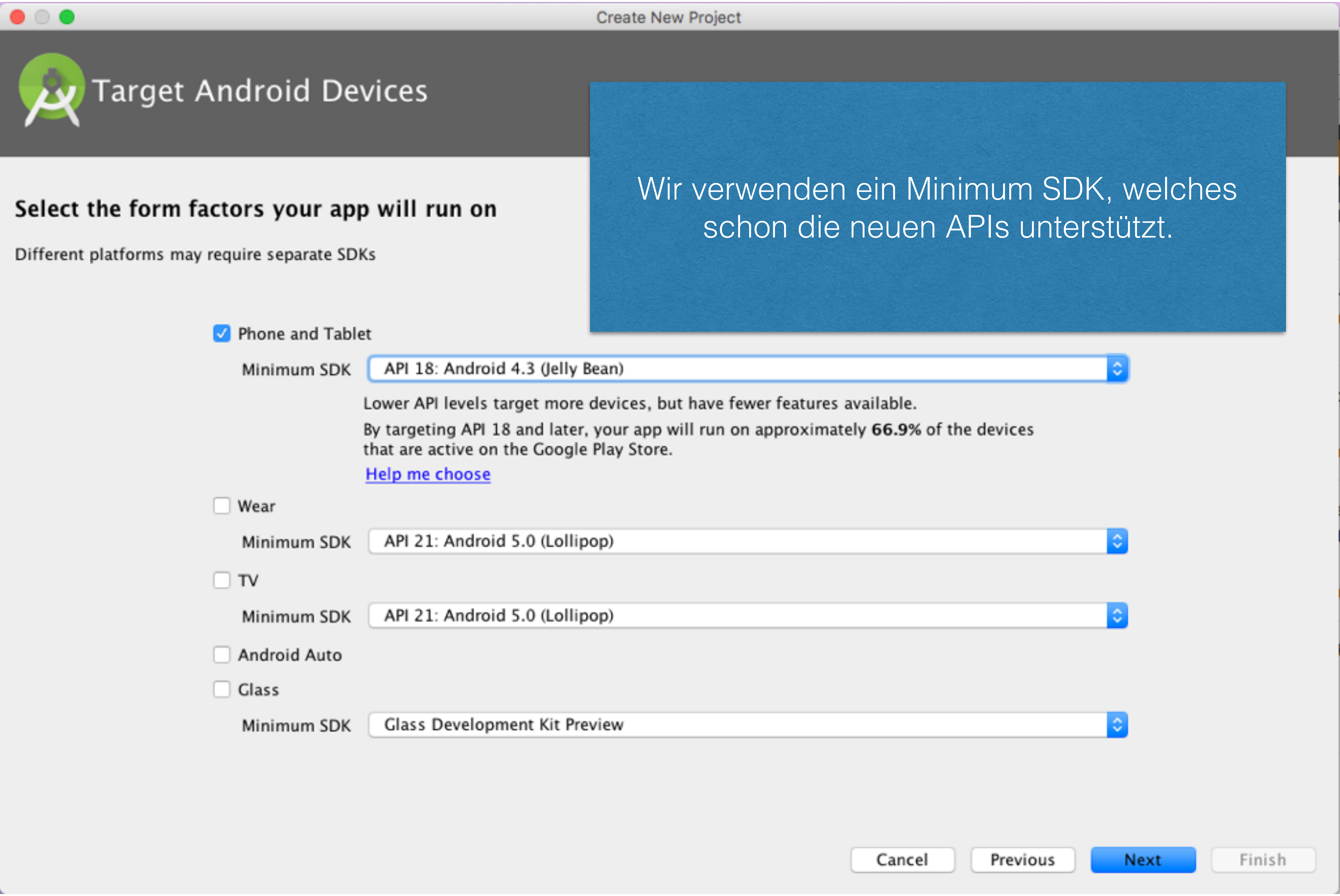
CoolDroid

My First Android Project



Create New Project

Target Android Devices

Select the form factors your app will run on

Different platforms may require separate SDKs

☑ Phone and Tablet

Minimum SDK: API 18: Android 4.3 (Jelly Bean)

Lower API levels target more devices, but have fewer features available.

By targeting API 18 and later, your app will run on approximately **66.9%** of the devices that are active on the Google Play Store.

Help me choose

☐ Wear

Minimum SDK: API 21: Android 5.0 (Lollipop)

☐ TV

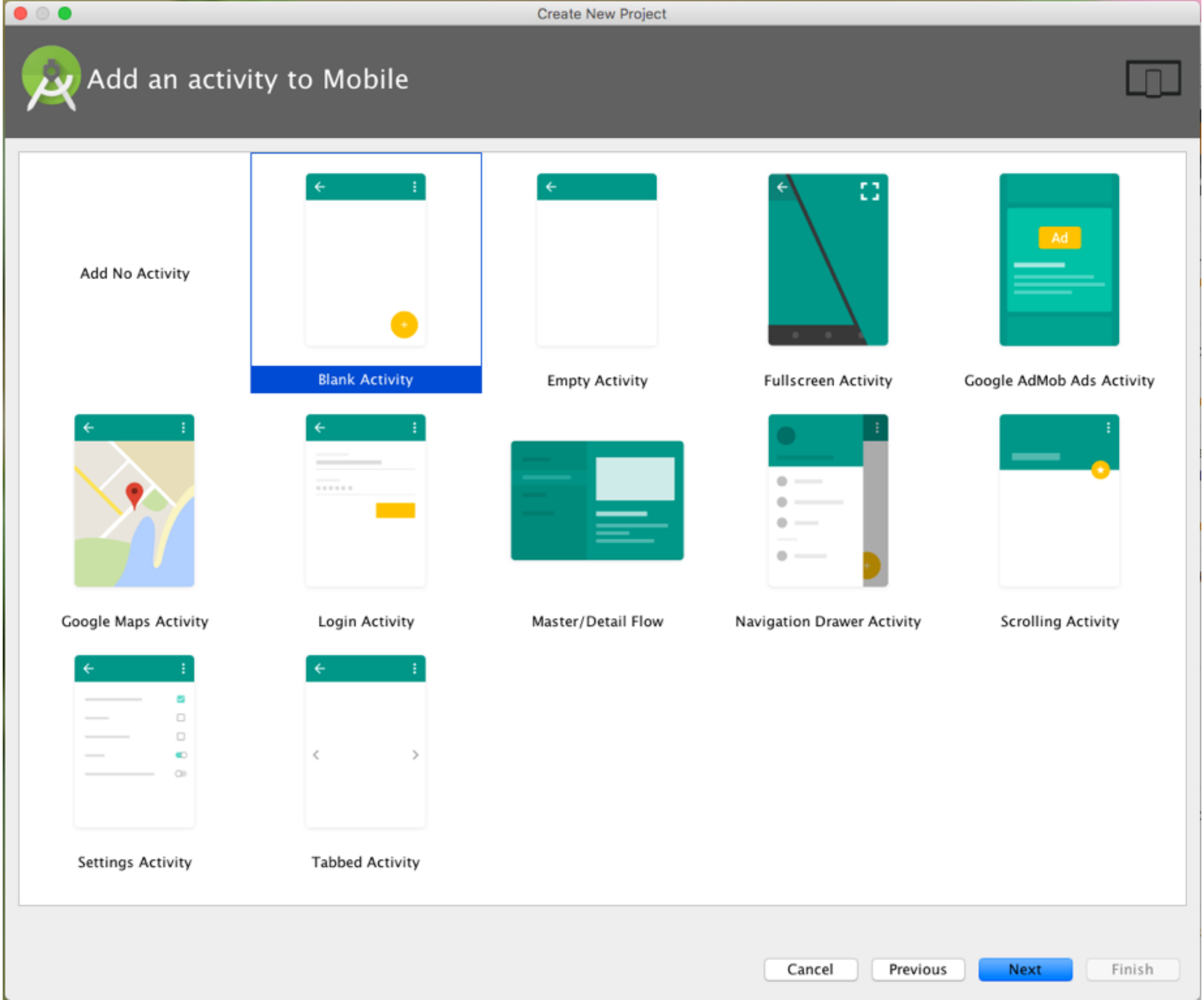
Minimum SDK: API 21: Android 5.0 (Lollipop)

☐ Android Auto

☐ Glass

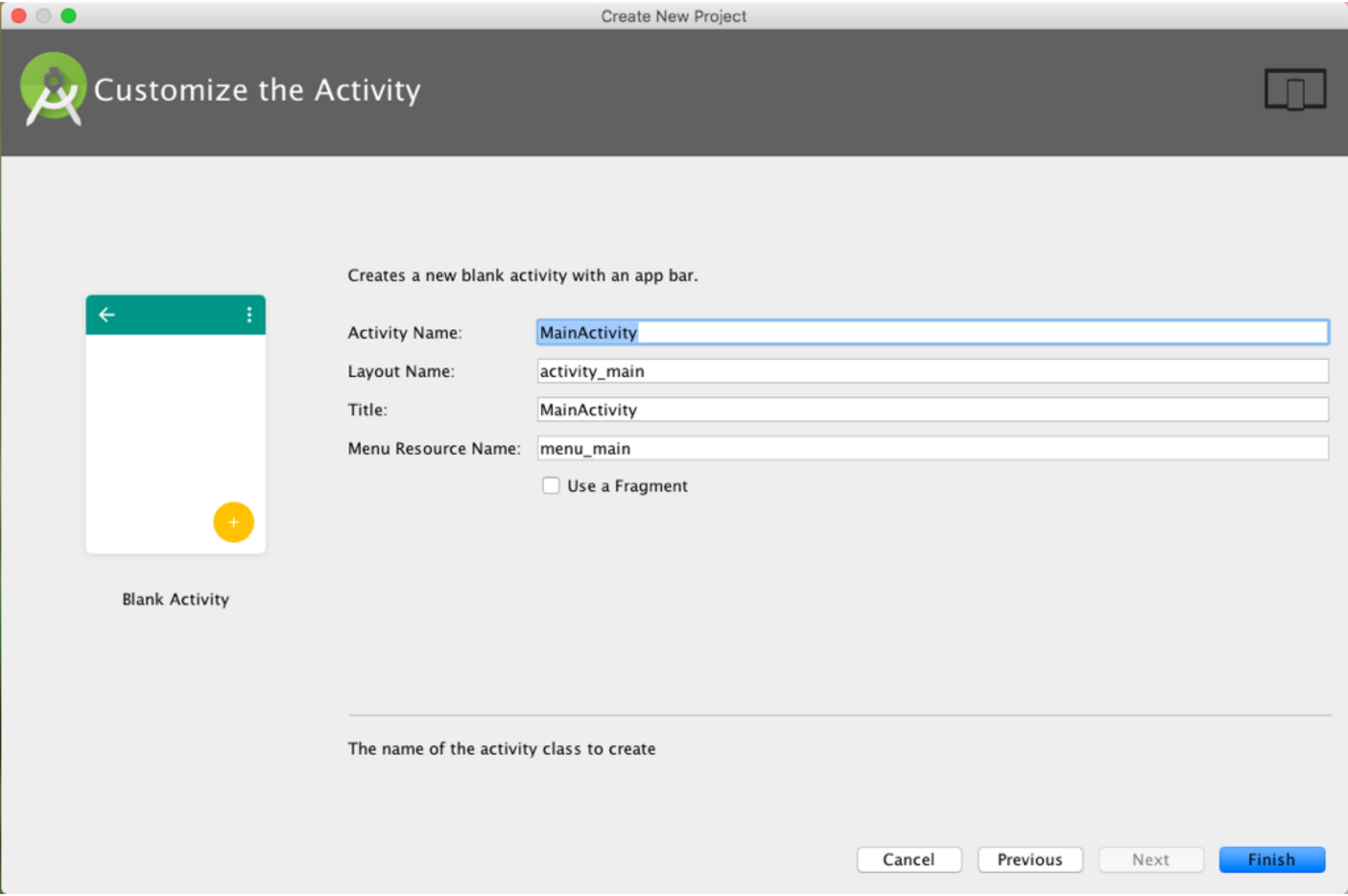
Minimum SDK: Glass Development Kit Preview

Wir verwenden ein Minimum SDK, welches schon die neuen APIs unterstützt.



