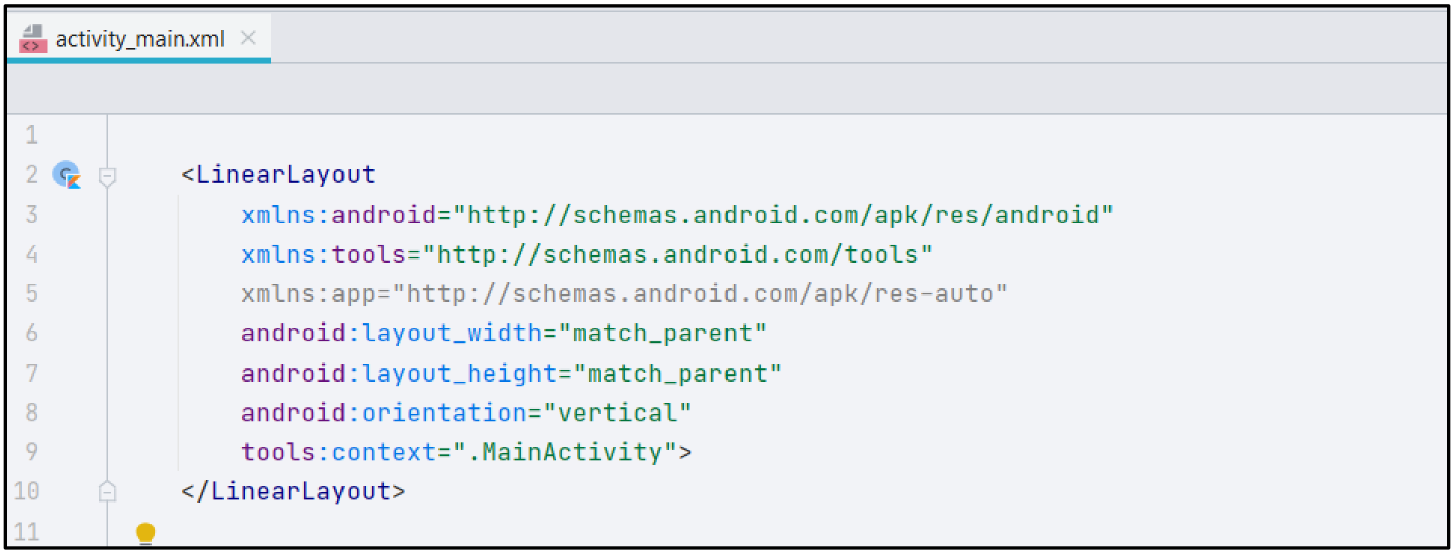
CSM3505

Native Mobile Programming

Lab 4

Alaa Aldeen Abouzeid
s56608

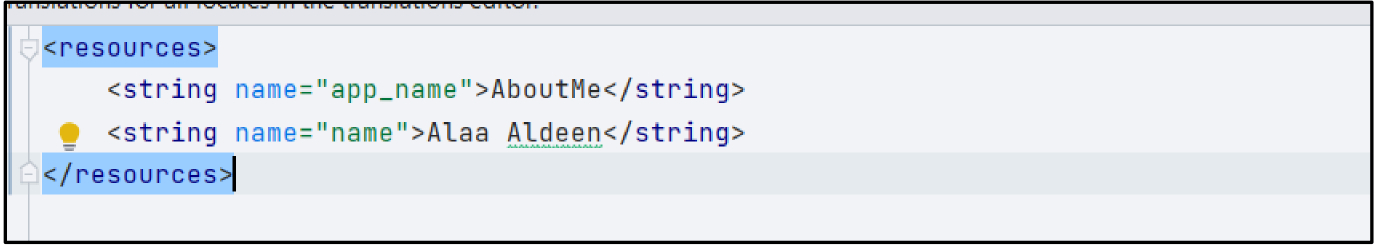
Task 1: Android Kotlin Fundamentals: LinearLayout using the Layout Editor



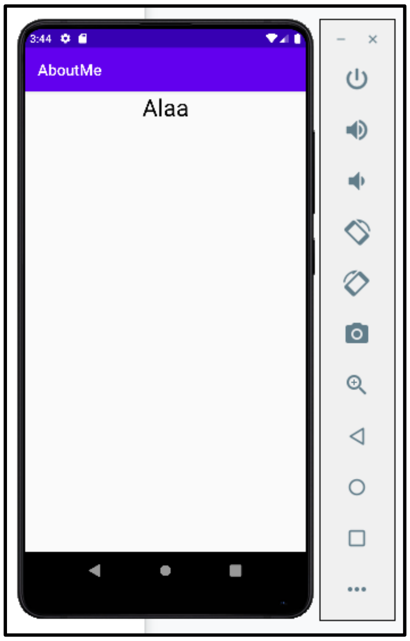
```xml

<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">
</LinearLayout>
```

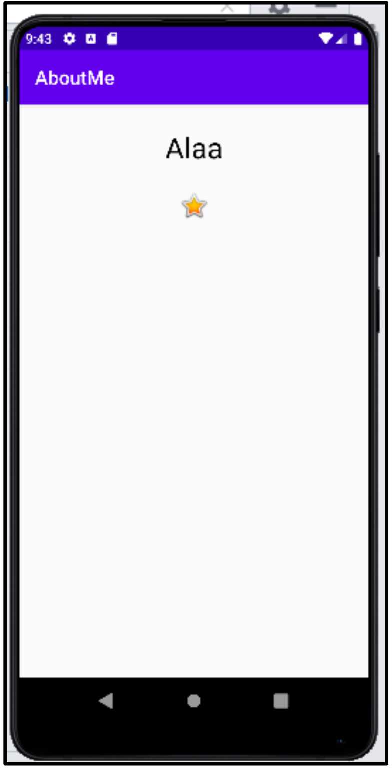
Create a string resource


ranslations for all locales in the translations editor.

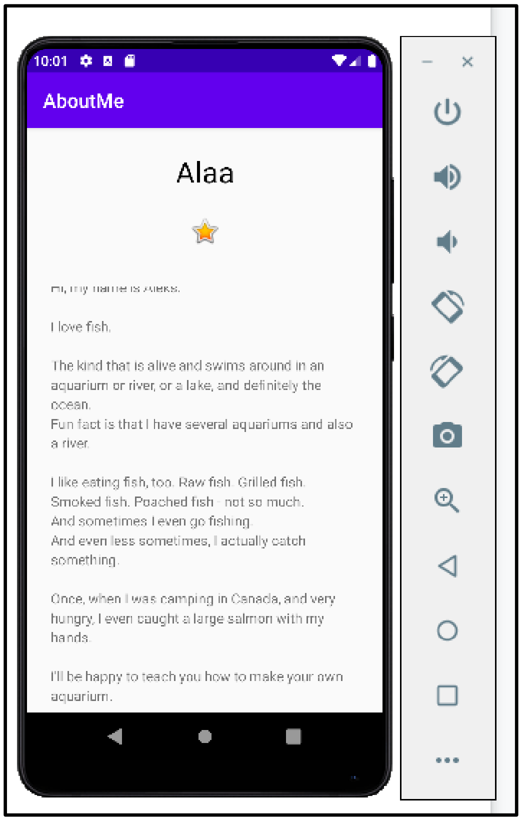
```xml
<resources>
    <string name="app_name">AboutMe</string>
    <string name="name">Alaa Aldeen</string>
</resources>
```



Task: Add an ImageView



Add a ScrollView that contains a TextView



Hi, my name is Aleks.

I love fish.

