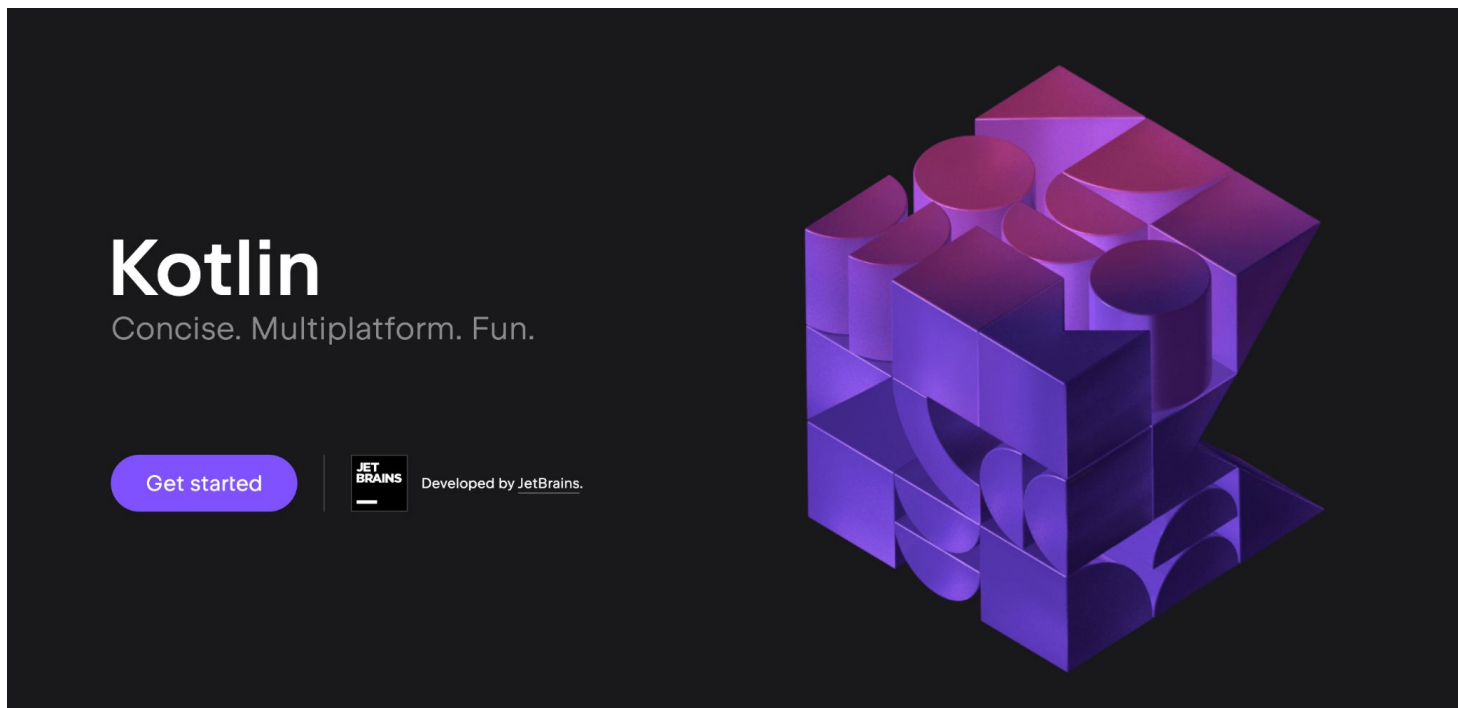


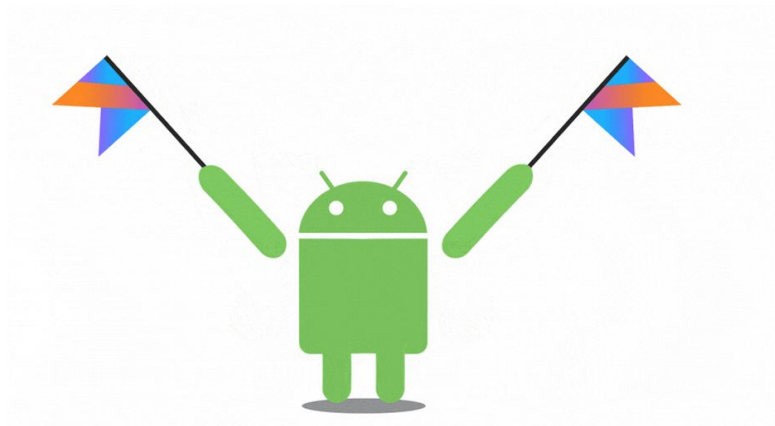
Kotlin: what is it?



<https://kotlinlang.org/>

Kotlin: where is it used?

