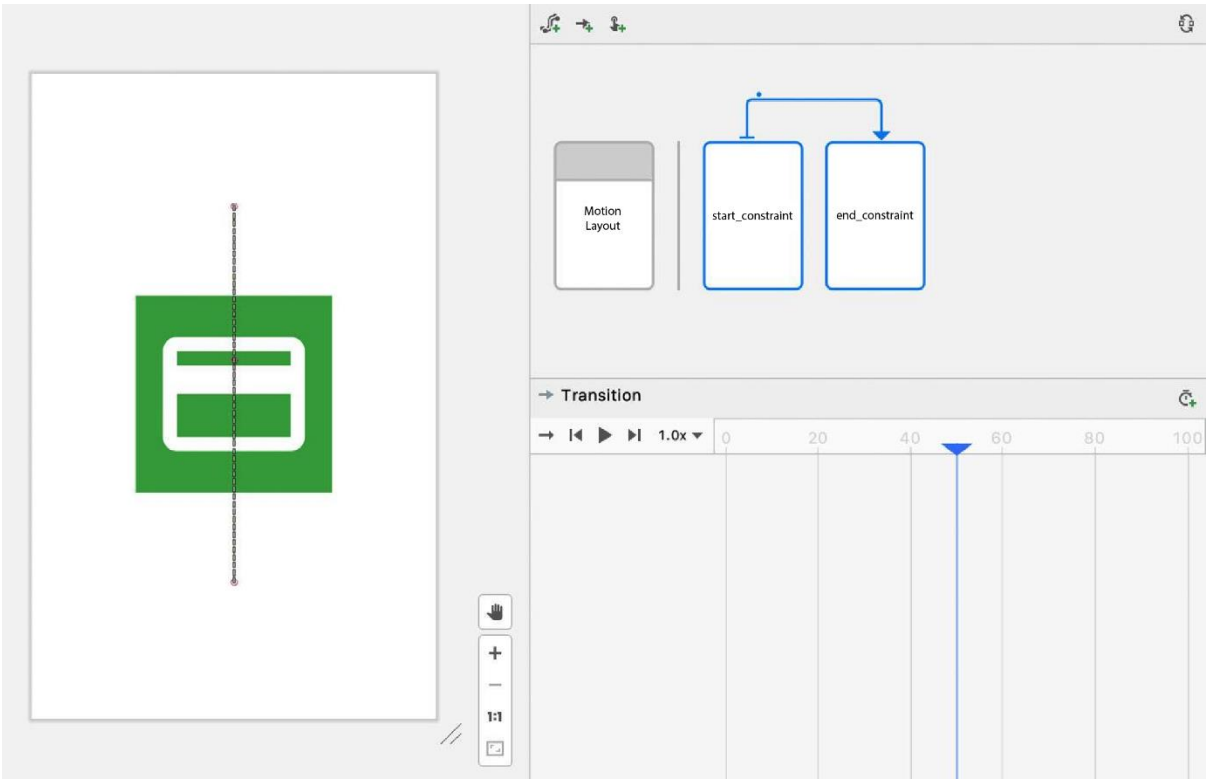


Layout ()

Type	id	Constrained
TextView	tip_text	[horizontal, vertical]
ImageView	image	[horizontal, vertical]

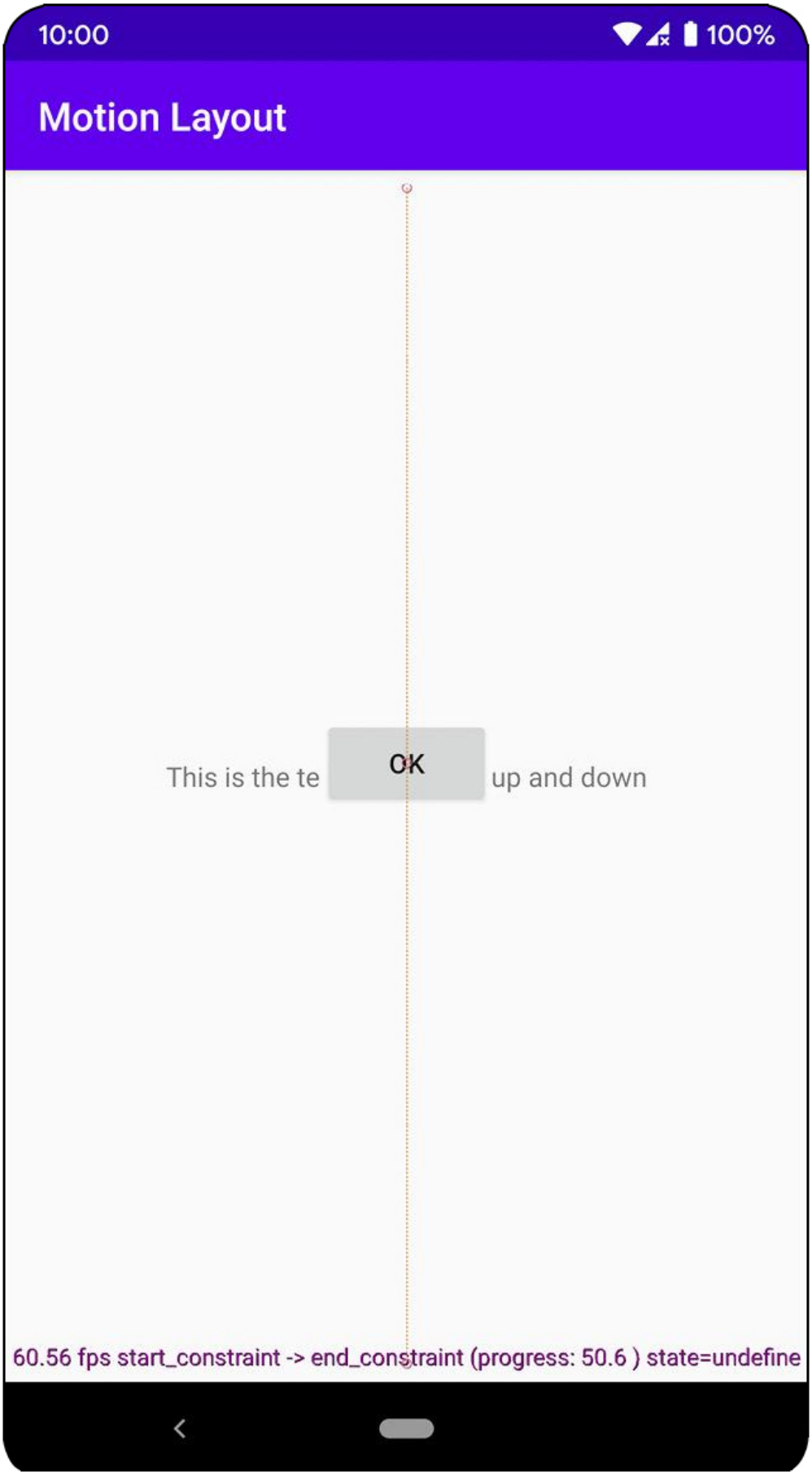

The tip is
Motion Layout
start_constraint
end_constraint
ConstraintSet (start_constraint)
Constraint
ID
Source
image
start_constraint
tip_text
layout

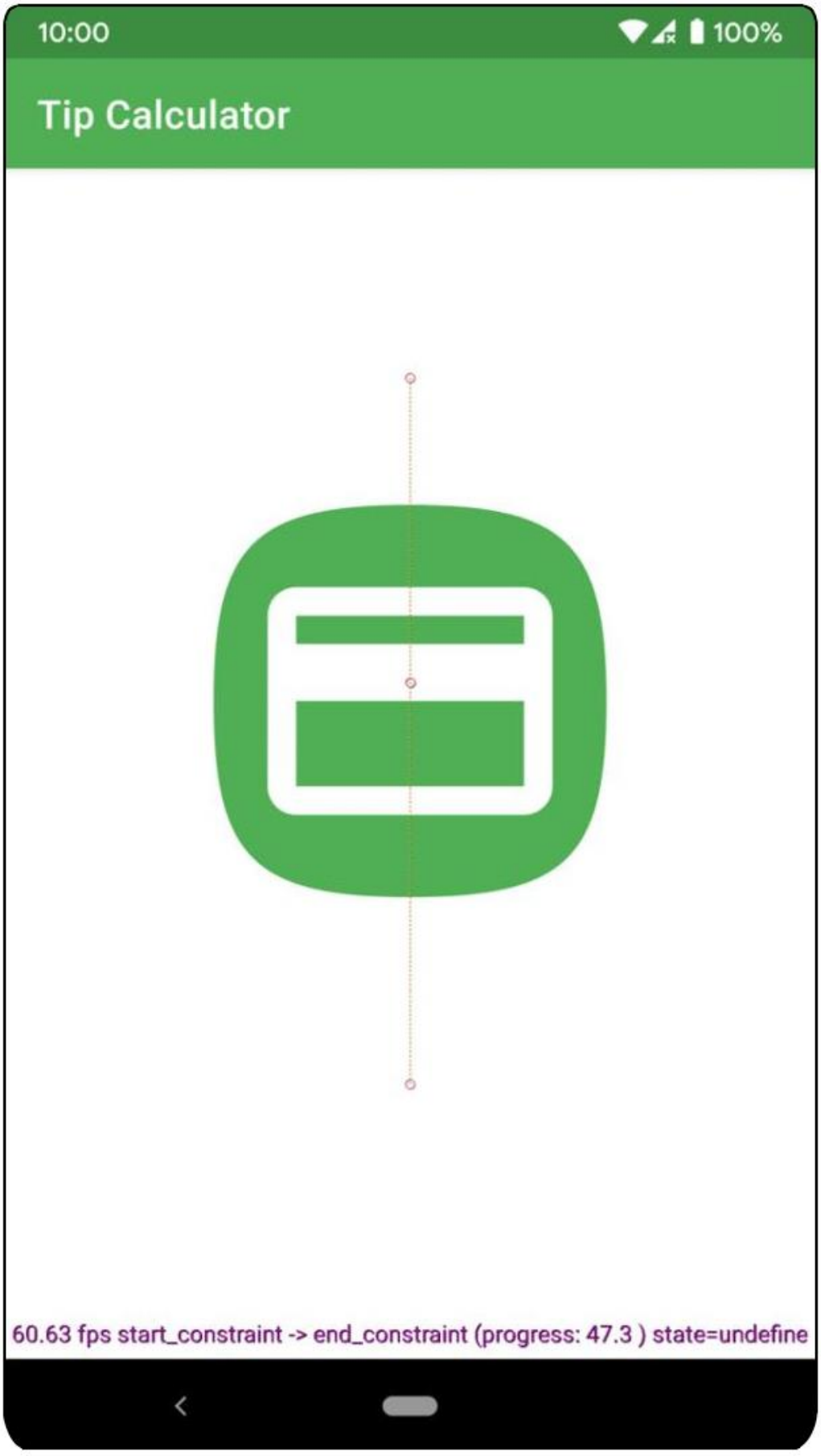

The tip is
Motion Layout
start_constraint
end_constraint
ConstraintSet (end_constraint)
Constraint
ID
Source
image
end_constraint
tip_text
layout