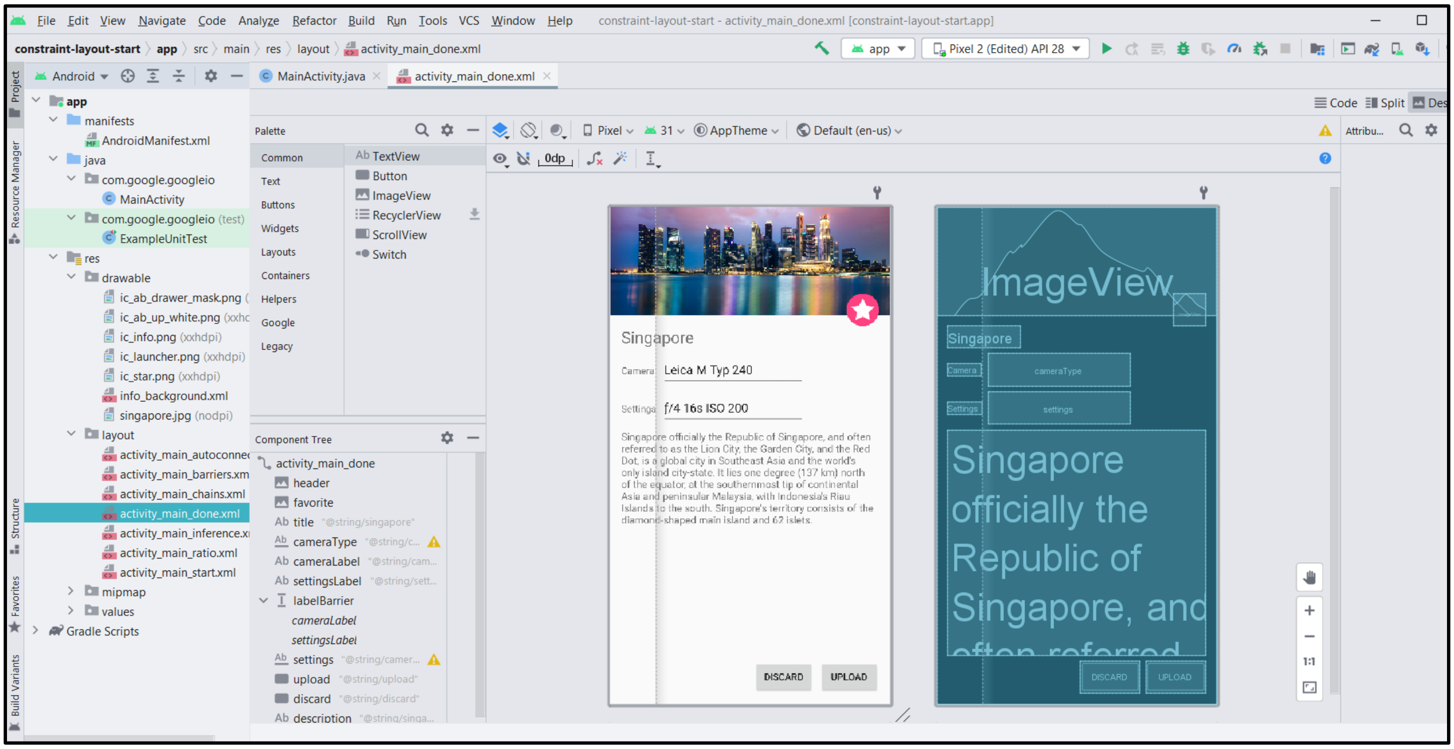
The kind that is alive and swims around in an aquarium or river, or a lake, and definitely the ocean.
Fun fact is that I have several aquariums and also a river.

I like eating fish, too. Raw fish. Grilled fish. Smoked fish. Poached fish - not so much.
And sometimes I even go fishing.
And even less sometimes, I actually catch something.

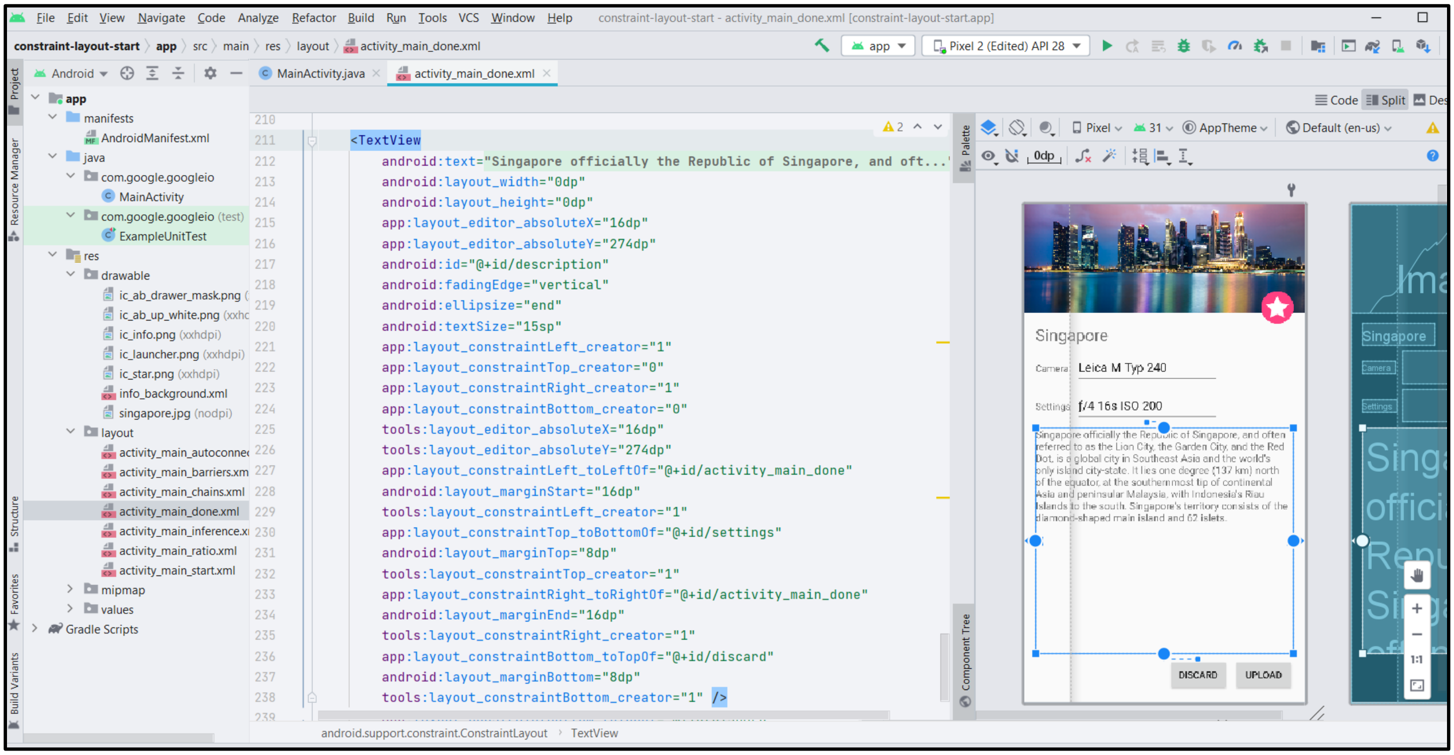
Once, when I was camping in Canada, and very hungry, I even caught a large salmon with my hands.

I'll be happy to teach you how to make your own aquarium.