Create New Project

Add an activity to Mobile



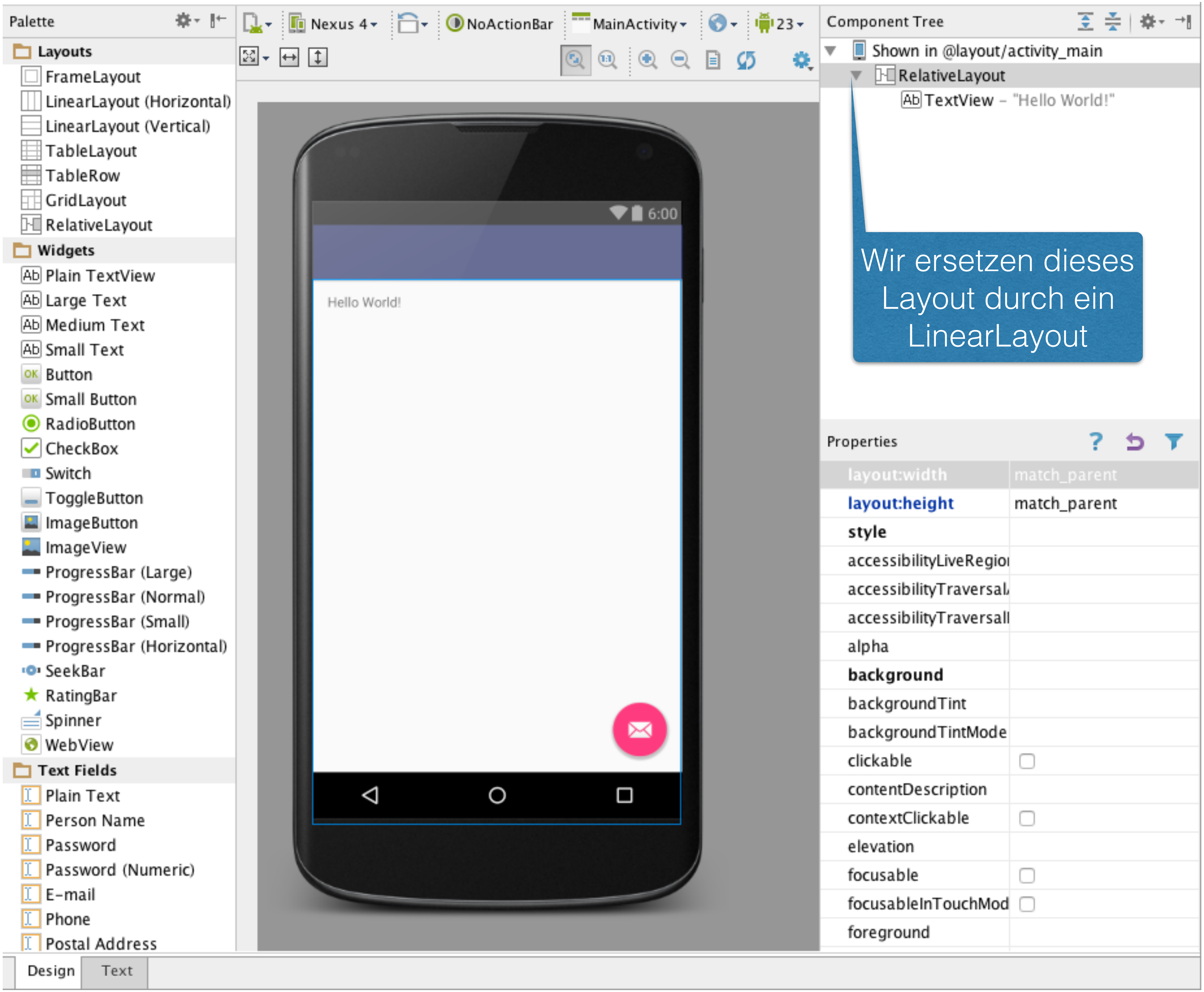
Customize the Activity

Creates a new blank activity with an app bar.

Activity Name:	MainActivity
Layout Name:	activity_main
Title:	MainActivity
Menu Resource Name:	menu_main

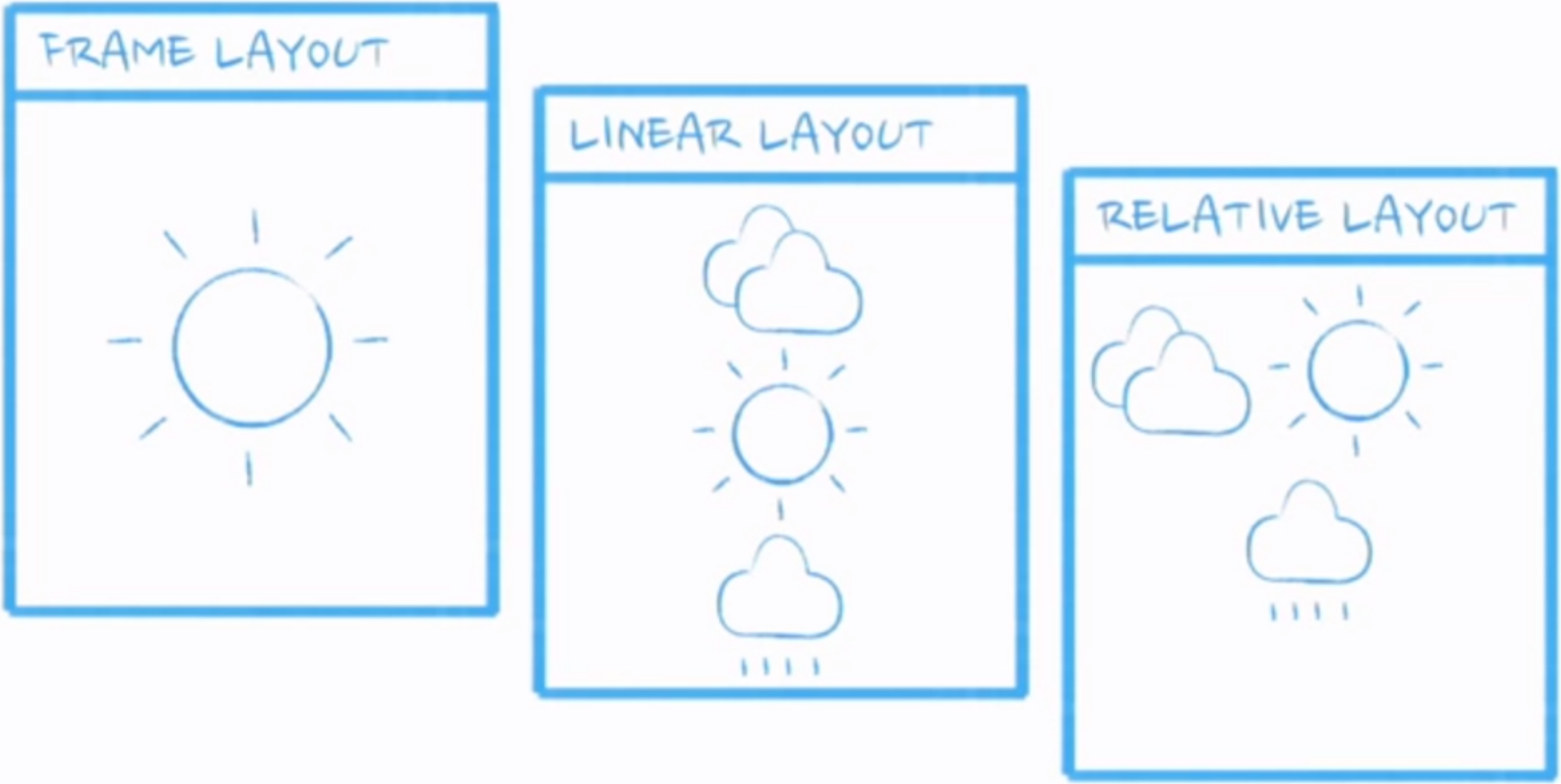
☐ Use a Fragment

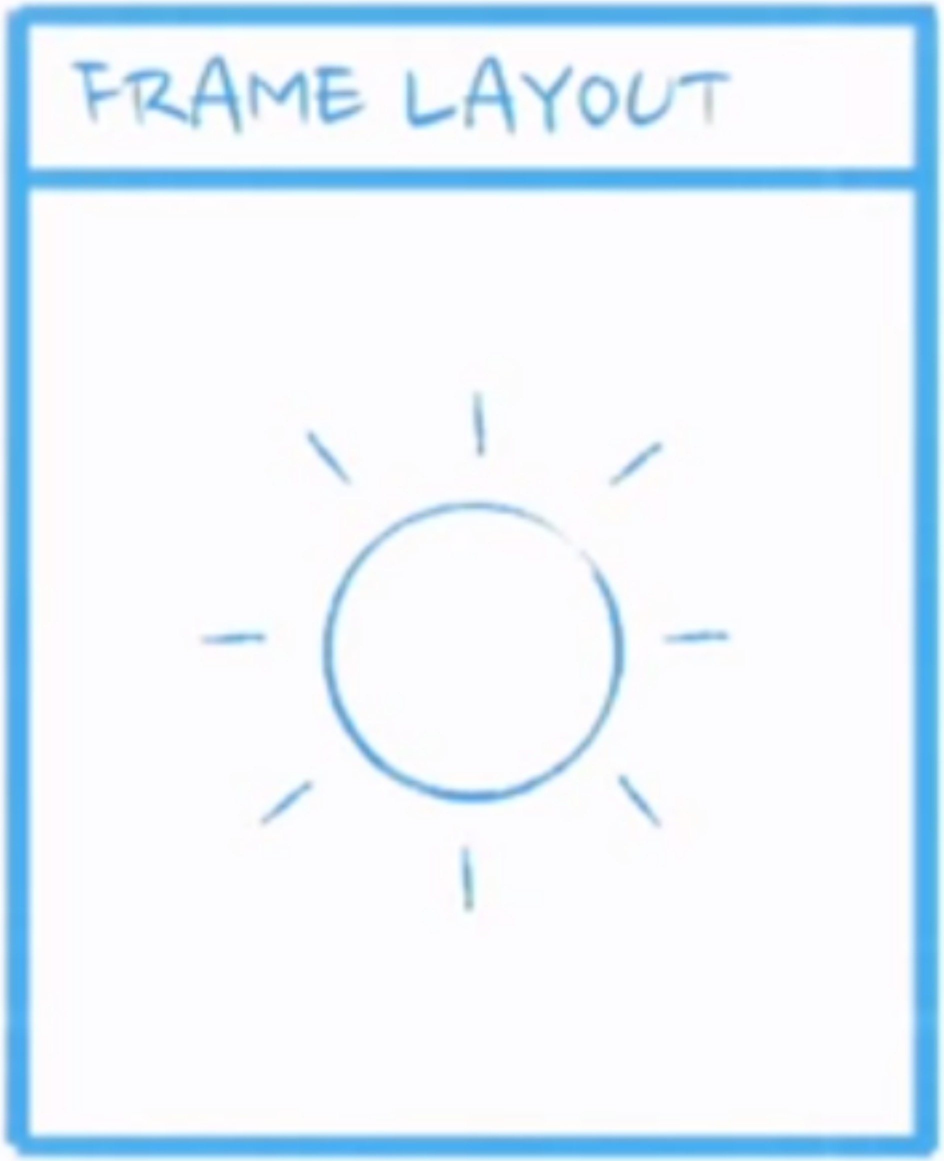
The name of the activity class to create



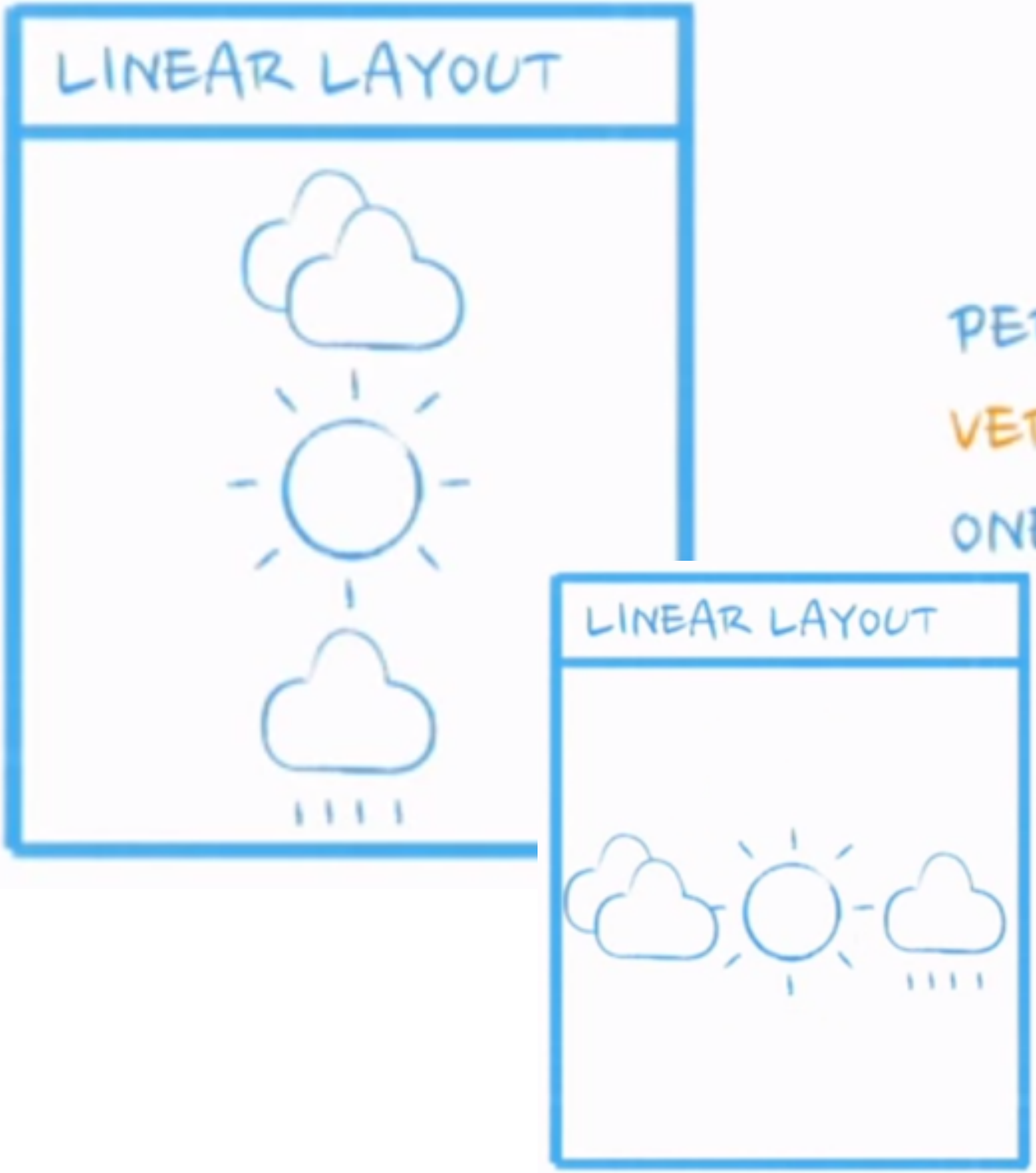
Wir ersetzen dieses Layout durch ein LinearLayout

layout:width	match_parent
layout:height	match_parent
style	
accessibilityLiveRegioı	
accessibilityTraversalA	
accessibilityTraversalI	
alpha	
background	
backgroundTint	
backgroundTintMode	
clickable	□
contentDescription	
contextClickable	□
elevation	
focusable	□
focusableInTouchMod	□
foreground	

