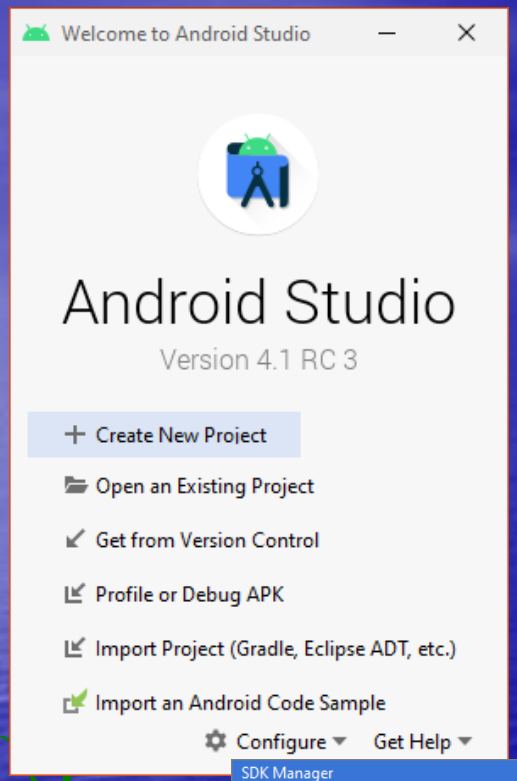
Development with Android Studio

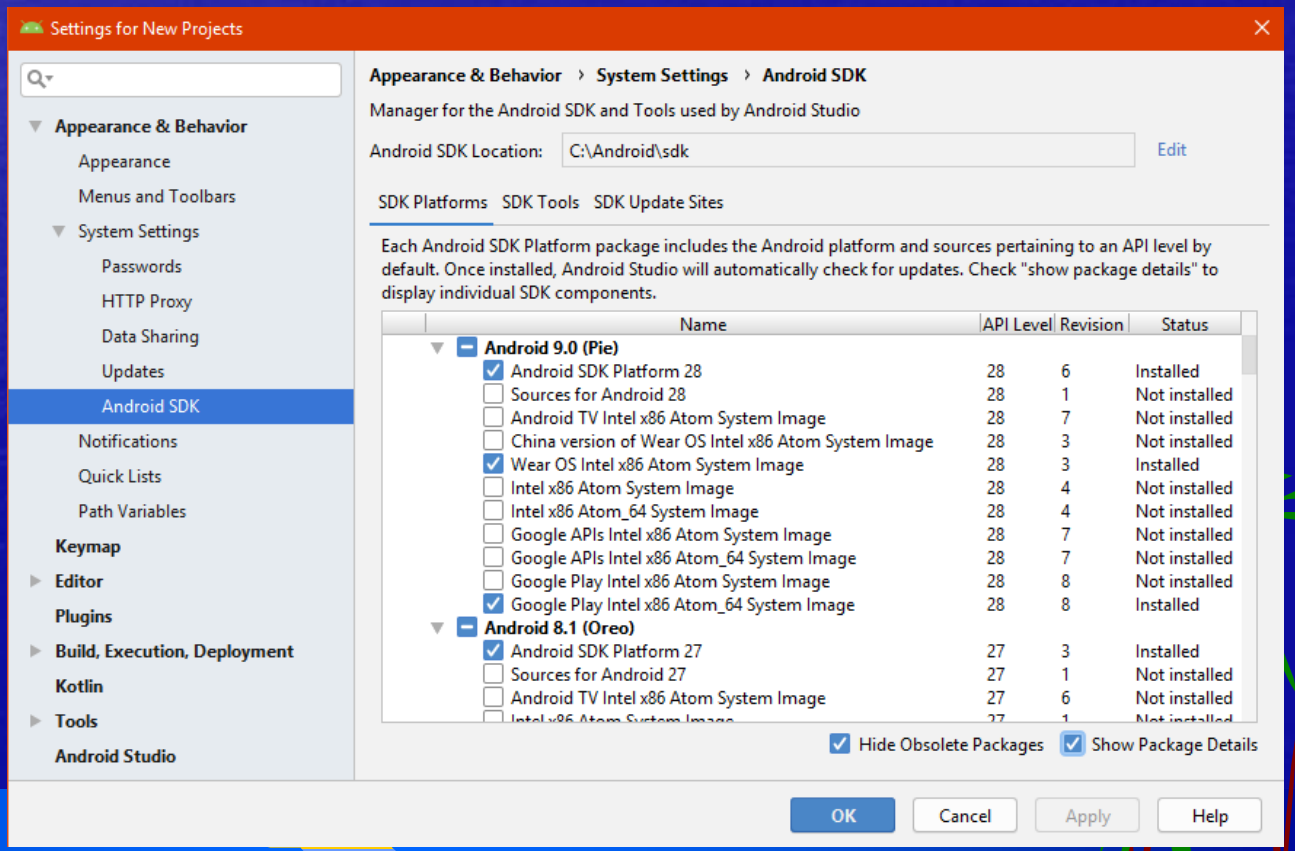
Main screens

Android Studio IDE and SDK

https://developer.android.com/studio



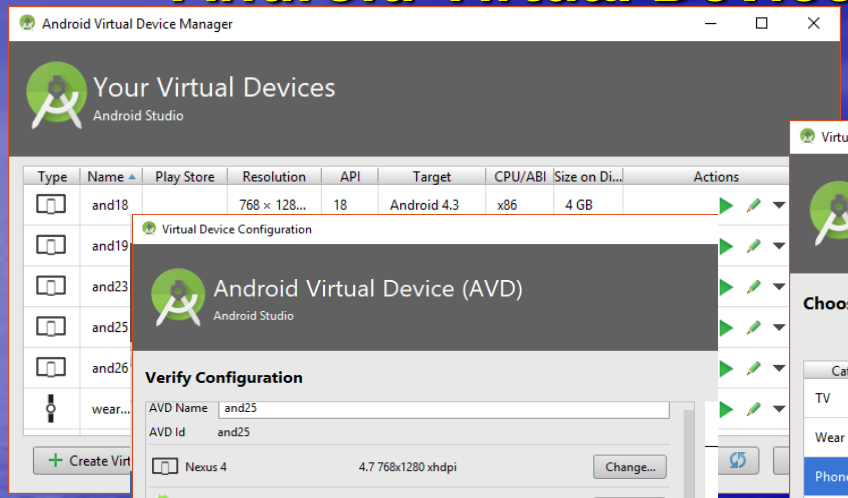