Task 2: Use ConstraintLayout to design your Android views



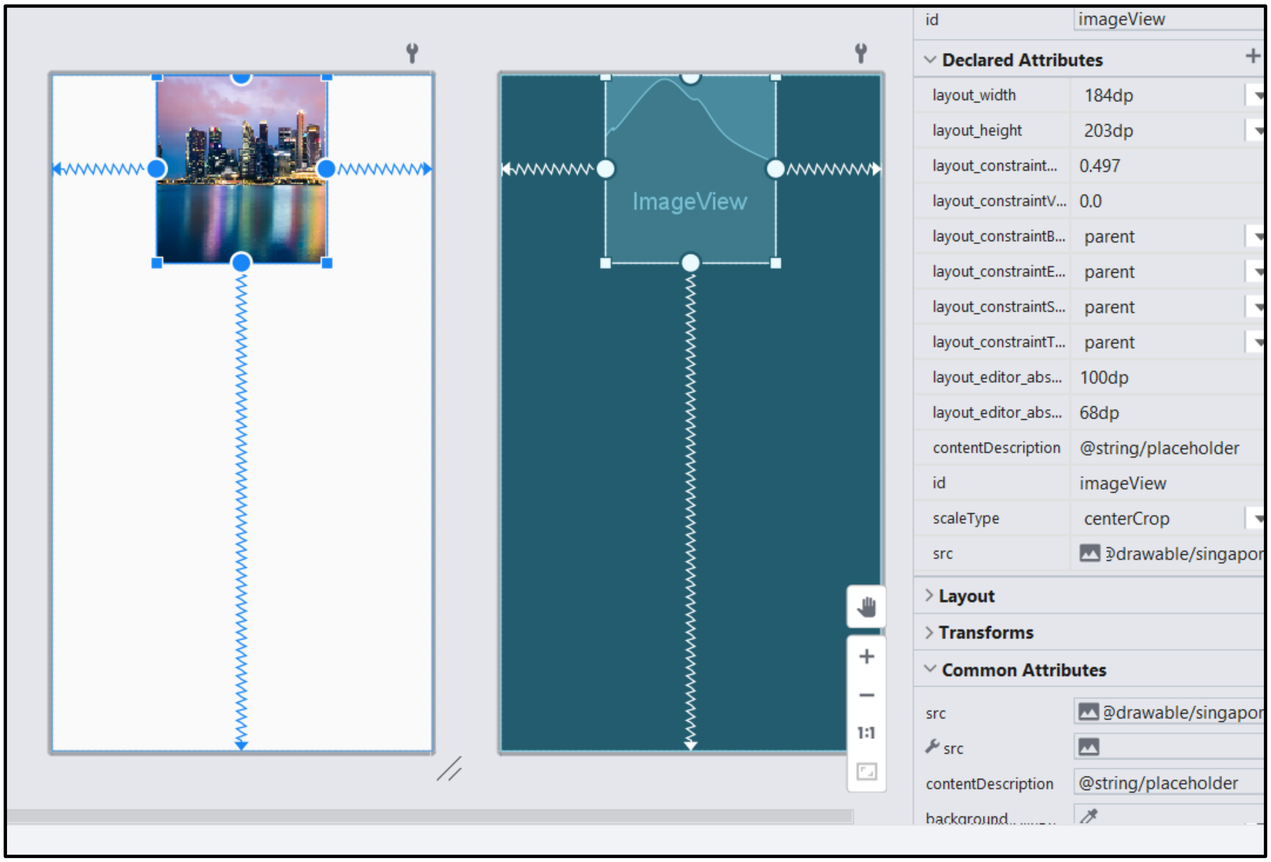
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
constraint-layout-start - activity_main_done.xml [constraint-layout-start.app]
constraint-layout-start > app > src > main > res > layout > activity_main_done.xml
app
Pixel 2 (Edited) API 28
MainActivity.java
activity_main_done.xml
Android
app
manifests
AndroidManifest.xml
java
com.google.googleio
MainActivity
com.google.googleio (test)
ExampleUnitTest
res
drawable
ic_ab_drawer_mask.png
ic_ab_up_white.png (xxhdpi)
ic_info.png (xxhdpi)
ic_launcher.png (xxhdpi)
ic_star.png (xxhdpi)
info_background.xml
singapore.jpg (nodpi)
layout
activity_main_autoconnect.xml
activity_main_barriers.xml
activity_main_chains.xml
activity_main_done.xml
activity_main_inference.xml
activity_main_ratio.xml
activity_main_start.xml
mipmap
values
Gradle Scripts
Palette
Common
Text
Buttons
Widgets
Layouts
Containers
Helpers
Google
Legacy
Ab TextView
Button
ImageView
RecyclerView
ScrollView
Switch
Component Tree
activity_main_done
header
favorite
title "@string/singapore"
cameraType "@string/c...
cameraLabel "@string/cam...
settingsLabel "@string/sett...
labelBarrier
cameraLabel
settingsLabel
settings "@string/camer...
upload "@string/upload"
discard "@string/discard"
description "@string/singa...
Pixel
31
AppTheme
Default (en-us)
0dp
Code
Split
Design
Singapore
Camera
Leica M Typ 240
Settings
f/4 16s ISO 200
Singapore officially the Republic of Singapore, and often referred to as the Lion City, the Garden City, and the Red Dot, is a global city in Southeast Asia and the world's only island city-state. It lies one degree (137 km) north of the equator, at the southernmost tip of continental Asia and peninsular Malaysia, with Indonesia's Riau Islands to the south. Singapore's territory consists of the diamond-shaped main island and 62 islets.
DISCARD
UPLOAD
ImageView
cameraType
settings
Project
Resource Manager
Structure
Favorites
Build Variants



File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
constraint-layout-start - activity_main_done.xml [constraint-layout-start.app]
constraint-layout-start > app > src > main > res > layout > activity_main_done.xml
app
Pixel 2 (Edited) API 28
MainActivity.java
activity_main_done.xml
Code
Split
Des
Palette
Component Tree
Pixel
31
AppTheme
Default (en-us)
0dp
Singapore
Camera
Leica M Typ 240
Settings
f/4 16s ISO 200
DISCARD
UPLOAD

```
    <TextView
        android:text="Singapore officially the Republic of Singapore, and oft..."
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_editor_absoluteX="16dp"
        app:layout_editor_absoluteY="274dp"
        android:id="@+id/description"
        android:fadingEdge="vertical"
        android:ellipsize="end"
        android:textSize="15sp"
        app:layout_constraintLeft_creator="1"
        app:layout_constraintTop_creator="0"
        app:layout_constraintRight_creator="1"
        app:layout_constraintBottom_creator="0"
        tools:layout_editor_absoluteX="16dp"
        tools:layout_editor_absoluteY="274dp"
        app:layout_constraintLeft_toLeftOf="@+id/activity_main_done"
        android:layout_marginStart="16dp"
        tools:layout_constraintLeft_creator="1"
        app:layout_constraintTop_toBottomOf="@+id/settings"
        android:layout_marginTop="8dp"
        tools:layout_constraintTop_creator="1"
        app:layout_constraintRight_toRightOf="@+id/activity_main_done"
        android:layout_marginEnd="16dp"
        tools:layout_constraintRight_creator="1"
        app:layout_constraintBottom_toTopOf="@+id/discard"
        android:layout_marginBottom="8dp"
        tools:layout_constraintBottom_creator="1" />
```

