

INTRODUCTION TO KTOR

Jarosław Michalik
Android Developer @Talixo



- Framework created by JetBrains
- Kotlin first
- Server and client support
- Promise to support mutliplatform

KTOR SERVER

- JVM
- Domain specific language
- Coroutines support
- You may write Json API, or serve static content

KTOR SERVER

```
fun Application.main() {  
    routing {  
        get("/") {  
            call.respond("Hello world!")  
        }  
    }  
}
```

KTOR SERVER

LIVE!

KTOR CLIENT

- JVM, JS, Native
- Configurable engines (CIO, Apache, Jetty, OkHttp, Curl)
- Similar public API to Server

KTOR CLIENT

```
val response = client.get<HttpResponse>(
    host = "localhost",
    scheme = "http",
    port = 8080,
    path = „/api/data"
)
```

```
val result = response.readText()
val event = parse(
    deserializer = Event.serializer(),
    string = result
)
```

KTOR CLIENT -
MULTIPLATFORM

DEMO TIME!

KOTLIN NATIVE @TALIXO

- Experiment
- New feature - try to implement business logic and provide library for Android and for iOS

KOTLIN/NATIVE AND KTOR LIMITATIONS

- Not all APIs published in ktor-core are actually implemented in ktor-core-native (RuntimeExceptions)
- No support for multithreaded coroutines in K/N
<https://github.com/Kotlin/kotlinx.coroutines/issues/462>
- No common DateTime libraries
- Server - not so many integrations and extensions as in e.x Spring
- Multiplatform project setup is still a challenge

KOTLIN/NATIVE AND KTOR OPPORTUNITIES

- Shared networking models between mobile and backend!
- Shared business logic between mobile platforms
- Ktor is configurable easily extensible

LINKS AND RESOURCES

- Official website:
<https://ktor.io/>
- Repo with examples:
<https://github.com/rozkminiacz/multiplatform-ktor>
- My article: Ktor for fast server prototyping:
<https://blog.kotlin-academy.com/ktor-for-fast-server-prototyping-6e7c6d2ec296>
- KotlinConf 2018 talk:
<https://www.youtube.com/watch?v=V4PS3Ijlzlw>

JAROSŁAW MICHALIK



<https://twitter.com/rozkmunia>



<https://medium.com/@rozkminiacz>



<https://github.com/rozkminiacz/>



<https://michalik.tech>