Android Studio

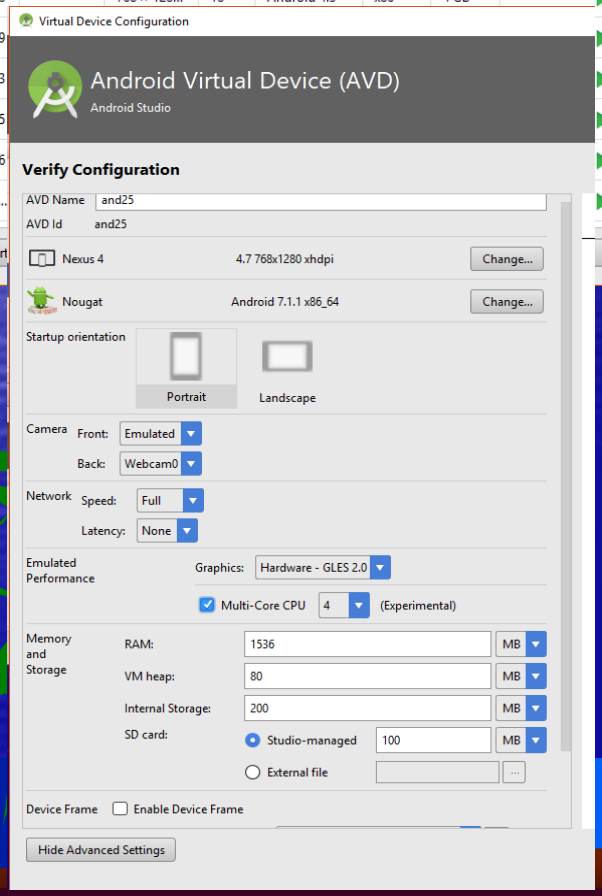


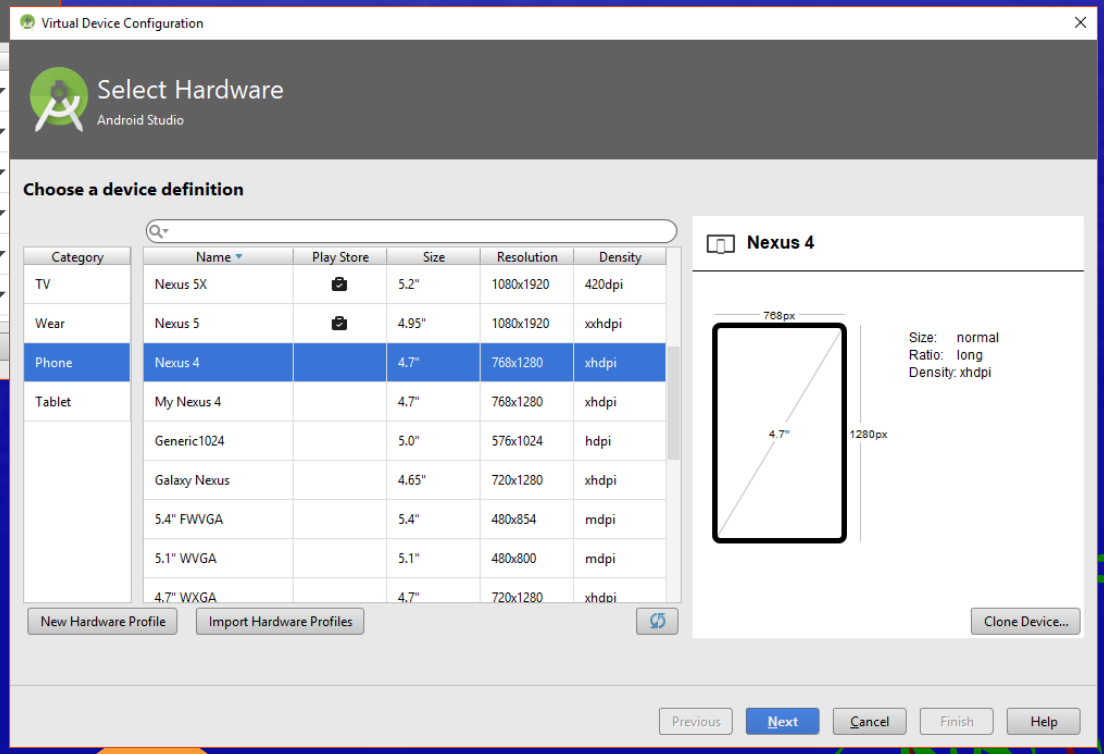
Android SDK

Android development

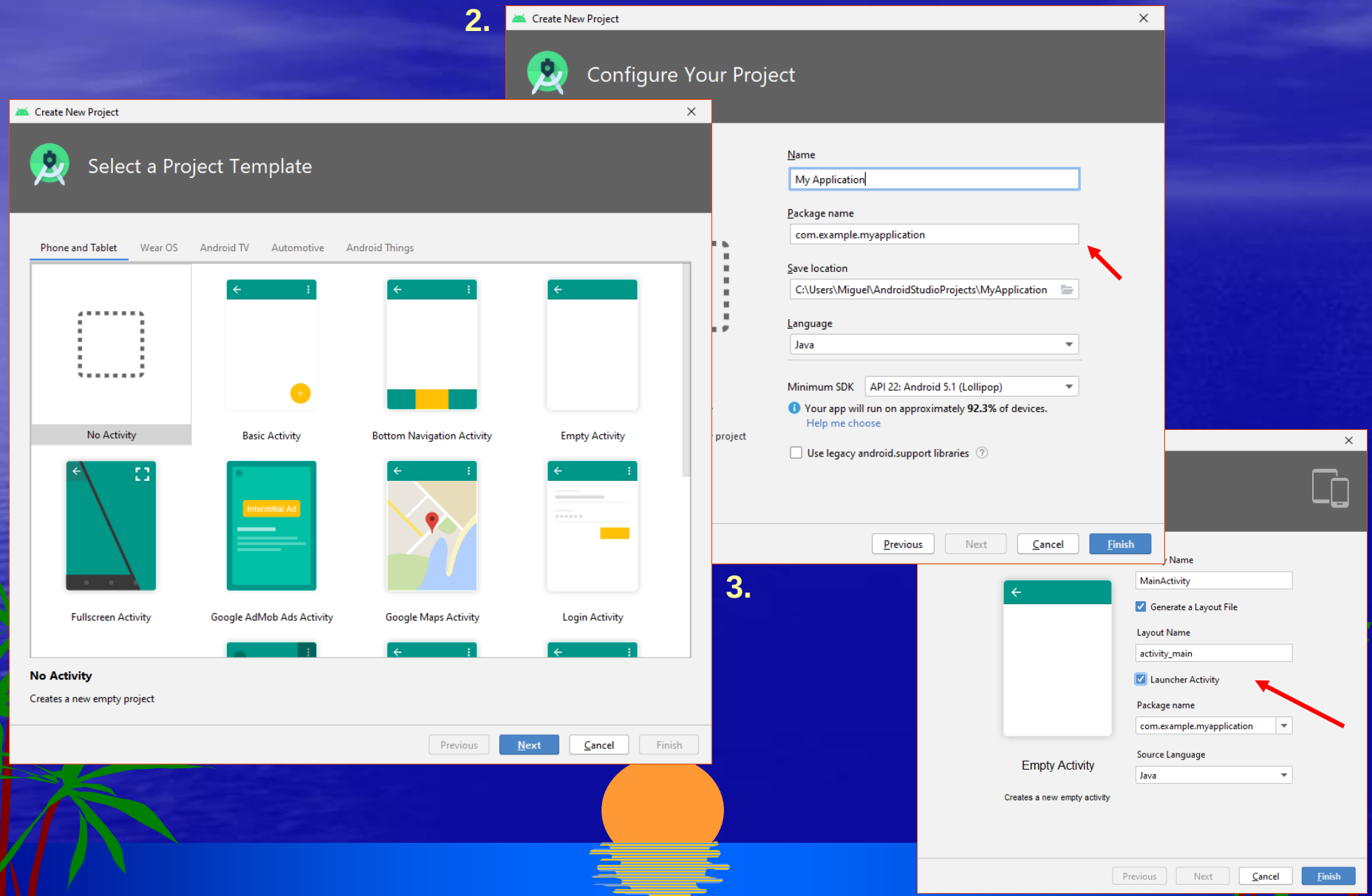
- Creation of emulators
  - Android Virtual Device Manager (AVD)



