COMPOSE MULTIPLATFORM

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AGENDA

- What is Compose Multiplatform (CMP) ?
- Getting Started
- Demo
- Ongoing Development
- Final thoughts

WHAT IS COMPOSE MULTI PLATFORM ?

WELL, IT'S ALREADY IN YOUR HAND

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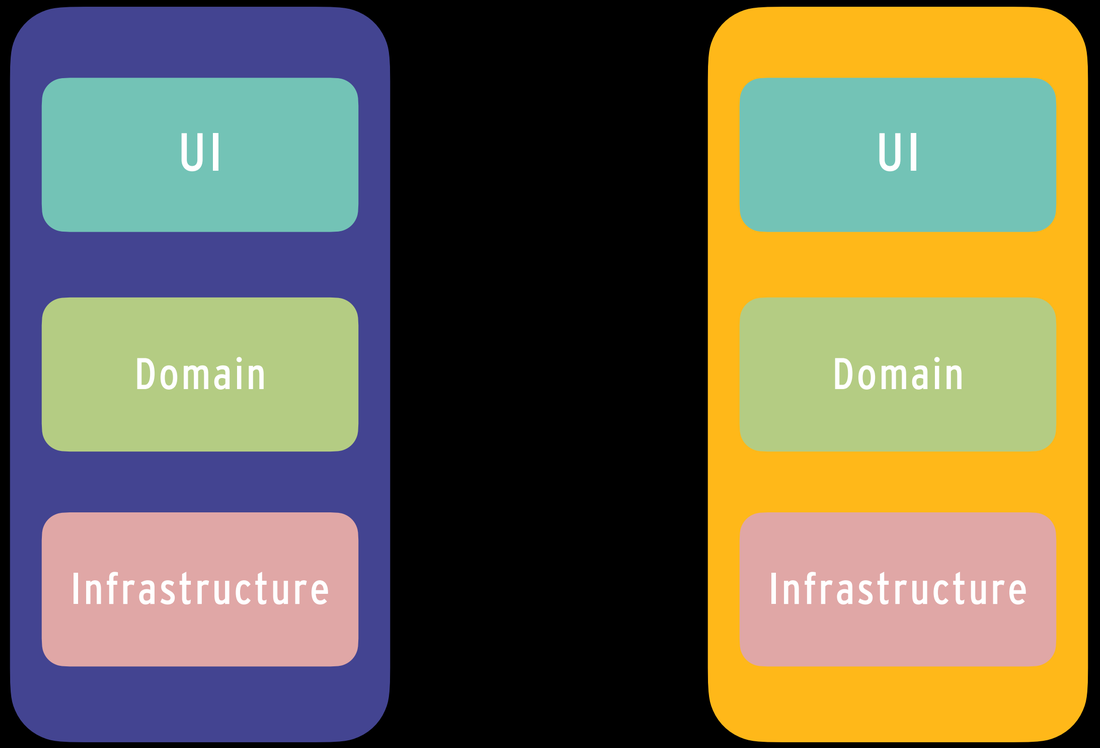
WHAT IS CMP

- It’s a Multiplatform UI Framework built by Jetbrains.
- On top of Jetpack compose, a UI toolkit by Google.
- Can be used for Multiplatform development.