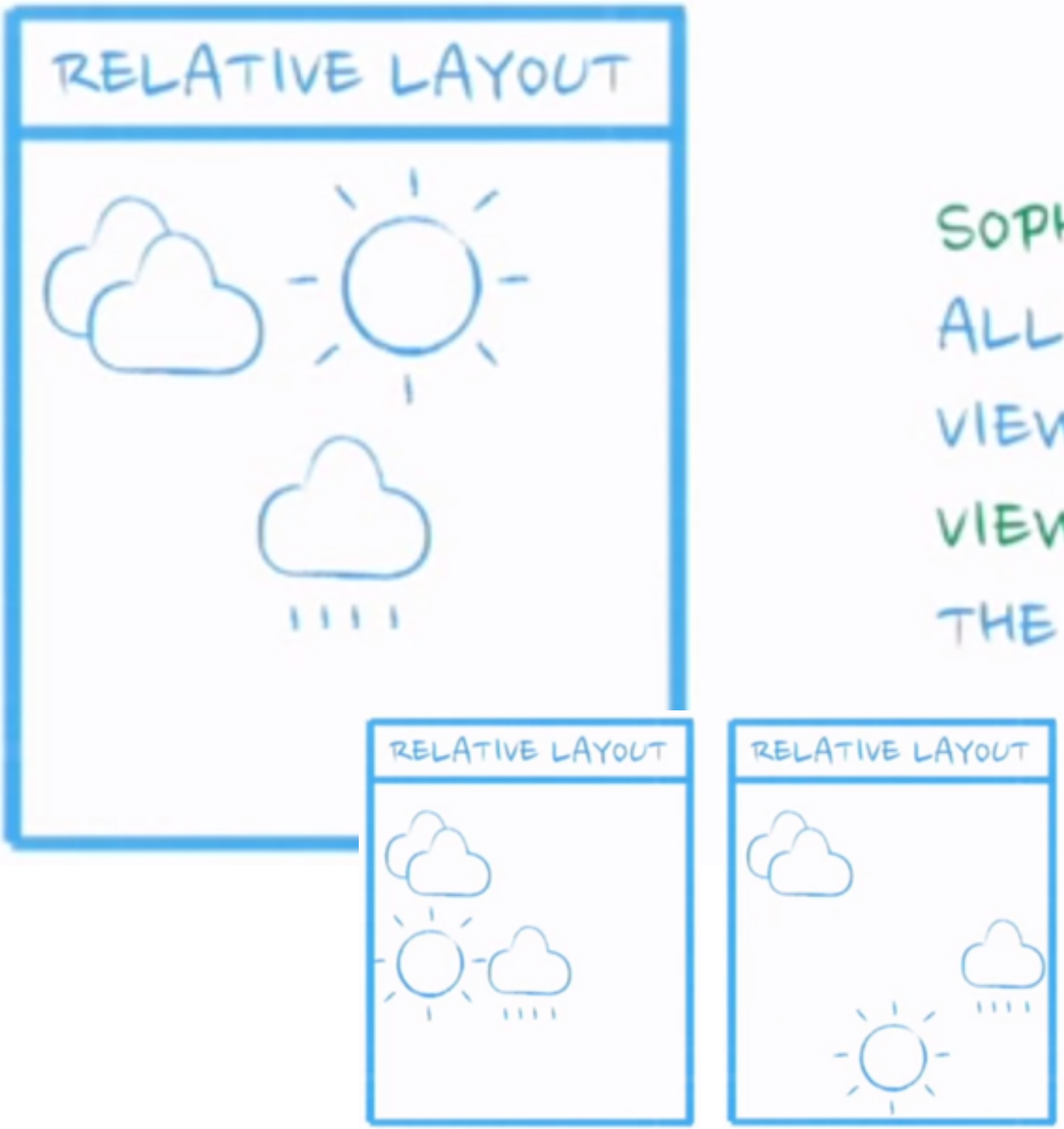

FRAME LAYOUT
LINEAR LAYOUT
RELATIVE LAYOUT



USEFUL FOR SIMPLE LAYOUTS. WITH A SINGLE VIEW OR STACK OR VIEWS. VIEWS ARE ALL ALIGNED AGAINST THE FRAME BOUNDARIES ONLY



PERFECT FOR STACKING VIEWS VERTICALLY OR HORIZONTALLY, ONE AFTER ANOTHER.



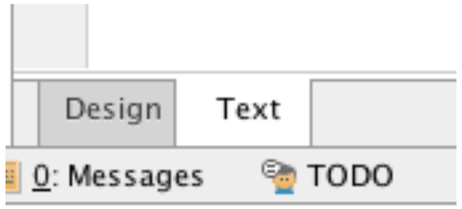
SOPHISTICATED LAYOUT THAT ALLOWS THE POSITIONING OF VIEWS RELATIVE TO OTHER VIEWS OR THE BOUNDARIES OF THE VIEW

Layout ändern

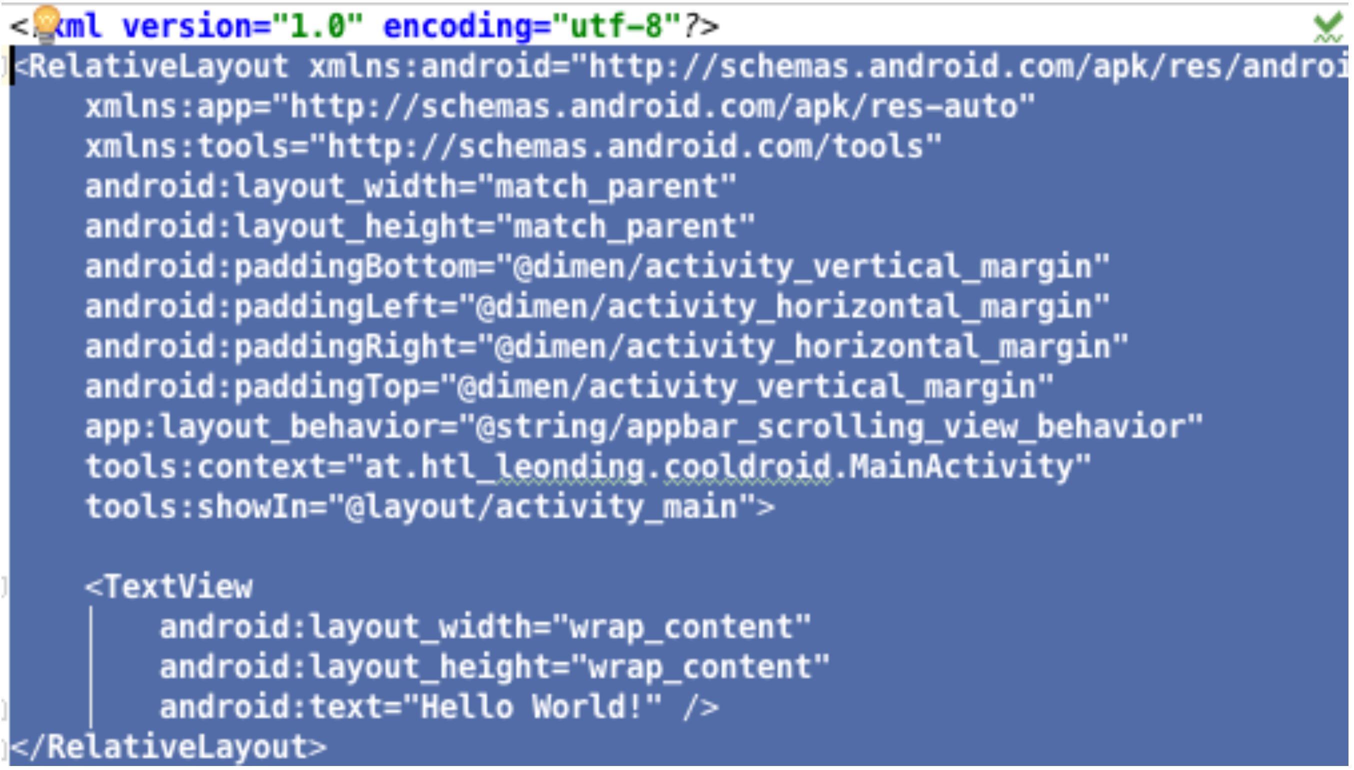
1

Zuerst TextView und RelativeLayout löschen:

1. auf Text umschalten



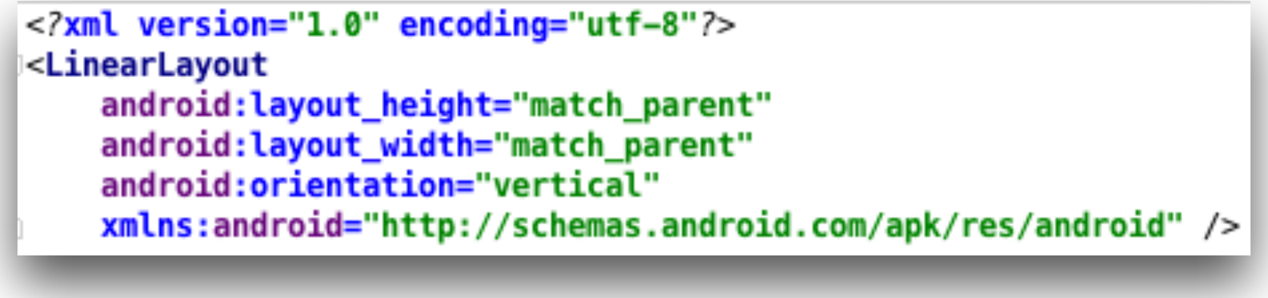
2. Bereich markieren und löschen



```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/androi
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    app:layout_behavior="@string/appbar_scrolling_view_behavior"
    tools:context="at.htl_leonding.cooldroid.MainActivity"
    tools:showIn="@layout/activity_main">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!" />
</RelativeLayout>
```

2

Anschließend <LinearLayout …> eintragen



```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    android:layout_height="match_parent"
    android:layout_width="match_parent"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/apk/res/android" />
```

Bild anzeigen

1. Resourcenverzeichnis anlegen

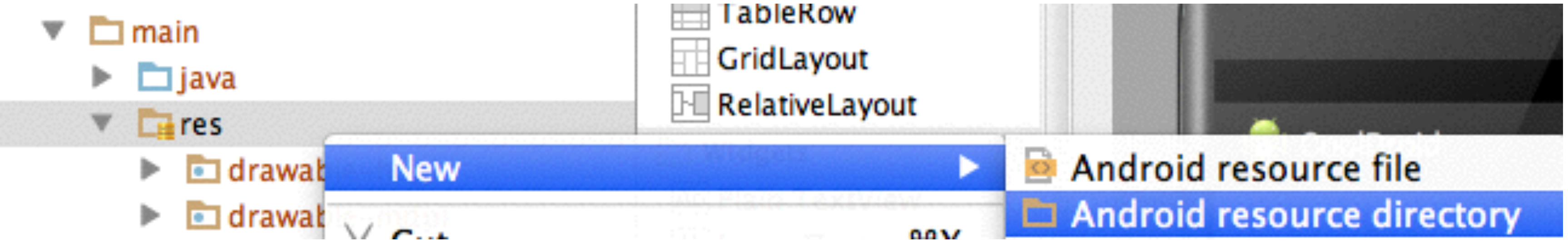
2. Bild in das Resourcenverzeichnis kopieren