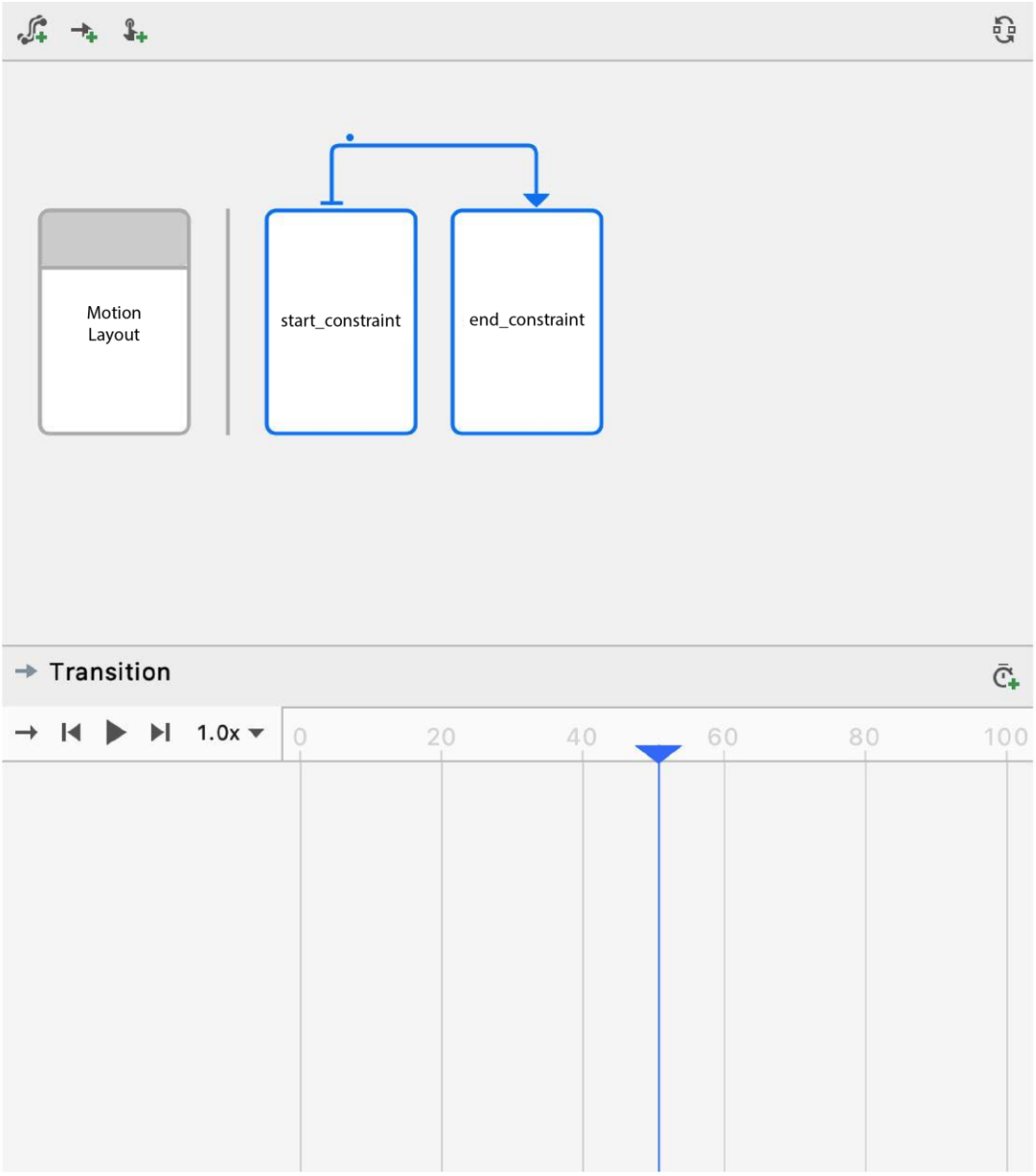

Motion
Layout
start_constraint
end_constraint
Transition
1.0x
0
20
40
60
80
100
1:1

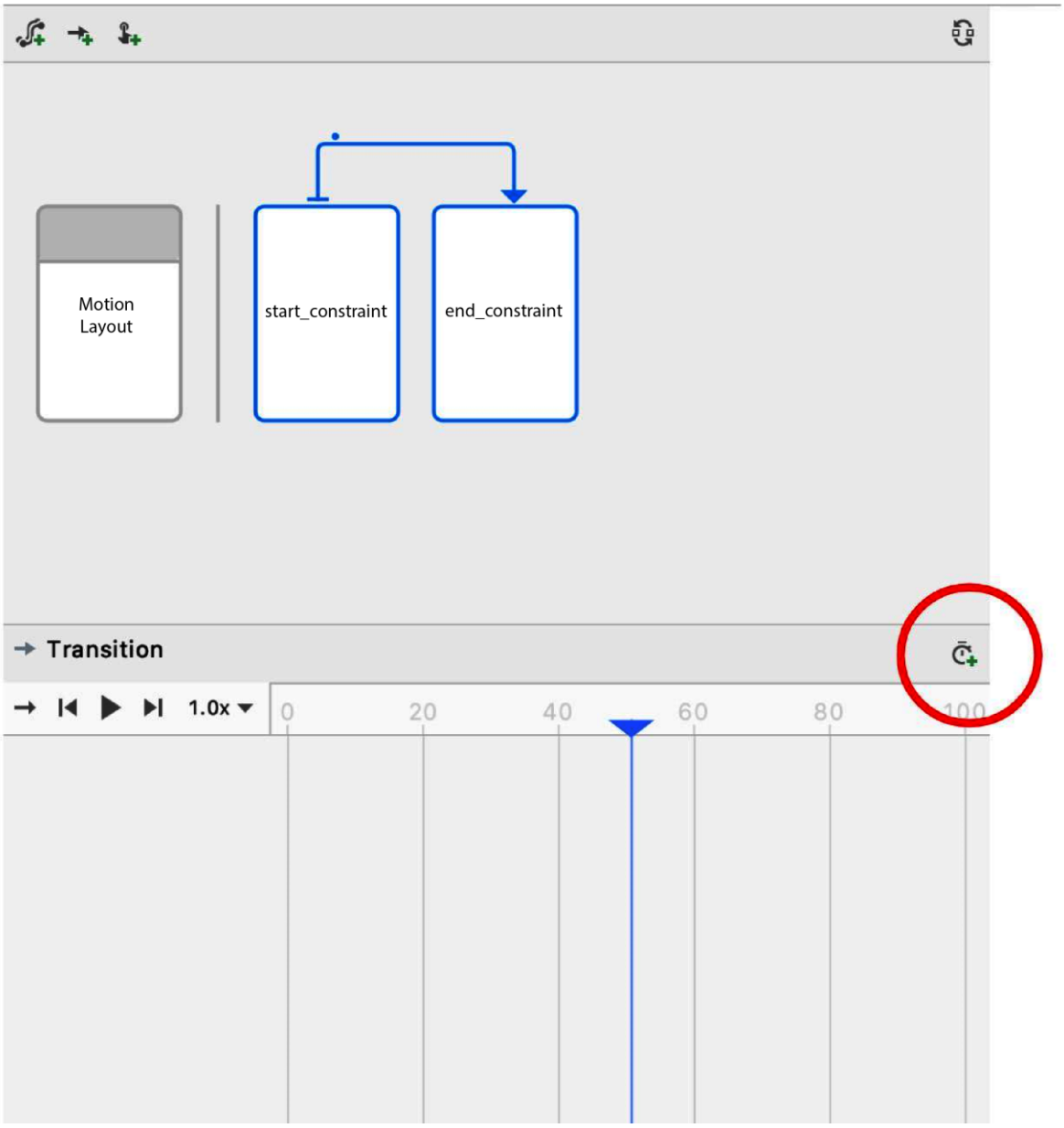
10:00
100%
Tip Calculator
The tip is 100

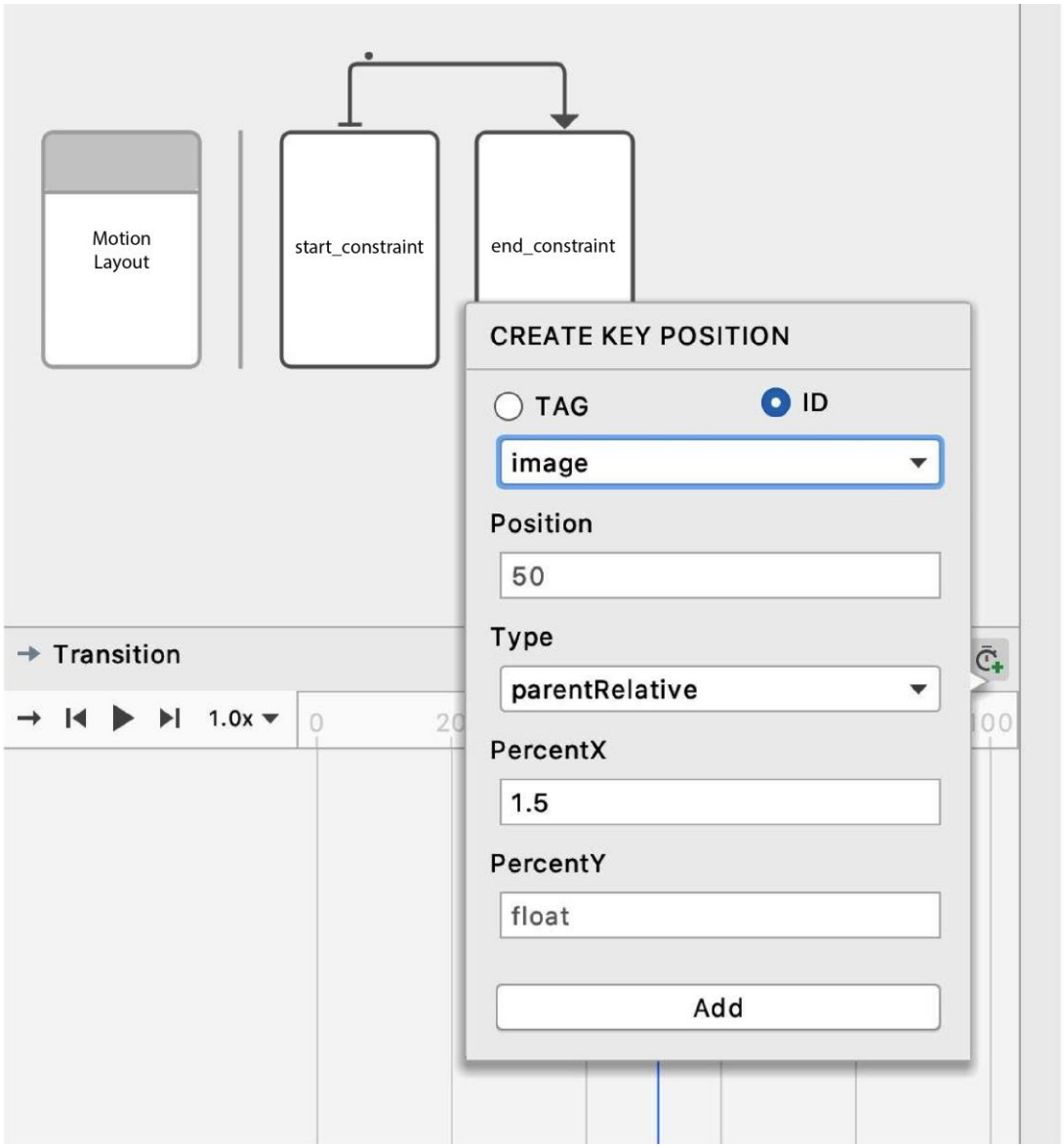
10:00
100%
Tip Calculator
The tip is 100.0
63.87 fps start_constraint -> end_constraint (progress: 0.0) state=start_con