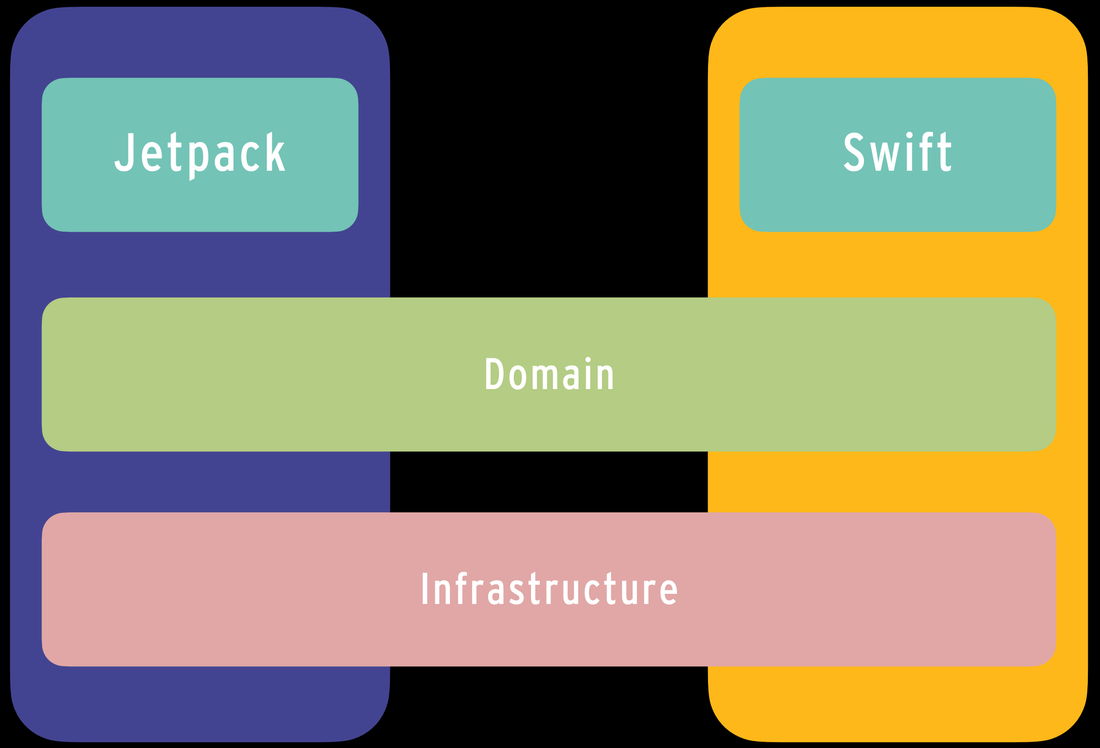
WHAT IS CMP - JETPACK COMPOSE APIS

WHAT IS CMP - TRADITIONAL APPROACH - SEPARATE CODE BASES

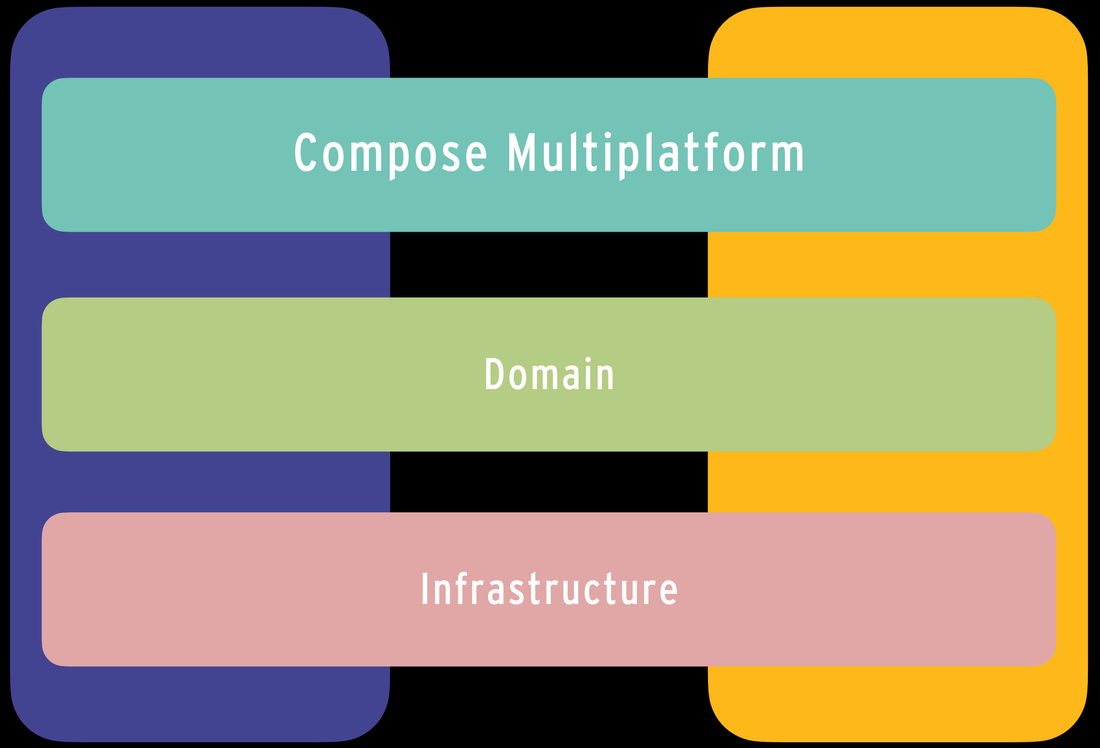


ANDROID IOS

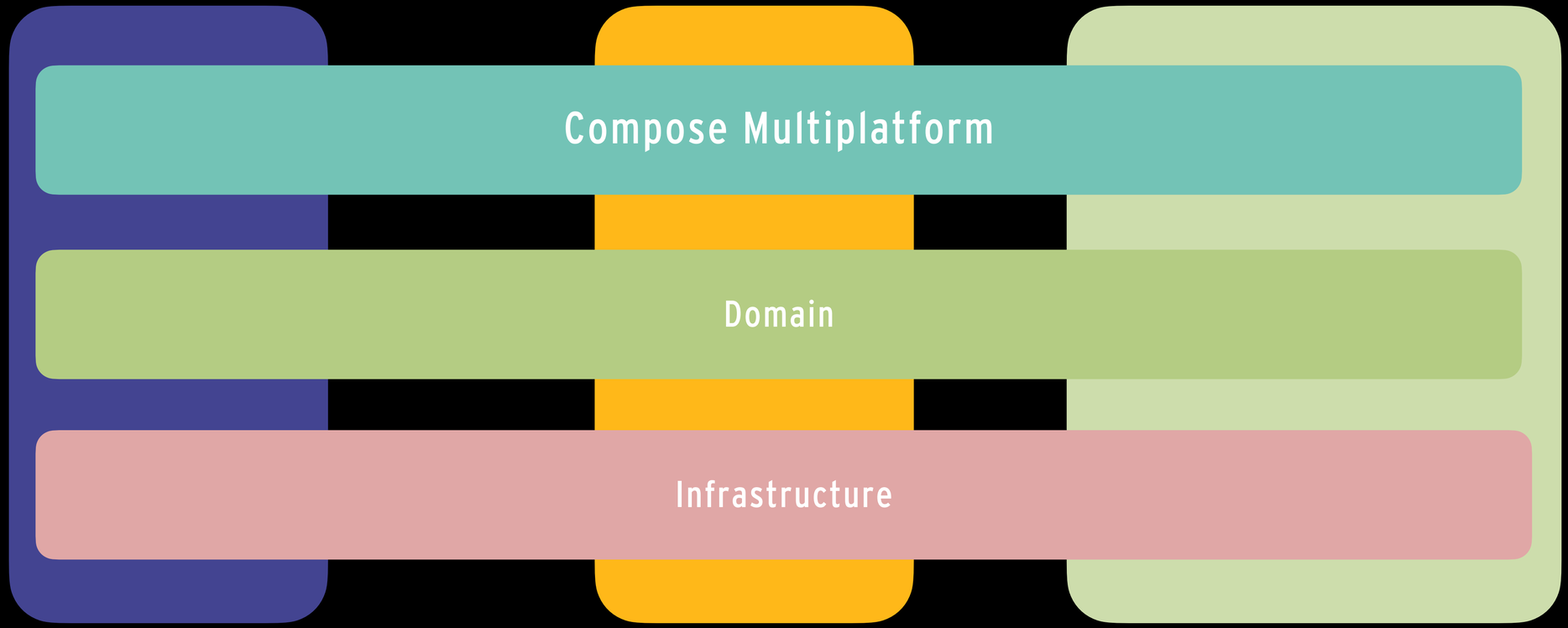
WHAT IS CMP - KOTLIN MULTIPLATFORM



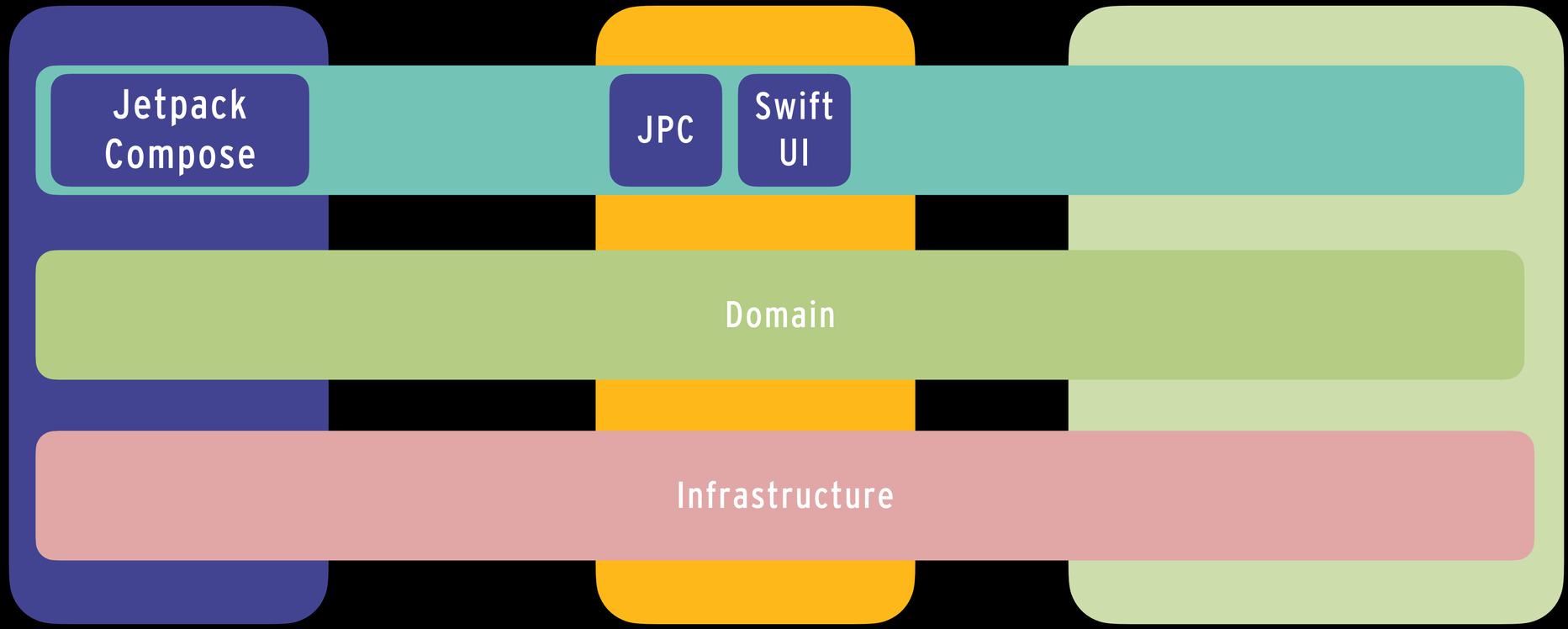
WHAT IS CMP - WITH COMPOSE MULTIPLATFORM



WHAT IS CMP - WITH COMPOSE MULTIPLATFORM... EVEN MORE ...