3. ImageView - Element ins Layout einfügen

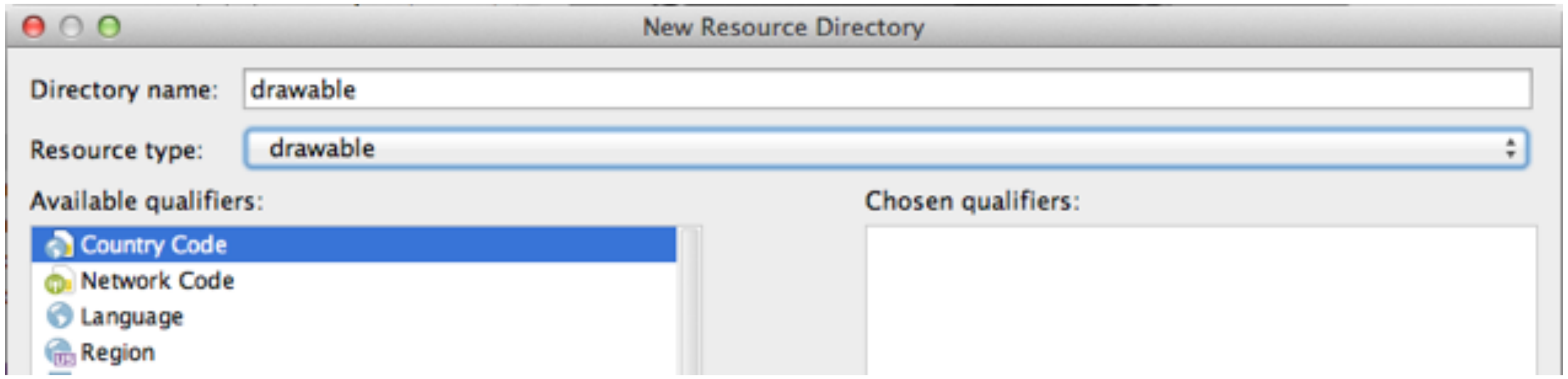
4. Ressource an ImageView binden

Resourcenverzeichnis erstellen (falls noch nicht vorhanden)

1



2


New Resource Directory

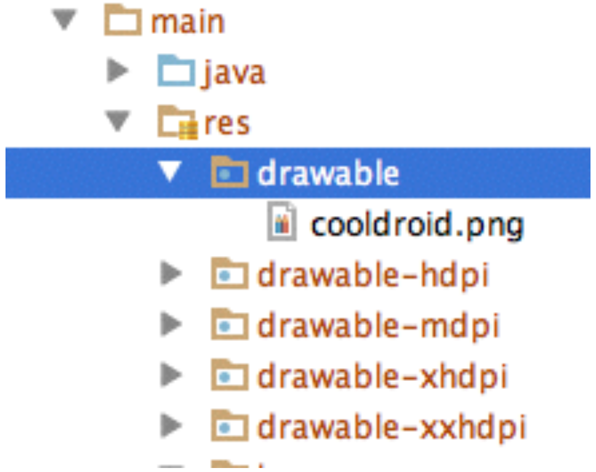
Directory name: drawable

Resource type: drawable

Available qualifiers:

Chosen qualifiers:

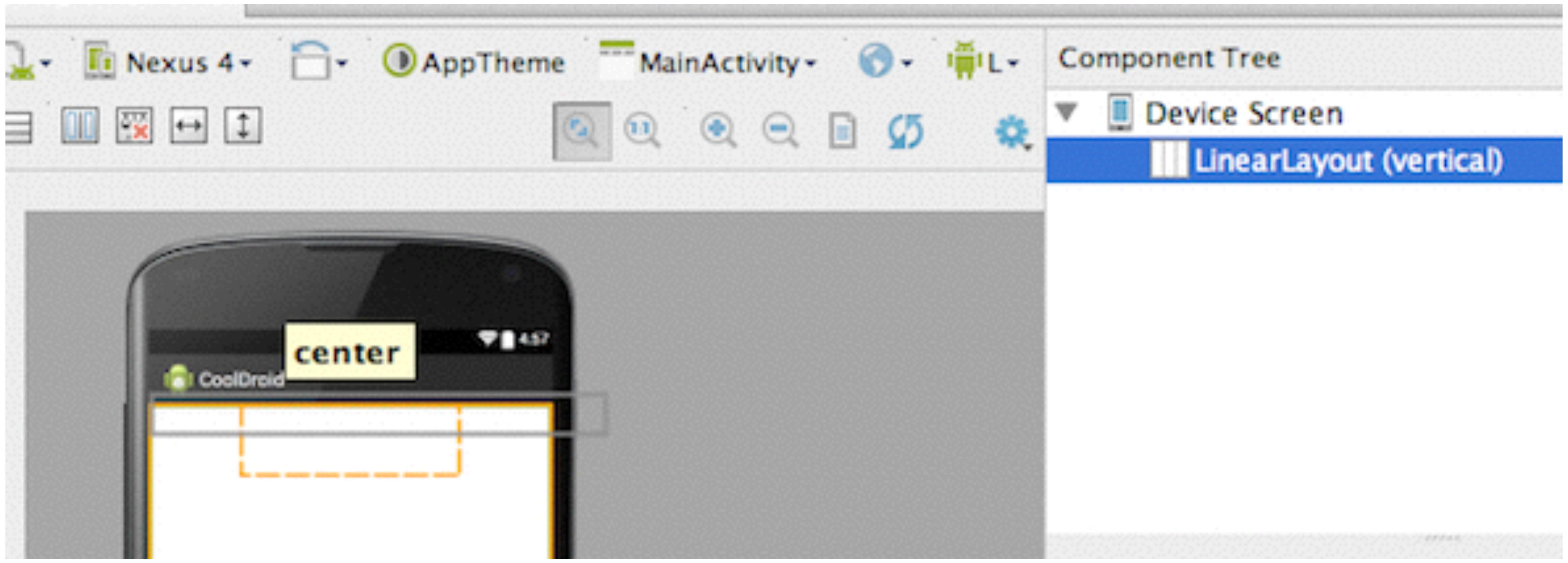
3

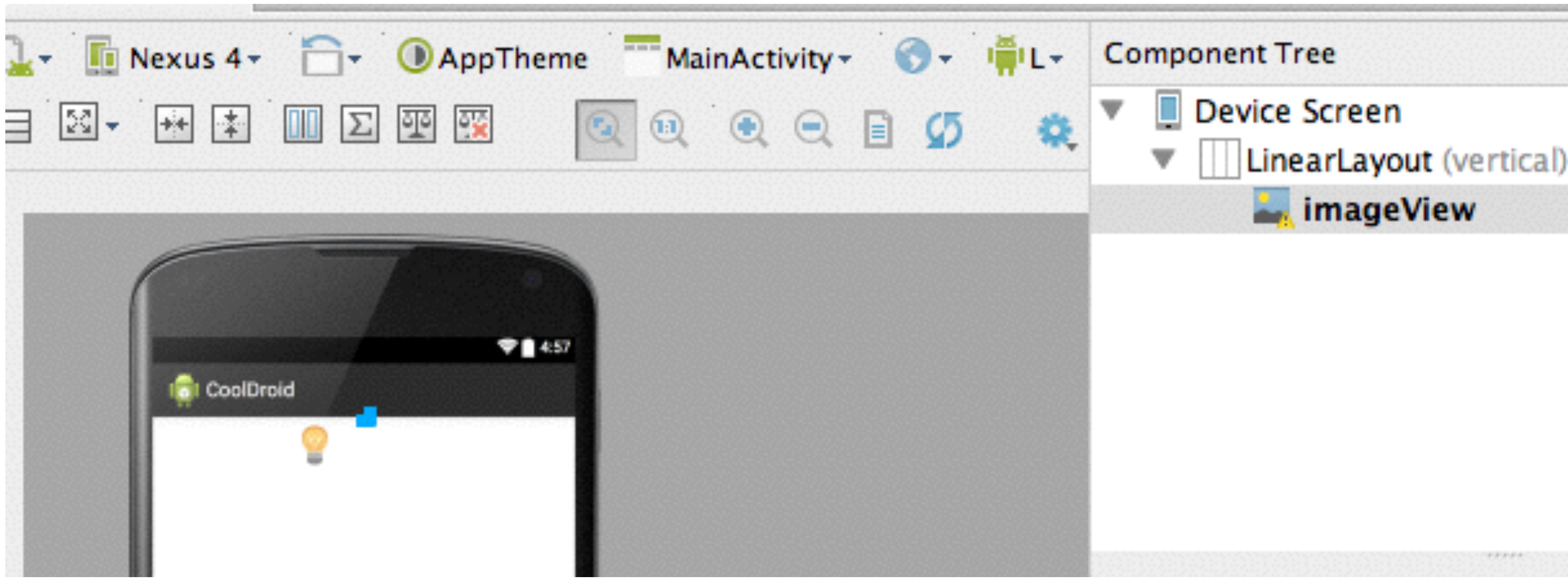


- Kopieren mit Drag’n Drop vom Finder oder Windows Explorer etc. (<Strg> zum Kopieren)

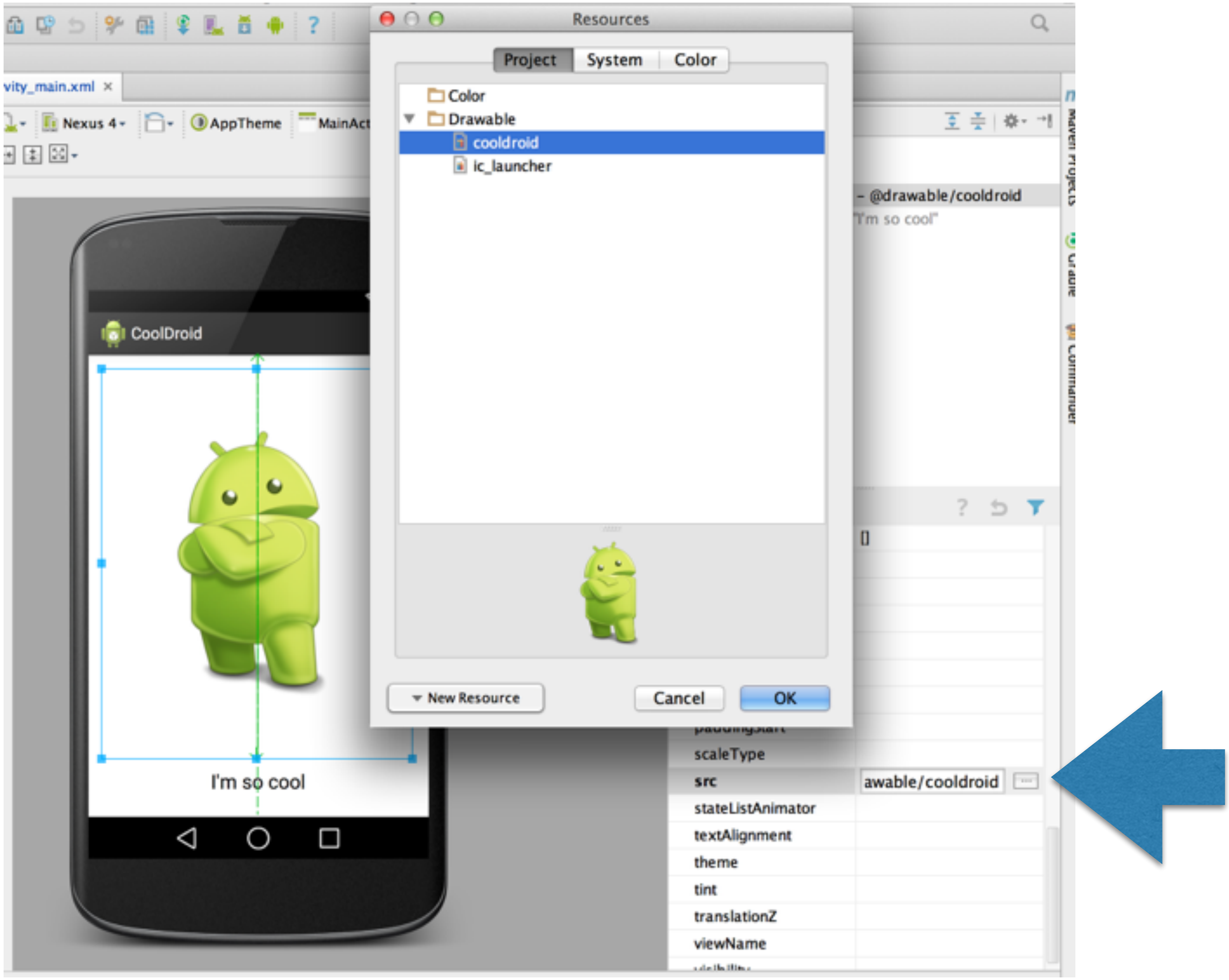
ImageView

- Mit Drag’n Drop das ImageView Element an die gewünschte Position setzen (Center)