10:00
100%
Motion Layout
This is the te
OK
up and down
60.56 fps start_constraint -> end_constraint (progress: 50.6) state=undefine


10:00
100%
Tip Calculator
60.63 fps start_constraint -> end_constraint (progress: 47.3) state=undefine


Motion
Layout
start_constraint
end_constraint
Transition
1.0x
0
20
40
60
80
100


Motion
Layout
start_constraint
end_constraint
Transition
1.0x
0
20
40
60
80
100


Motion Layout
start_constraint
end_constraint
CREATE KEY POSITION
TAG
ID
image
Position
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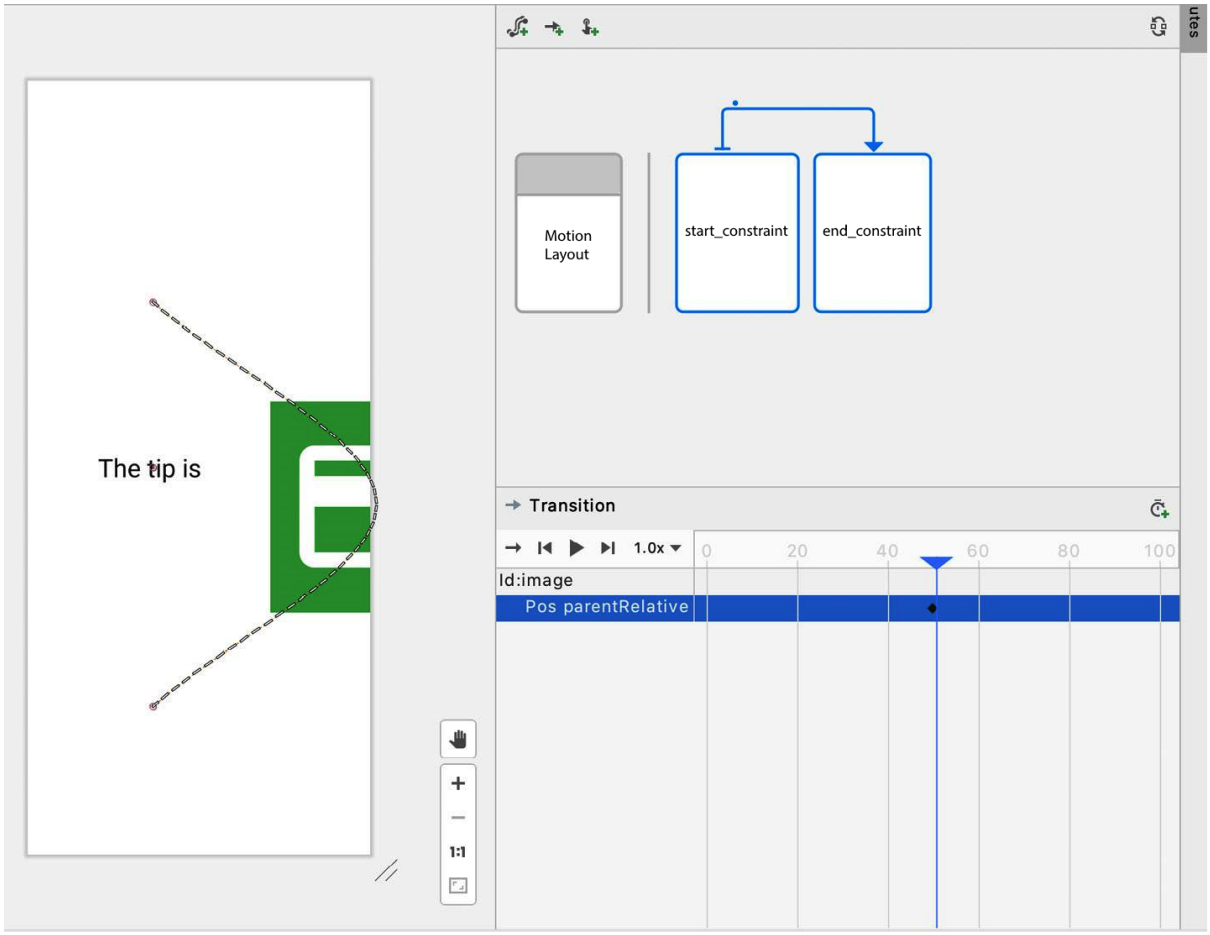
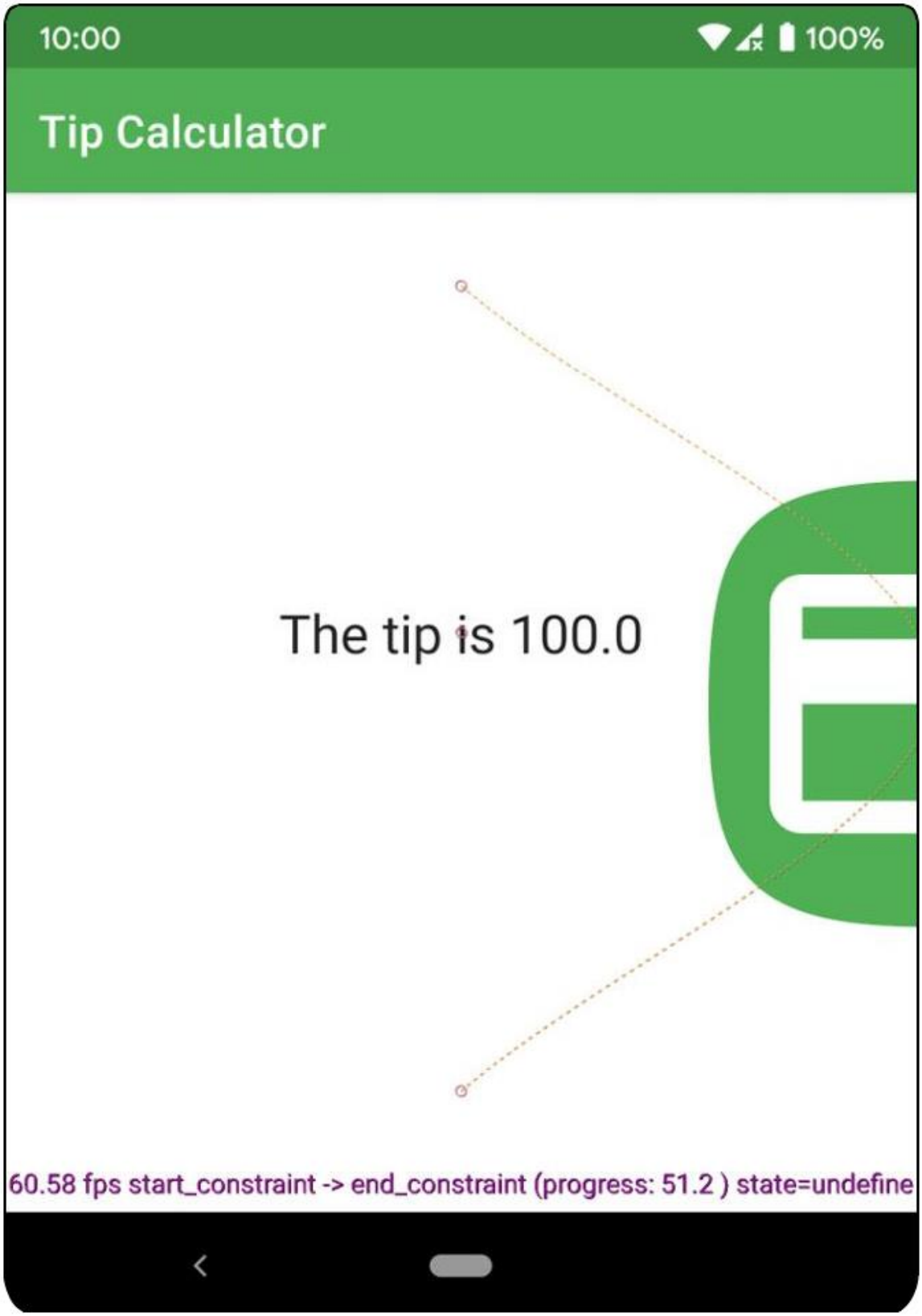
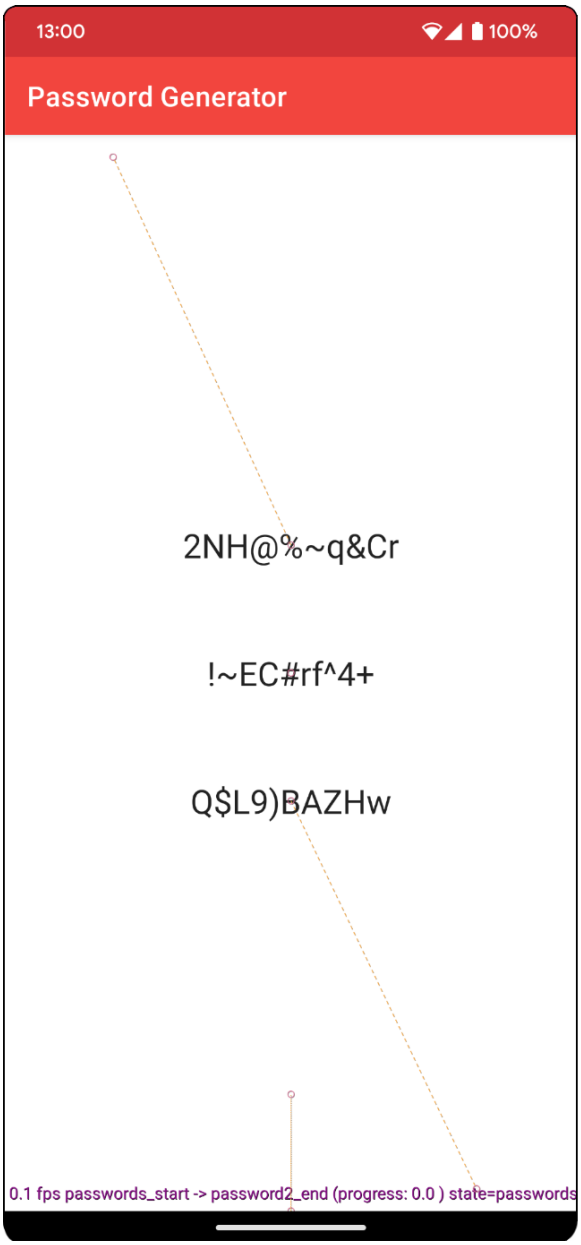
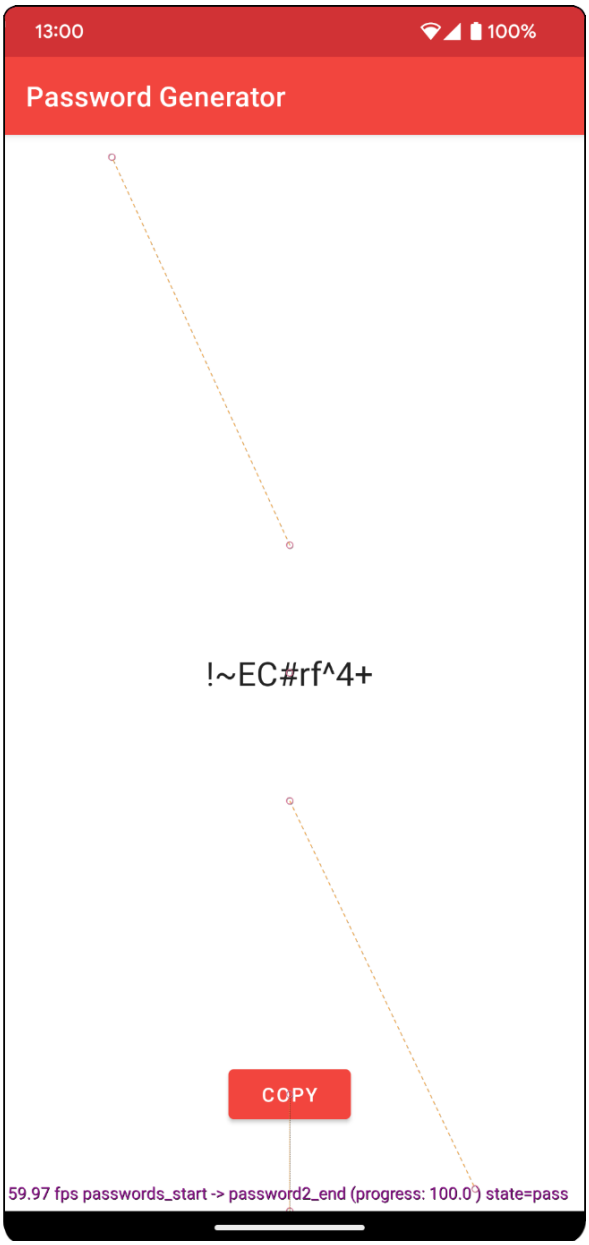
Type
parentRelative
PercentX
1.5
PercentY
float
Add
Transition
1.0x
0
20
100