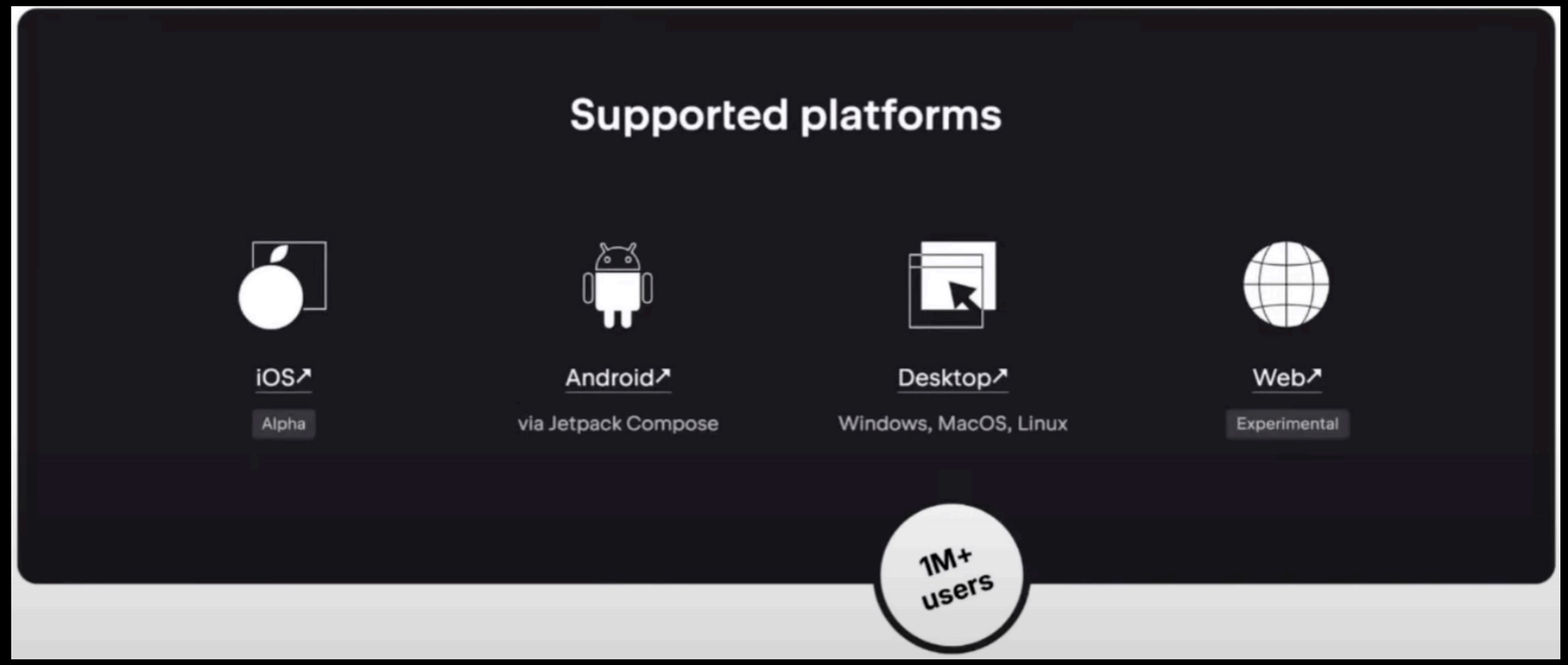


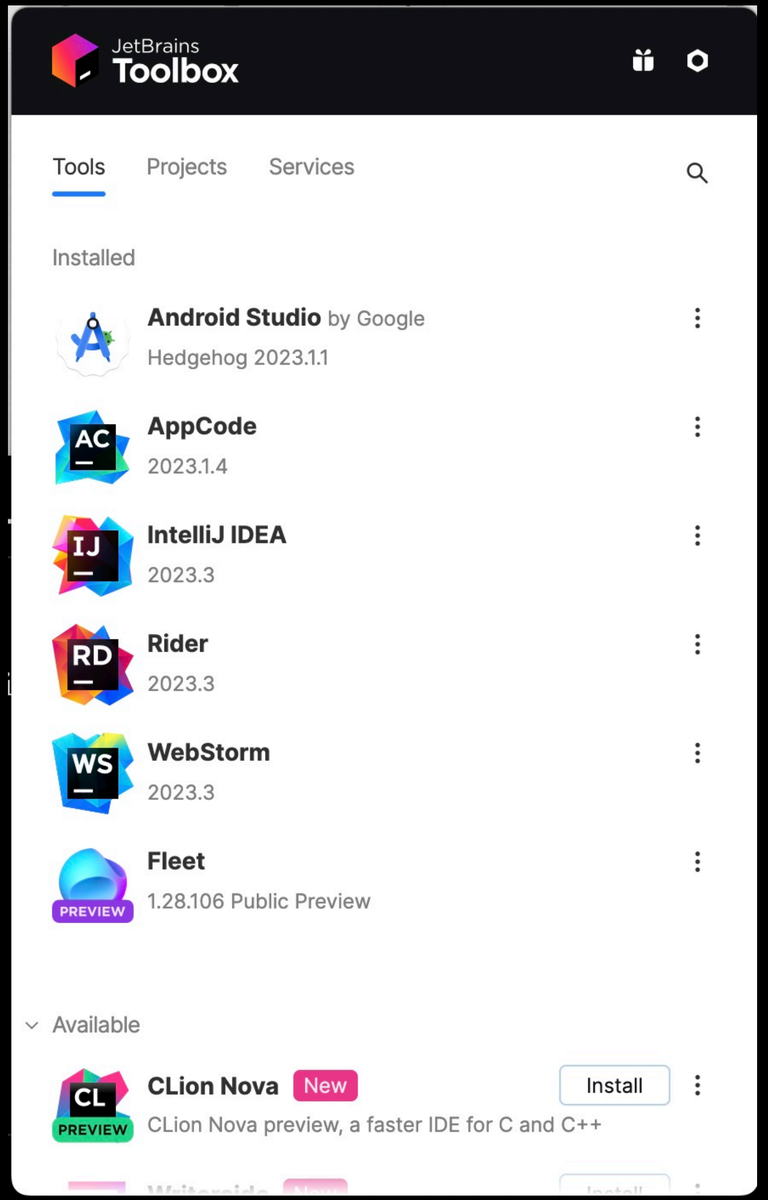
WHAT IS CMP - WITH COMPOSE MULTIPLATFORM



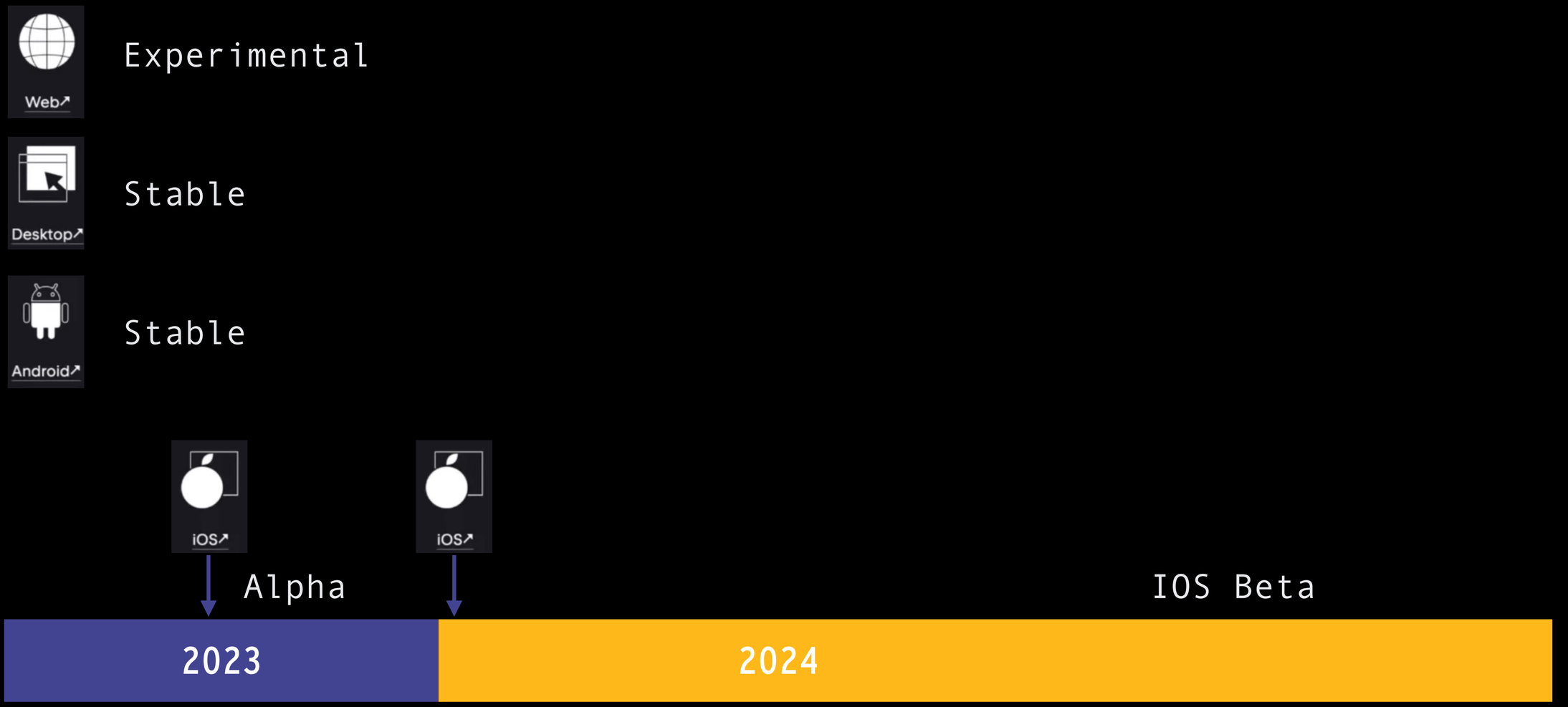
WHAT IS CMP - SUPPORTED PLATFORMS

- IOS - alpha
- Android - via Jetpack Compose
- Desktop - Windows, MacOS, Linux
  - Jetbrains toolbox
- Web - Experimental (WSM)





WHAT IS CMP - TIMELINES



WHAT IS CMP - INTEROPERABILITY

- Use Compose Multiplatform inside SwiftUI application
- Use Compose Multiplatform inside UIKit application
- Use UIKit inside Compose Multiplatform
- Use SwiftUI inside Compose Multiplatform

- Its flexible!