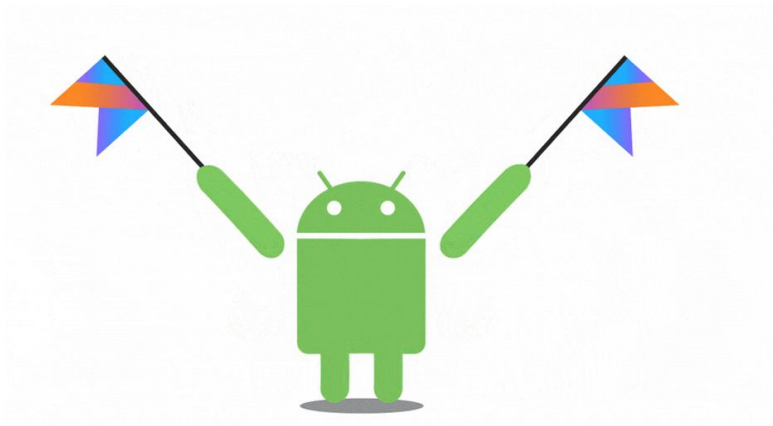
- The **main** language for Android Development*



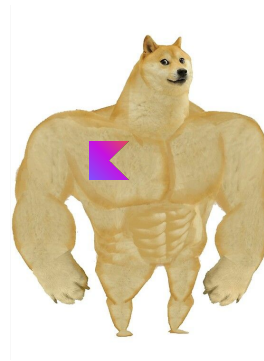
* Announced by Google several years ago

Kotlin: where is it used?

- The **main** language for Android Development*



**But not limited only to
Android applications**



* Announced by Google several years ago

Kotlin: where is it used?

- **Multiplatform development** became stable* in 2023:
 - use the same code base for your Android and IOS applications



NETFLIX

Netflix Android and iOS Studio Apps are written in Kotlin**

* KotlinConf 2023, keynote - <https://www.youtube.com/watch?v=c4f4SCEYA5Q>

** <https://netflixtechblog.com/netflix-android-and-ios-studio-apps-kotlin-multiplatform-d6d4d8d25d23>

Kotlin: where is it used?

- **Server-side** development:
 - 20% Kotlin users develop server applications*



Ktor

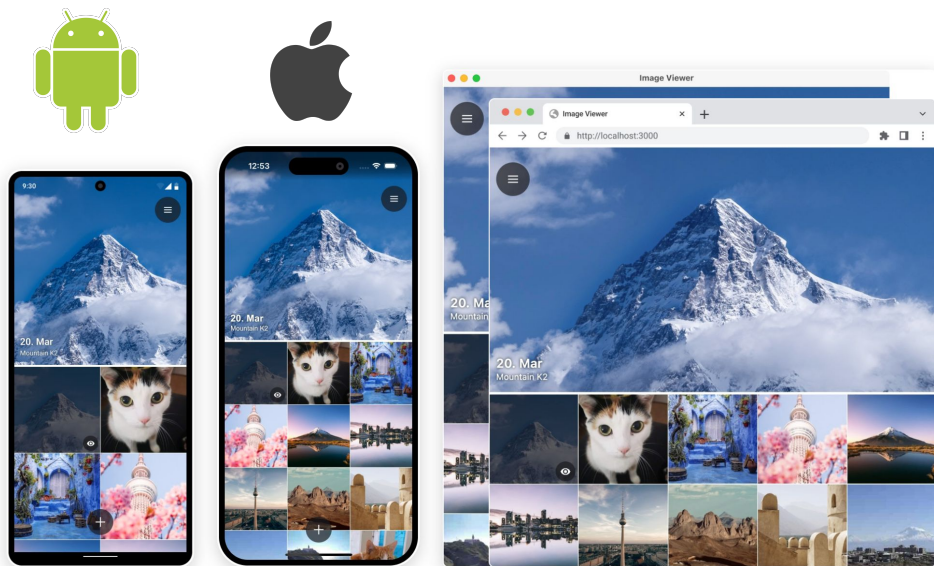


Written in Kotlin 🤘

* KotlinConf 2023, keynote - <https://www.youtube.com/watch?v=c4f4SCEYA5Q>

Kotlin: where is it used?

- You can build whole application **only** with Kotlin:



- Kotlin multiplatform:
 - Desktop, Android, IOS, browser applications
- Kotlin server-side:
 - Back-end

Kotlin: where is it used?