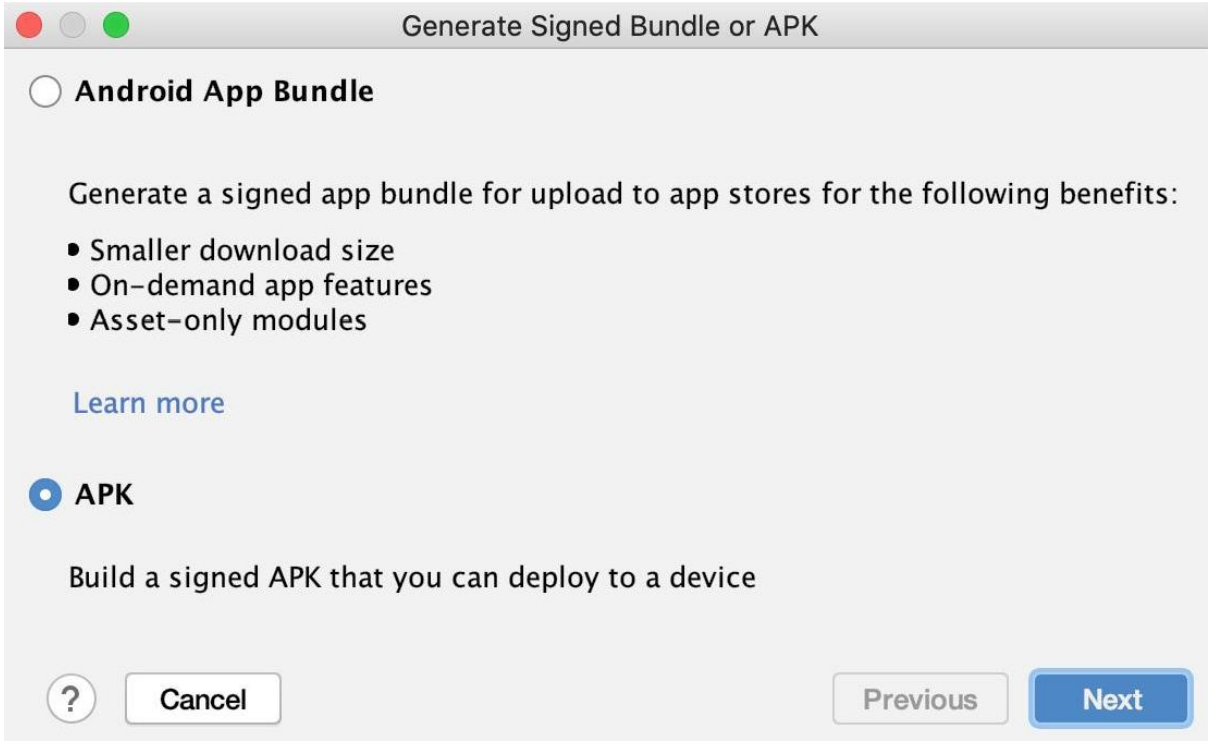

The tip is
Motion Layout
start_constraint
end_constraint
Transition
1.0x
0
20
40
60
80
100
Id:image
Pos parentRelative
1:1

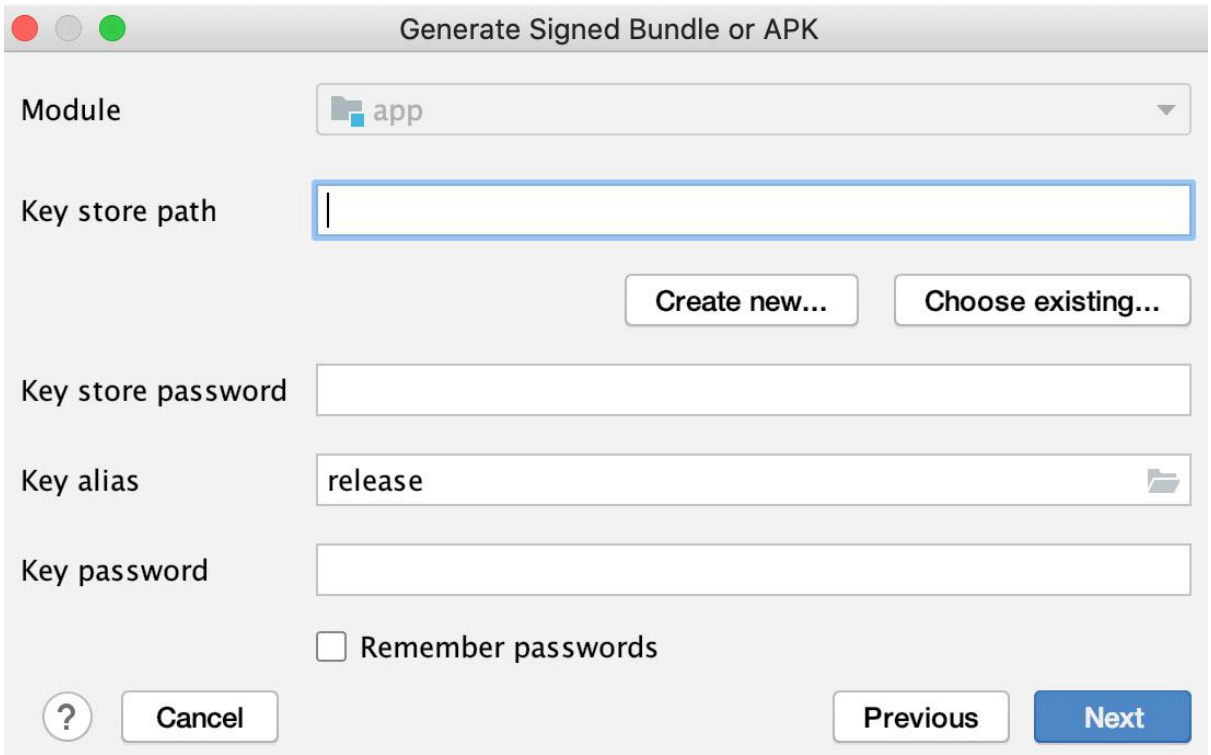

10:00
100%
Tip Calculator
The tip is 100.0
60.58 fps start_constraint -> end_constraint (progress: 51.2) state=undefine

