

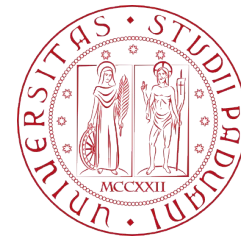
Kotlin Multiplatform

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Mobile Programming and Multimedia

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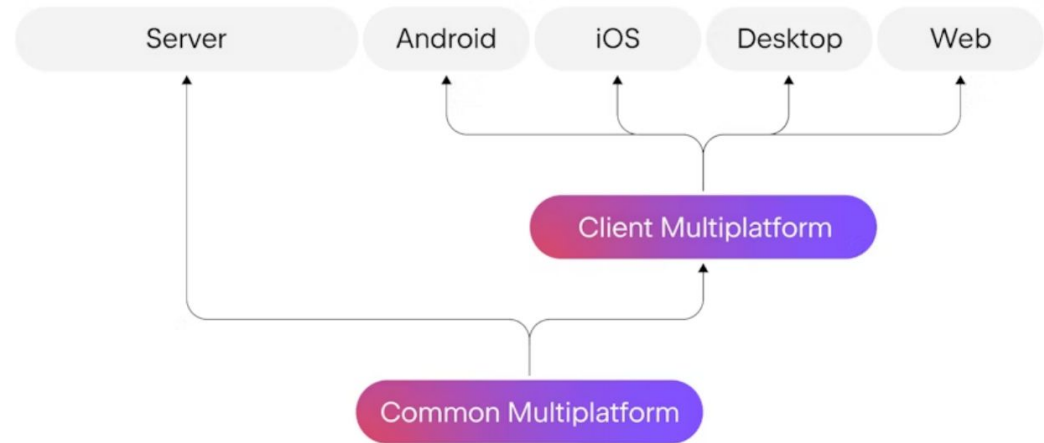
What is it about?



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Kotlin Multiplatform

<https://www.jacobras.nl/2023/07/popular-apps-kotlin-multiplatform-kmp-2023/>



<https://kotlinlang.org/docs/multiplatform.html>

Native

Best user experience • Great app performance • Leverage full platform capabilities



Cross-platform

Reduce development time by reusing the same code for different platforms • Consistent behavior across platforms • Fewer bugs

<https://www.jetbrains.com/kotlin-multiplatform/>

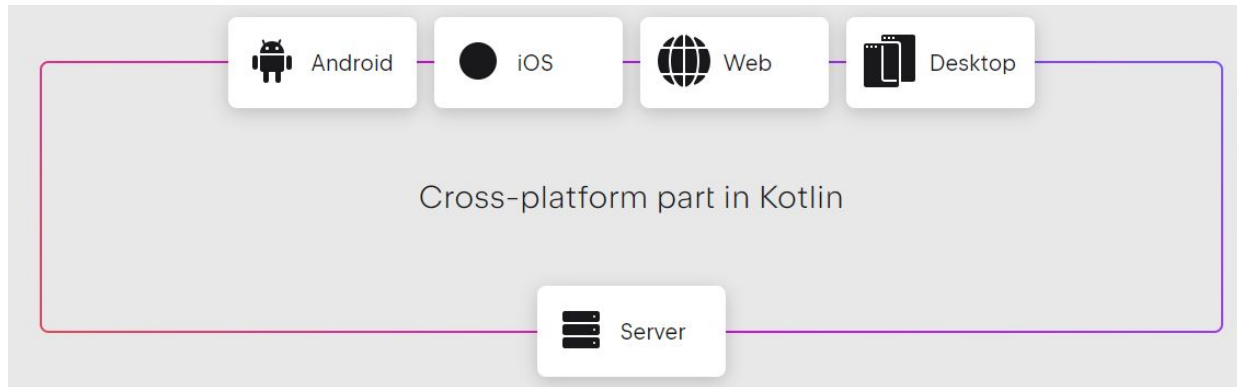


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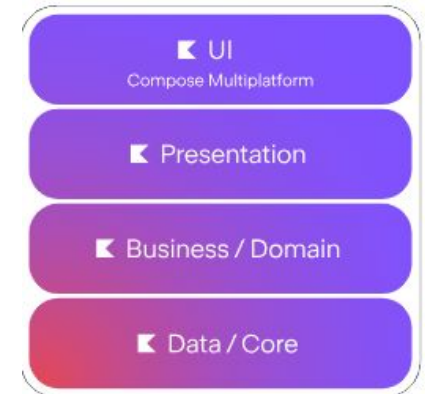
Why to choose it?