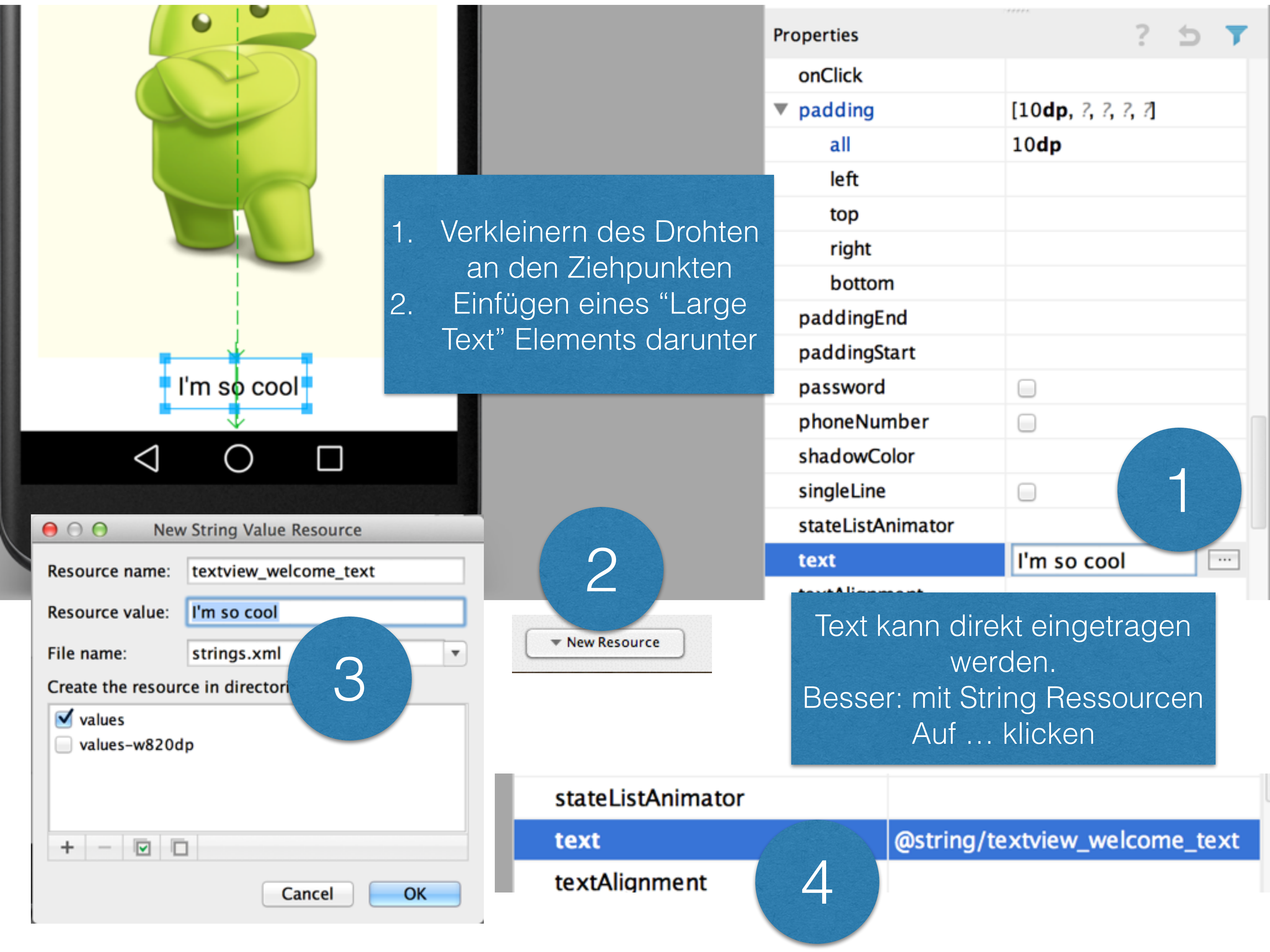


Resource an ImageView binden



- @drawable/cooldroid
"I'm so cool"

paddingStart
scaleType
src awable/cooldroid
stateListAnimator
textAlignment
theme
tint
translationZ
viewName
visibility



1. Verkleinern des Drohten an den Ziehpunkten
2. Einfügen eines “Large Text” Elements darunter

Text kann direkt eingetragen werden.
Besser: mit String Ressourcen
Auf … klicken

Properties

onClick	
▼ padding	[10dp, ?, ?, ?, ?]
all	10dp
left	
top	
right	
bottom	
paddingEnd	
paddingStart	
password	□
phoneNumber	□
shadowColor	
singleLine	□
stateListAnimator	
text	I'm so cool …

New String Value Resource

Resource name: textview_welcome_text

Resource value: I'm so cool

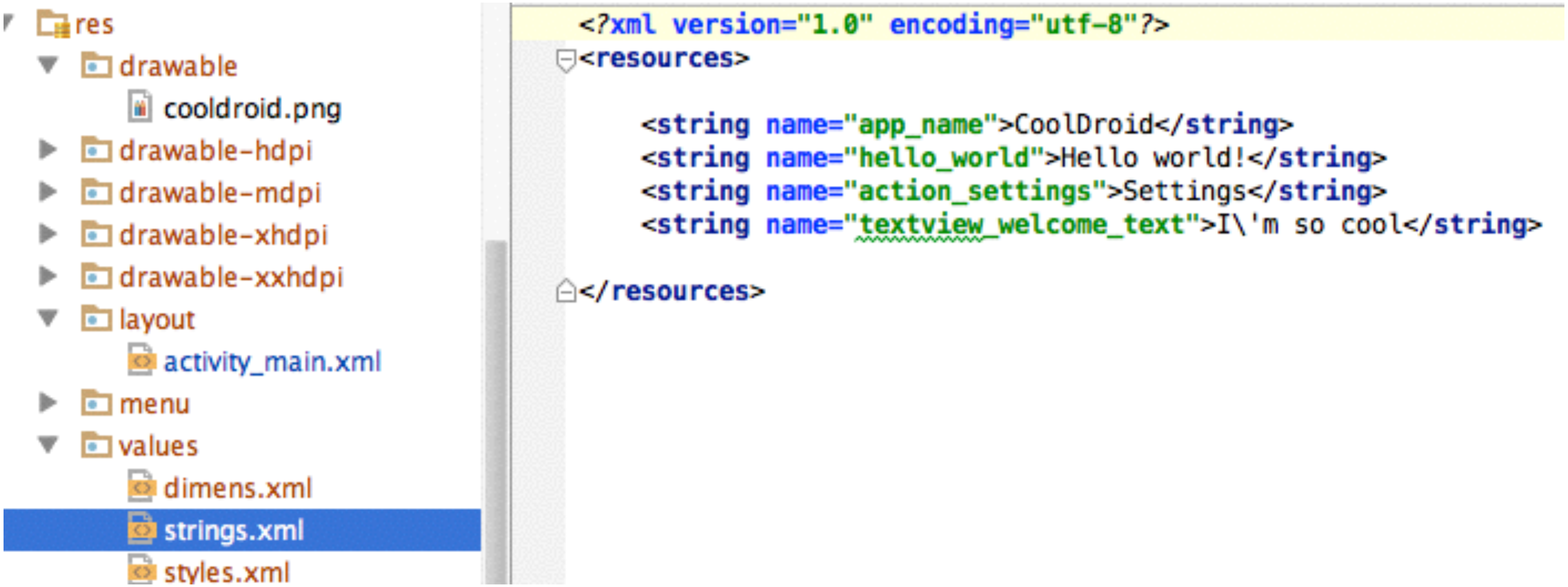
File name: strings.xml

Create the resource in directori

☑ values
□ values-w820dp

stateListAnimator	
text	@string/textview_welcome_text
textAlignment	

String Resourcen

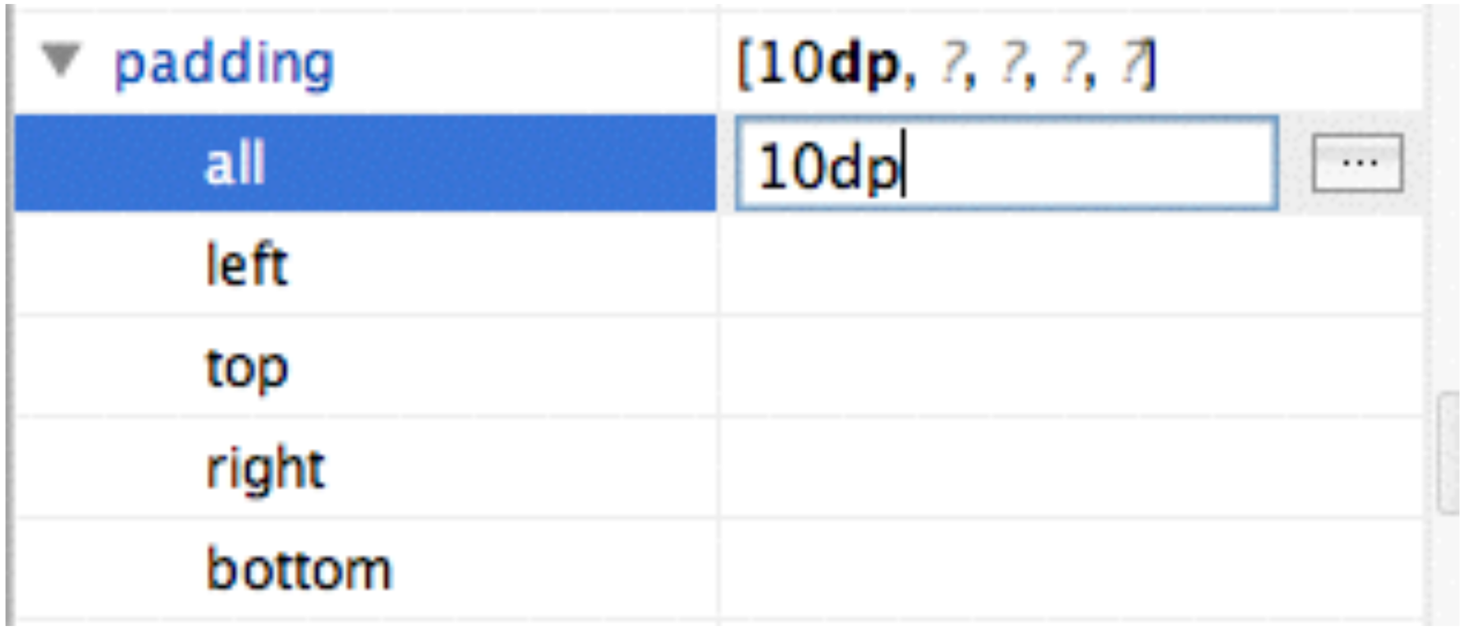


```
<?xml version="1.0" encoding="utf-8"?>
<resources>

    <string name="app_name">CoolDroid</string>
    <string name="hello_world">Hello world!</string>
    <string name="action_settings">Settings</string>
    <string name="textview_welcome_text">I\'m so cool</string>

</resources>
```

- Können direkt in die xml-Datei eingetragen werden

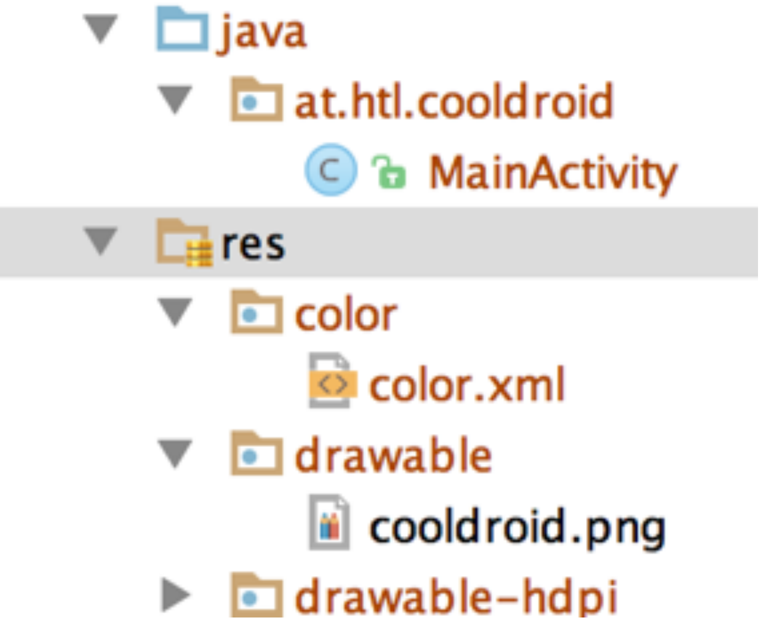
- Werden zur Übersetzung verwendet zB values-de/strings.xml usw.