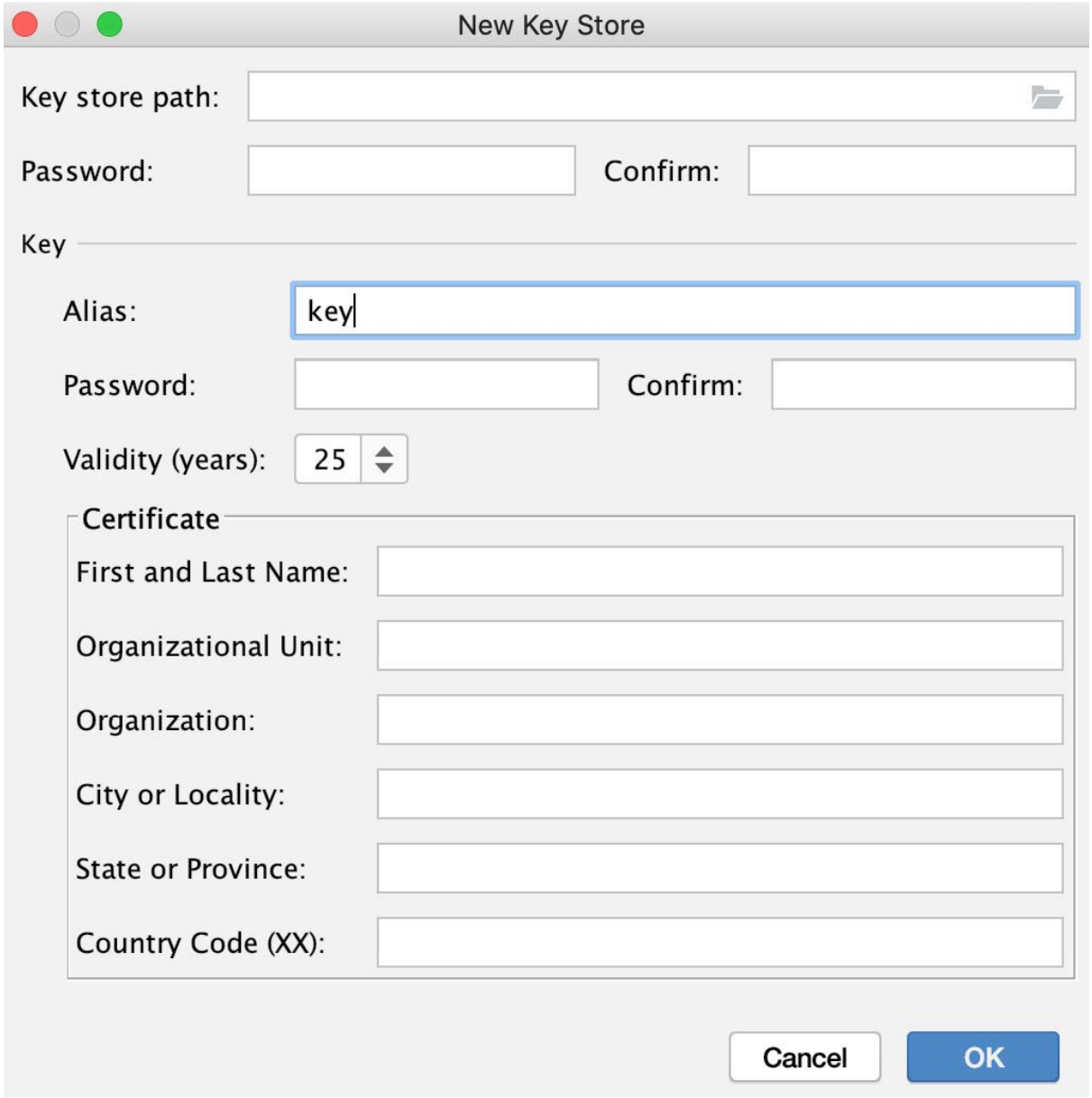

13:00
100%
Password Generator
2NH@%~q&Cr
!~EC#rf^4+
Q$L9)BAZHw
0.1 fps passwords_start -> password2_end (progress: 0.0) state=passwords

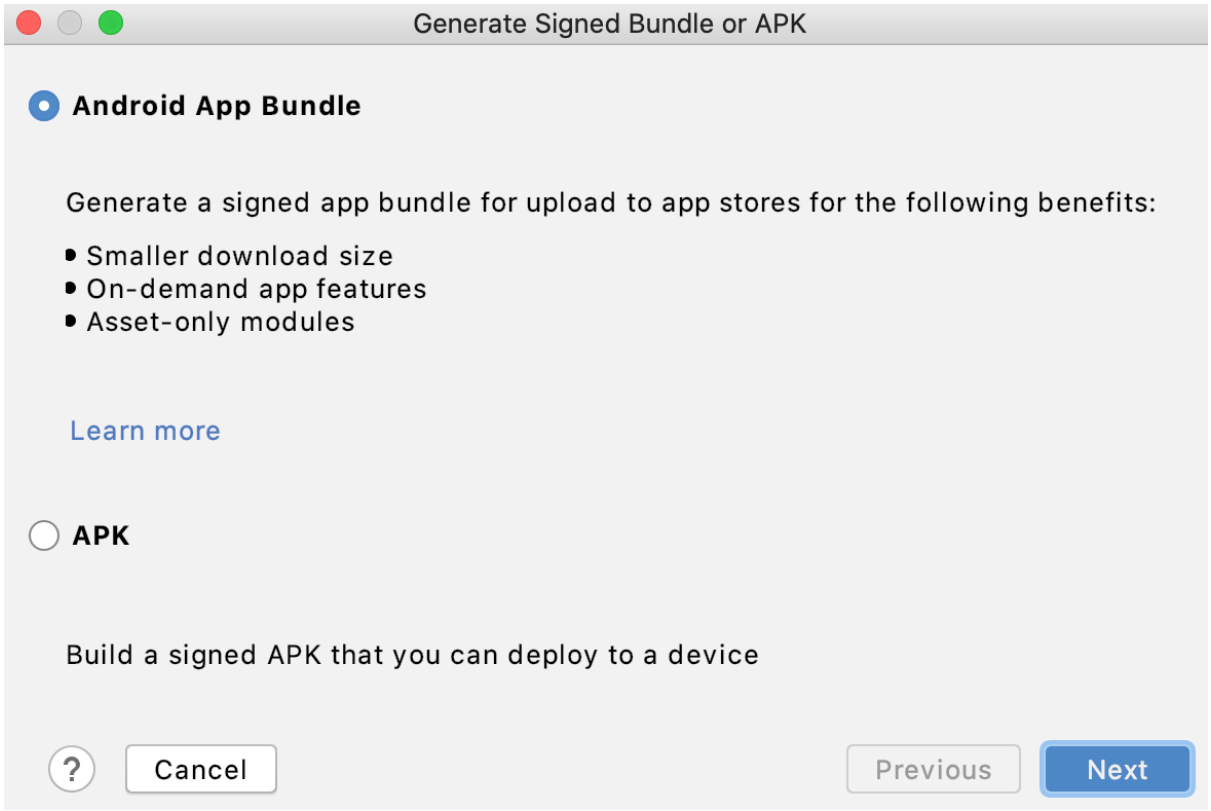

13:00
100%
Password Generator
!~EC#rf^4+
COPY
59.97 fps passwords_start -> password2_end (progress: 100.0) state=pass

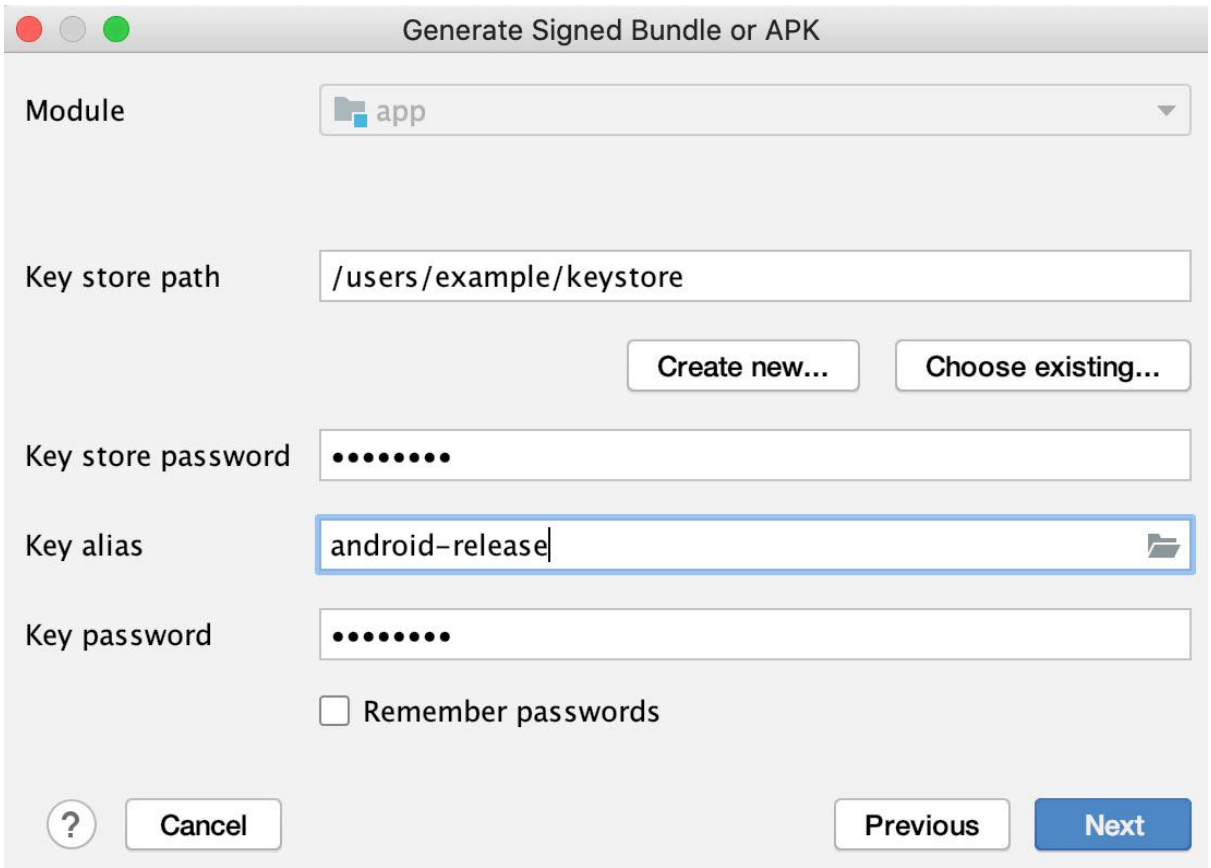
Chapter 17: Launching Your App on Google Play