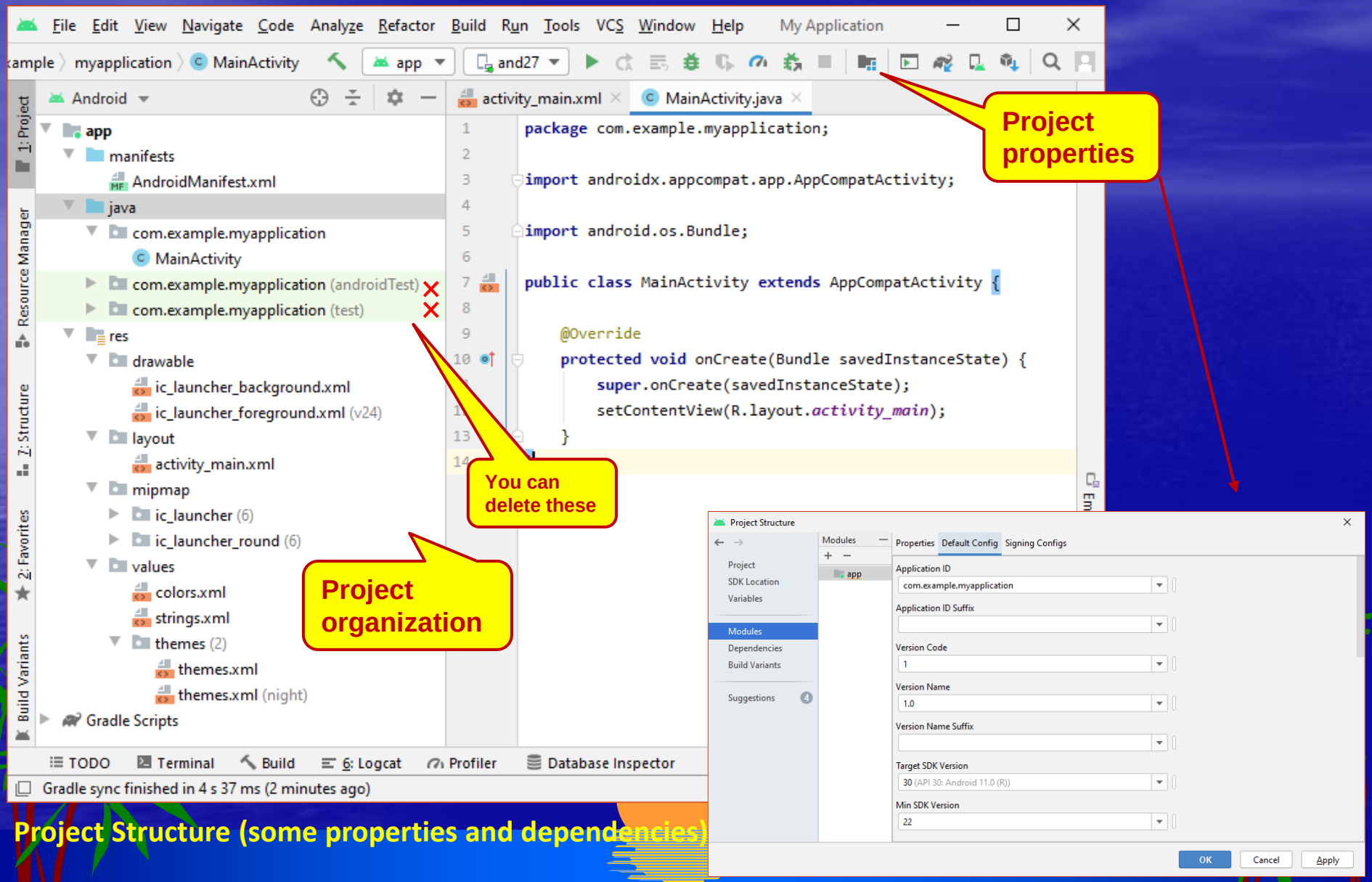




New Android project

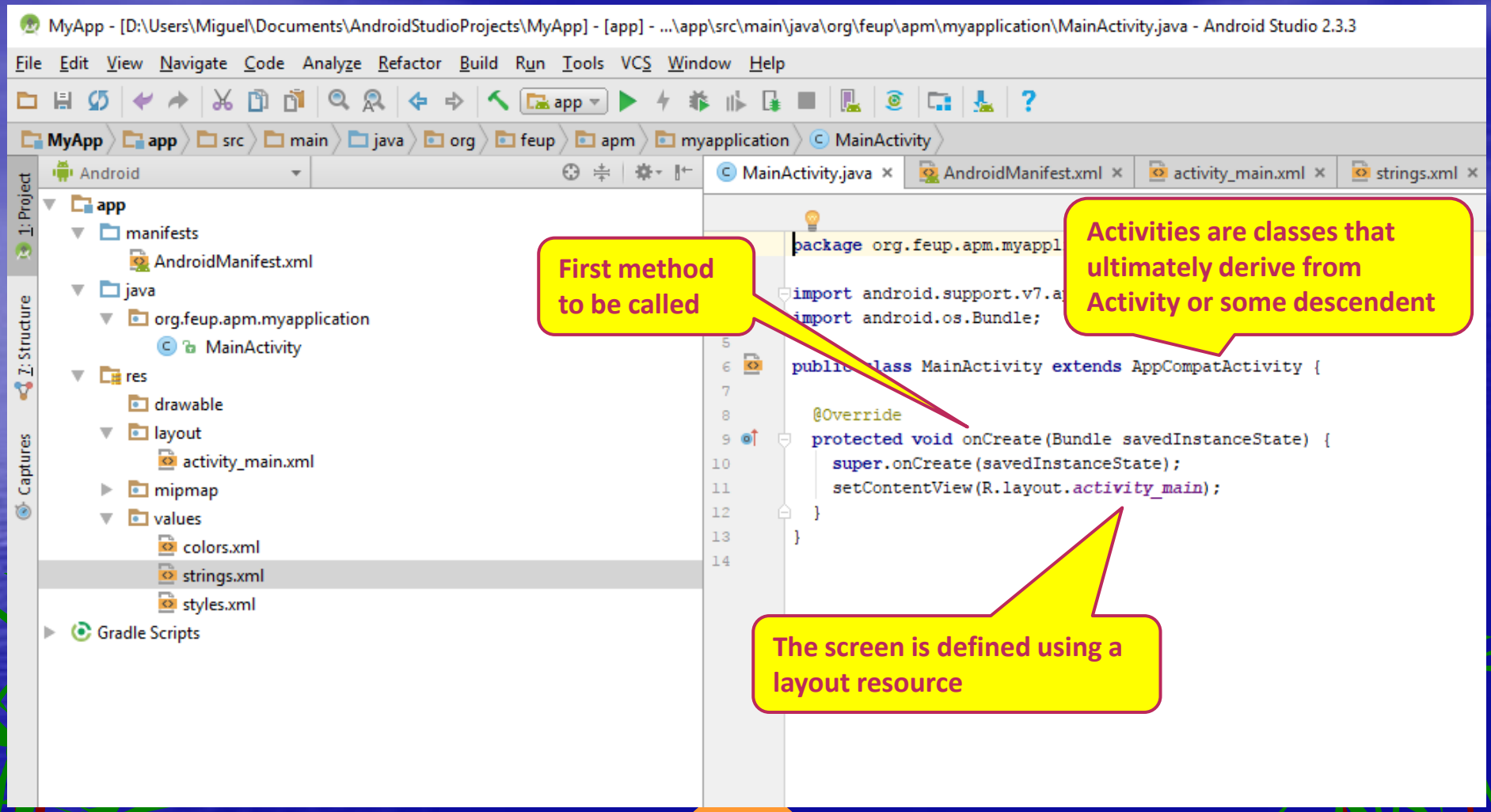


