

# Session 5a: Building an app for the Google Play Store



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**framework training**  
business value through education

# What we will cover

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- What developer does on Android
- Differences in setting up Google Play Store entry
- Setting up your Google Play Store team
- Releasing your app
- Monitoring and analytics

# What the developers do (Android)

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- Build the app using Android Studio (development environment)
- Run in the emulator (on the Mac/PC)
- Run directly on devices
- Release a signed app
  - Either as a package or to the Play Store
- Lets see that in action

# Building the Android app

The image shows the Android Studio interface with the following details:

- Project Structure:** The project is named "Test". The "app" module contains Java files (AndroidManifest.xml, MainActivity.java), resources (activity\_main.xml, raw/boreda.mp3), and generated files.
- MainActivity.kt:** The code defines a Main Activity that initializes a button and a text view, and sets up a click listener to play a sound when the button is clicked.
- Emulator:** A Pixel 3a API 32 arm64-v8a device is running the application. The screen displays the word "Good morning" in English and "Bore da" in Welsh, with a "LISTEN" button at the bottom.

```
Test – MainActivity.kt [Test.app]
Test > app > src > main > java > com > example > test > MainActivity > playSound()

Resource Manager Project
app
  manifests
    AndroidManifest.xml
  java
    com.example.test
      MainActivity
      com.example.test (androidTest)
      com.example.test (test)
  java (generated)
  res
    drawable
    layout
      activity_main.xml
    mipmap
    raw
      boreda.mp3
    values
    res (generated)
  Gradle Scripts

activity_main.xml MainActivity.kt
1 package com.example.test
2
3 import ...
4
5 class MainActivity : AppCompatActivity() {
6
7     private lateinit var playButton: Button
8     private lateinit var welshView: TextView
9
10    var myMediaPlayer = MediaPlayer()
11
12    override fun onCreate(savedInstanceState: Bundle?) {
13        super.onCreate(savedInstanceState)
14        setContentView(R.layout.activity_main)
15
16        welshView = findViewById(R.id.welshView)
17        playButton = findViewById(R.id.playButton)
18
19        playButton.setOnClickListener { playSound() }
20
21    }
22
23    fun playSound(){
24        myMediaPlayer = MediaPlayer.create( context: this, R.raw.boreda)
25        myMediaPlayer.start()
26    }
27
28
29
30
31 }
```