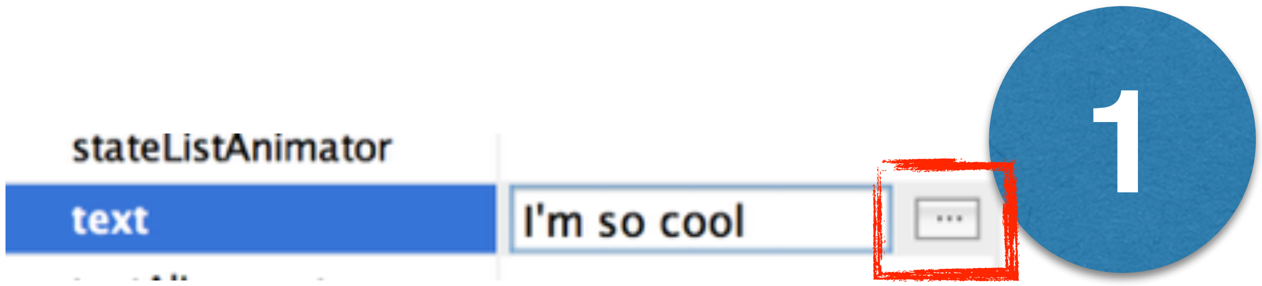
Padding beim Textfeld



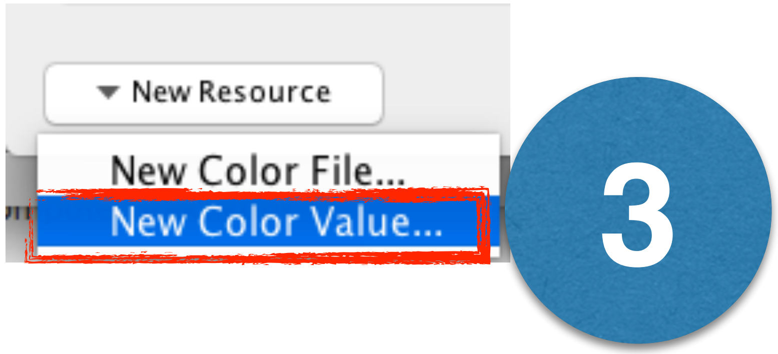
▼ padding	[10**dp**, ?, ?, ?, ?]
all	10dp
left	
top	
right	
bottom	

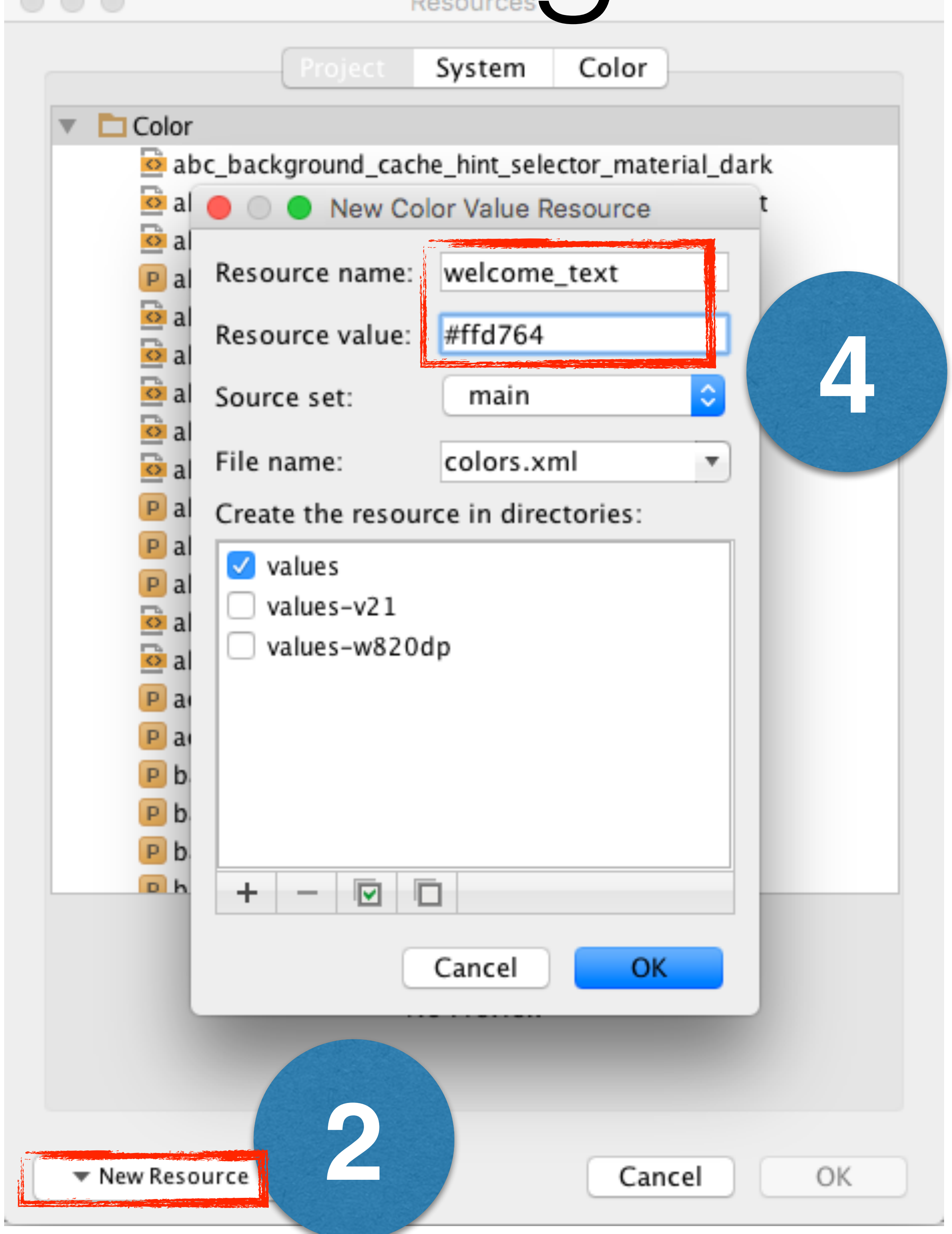
Farb-Ressource anlegen





text: I'm so cool





Resource name: welcome_text

Resource value: #ffd764

Source set: main

File name: colors.xml

Create the resource in directories:

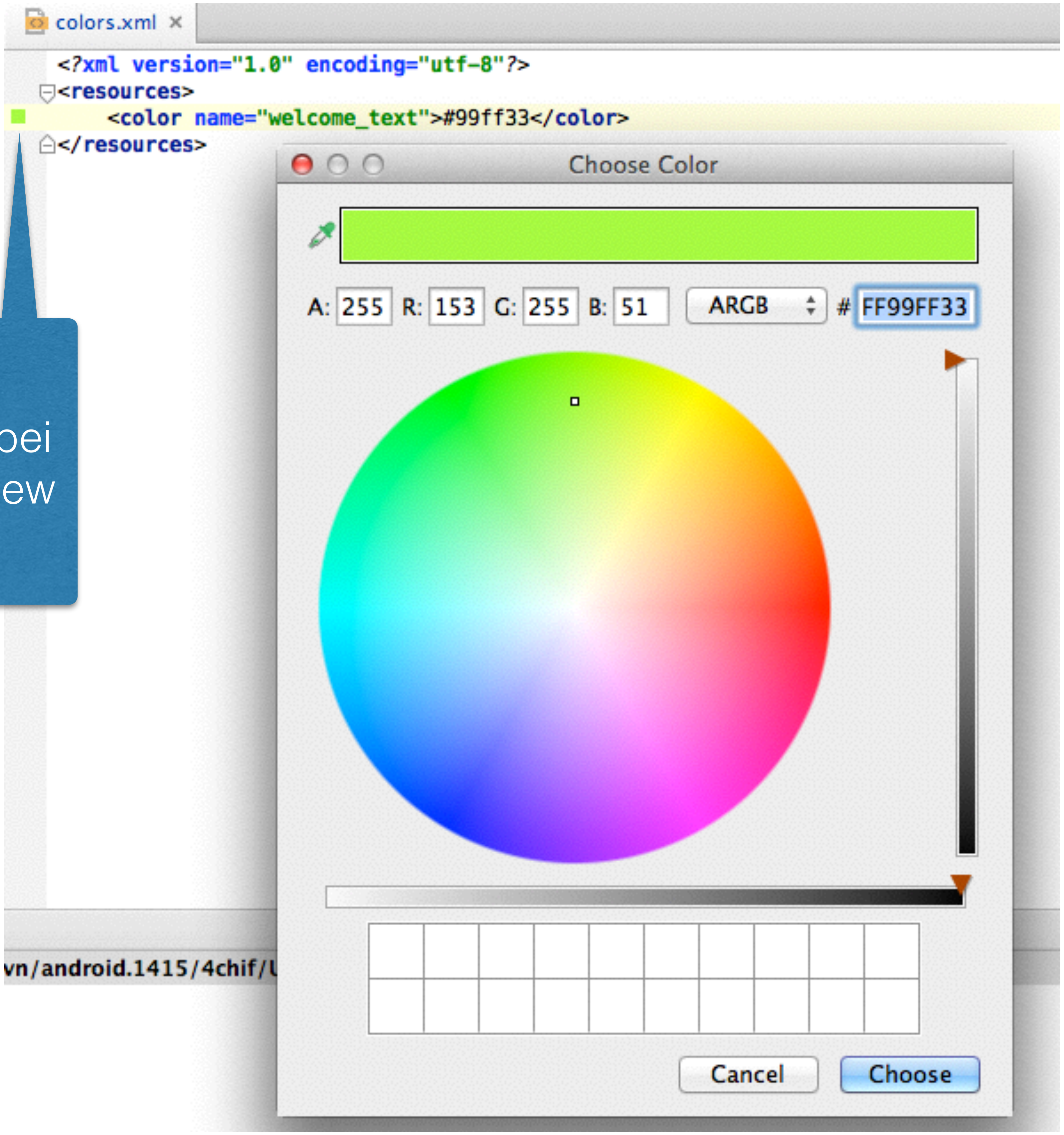
☑ values

☐ values-v21

☐ values-w820dp

Cancel OK

http://www.w3schools.com/tags/ref_colorpicker.asp



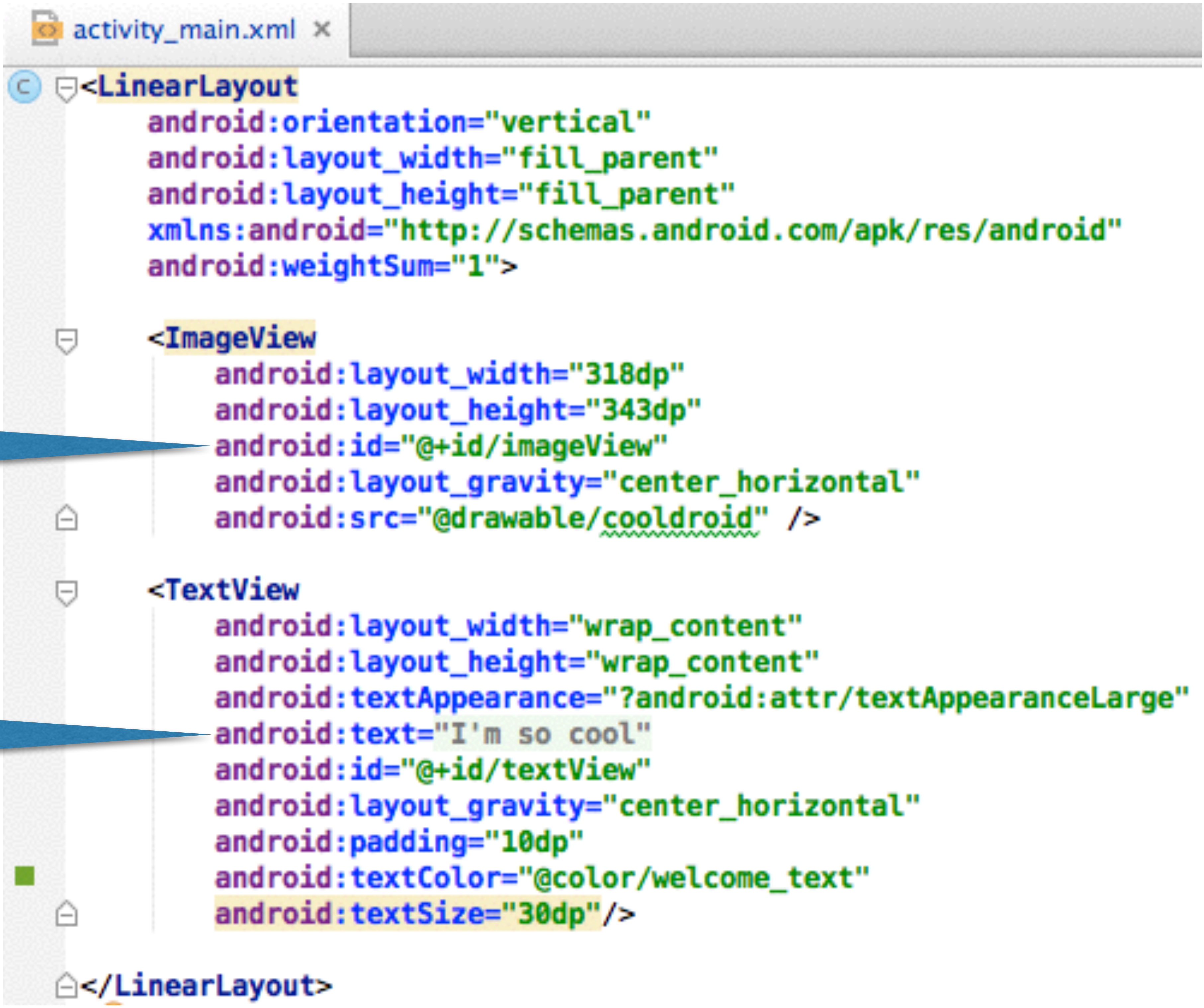
```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="welcome_text">#99ff33</color>
</resources>
```