Characterizing a project

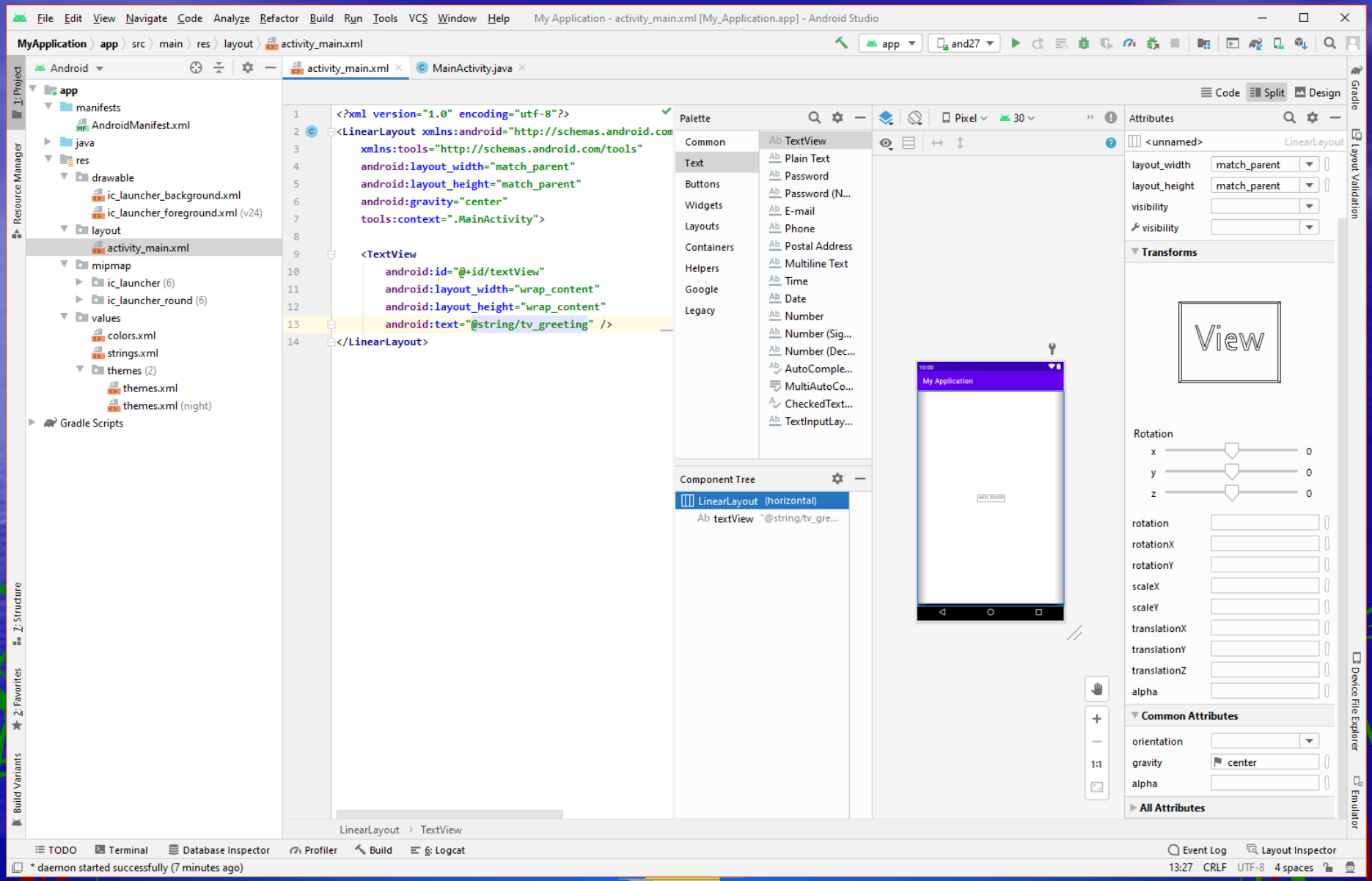


Project Structure (some properties and dependencies)