android.support.constraint.ConstraintLayout > TextView



id	imageView

Declared Attributes

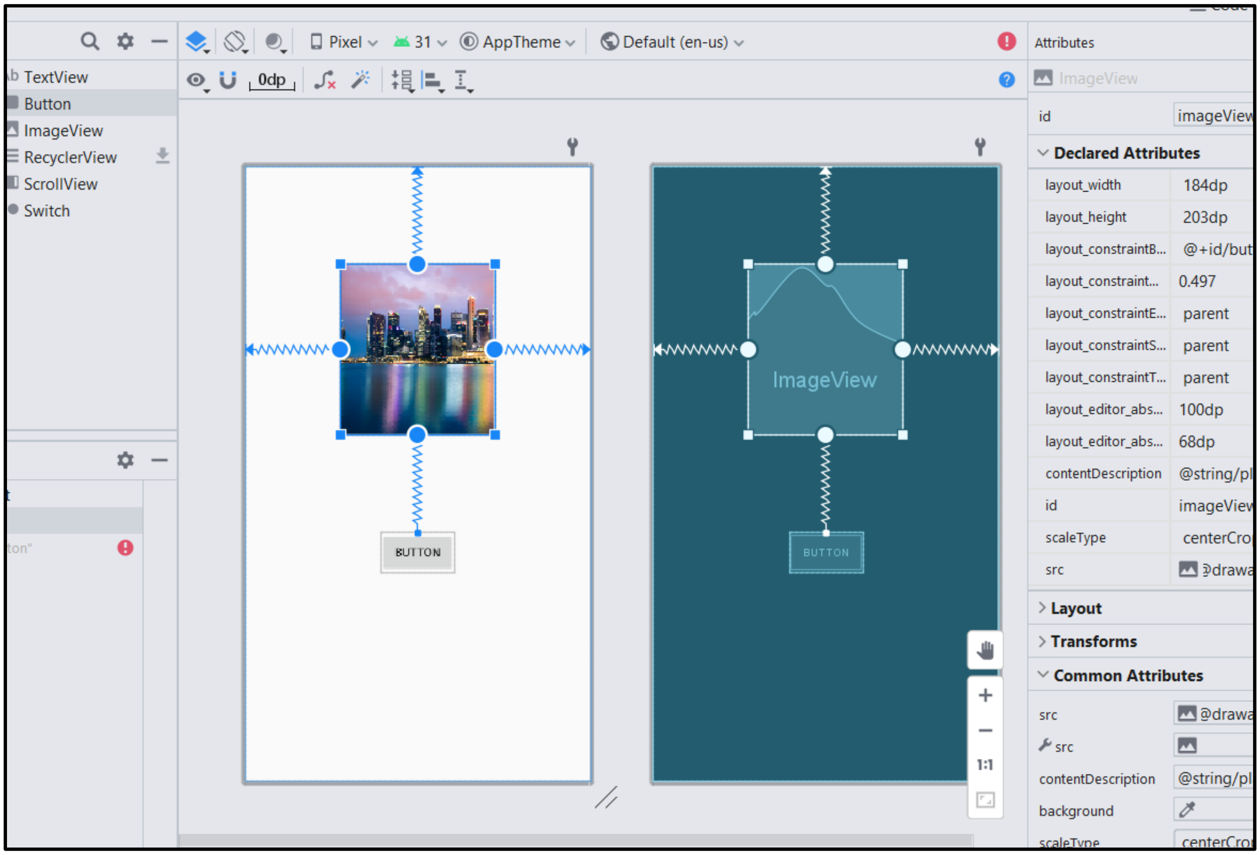
layout_width	184dp
layout_height	203dp
layout_constraint...	0.497
layout_constraintV...	0.0
layout_constraintB...	parent
layout_constraintE...	parent
layout_constraintS...	parent
layout_constraintT...	parent
layout_editor_abs...	100dp
layout_editor_abs...	68dp
contentDescription	@string/placeholder
id	imageView
scaleType	centerCrop
src	@drawable/singapor

> Layout

> Transforms

Common Attributes

src	@drawable/singapor
src	
contentDescription	@string/placeholder
background...	



Attributes

ImageView

id	imageView

Declared Attributes

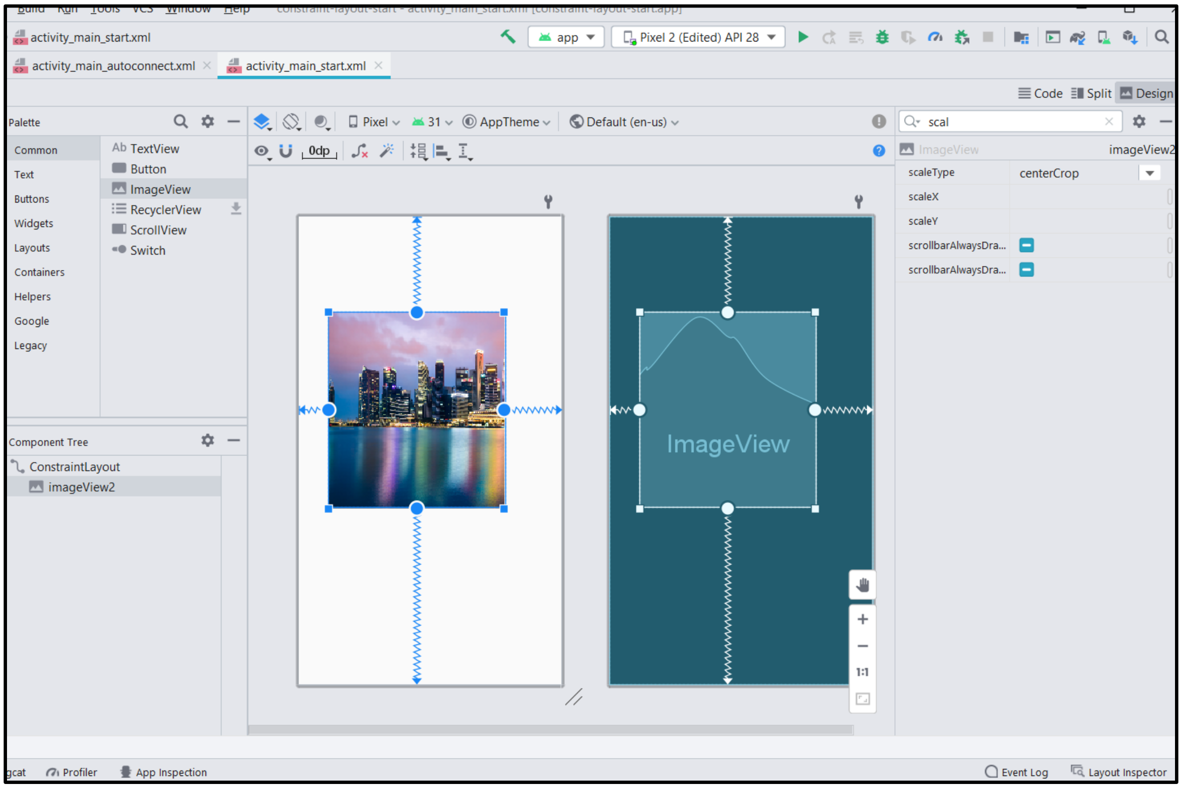
layout_width	184dp
layout_height	203dp
layout_constraintB...	@+id/but
layout_constraint...	0.497
layout_constraintE...	parent
layout_constraintS...	parent
layout_constraintT...	parent
layout_editor_abs...	100dp
layout_editor_abs...	68dp
contentDescription	@string/pl
id	imageView
scaleType	centerCro
src	@drawa