A: 255 R: 153 G: 255 B: 51 # FF99FF33

vn/android.1415/4chif/U

Öffnen einer Farbpalette bei Klick auf diese Farb-Preview

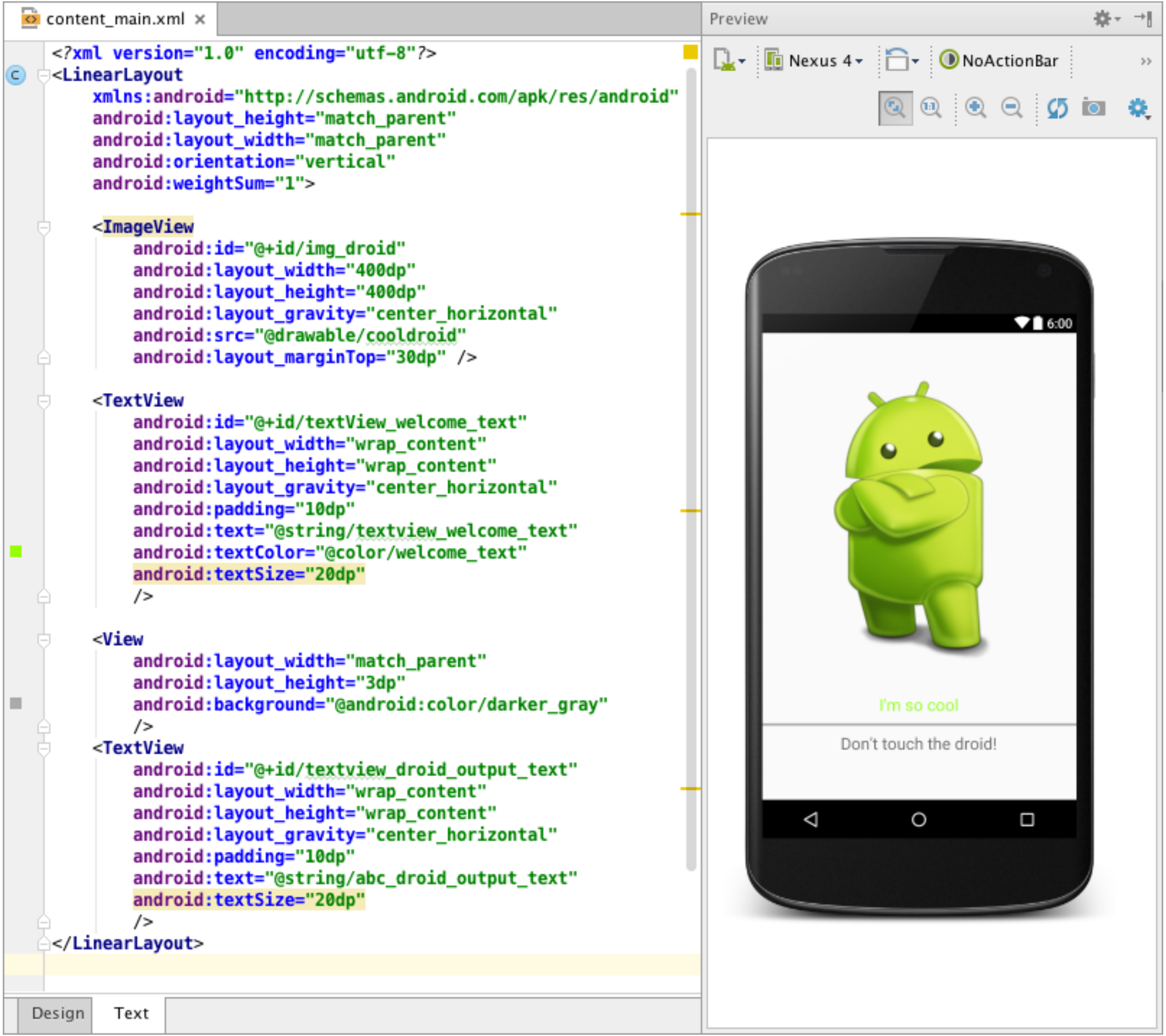
activity_main.xml



```
<LinearLayout
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:weightSum="1">

    <ImageView
        android:layout_width="318dp"
        android:layout_height="343dp"
        android:id="@+id/imageView"
        android:layout_gravity="center_horizontal"
        android:src="@drawable/cooldroid" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textAppearance="?android:attr/textAppearanceLarge"
        android:text="I'm so cool"
        android:id="@+id/textView"
        android:layout_gravity="center_horizontal"
        android:padding="10dp"
        android:textColor="@color/welcome_text"
        android:textSize="30dp"/>

</LinearLayout>
```

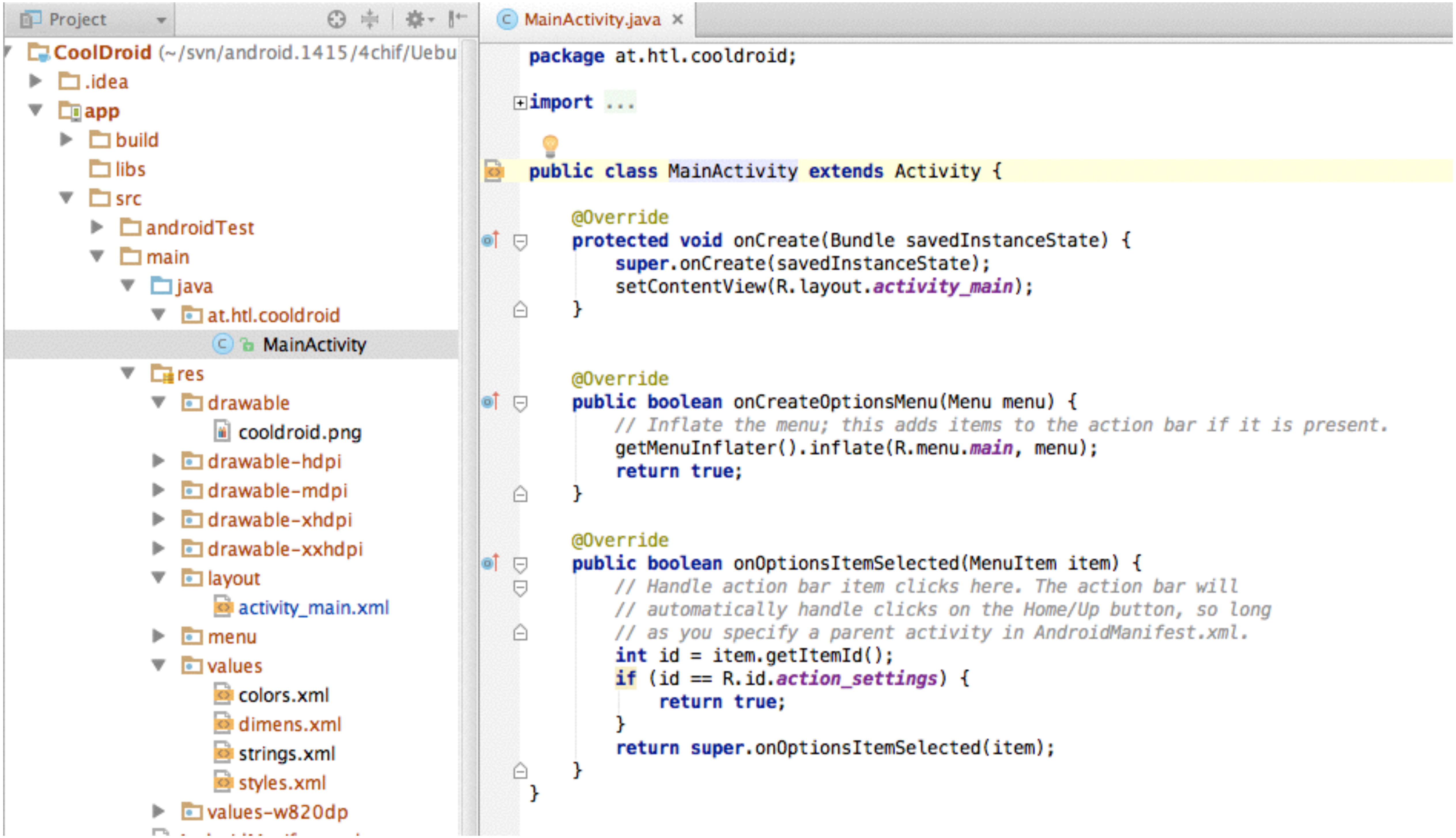
Hier wird eine neue Id (+) mit Namen ImageView in R.java angelegt.

Obwohl eine String-Resource verwendet wird, wird der korrekte Text angezeigt



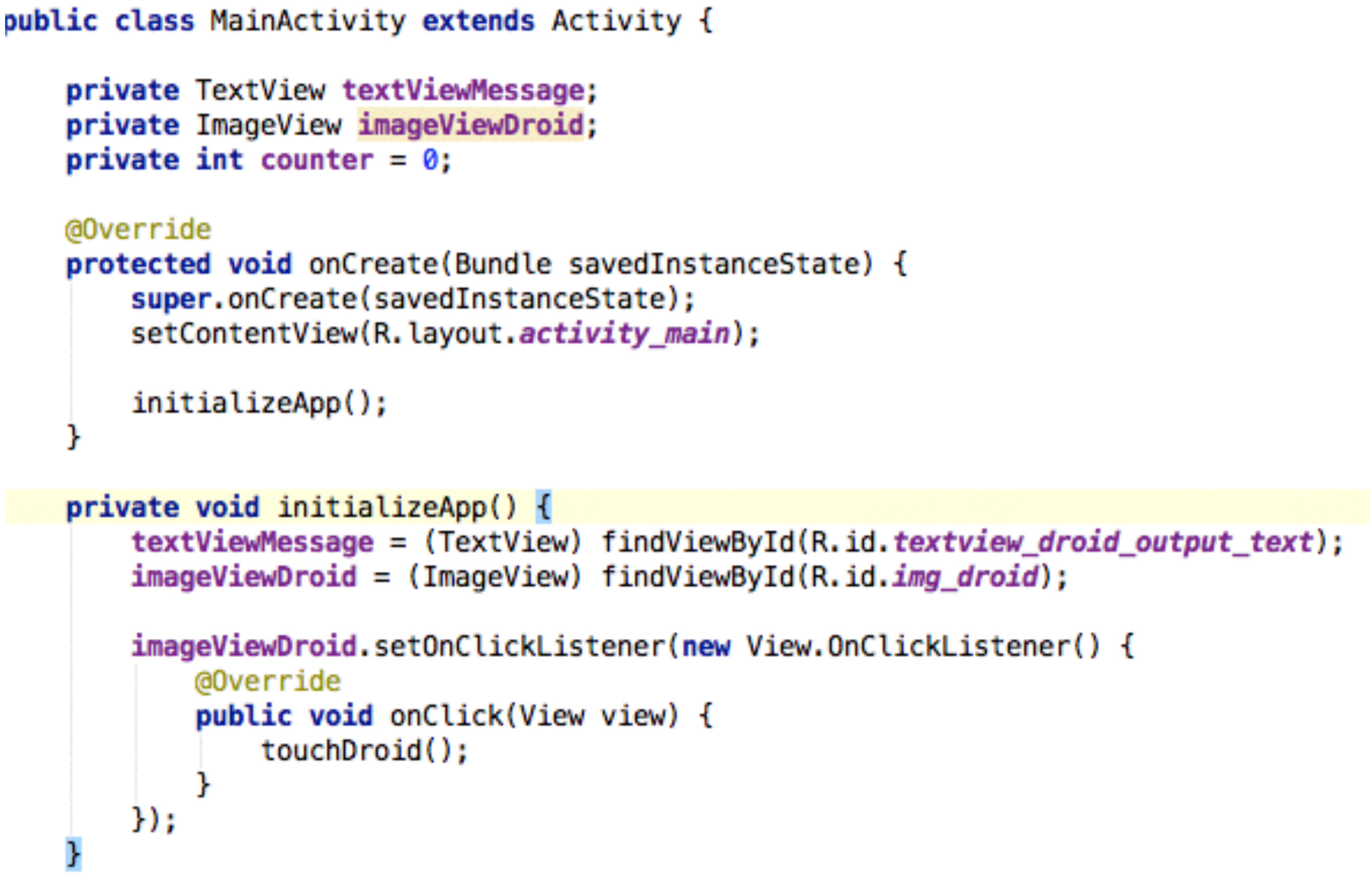
```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_height="match_parent"
    android:layout_width="match_parent"
    android:orientation="vertical"
    android:weightSum="1">

    <ImageView
        android:id="@+id/img_droid"
        android:layout_width="400dp"
        android:layout_height="400dp"
        android:layout_gravity="center_horizontal"
        android:src="@drawable/cooldroid"
        android:layout_marginTop="30dp" />

    <TextView
        android:id="@+id/textView_welcome_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:padding="10dp"
        android:text="@string/textview_welcome_text"
        android:textColor="@color/welcome_text"
        android:textSize="20dp"
        />

    <View
        android:layout_width="match_parent"
        android:layout_height="3dp"
        android:background="@android:color/darker_gray"
        />
    <TextView
        android:id="@+id/textview_droid_output_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:padding="10dp"
        android:text="@string/abc_droid_output_text"
        android:textSize="20dp"
        />
</LinearLayout>
```