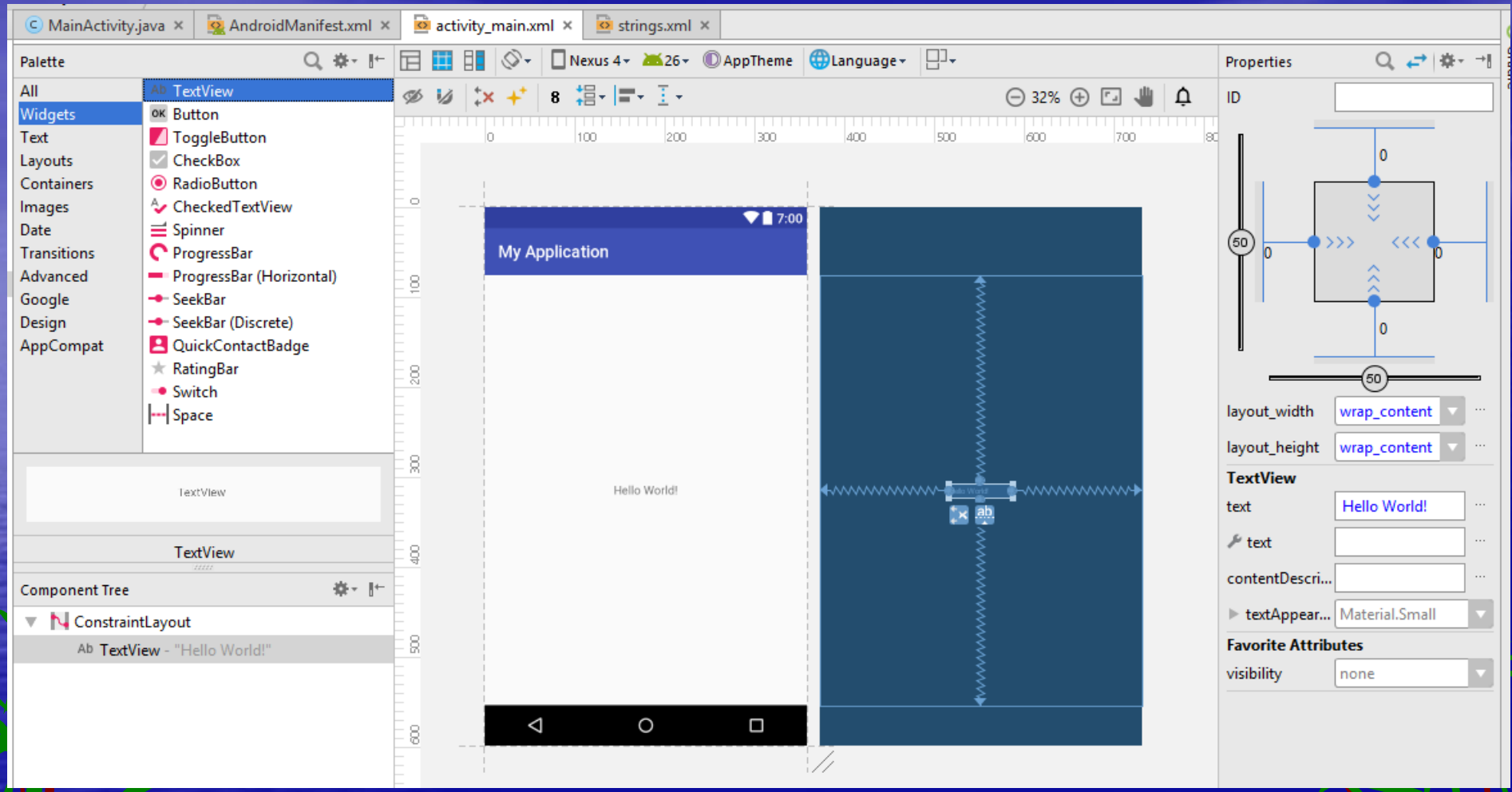
Project skeleton



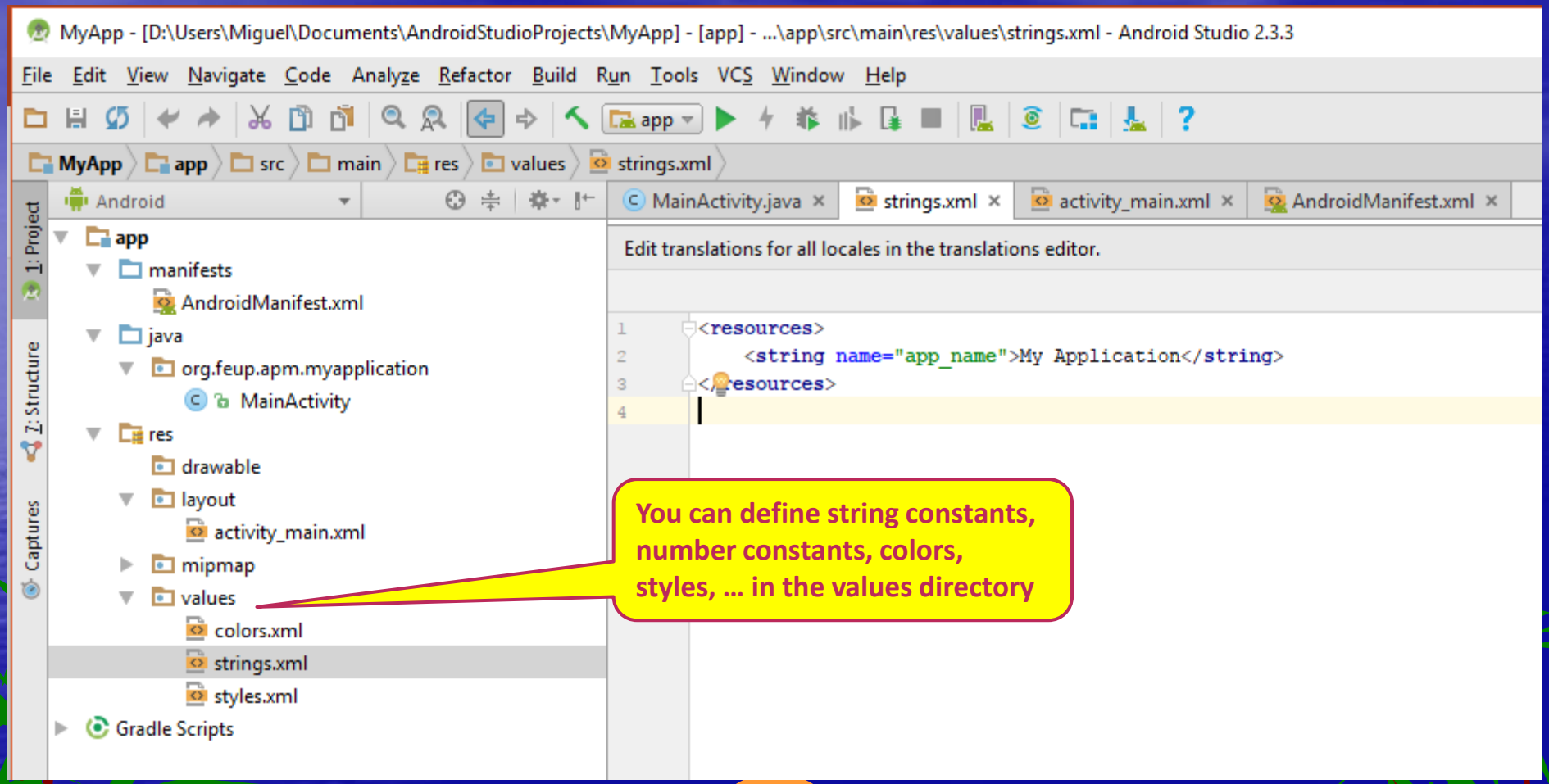
Resources (activity layout)