> Layout

> Transforms

Common Attributes

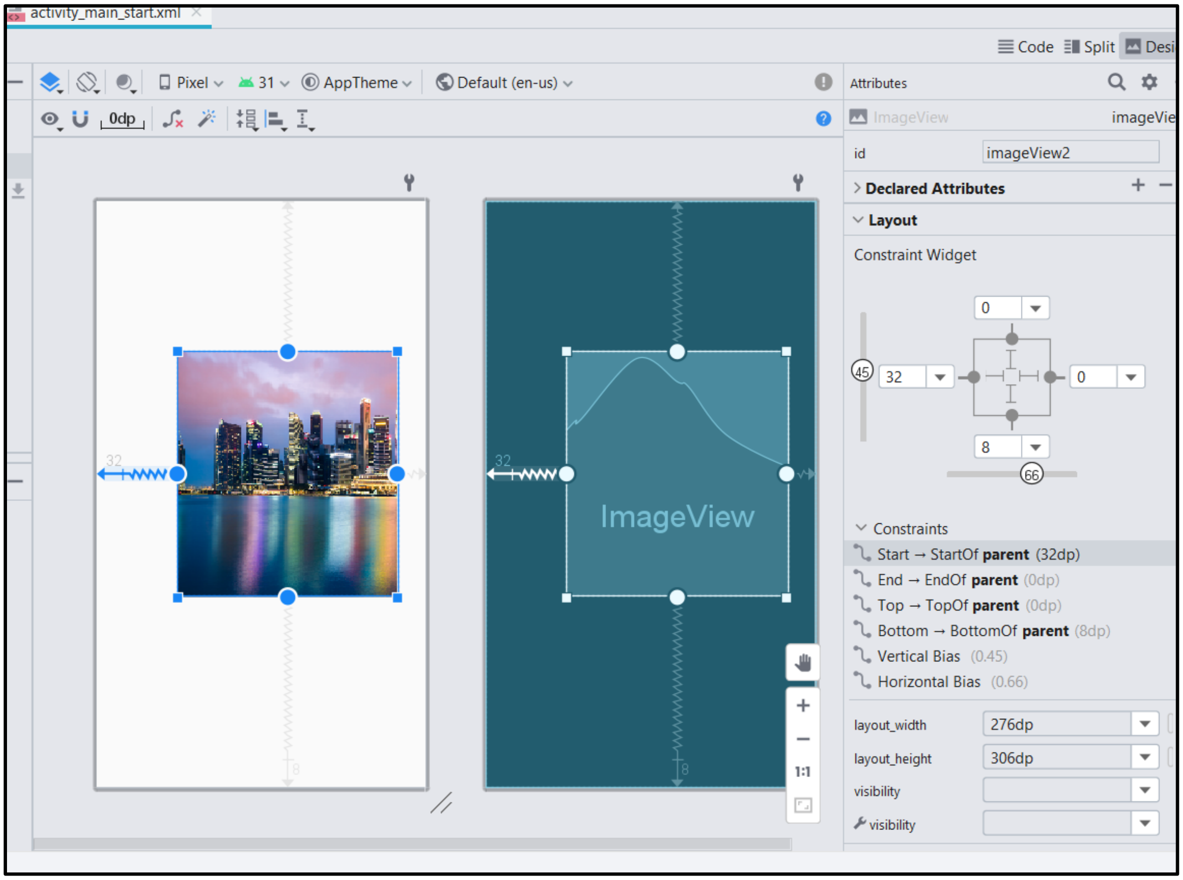
src	@drawa
src	
contentDescription	@string/pl
background	
scaleType	centerCro



scal

ImageView imageView2

scaleType	centerCrop
scaleX	
scaleY	
scrollbarAlwaysDra...	
scrollbarAlwaysDra...	



ImageView imageVie

id imageView2

Declared Attributes

Layout

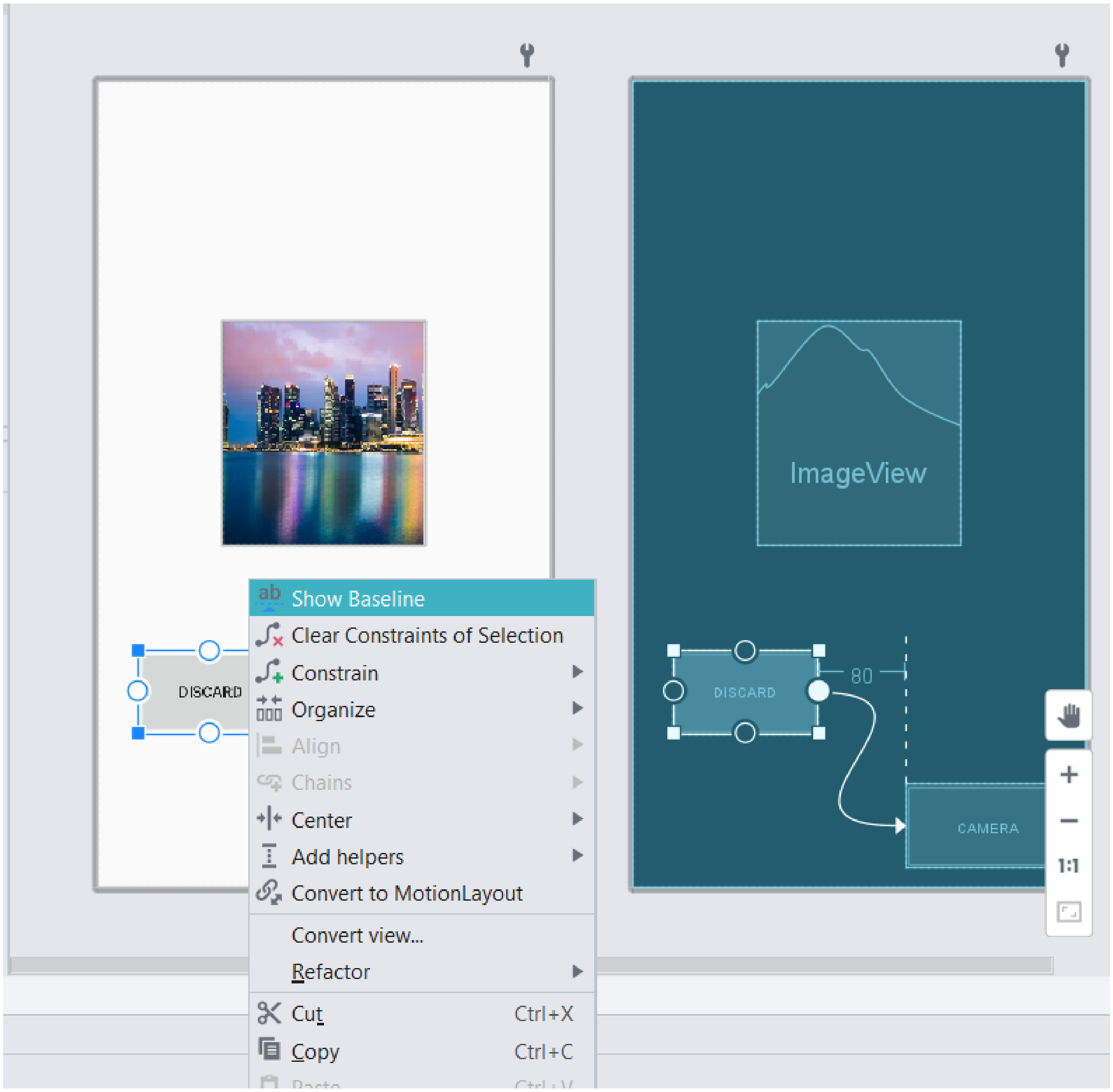
Constraint Widget

0
32
0
8

Constraints

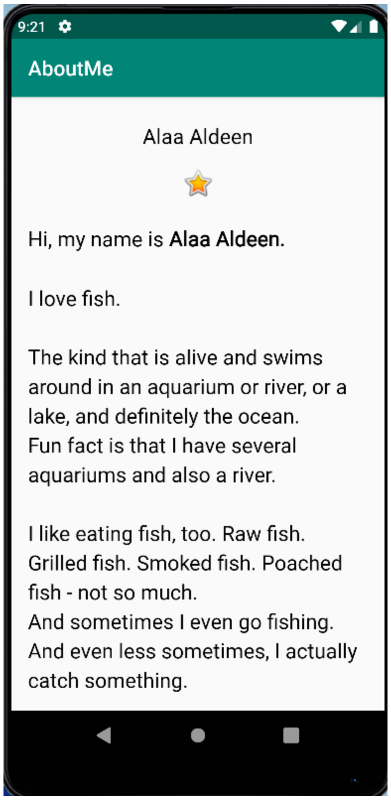
- Start → StartOf **parent** (32dp)
- End → EndOf **parent** (0dp)
- Top → TopOf **parent** (0dp)
- Bottom → BottomOf **parent** (8dp)
- Vertical Bias (0.45)
- Horizontal Bias (0.66)

layout_width	276dp
layout_height	306dp
visibility	
visibility	



Show Baseline
Clear Constraints of Selection
Constrain
Organize
Align
Chains
Center
Add helpers
Convert to MotionLayout
Convert view...
Refactor
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V

