

SESSION 00

- A brief history of Android
- Android API levels
- How Android is different from iOS
- You shall have to do a lot of research on your own to learn proper android programming
- Java vs Kotlin
 - Dalvik JVM
 - ART (Android Runtime) successor to Dalvik
 - Dalvik was JIT while ART is AOT
- Android Studio
- Creating your first android project
 - Start new android studio project
 - Template: Empty activity
 - App name and package
 - ◆ why unique packaging is important
 - Minimum SDK
 - Language: Java
 - "Use legacy android.support libraries" : No - Talk about Android X
 - It should take Gradle some time to process the configuration
- Discuss about the project structure
 - The MainActivity
 - AndroidManifest.xml
 - The R.java
 - Gradle and Gradle build
 - The res folder [<https://developer.android.com/guide/topics/resources/providing-resources>]
 - ◆ extra folders
 - ◆ xml

- ◆ font
- ◆ menu
- Layouts
 - ◆ XML vs WYSIWYG
 - ◆ Talk about Views and ViewGroup
 - ◆ Talk about various screen sizes
 - ◆ How Android inflates xml views at runtime
 - ◆ very brief discussion about ConstraintLayout [<https://developer.android.com/reference/androidx/constraintlayout/widget/ConstraintLayout>]
 - ◆ FrameLayout [<https://developer.android.com/reference/android/widget/FrameLayout>]
 - ◆ ScrollView [<https://developer.android.com/reference/android/widget/ScrollView>]
 - ◆ LinearLayout [<https://developer.android.com/reference/android/widget/LinearLayout>]
 - ◆ Always a good idea to give ids to layout components
 - ◆ TextView [<https://developer.android.com/reference/android/widget/TextView>]
 - ◆ strings.xml
 - ◆ dp vs sp vs dip vs px vs in vs mm [<https://stackoverflow.com/questions/2025282/what-is-the-difference-between-px-dip-dp-and-sp>]
 - ◆ FragmentLayout with two TextViews (Why this doesn't work?)
- Log [<https://developer.android.com/reference/android/util/Log.html>]
- Activity vs AppCompatActivity
 - ◆ Activity [<https://developer.android.com/reference/android/app/Activity>] : An activity is a single focused thing that an user can do.

- ◆ The Activity Lifecycle [<https://developer.android.com/reference/android/app/Activity#ActivityLifecycle>]
 - ◆ onCreate() [[https://developer.android.com/reference/android/app/Activity#onCreate\(android.os.Bundle\)](https://developer.android.com/reference/android/app/Activity#onCreate(android.os.Bundle))]
 - ◆ onStart() [[https://developer.android.com/reference/android/app/Activity#onStart\(\)](https://developer.android.com/reference/android/app/Activity#onStart())]
 - ◆ onResume() [[https://developer.android.com/reference/android/app/Activity#onResume\(\)](https://developer.android.com/reference/android/app/Activity#onResume())]
 - ◆ onPause() [[https://developer.android.com/reference/android/app/Activity#onPause\(\)](https://developer.android.com/reference/android/app/Activity#onPause())]
 - ◆ onStop() [[https://developer.android.com/reference/android/app/Activity#onStop\(\)](https://developer.android.com/reference/android/app/Activity#onStop())]
 - ◆ onRestart() [[https://developer.android.com/reference/android/app/Activity#onRestart\(\)](https://developer.android.com/reference/android/app/Activity#onRestart())]
 - ◆ onDestroy() [[https://developer.android.com/reference/android/app/Activity#onDestroy\(\)](https://developer.android.com/reference/android/app/Activity#onDestroy())]
- ◆ finish() [[https://developer.android.com/reference/android/app/Activity#finish\(\)](https://developer.android.com/reference/android/app/Activity#finish())]
- ◆ finishActivity() [[https://developer.android.com/reference/android/app/Activity#finishActivity\(int\)](https://developer.android.com/reference/android/app/Activity#finishActivity(int))]
- ◆ Briefly touch Fragments
- ◆ Fragments vs Activity (brief) : Fragment [<https://developer.android.com/reference/android/app/Activity#Fragments>]

- ◆ setContentView
- ◆ R.layout.some_layout.xml
- how changing screen orientation destroys the activity and recreates it
- Bundle savedInstanceState [<https://developer.android.com/reference/android/os/Bundle>]
- AppCompatActivity [<https://developer.android.com/reference/androidx/appcompat/app/AppCompatActivity>]
- Button [<https://developer.android.com/reference/android/widget/Button>]
- EditText [<https://developer.android.com/reference/android/widget/EditText>]