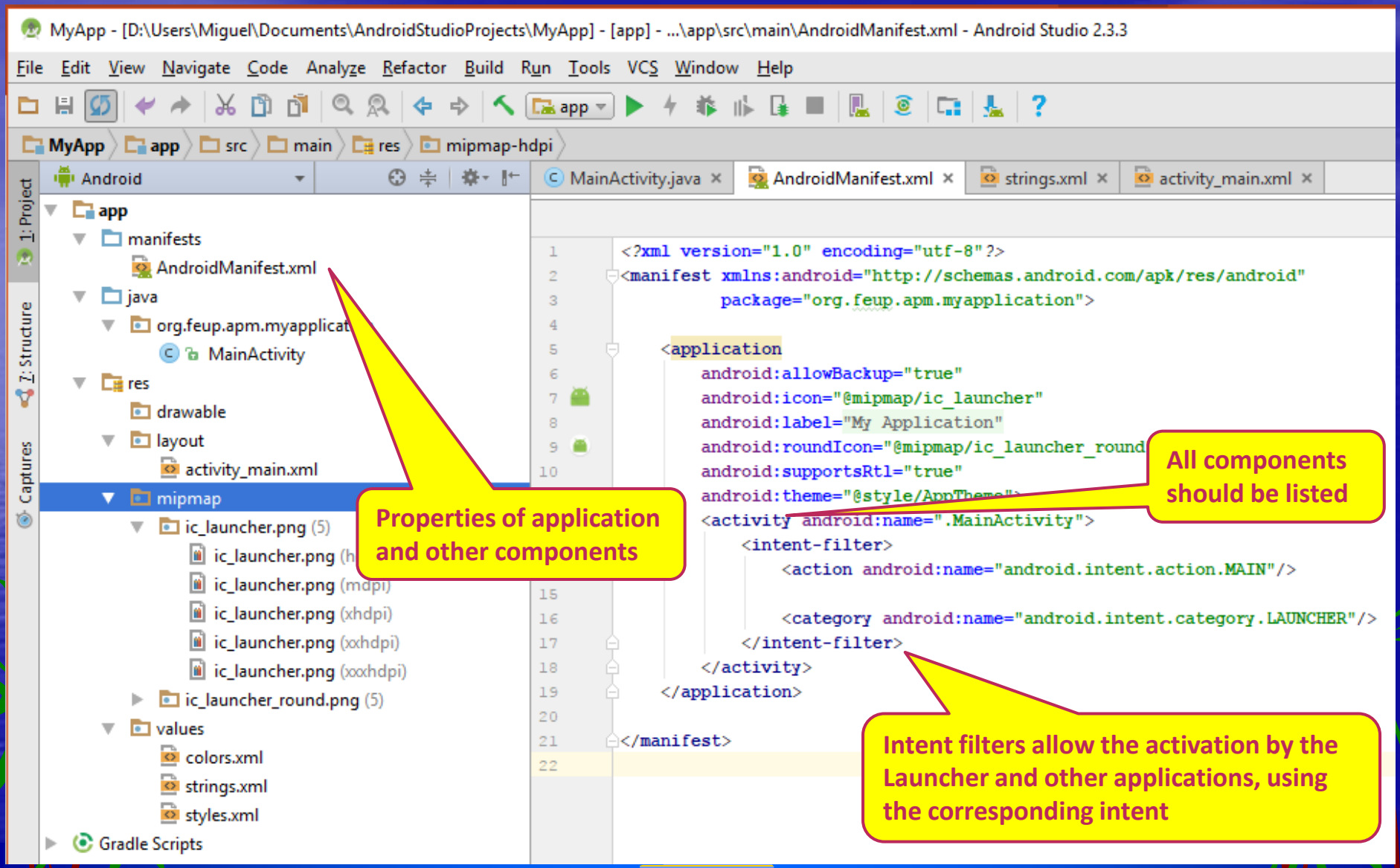
Layout editor



Resources (values)