Activities



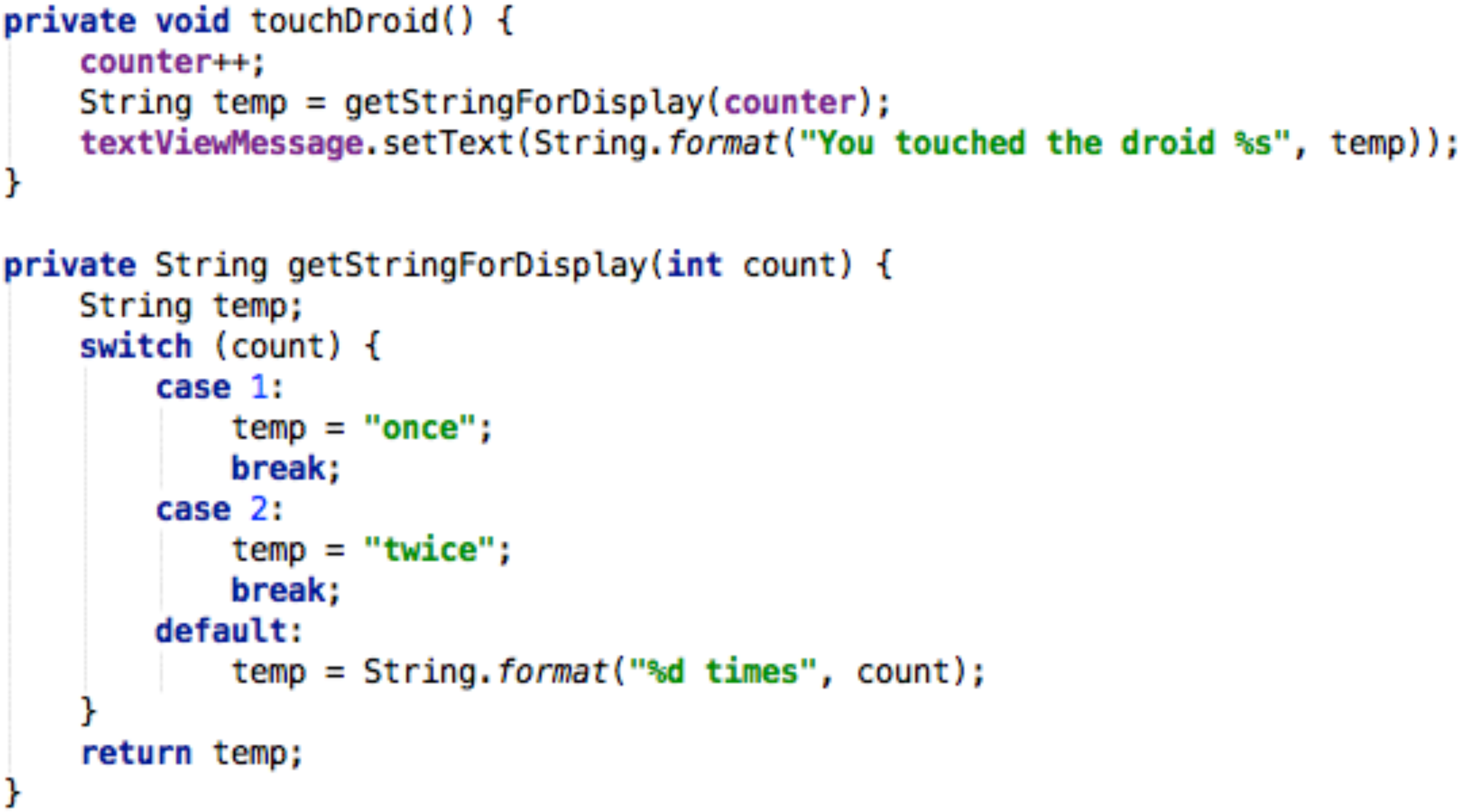
```java
package at.htl.cooldroid;

import ...

public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }


    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();
        if (id == R.id.action_settings) {
            return true;
        }
        return super.onOptionsItemSelected(item);
    }
}
```

MainActivity 1

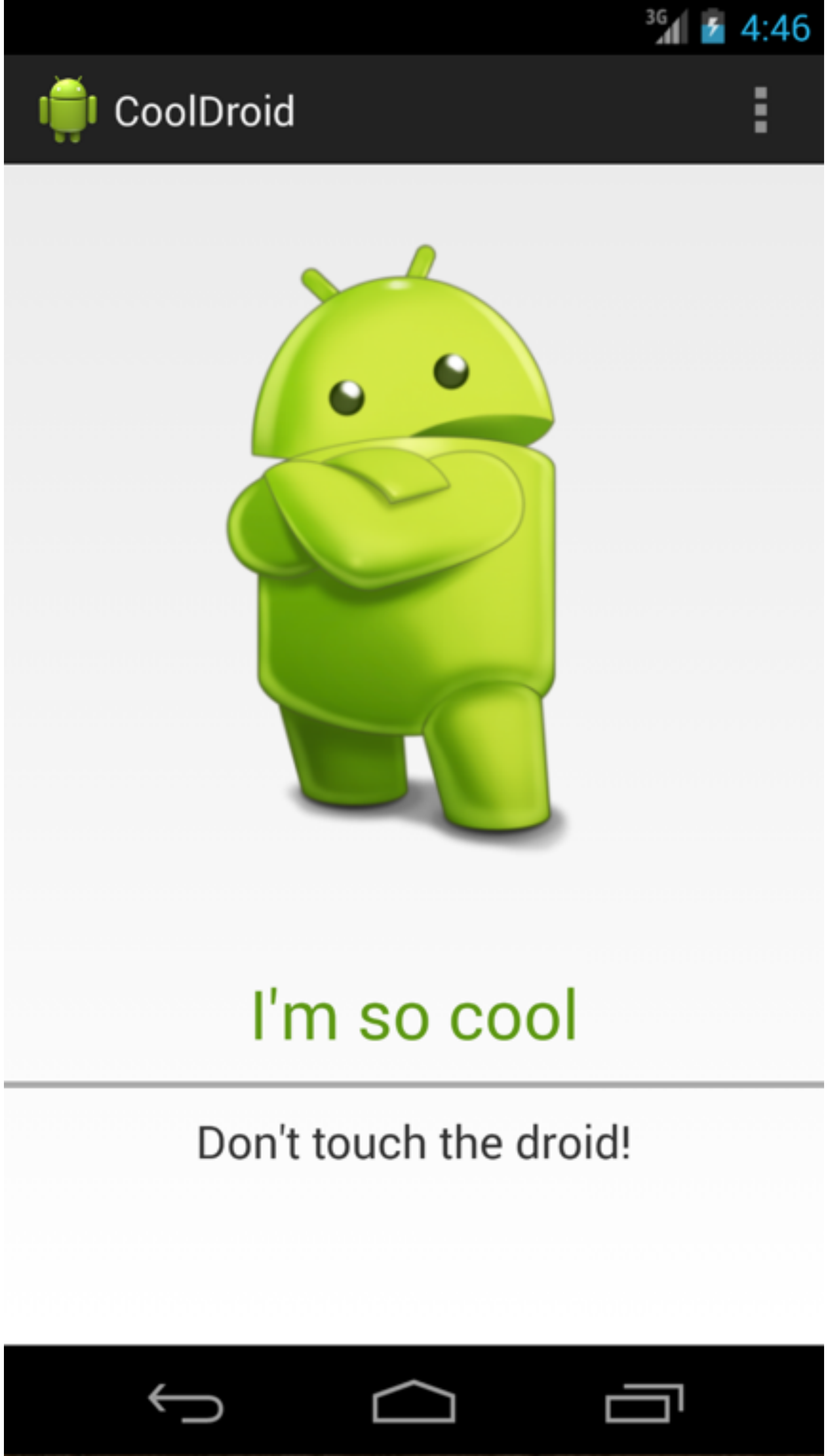


```
public class MainActivity extends Activity {

    private TextView textViewMessage;
    private ImageView imageViewDroid;
    private int counter = 0;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        initializeApp();
    }

    private void initializeApp() {
        textViewMessage = (TextView) findViewById(R.id.textview_droid_output_text);
        imageViewDroid = (ImageView) findViewById(R.id.img_droid);

        imageViewDroid.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                touchDroid();
            }
        });
    }
```

MainActivity 2



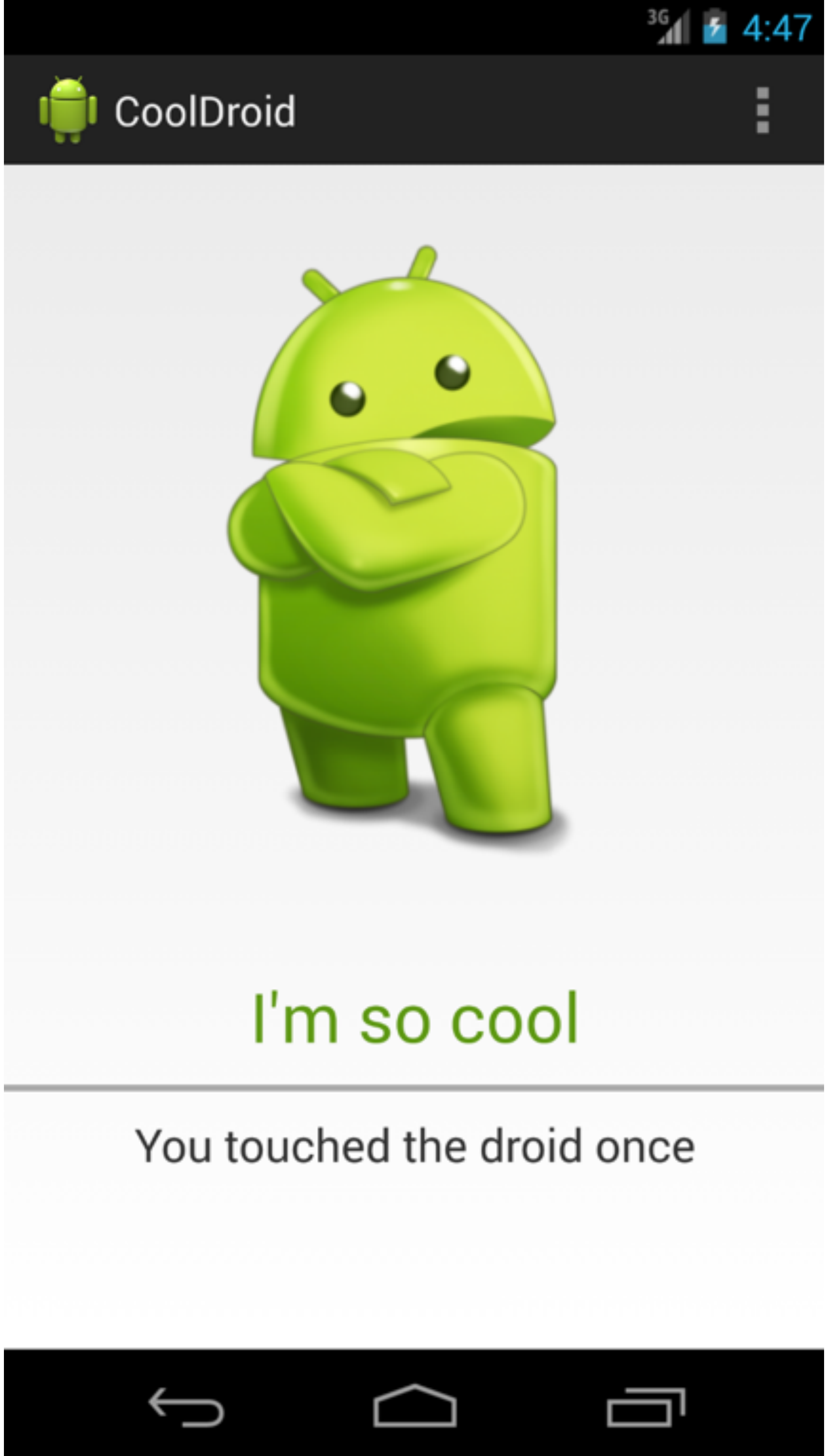
```
private void touchDroid() {
    counter++;
    String temp = getStringForDisplay(counter);
    textViewMessage.setText(String.format("You touched the droid %s", temp));
}

private String getStringForDisplay(int count) {
    String temp;
    switch (count) {
        case 1:
            temp = "once";
            break;
        case 2:
            temp = "twice";
            break;
        default:
            temp = String.format("%d times", count);
    }
    return temp;
}
```



CoolDroid

I'm so cool

Don't touch the droid!



CoolDroid

I'm so cool

You touched the droid once

HTL Leonding

Schön, hier zu lernen