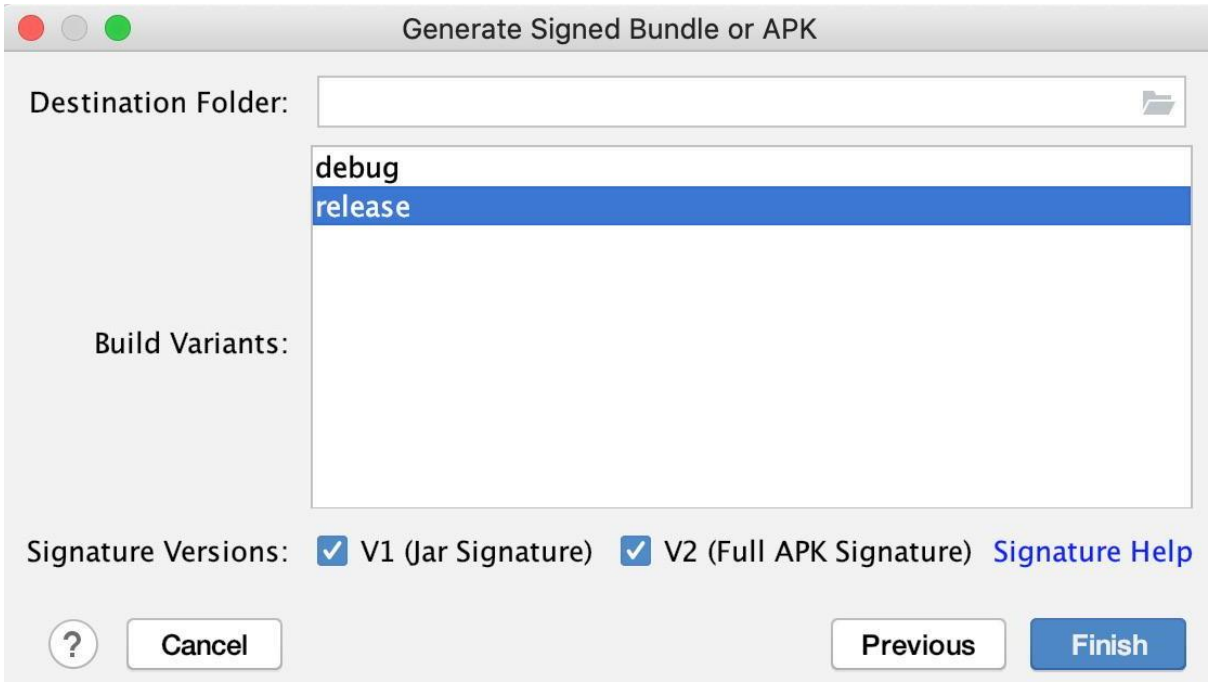


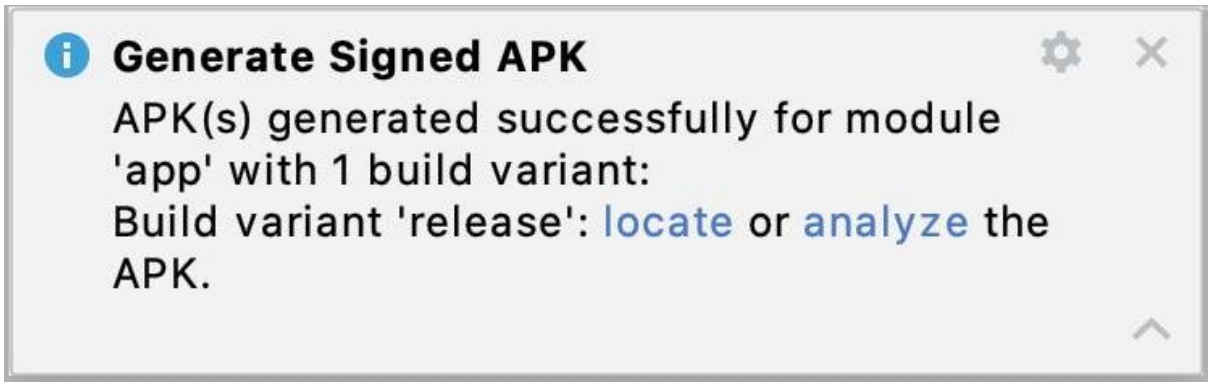


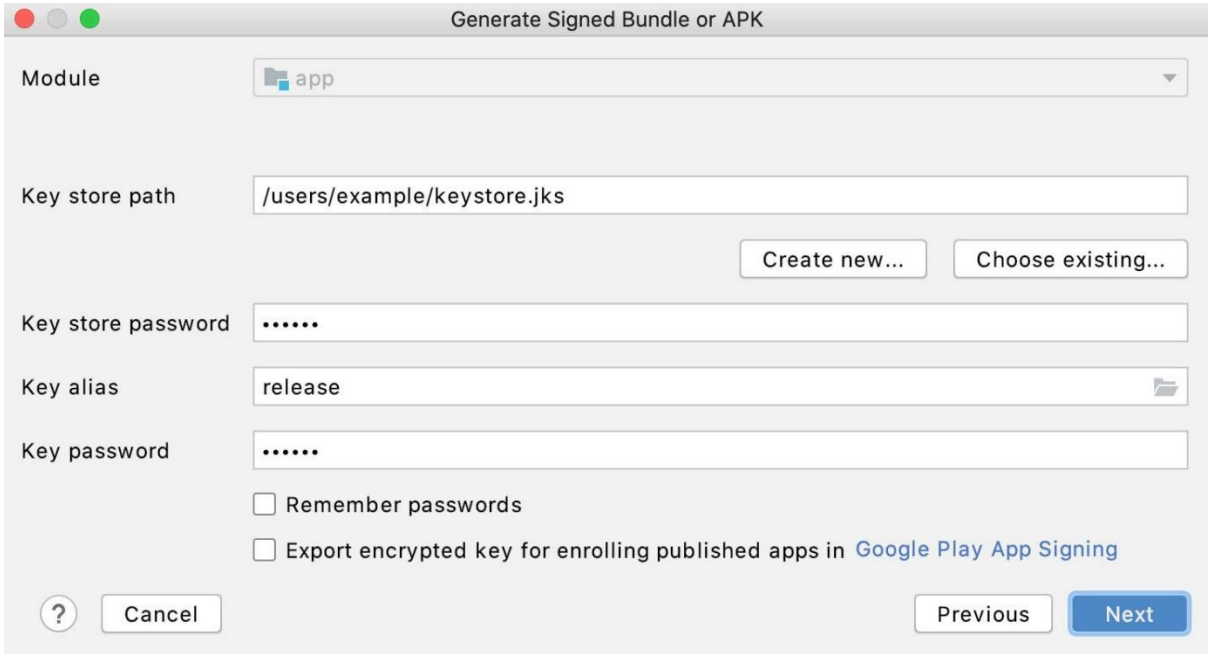

New Key Store
Key store path:
Password:
Confirm:
Key
Alias:
key
Password:
Confirm:
Validity (years):
25
Certificate
First and Last Name:
Organizational Unit:
Organization:
City or Locality:
State or Province:
Country Code (XX):
Cancel
OK

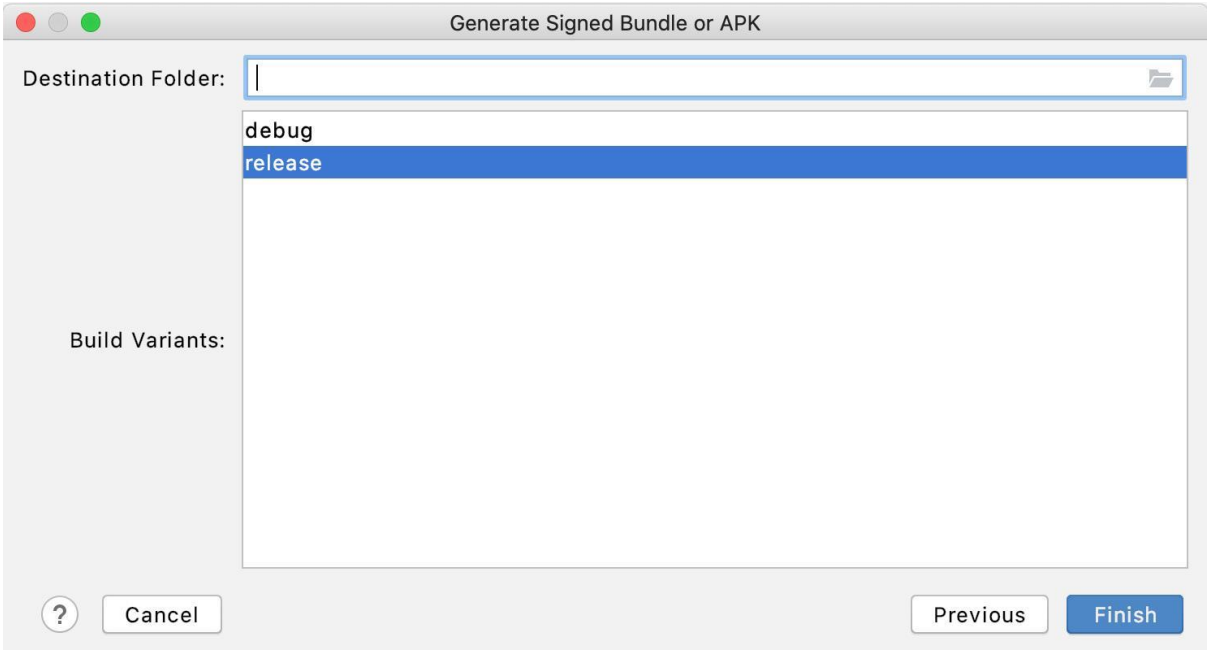

Generate Signed Bundle or APK
Android App Bundle
Generate a signed app bundle for upload to app stores for the following benefits:
Smaller download size
On-demand app features
Asset-only modules
Learn more
APK
Build a signed APK that you can deploy to a device
Cancel
Previous
Next

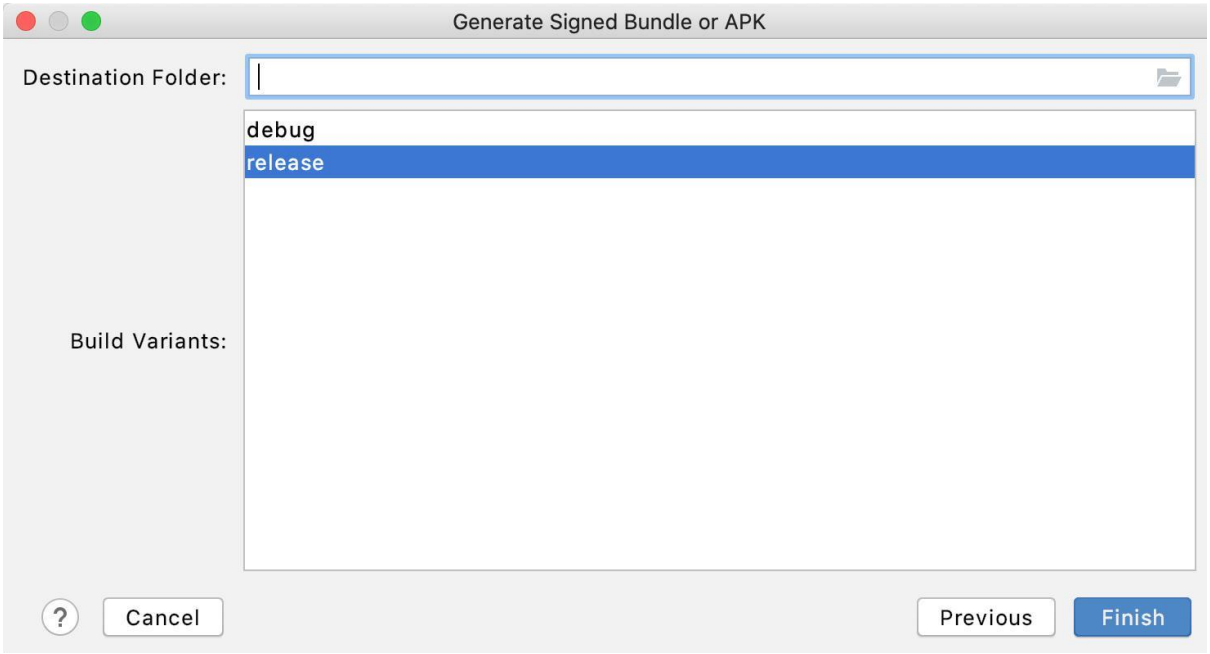

Generate Signed Bundle or APK
Module
app
Key store path
/users/example/keystore
Create new...
Choose existing...
Key store password
Key alias
android-release
Key password
Remember passwords
Cancel
Previous
Next

