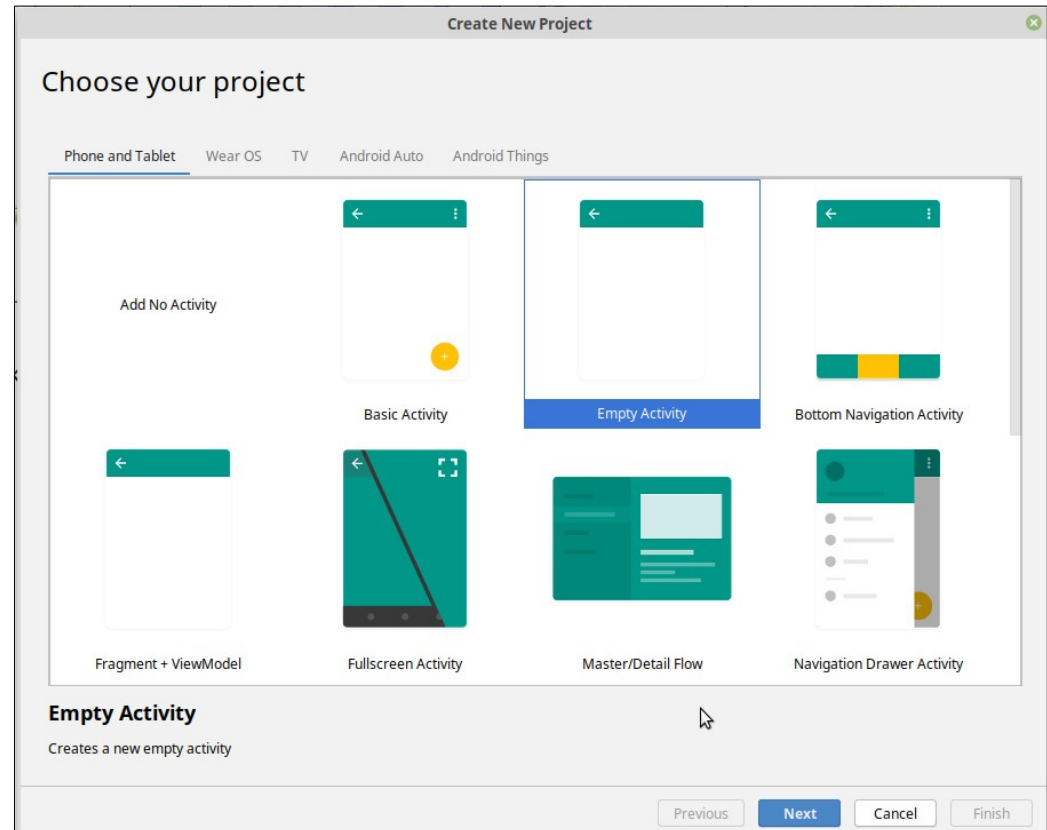
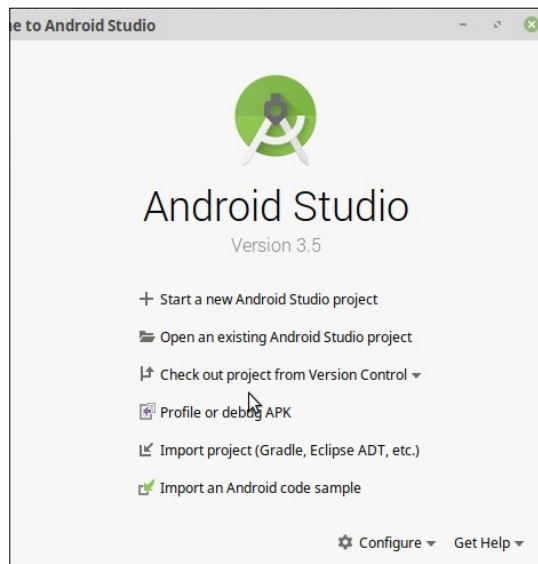