Task 3: Android Kotlin Fundamentals: Add user interactivity



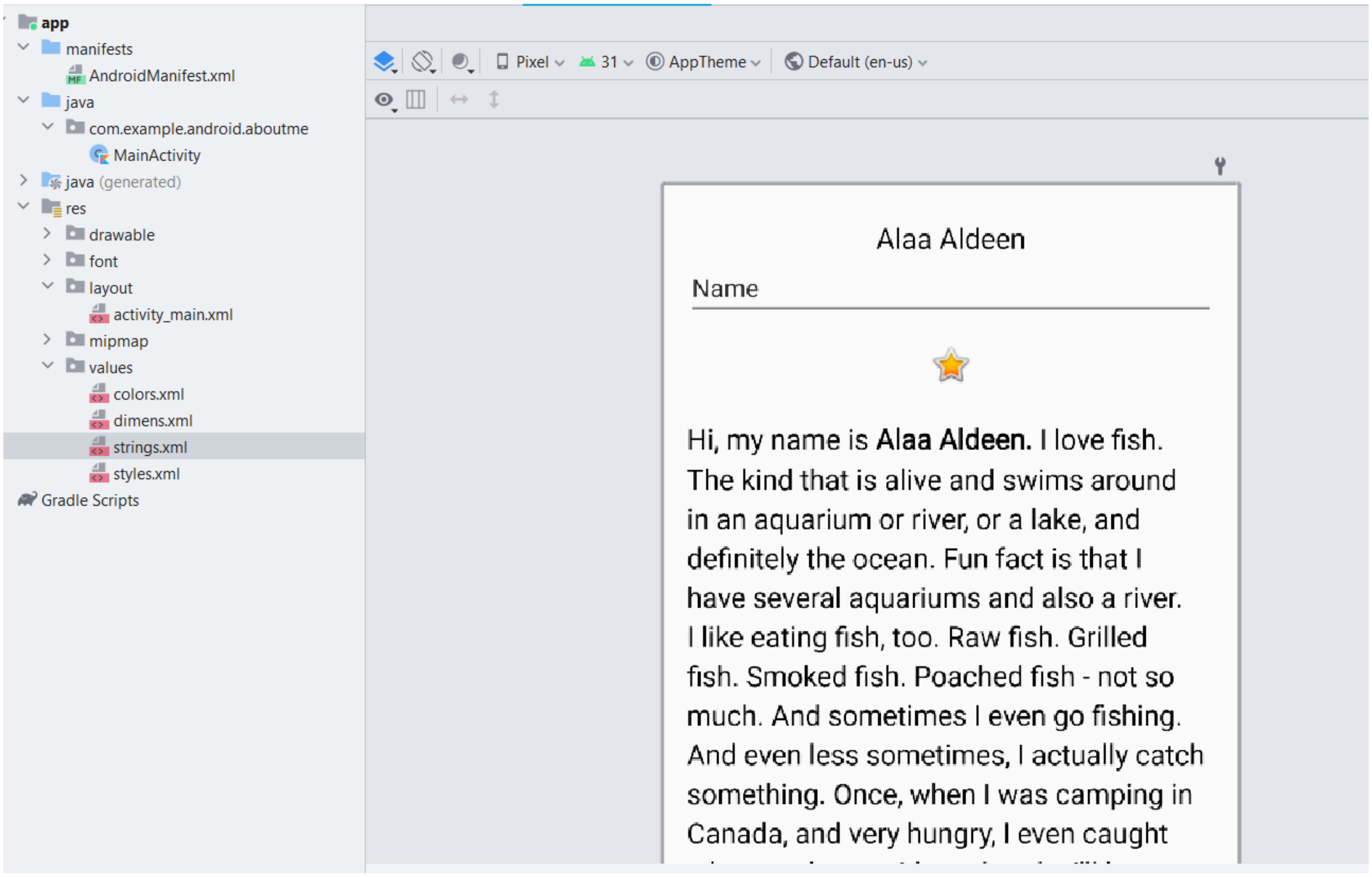
Alaa Aldeen

Hi, my name is **Alaa Aldeen.**

I love fish.

The kind that is alive and swims around in an aquarium or river, or a lake, and definitely the ocean.
Fun fact is that I have several aquariums and also a river.

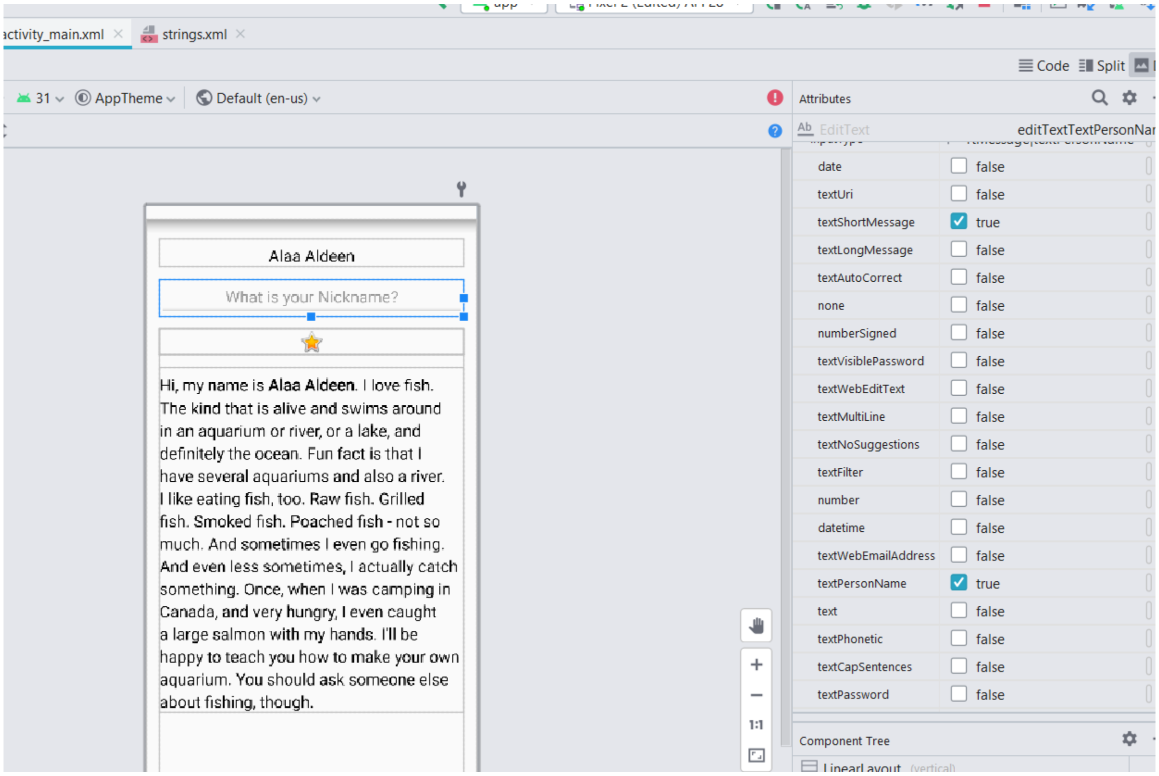
I like eating fish, too. Raw fish. Grilled fish. Smoked fish. Poached fish - not so much.
And sometimes I even go fishing.
And even less sometimes, I actually catch something.