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<https://kotlinlang.org/docs/multiplatform.html>

Pros

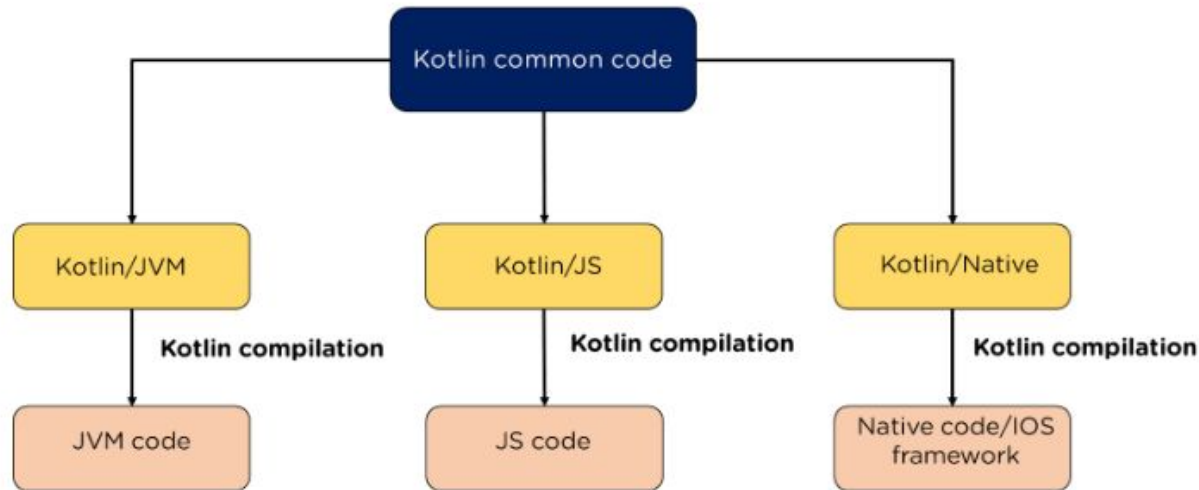
- Native look and feel
 - for both Android and iOS
- Shared UI codebase between all platforms in desktop and mobile
- Easier learning curve thanks to Kotlin
- Interoperability to gradually migrate to other platforms

Cons

- Slower in compile time for iOS
 - Passing from Objective-C to Swift
- Limited community and docs
- More development resources needed
- Devs have to learn two languages for UIs
 - Compose Multiplatform and Kotlin



How is it classified?

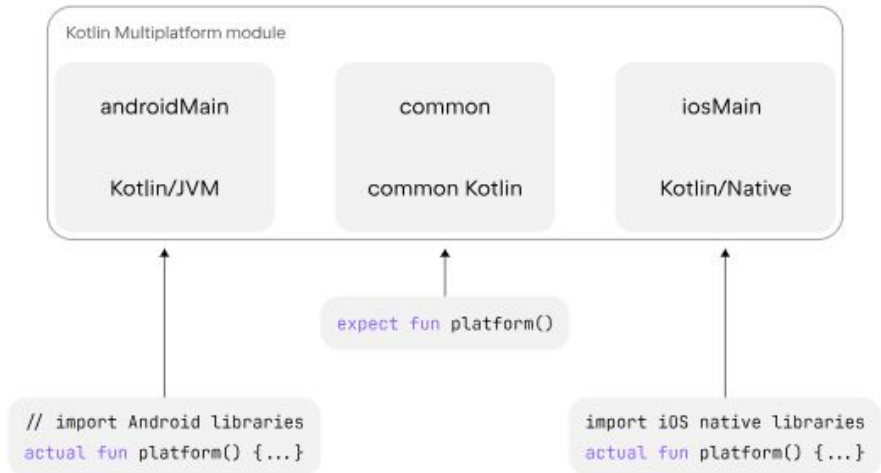
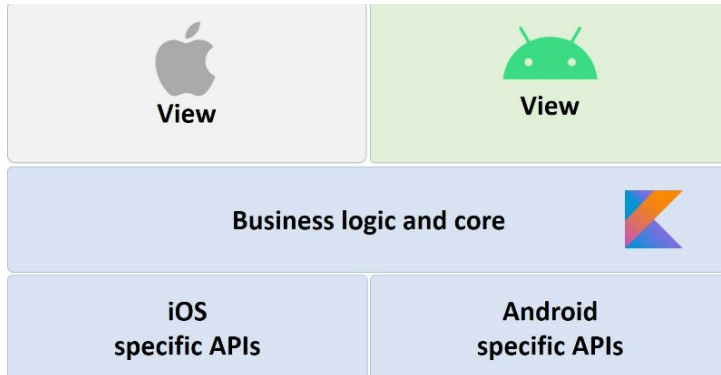


<https://www.simplilearn.com/tutorials/kotlin-tutorial/all-you-need-to-know-about-kotlin-multiplatform>

Cross-compiled approach

- The produced applications are native
 - Hardware/software accessed natively for both iOS and Android
- Reuse of code by cross-compilation to different platforms
- Common Logic written in Kotlin
- Choice between using Swift or Compose Multiplatform to handle UI on iOS

How is it classified?



https://blog.worldline.tech/2022/01/26/kotlin_multiplatform.html

<https://www.jetbrains.com/help/kotlin-multiplatform-dev/multiplatform-connect-to-apis.html>

Cross-compiled approach

- Bidirectional interoperability with Objective-C is possible through a bridge
 - Compiling time slower
- Compose Multi Platform allows to reuse UI
 - As of Kotlin 1.9.20, thanks to compiler caching, subsequent compilations are faster



Thanks for your attention!



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Questions?

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