The manifest

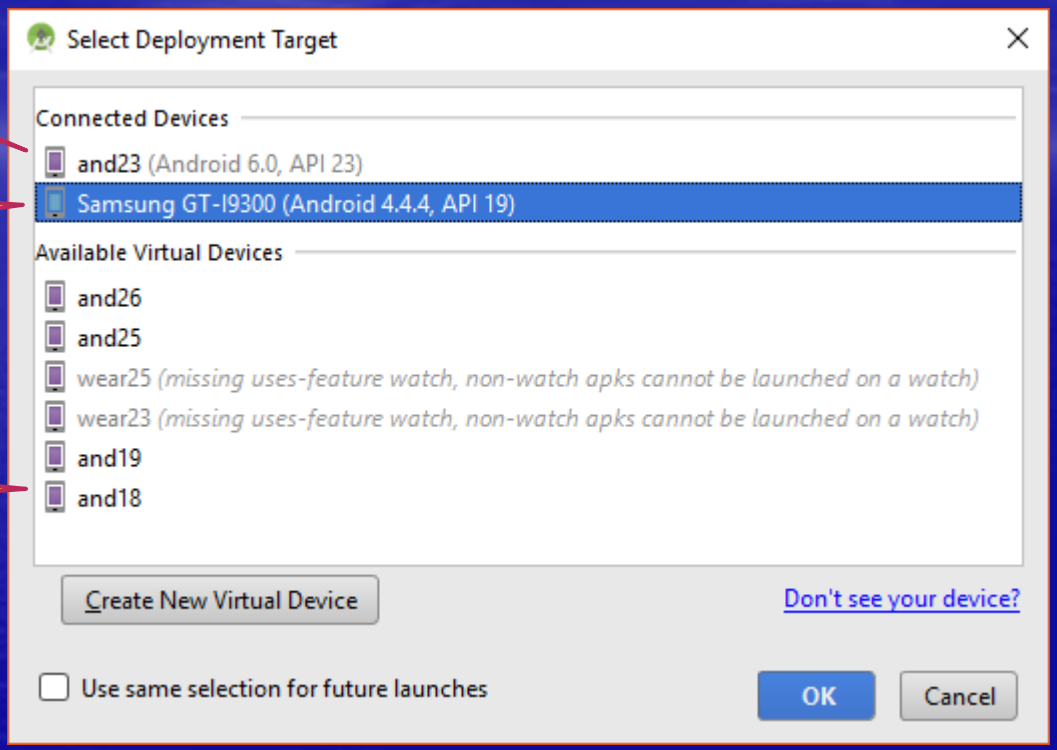


Execution

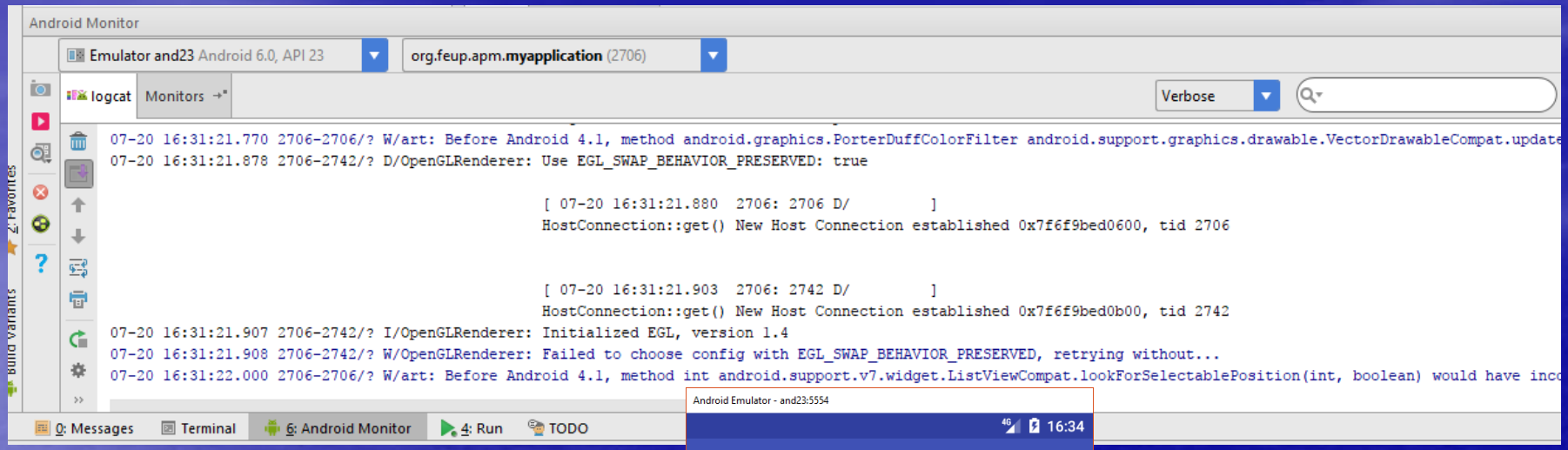
An emulator

Real device connected through USB

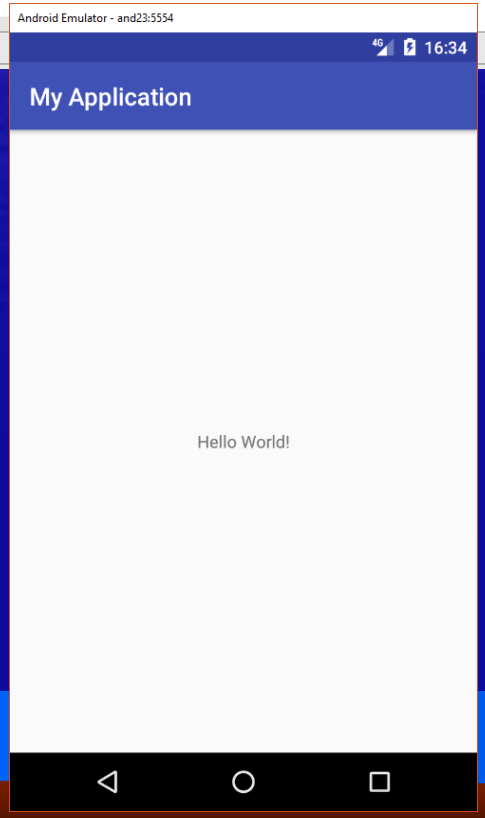
Launch other emulator



Messages and emulator



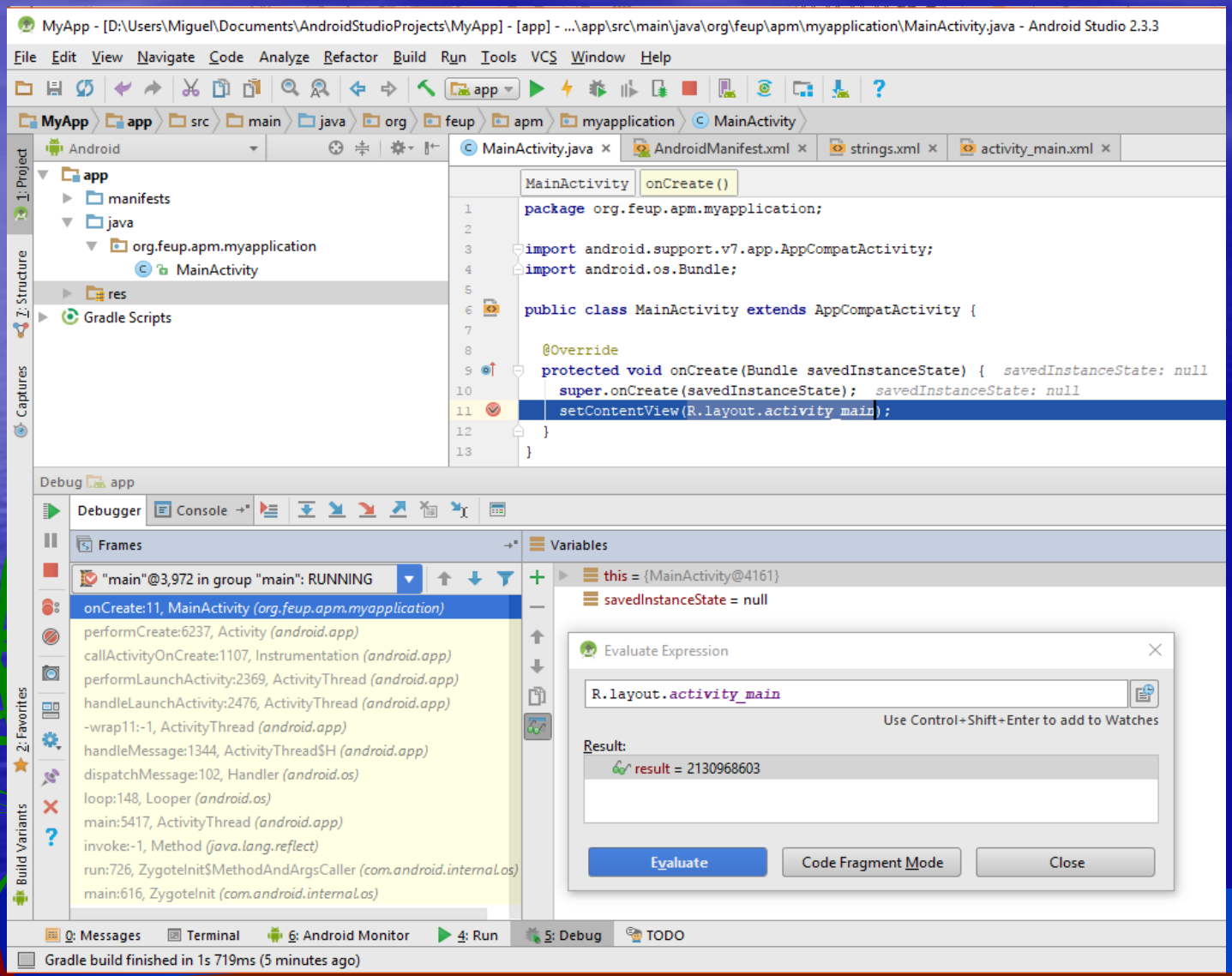
Execution messages



An emulator

Debugging (1)

- Logging messages
  - Using the Log class which has several static methods
    - Log.e() - log errors
    - Log.w() - log warnings
    - Log.i() - log information
    - Log.d() - log debugging
    - Log.v() - log verbose
    - Log.wtf() - log 'what a terrible failure'
  - These messages are shown on the Android Monitor
    - Many API functions and even the OS emit them
    - In Android Studio: Use the bottom tab Android Monitor (Alt+6)
    - In an independent view: adb logcat (SDK)
    - Leave it running during the all session

Debugging (2)

- breakpoints, single step, variable state, ...