Alaa Aldeen

Name

Hi, my name is **Alaa Aldeen.** I love fish. The kind that is alive and swims around in an aquarium or river, or a lake, and definitely the ocean. Fun fact is that I have several aquariums and also a river. I like eating fish, too. Raw fish. Grilled fish. Smoked fish. Poached fish - not so much. And sometimes I even go fishing. And even less sometimes, I actually catch something. Once, when I was camping in Canada, and very hungry, I even caught



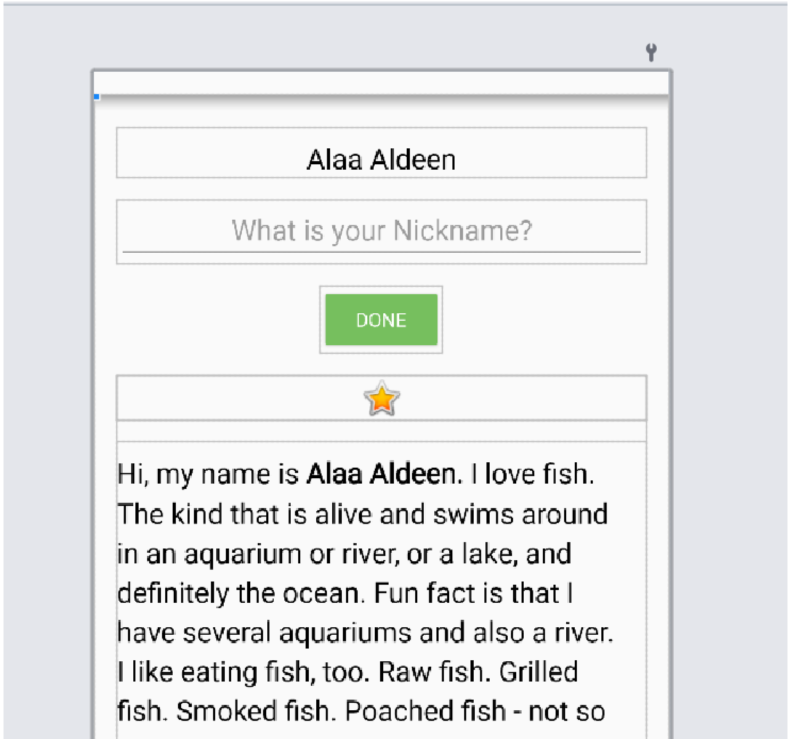
editTextTextPersonNar

date	□ false
textUri	□ false
textShortMessage	☑ true
textLongMessage	□ false
textAutoCorrect	□ false
none	□ false
numberSigned	□ false
textVisiblePassword	□ false
textWebEditText	□ false
textMultiLine	□ false
textNoSuggestions	□ false
textFilter	□ false
number	□ false
datetime	□ false
textWebEmailAddress	□ false
textPersonName	☑ true
text	□ false
textPhonetic	□ false
textCapSentences	□ false
textPassword	□ false

Alaa Aldeen

What is your Nickname?

Hi, my name is **Alaa Aldeen**. I love fish. The kind that is alive and swims around in an aquarium or river, or a lake, and definitely the ocean. Fun fact is that I have several aquariums and also a river. I like eating fish, too. Raw fish. Grilled fish. Smoked fish. Poached fish - not so much. And sometimes I even go fishing. And even less sometimes, I actually catch something. Once, when I was camping in Canada, and very hungry, I even caught a large salmon with my hands. I'll be happy to teach you how to make your own aquarium. You should ask someone else about fishing, though.



Alaa Aldeen

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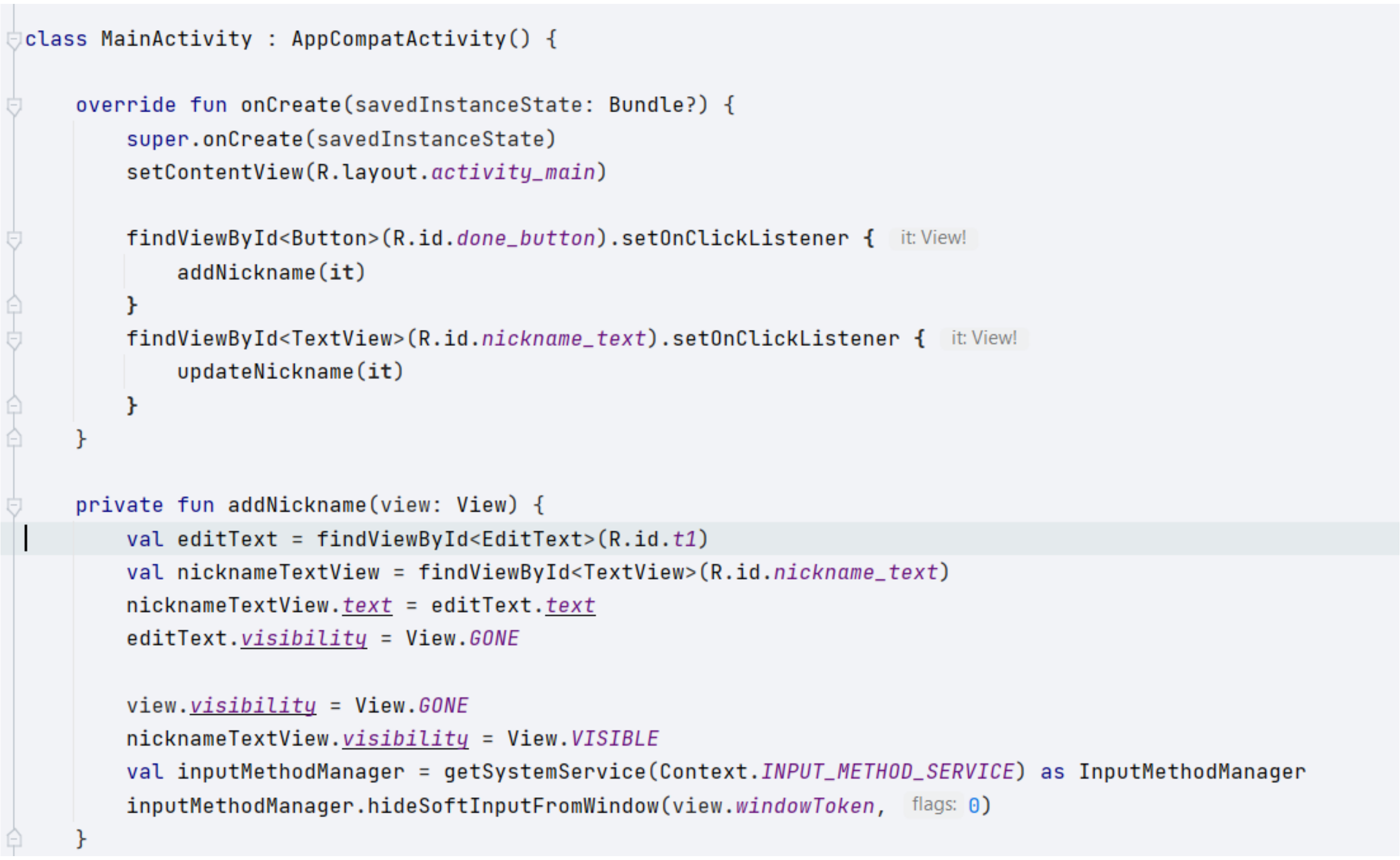