GETTING STARTED

GETTING STARTED - DEVELOPER TOOLS

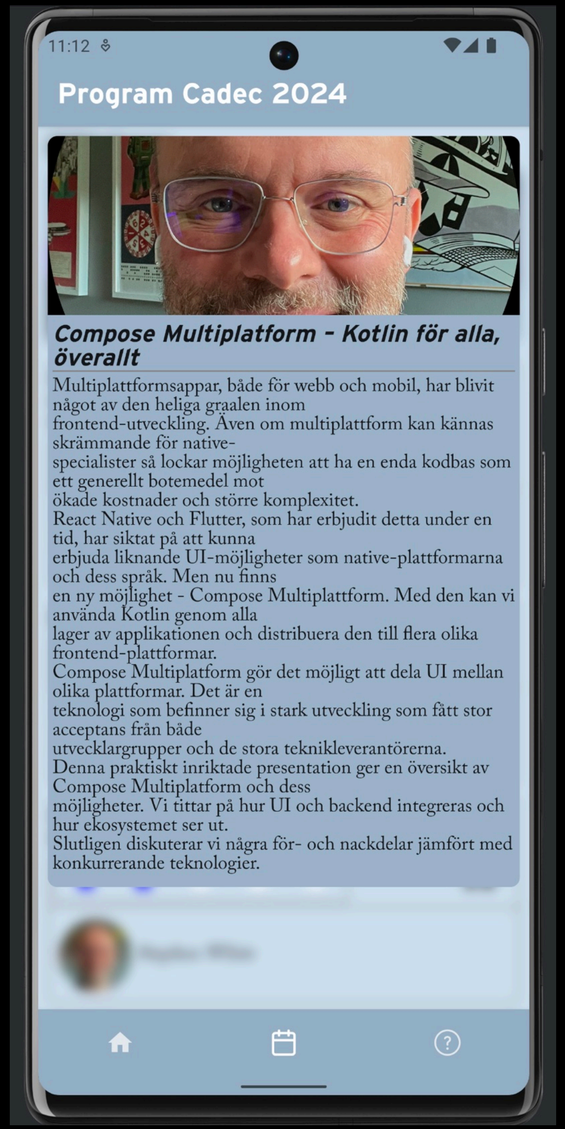
IDE'S

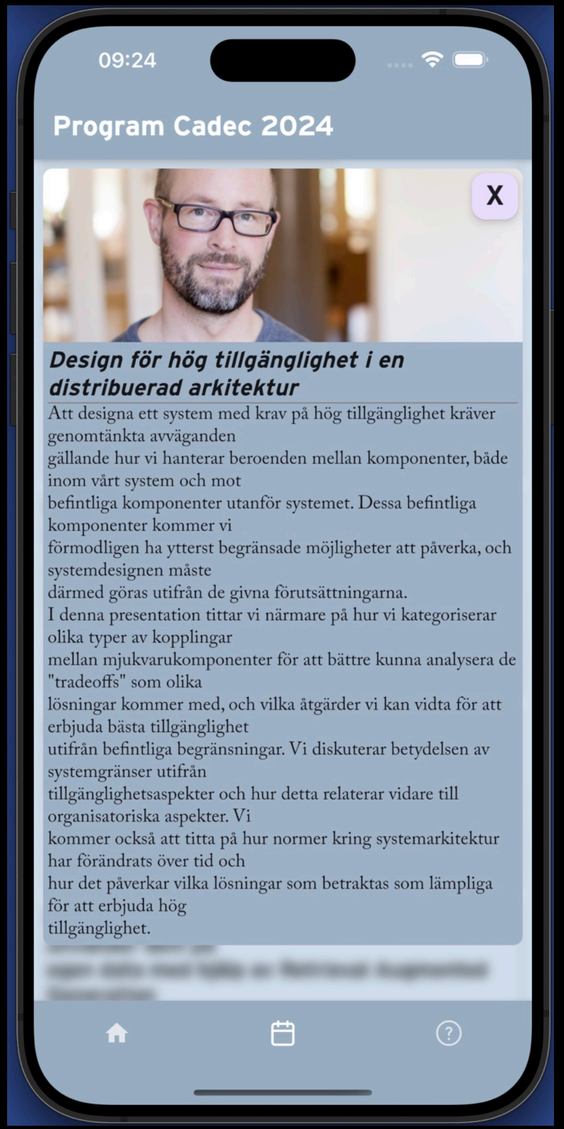
Android Studio

Fleet
PREVIEW
1.28.106 Public Preview

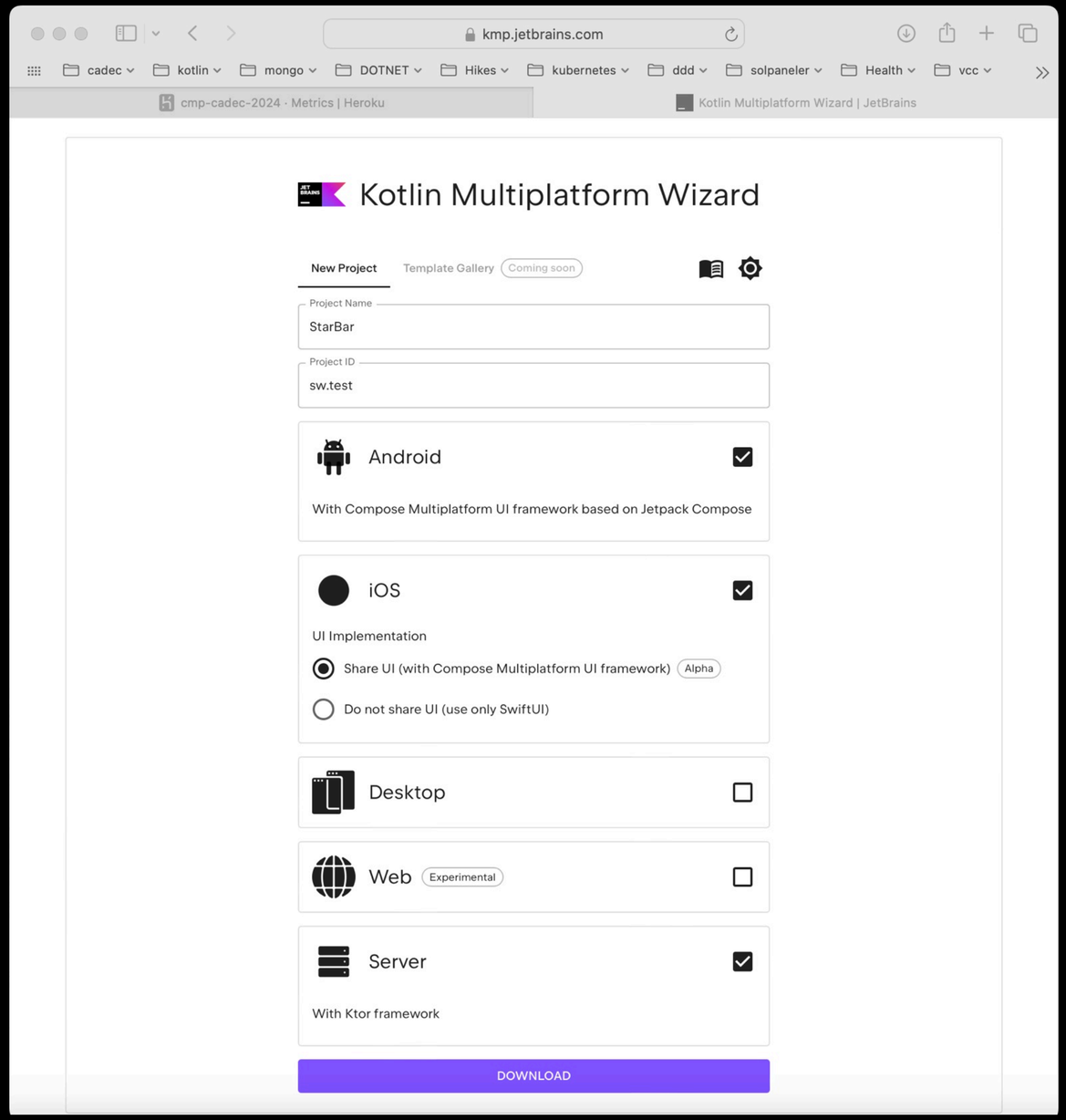
Xcode

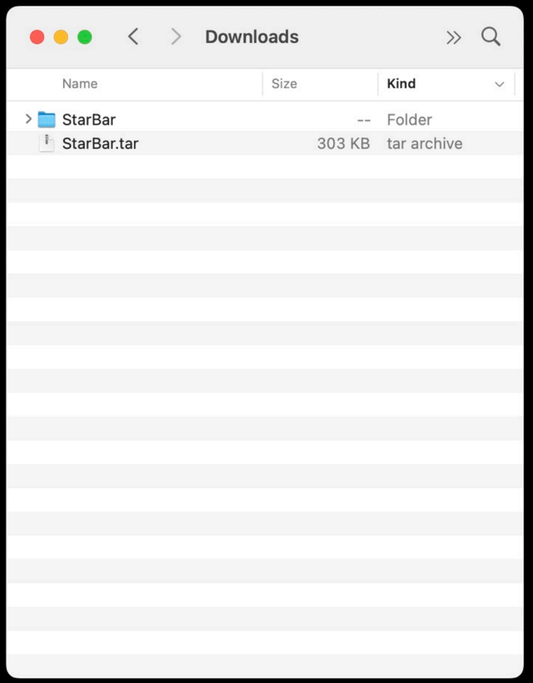
SIMULATORS





GETTING STARTED - CMP WIZARD

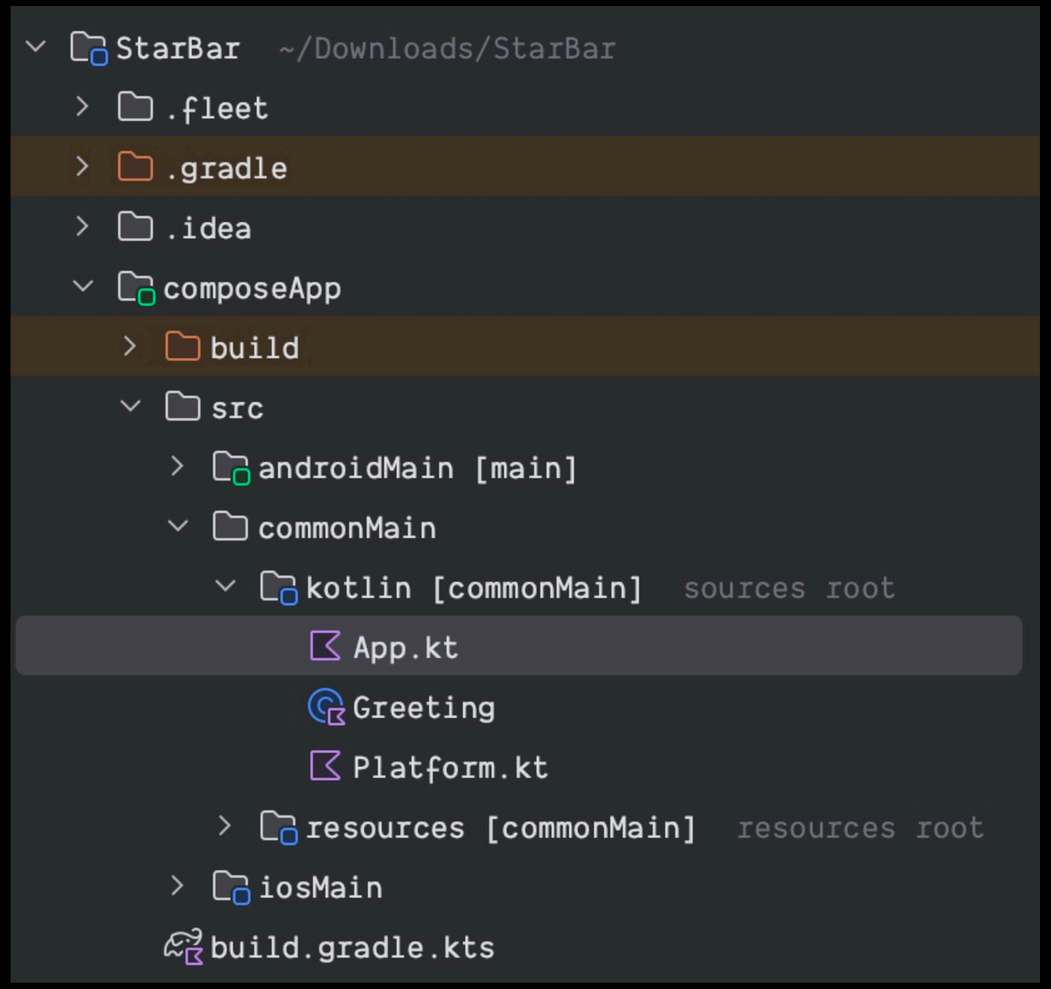




GETTING STARTED - KDOCTOR

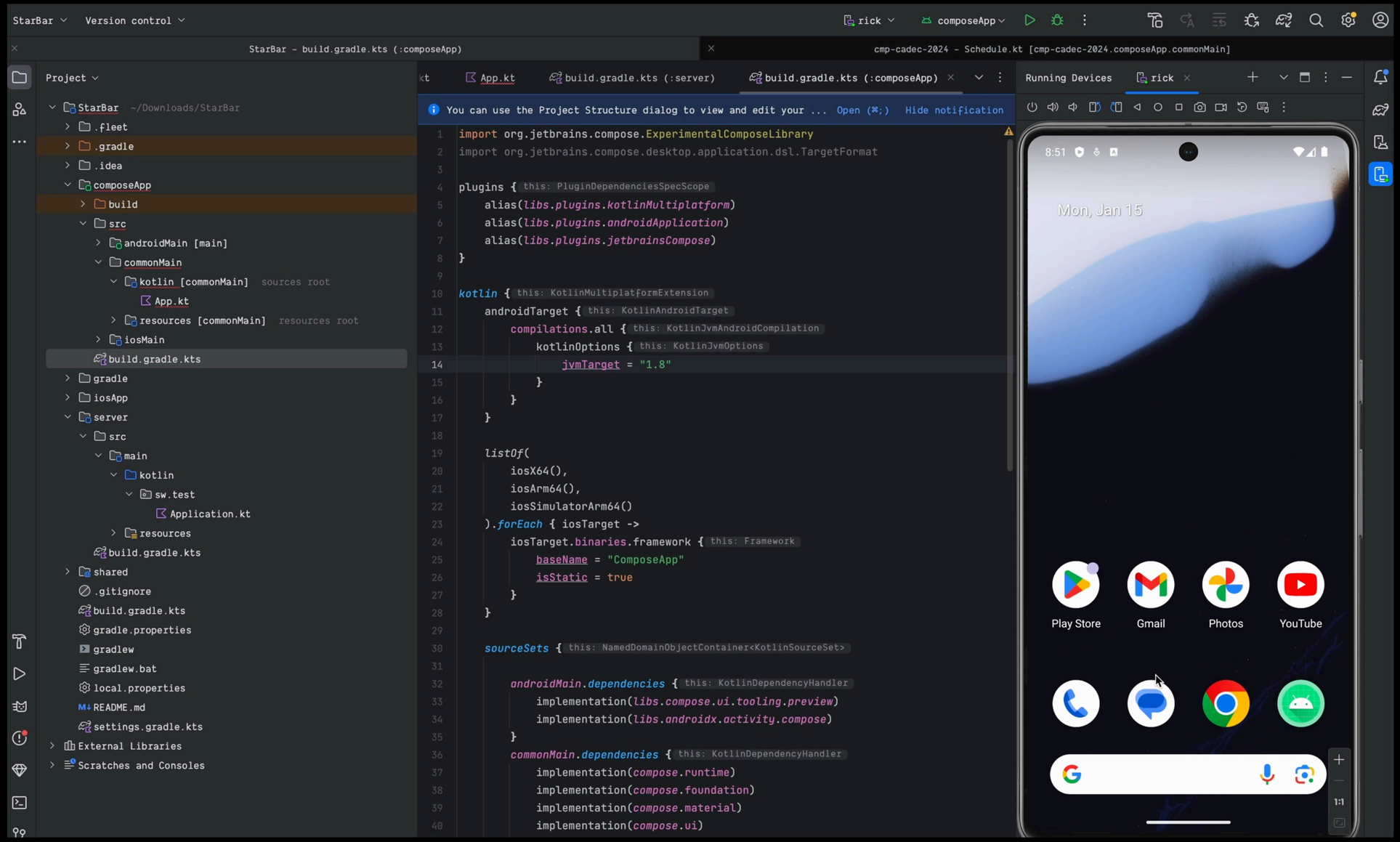
```
maitriyogin/kotlin/cmp-cadec-2024 via ⬢ v20.9.0 via 💎  3.1.0
➔ kdoctor
Environment diagnose (to see all details, use -v option):