# Mobile solutions

**Kocsis Gergely**  
2019.09.16.

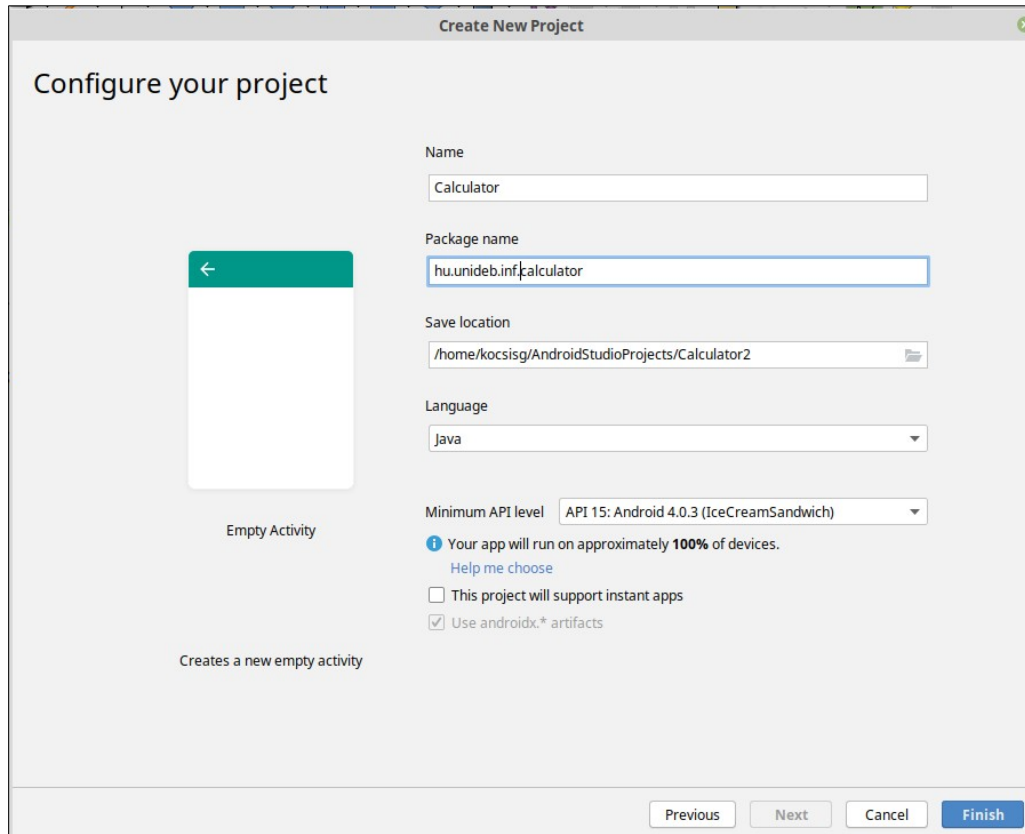
# The project

Create a simple calculator app using Android Studio



# A projekt

## Create project



Create New Project

Configure your project

Name  
Calculator

Package name  
hu.unideb.inf.calculator

Save location  
/home/kocsisg/AndroidStudioProjects/Calculator2

Language  
Java

Minimum API level  
API 15: Android 4.0.3 (IceCreamSandwich)