Emulator: Pixel 3a API 32 arm64-v8a

9:33

Test

English

Good morning

Welsh

Bore da

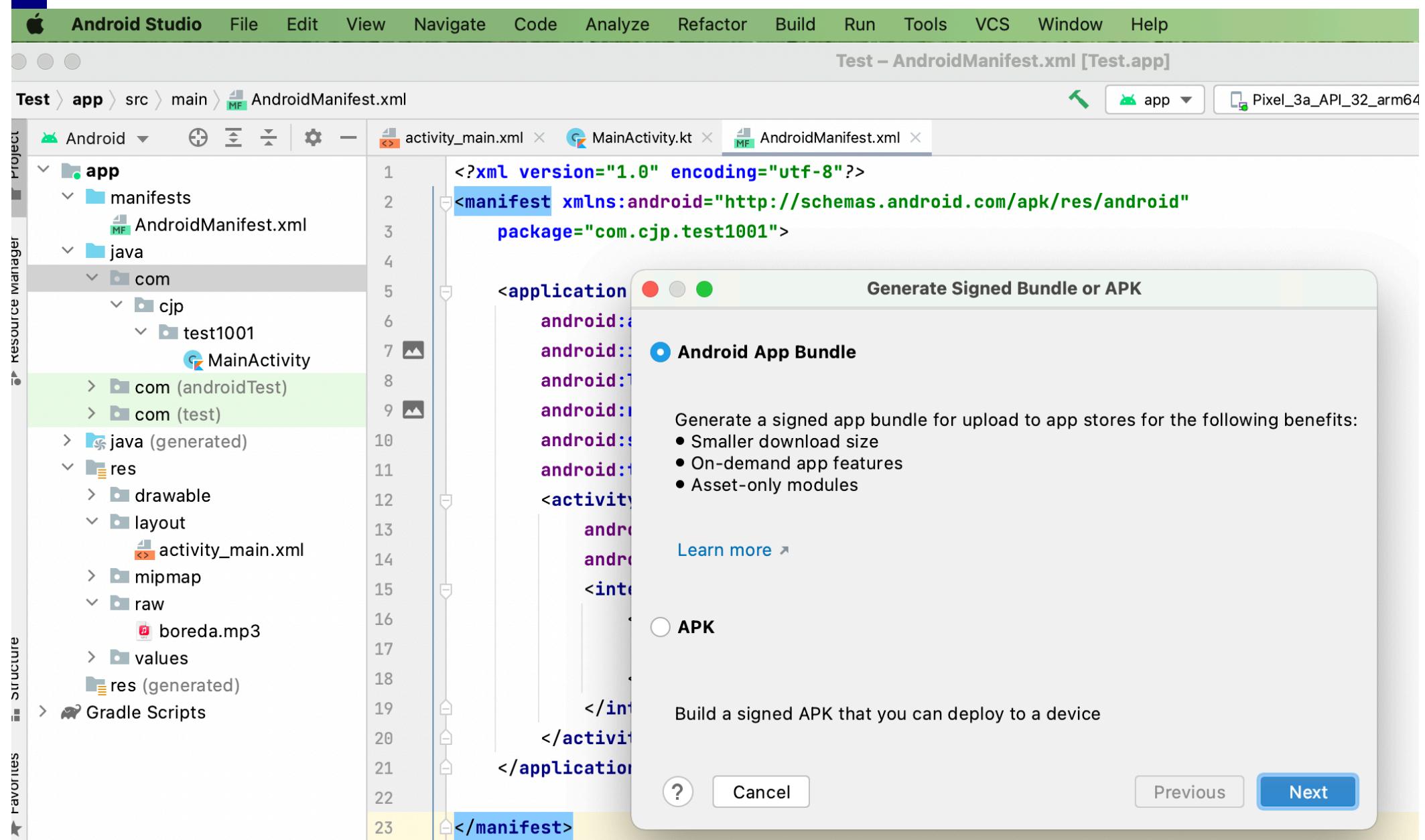
LISTEN

# In order to package the app, the developer needs to create a signed app bundle

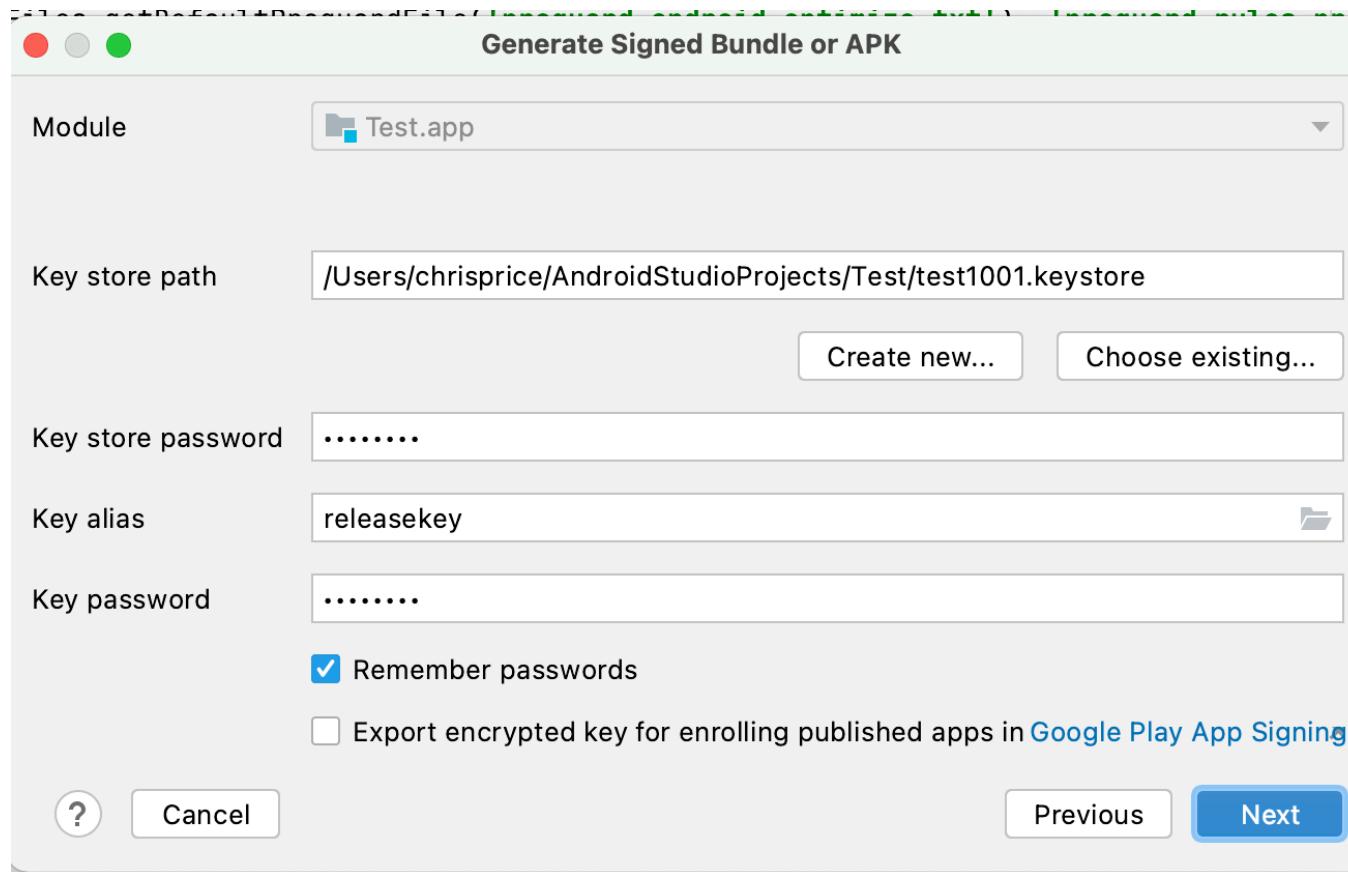
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- Developer creates a key store
- Can then generate either an App Bundle for the PlayStore or a signed APK that can be put directly on a device
- See next slide for example