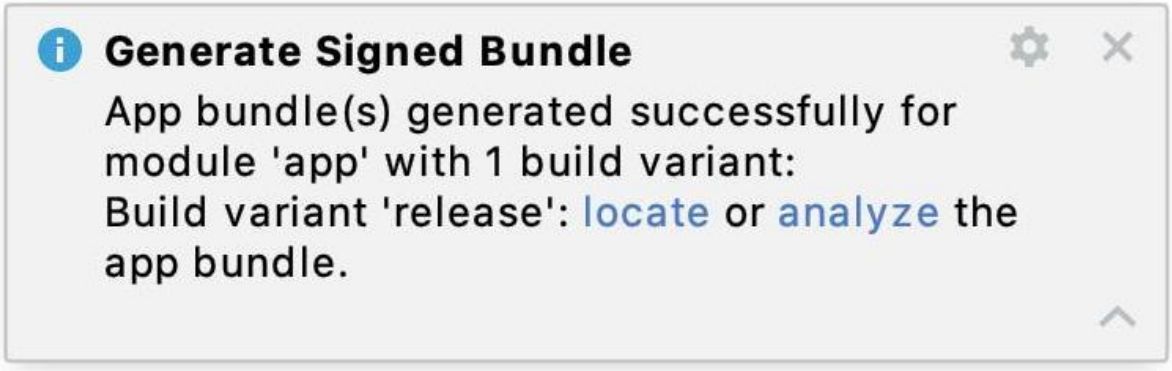

Generate Signed Bundle or APK
Destination Folder:
debug
release
Build Variants:
Signature Versions:
V1 (Jar Signature)
V2 (Full APK Signature)
Signature Help
Cancel
Previous
Finish

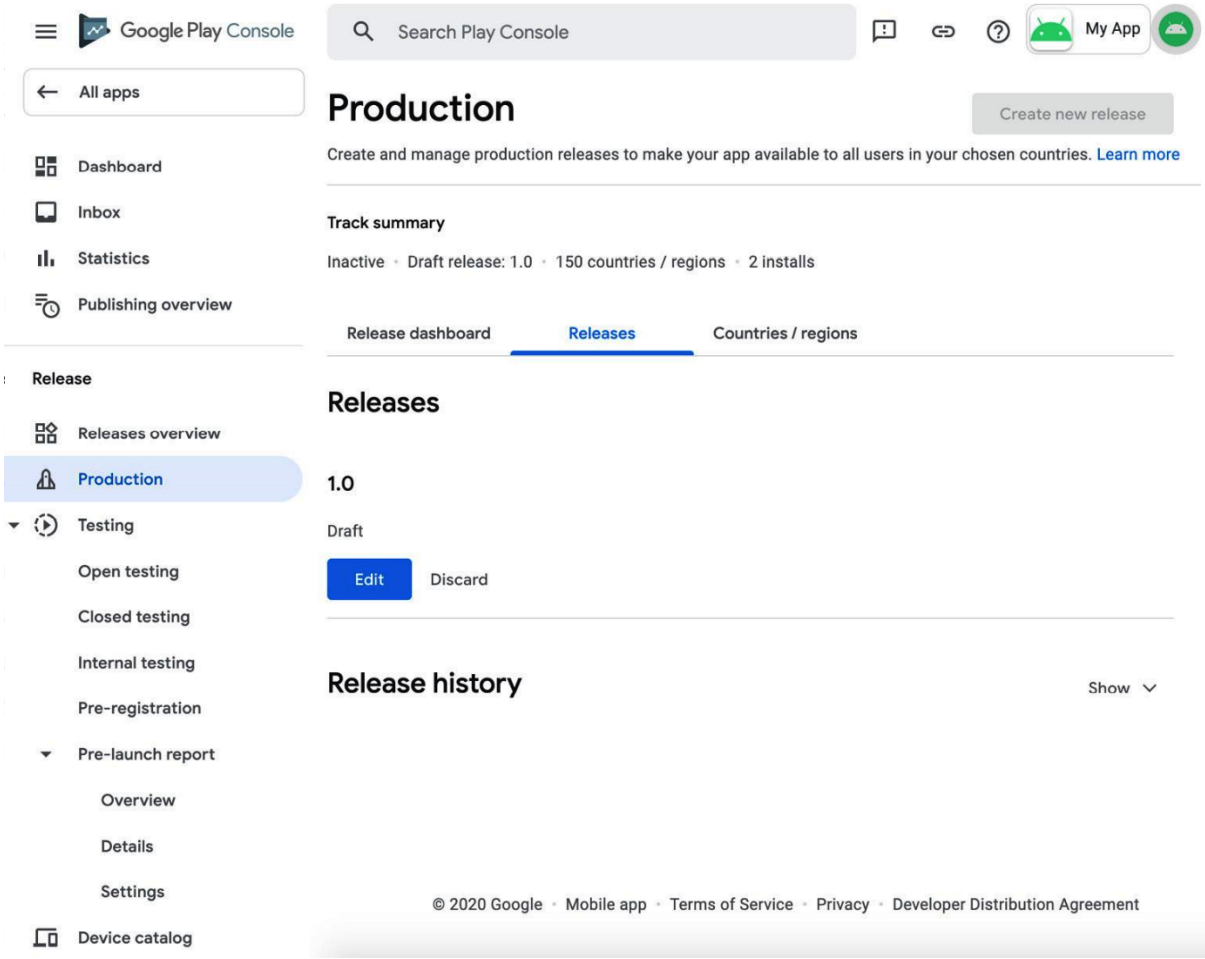

Generate Signed APK
APK(s) generated successfully for module 'app' with 1 build variant:
Build variant 'release': locate or analyze the APK.


Generate Signed Bundle or APK
Module
app
Key store path
/users/example/keystore.jks
Create new...
Choose existing...
Key store password
Key alias
release
Key password
Remember passwords
Export encrypted key for enrolling published apps in Google Play App Signing
Cancel
Previous
Next


Generate Signed Bundle or APK
Destination Folder:
debug
release
Build Variants:
Cancel
Previous
Finish


Generate Signed Bundle or APK
Destination Folder:
debug
release
Build Variants:
Cancel
Previous
Finish