[✓] Operation System
[✓] Java
[✓] Android Studio
[✓] Xcode
[✓] CocoaPods

Conclusion:
  ✓ Your operation system is ready for Kotlin Multiplatform Mobile Development!
```

GETTING STARTED - CODE STRUCTURE

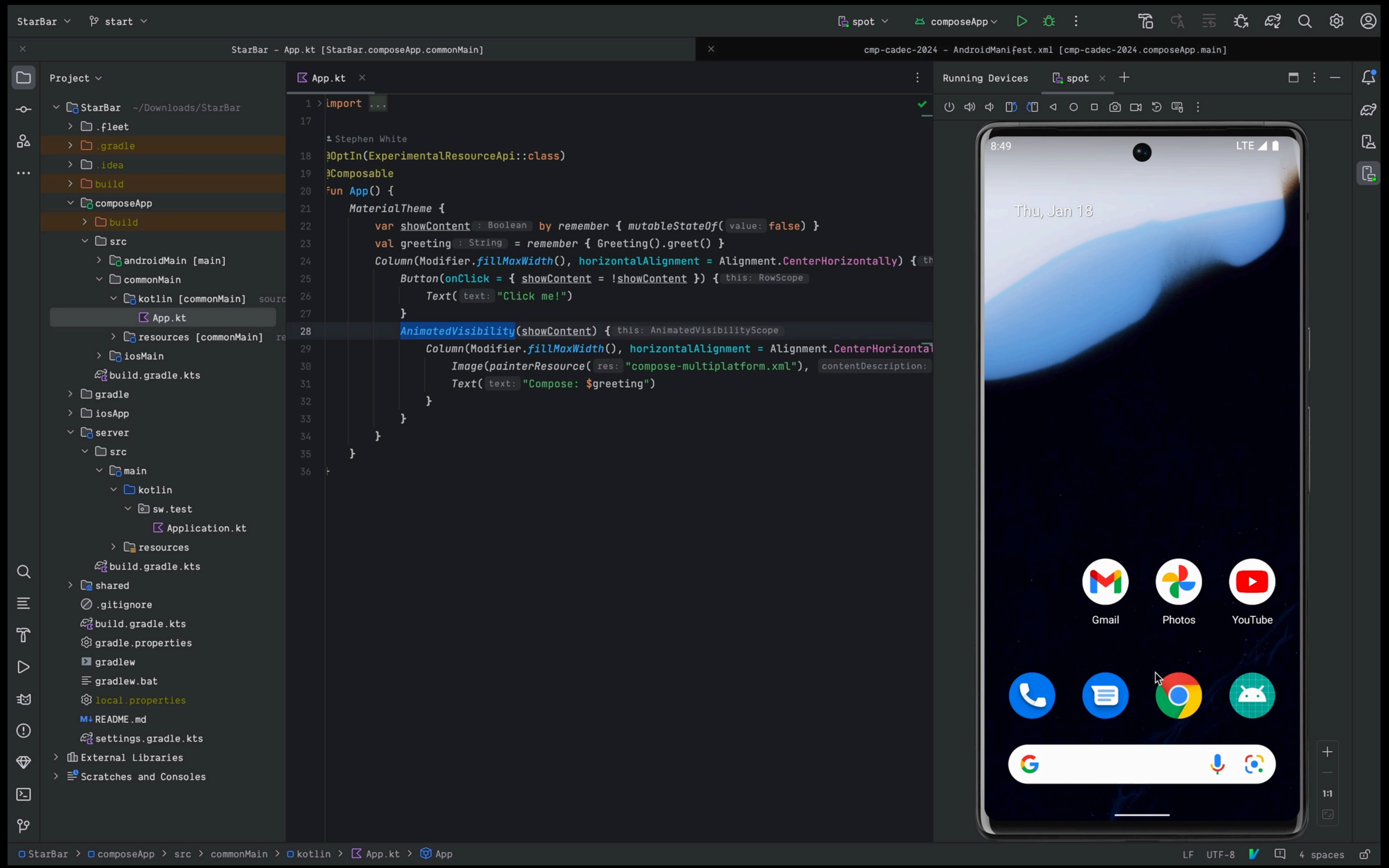



```kotlin
@OptIn(ExperimentalResourceApi::class)
@Composable
fun App() {
    MaterialTheme {
        var greetingText : String by remember { mutableStateOf( value: "Hello World!") }
        var showImage : Boolean by remember { mutableStateOf( value: false) }
        Column(Modifier.fillMaxWidth(), horizontalAlignment = Alignment.CenterHorizontally) { this: ColumnS
            Button(onClick = {
                greetingText = "Compose: ${Greeting().greet()}"
                showImage = !showImage
            }) { this: RowScope
                Text(greetingText)
            }
            AnimatedVisibility(showImage) { this: AnimatedVisibilityScope
                Image(
                    painterResource( res: "compose-multiplatform.xml"),
                    contentDescription: null
                )
            }
        }
    }
}
```