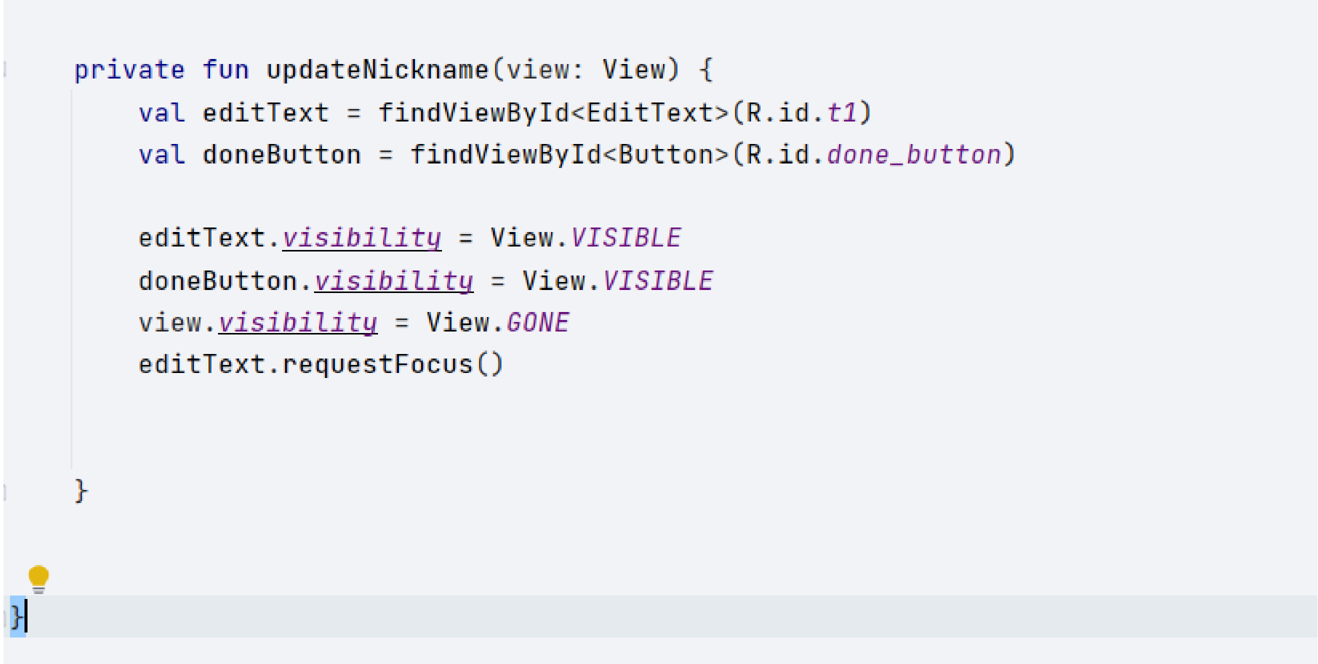
```
class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        findViewById<Button>(R.id.done_button).setOnClickListener {  it: View!
            addNickname(it)
        }
        findViewById<TextView>(R.id.nickname_text).setOnClickListener {  it: View!
            updateNickname(it)
        }
    }

    private fun addNickname(view: View) {
        val editText = findViewById<EditText>(R.id.t1)
        val nicknameTextView = findViewById<TextView>(R.id.nickname_text)
        nicknameTextView.text = editText.text
        editText.visibility = View.GONE

        view.visibility = View.GONE
        nicknameTextView.visibility = View.VISIBLE
        val inputMethodManager = getSystemService(Context.INPUT_METHOD_SERVICE) as InputMethodManager
        inputMethodManager.hideSoftInputFromWindow(view.windowToken,  flags: 0)
    }
```

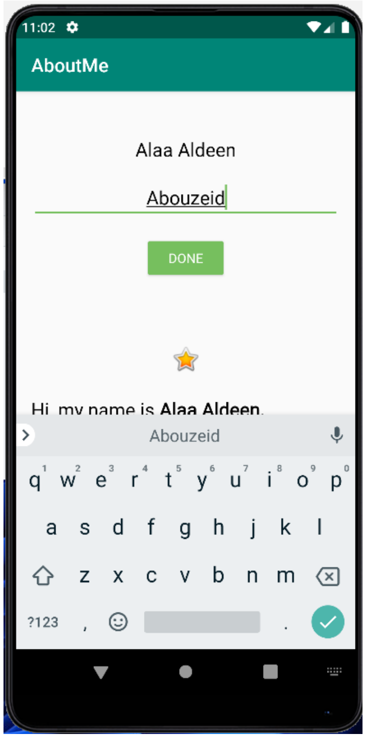


```
    private fun updateNickname(view: View) {
        val editText = findViewById<EditText>(R.id.t1)
        val doneButton = findViewById<Button>(R.id.done_button)

        editText.visibility = View.VISIBLE
        doneButton.visibility = View.VISIBLE
        view.visibility = View.GONE
        editText.requestFocus()


    }


}
```



Alaa Aldeen

Abouzeid

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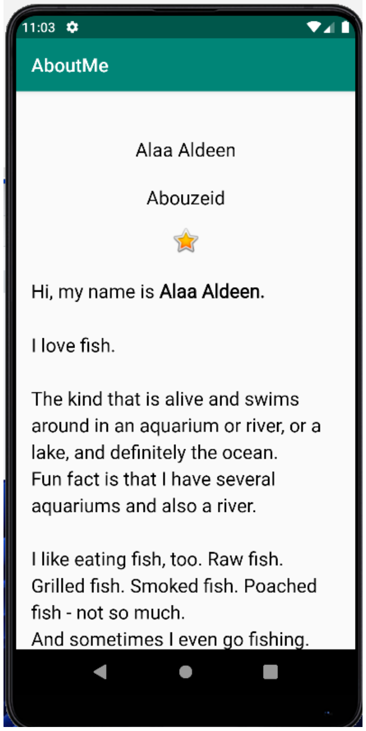

Alaa Aldeen

Abouzeid

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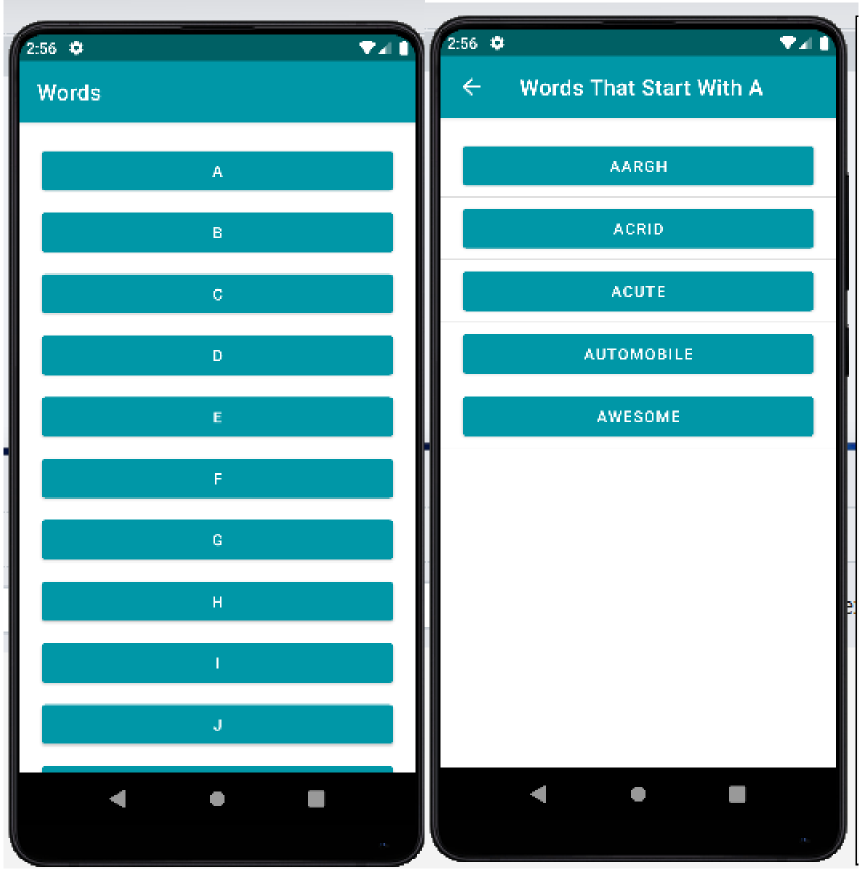
And sometimes I even go fishing.

Task 4: Activities and Intents | Android Developers


2:56
Words
A
B
C
D
E
F
G
H
I
J
2:56
Words That Start With A
AARGH
ACRID
ACUTE
AUTOMOBILE
AWESOME