Generate Signed Bundle
App bundle(s) generated successfully for module 'app' with 1 build variant:
Build variant 'release': locate or analyze the app bundle.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Track summary
Inactive · Draft release: 1.0 · 150 countries / regions · 2 installs
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Countries / regions
Releases
1.0
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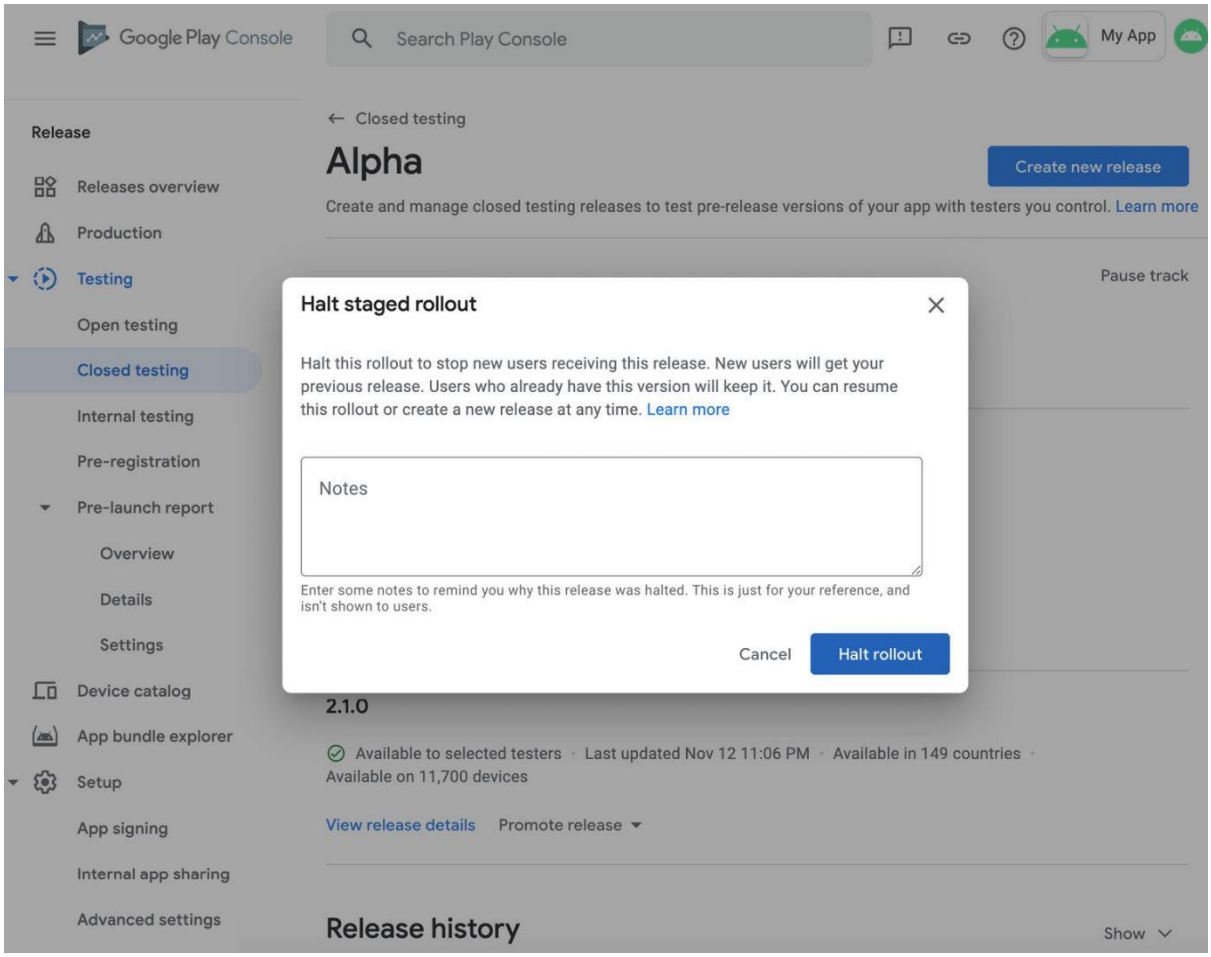
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Alpha
Create new release
Create and manage closed testing releases to test pre-release versions of your app with testers you control. Learn more
Pause track
Halt staged rollout
Halt this rollout to stop new users receiving this release. New users will get your previous release. Users who already have this version will keep it. You can resume this rollout or create a new release at any time. Learn more
Notes
Enter some notes to remind you why this release was halted. This is just for your reference, and isn't shown to users.
Cancel
Halt rollout
2.1.0
Available to selected testers · Last updated Nov 12 11:06 PM · Available in 149 countries · Available on 11,700 devices
View release details
Promote release
Release history
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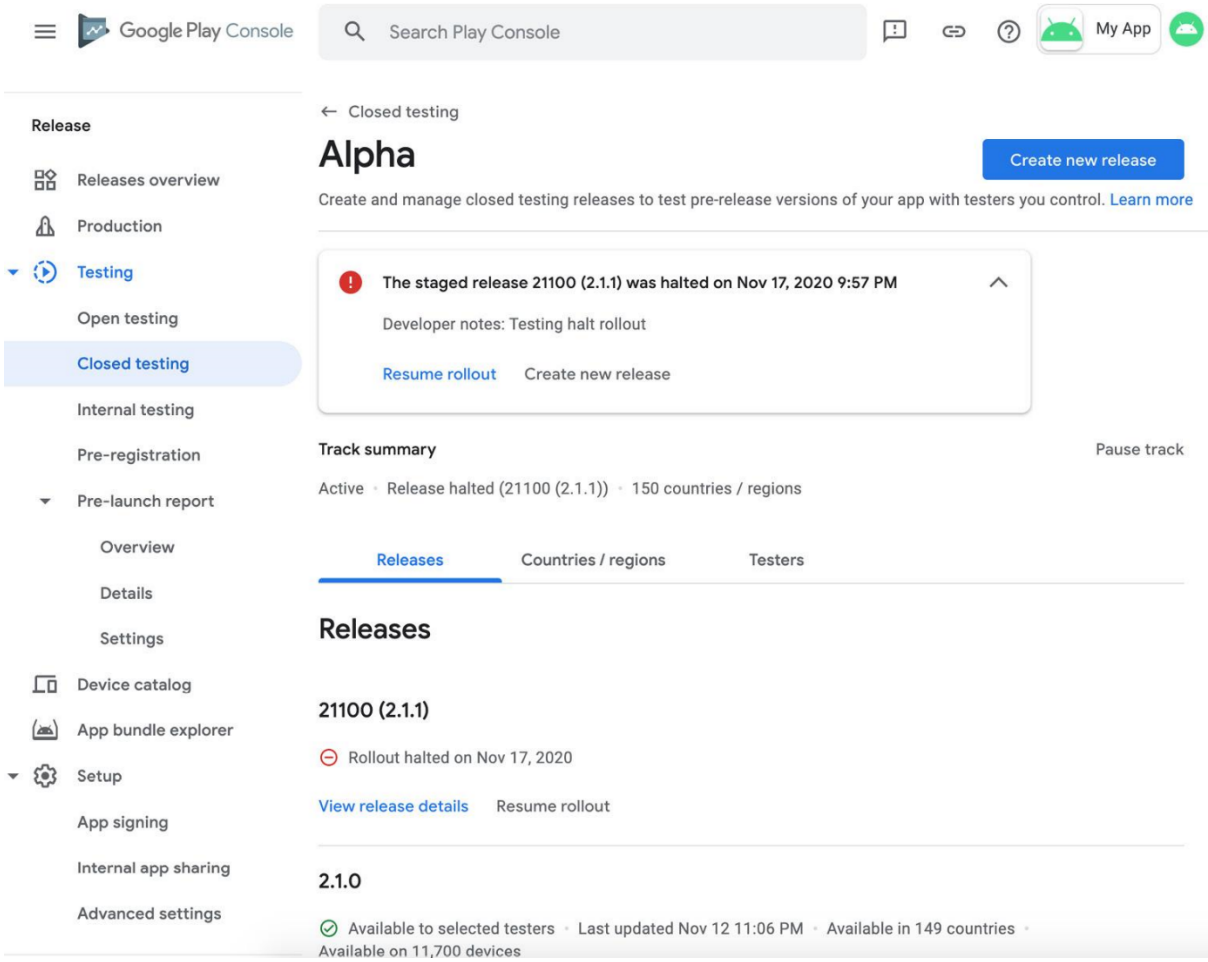
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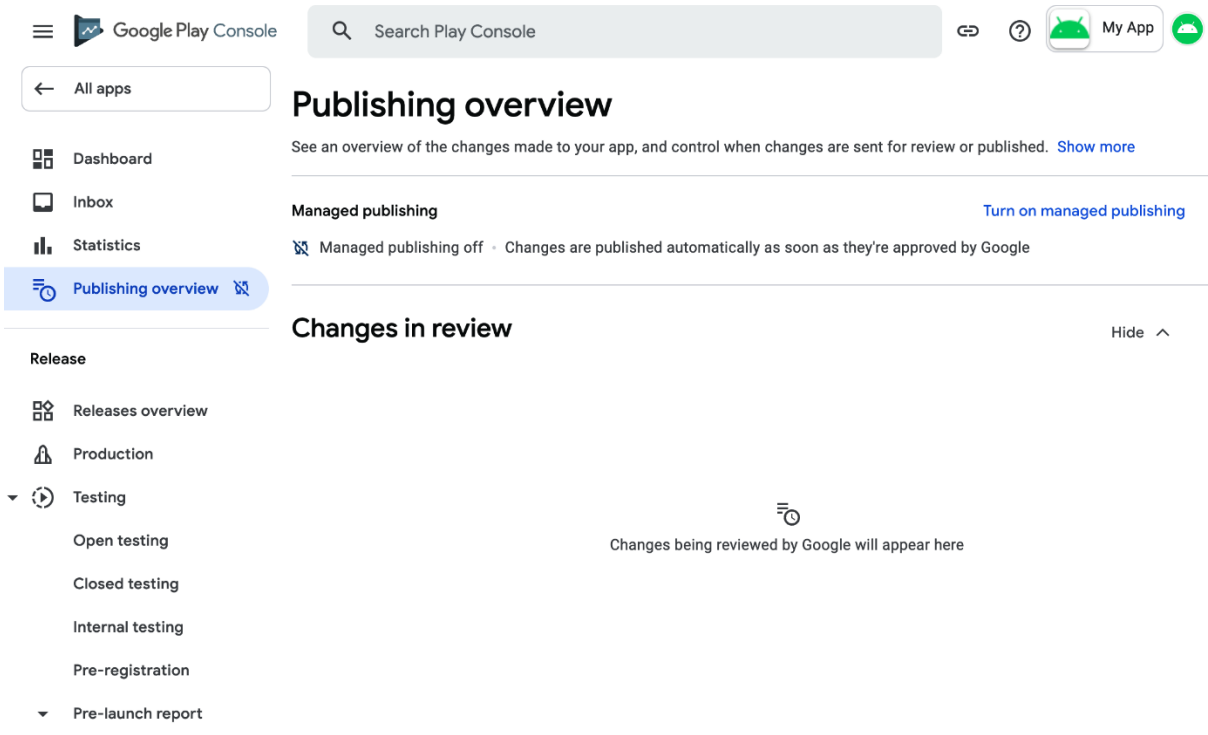
The staged release 21100 (2.1.1) was halted on Nov 17, 2020 9:57 PM
Developer notes: Testing halt rollout
Resume rollout
Create new release
Track summary
Pause track
Active • Release halted (21100 (2.1.1)) • 150 countries / regions
Releases
Countries / regions
Testers
Releases
21100 (2.1.1)
Rollout halted on Nov 17, 2020
View release details
Resume rollout
2.1.0
Available to selected testers • Last updated Nov 12 11:06 PM • Available in 149 countries • Available on 11,700 devices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See an overview of the changes made to your app, and control when changes are sent for review or published. Show more
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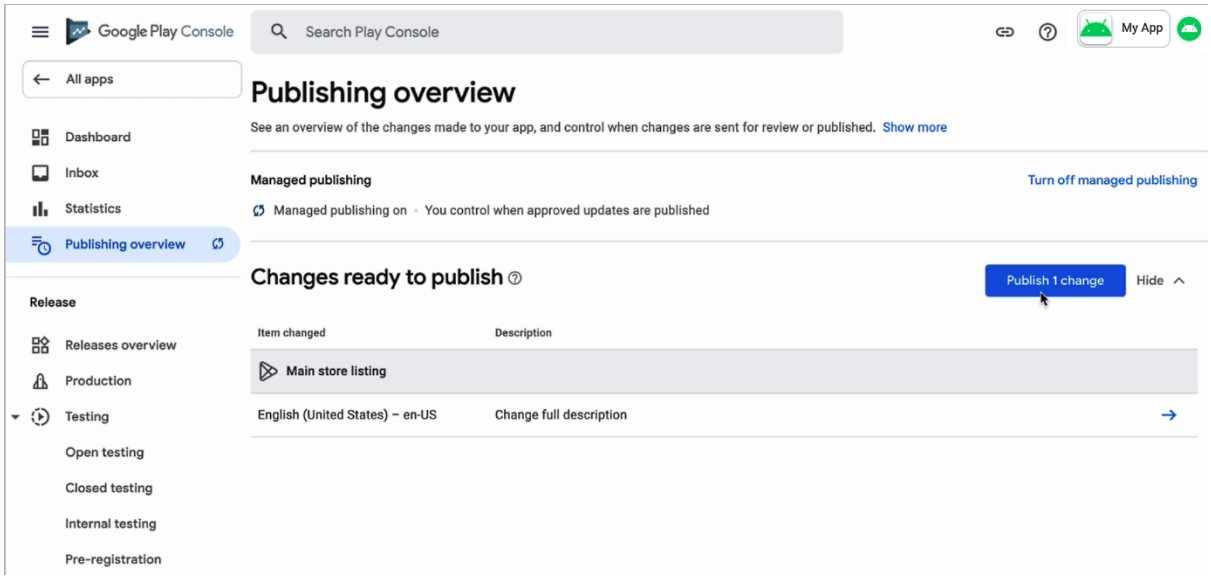
Managed publishing off • Changes are published automatically as soon as they're approved by Google
Changes in review
Hide
Changes being reviewed by Google will appear here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Managed publishing on · You control when approved updates are published
Changes ready to publish
Publish 1 change
Hide
Item changed
Description
Main store listing
English (United States) – en-US
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