**i** Your app will run on approximately **100%** of devices.  
[Help me choose](#)

This project will support instant apps

Use androidx.\* artifacts

Empty Activity

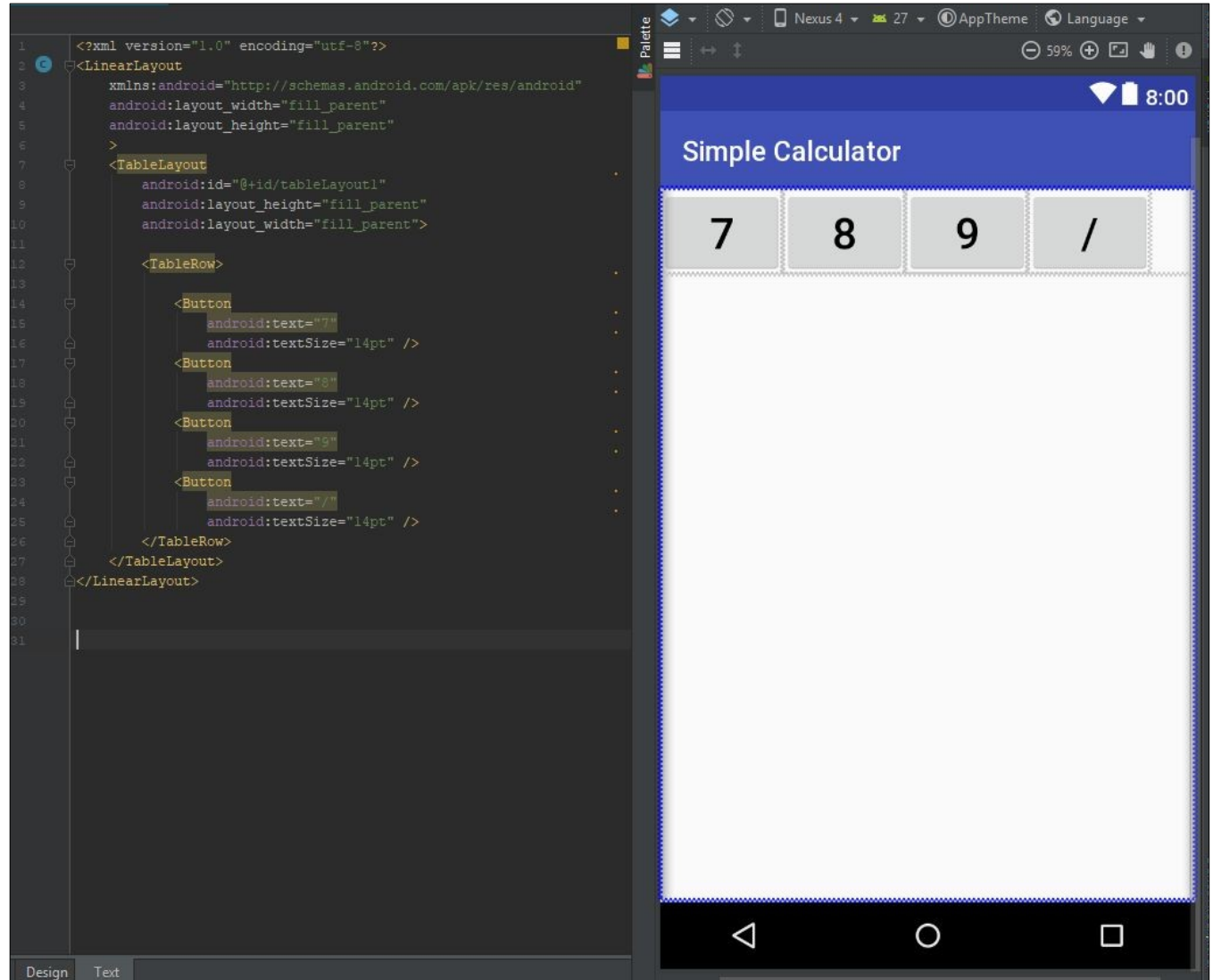
Creates a new empty activity

Previous Next Cancel Finish



# A projekt

## Design the UI



The image shows the Android Studio IDE with the XML editor on the left and the design preview on the right. The XML code defines a simple calculator UI with a blue header and four buttons in a row.

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout
3     xmlns:android="http://schemas.android.com/apk/res/android"
4     android:layout_width="fill_parent"
5     android:layout_height="fill_parent"
6 >
7     <TableLayout
8         android:id="@+id/tableLayout1"
9         android:layout_height="fill_parent"
10        android:layout_width="fill_parent">
11
12        <TableRow>
13
14            <Button
15                android:text="7"
16                android:textSize="14pt" />
17
18            <Button
19                android:text="8"
20                android:textSize="14pt" />
21
22            <Button
23                android:text="9"
24                android:textSize="14pt" />
25
26            <Button
27                android:text="/"
28                android:textSize="14pt" />
29
30        </TableRow>
31    </TableLayout>
32</LinearLayout>
```

The design preview on the right shows a mobile device screen with a blue header titled "Simple Calculator". Below the header, there are four buttons in a row: "7", "8", "9", and "/". The screen also shows a status bar at the top with a Wi-Fi icon, a battery icon, and the time "8:00". The bottom of the screen shows the Android navigation bar with the back, home, and recent apps buttons.



# A projekt

## Ids and handlers

```
<Button
    android:text="7"
    android:textSize="14pt"
    android:id="@+id/button7"
    android:layout_width="25pt"
    android:layout_height="25pt"
    android:layout_weight="1"
    android:onClick="handleClick" />
```

### Example of id

```
private TextView result;
result = findViewById(R.id.result);
```

### Example handler method:

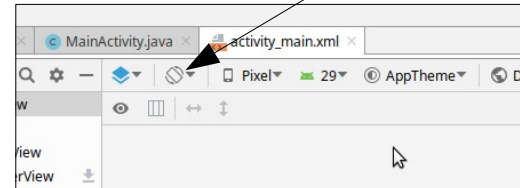
```
public void handleClick(View view) {
    Button clicked = (Button) view;
    String value = clicked.getText().toString();
    result.setText(value);
}
```



# A projekt

Change orientation

Landscape



```
AndroidManifest.xml x MainActivity.java x activity_main.xml x
1 <?xml version="1.0" encoding="utf-8"?>
2 <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3 package="com.example.calculator">
4
5 <application
6     android:allowBackup="true"
7     android:icon="@mipmap/ic_launcher"
8     android:label="Calculator"
9     android:roundIcon="@mipmap/ic_launcher_round"
10    android:supportsRtl="true"
11    android:theme="@style/AppTheme">
12    <activity android:name=".MainActivity"
13        android:screenOrientation="portrait">
14        <intent-filter>
15            <action android:name="android.intent.action.MAIN"
16                android:label="@string/app_name" />
17            <category android:name="android.intent.category.LAUNCHER" />
18        </intent-filter>
19    </activity>
20 </application>
21
22
23 </manifest>
```

portrait  
sensor  
sensorPortrait  
sensorLandscape  
landscape  
behind  
fullSensor  
fullUser  
locked  
nosensor  
reverseLandscape  
reversePortrait

Dot, space and some other keys will also close this lookup and be inserted into editor