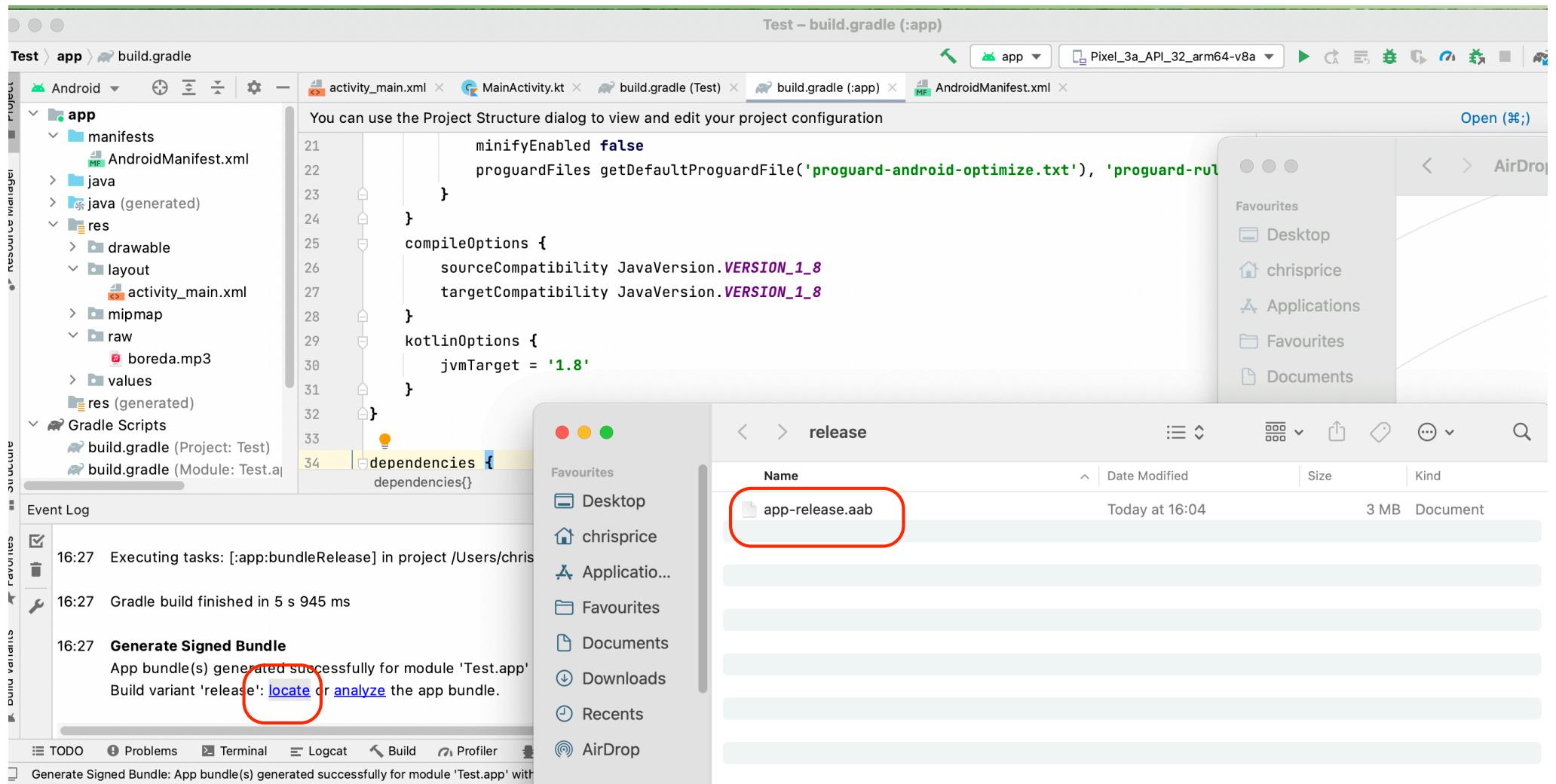
# Creating an App bundle (1)



# Creating an App bundle (2)



# Creating an App bundle (3)



Clicking on [locate](#) will show you where the generated App is in your file store

# The app bundle is ready for uploading to the App Store

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- Developer can create the app bundle and pass it to the operations staff to be uploaded
- If you choose APK instead of Android App Bundle three slides back, then the app bundle produced can be loaded directly onto an Android phone
- In the next section, we will look at the Android equivalent of setting up an app for release in the app store