GETTING STARTED - RUN THE APP



GETTING STARTED - OPEN AND RUN THE APP



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DEMO

DEMO RECAP

STAR BAR - RECAP

- Look and feel - Android
  - Animations
  - Blurs
- Patterns
  - Bottom Sheet
  - Navigation
    - » Stack
    - » Tab
- Resources - Images,
    - ▷ Fonts
- Local Storage - Multiplatform Settings
- Networking - HTTP / WS - Ktor - client
- Release to app stores …

- Used it in the Cadec App!!

ONGOING DEVELOPMENT

ONGOING DEVELOPMENT

Material / compose-cupertino

Look and Feel

Moko

View Models

Moko

Resource Management

Ktor

Networking

Voyager

Navigation

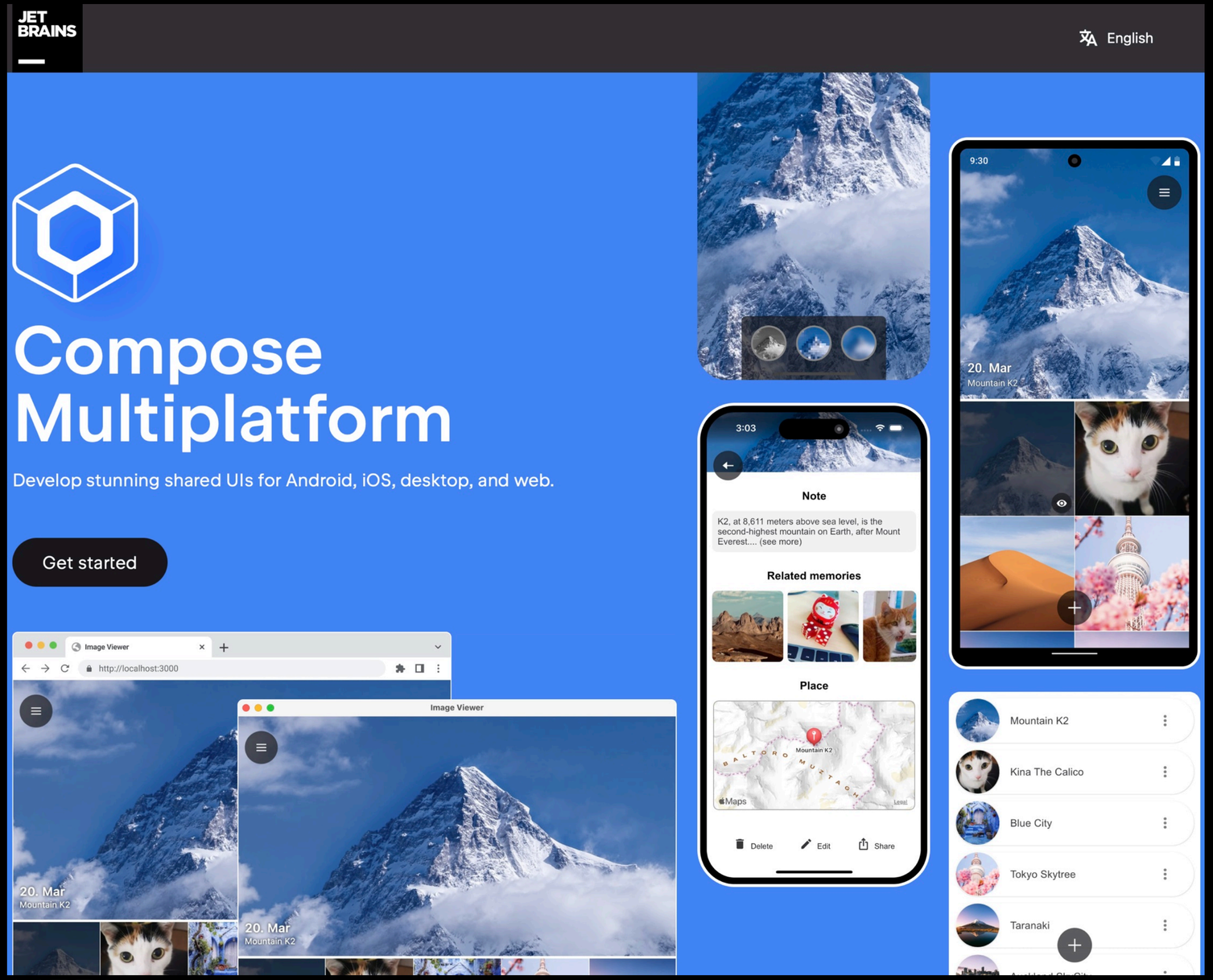
Kamel

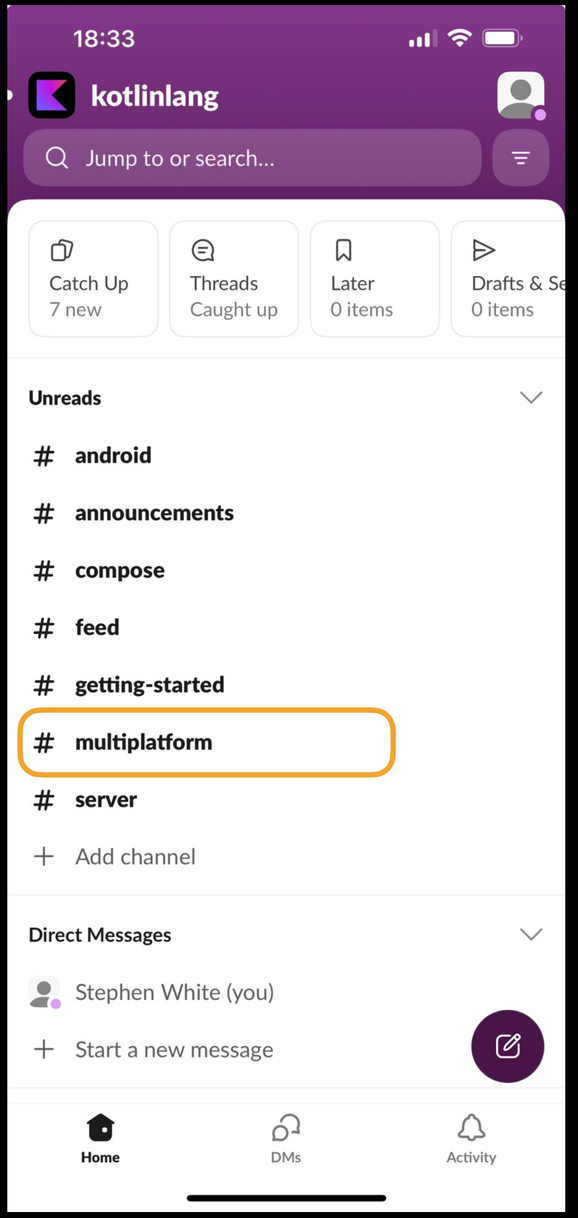
Image Loading

SQLDelight / Realm / KStore / Datastore etc ..

Persistence

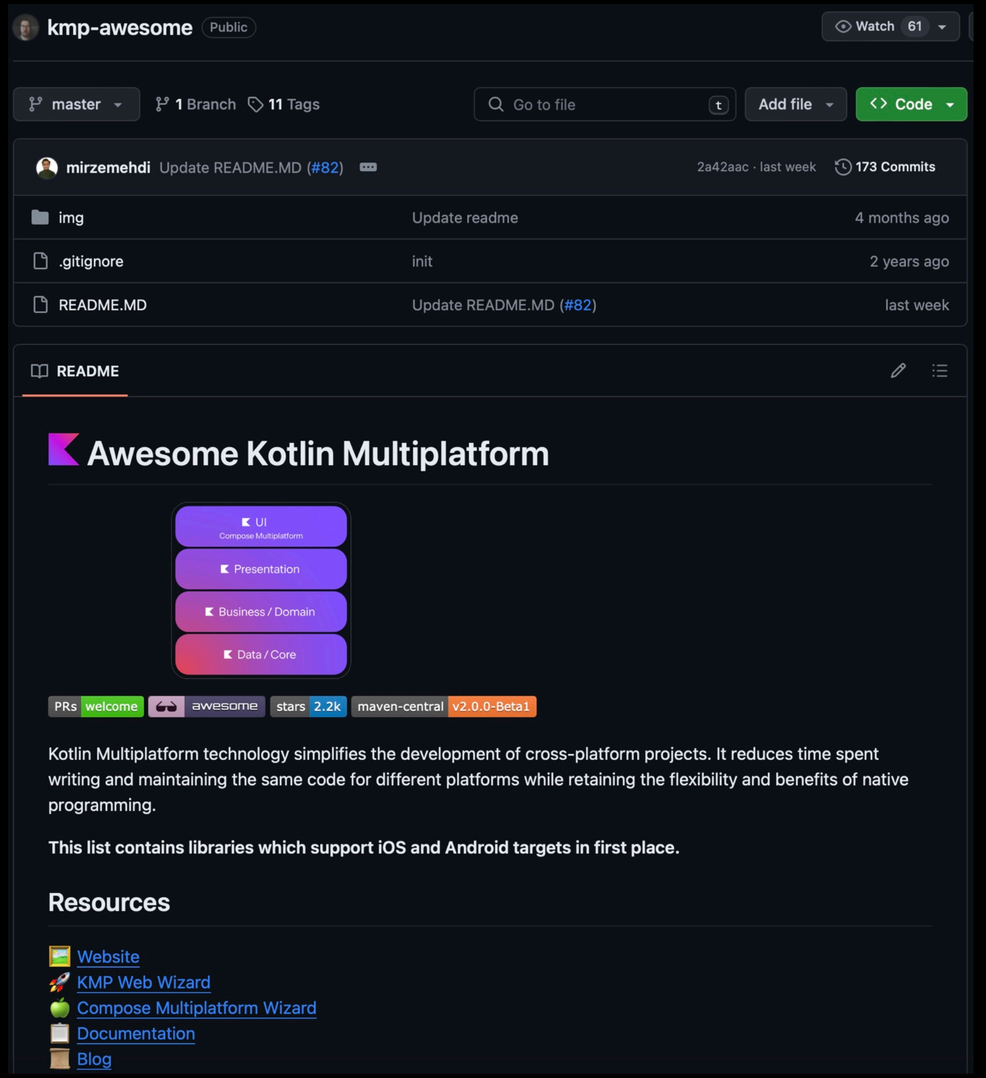
ONGOING DEVELOPMENT - HELP





ONGOING DEVELOPMENT - REPLACEMENTS

- Awesome Kotlin Multiplatform
- https://github.com/terrakok/kmp-awesome
- Networking - ktor
- Resource Management - Mokko
- Navigation - Voyager
- Image Loading - Kamel
- Look and Feel - Material UI
- Persistence -
    - KStore
    - Realm
    - Multiplatform settings



FINAL THOUGHTS

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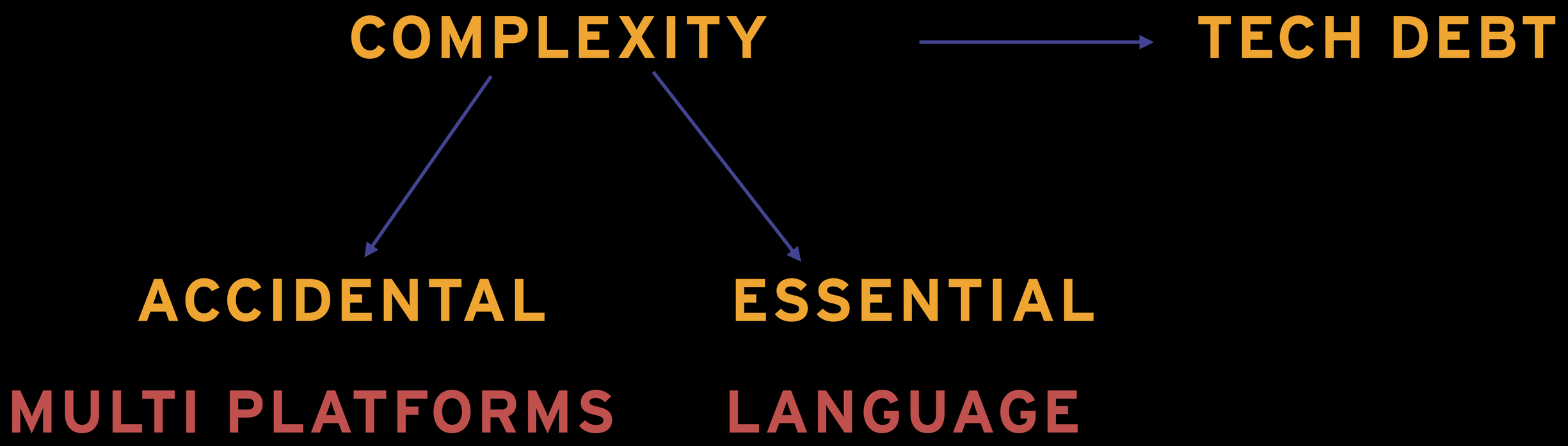
EARLY DAYS ...

TARGET ANDROID

TRANSITION TO IOS

FINAL THOUGHTS

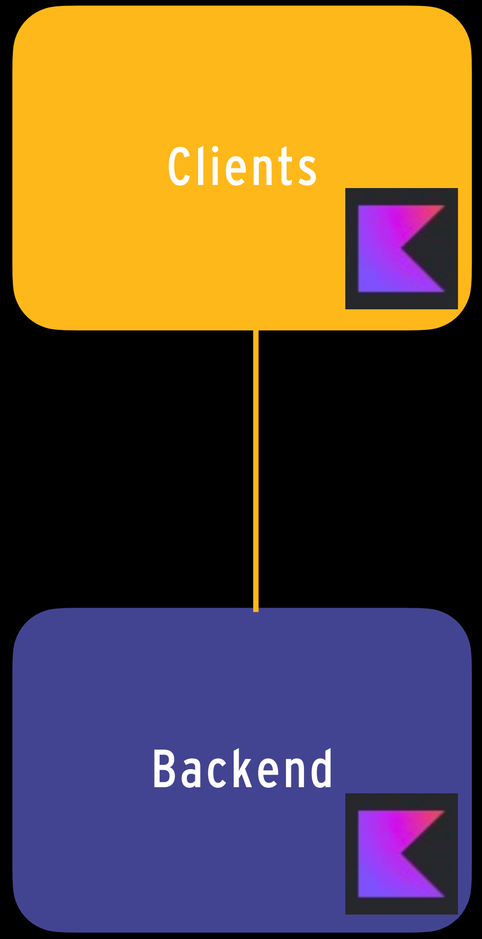


FINAL THOUGHTS

DISSONANCE

FINAL THOUGHTS

FINAL THOUGHTS



SUMMARY

- Star Bar - App
- Cadec - App
- Almost production ready!
- Jetpack compose
- Kotlin
- Great community

END