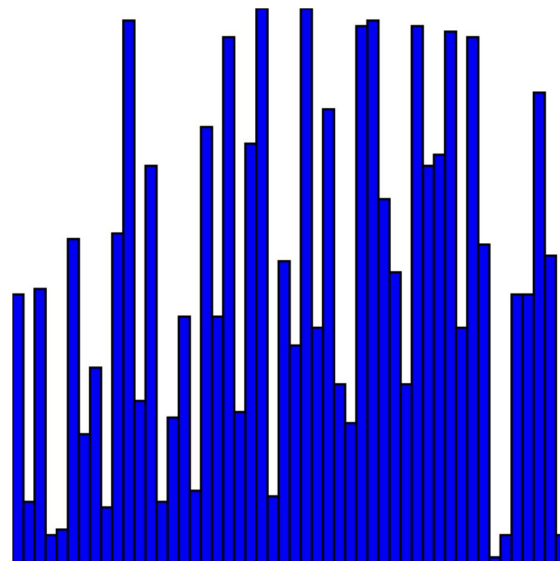
- **Data science** with Kotlin Notebooks*:

- Reuse code from popular libraries and your own project
- Visualize data efficiently and conveniently
- Share precomputed notebooks with others easily

Let's visualize a list of integers:

```
In 26 1 val collection = List(50){ Random.nextInt(100) }  
      2 collection  
      Executed at 2024.02.09 15:07:13 in 68ms
```

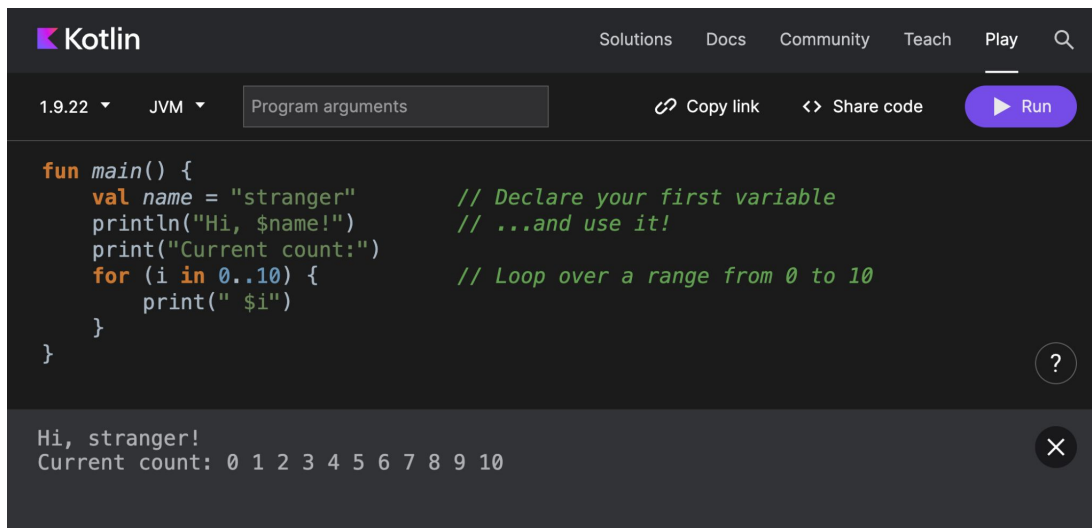
Out 26 ▾



* Experimental version, <https://blog.jetbrains.com/kotlin/2023/07/introducing-kotlin-notebook/>

Kotlin: where to start?

- Just open the Playground* to start:



The screenshot shows the Kotlin Playground web interface. At the top, there's a navigation bar with links for Solutions, Docs, Community, Teach, and Play. Below this, the Kotlin version is set to 1.9.22 and the target is JVM. A text box for 'Program arguments' is visible. To the right are buttons for 'Copy link', 'Share code', and a 'Run' button. The main area is a code editor containing the following Kotlin code:

```
fun main() {  
    val name = "stranger"           // Declare your first variable  
    println("Hi, $name!")          // ...and use it!  
    print("Current count:")  
    for (i in 0..10) {              // Loop over a range from 0 to 10  
        print(" $i")  
    }  
}
```

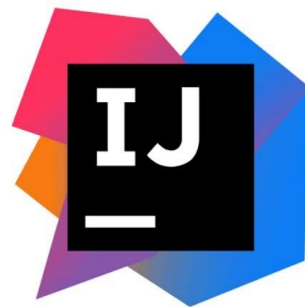
Below the code editor, the output is displayed: "Hi, stranger!" followed by "Current count: 0 1 2 3 4 5 6 7 8 9 10". There are help and close icons on the right side of the output area.

- No installation needed;
- Execute code under different versions of the language;
- Share your code with others.

* <https://play.kotlinlang.org/>

Kotlin: where to start?

- Use modern and smart environments for professional development - IntelliJ IDEA*:
 - Kotlin is supported by default;
 - Use the power of static analysis to improve your code, e.g. inspections, and refactorings.



All **new** modules are written in Kotlin 😎

* <https://www.jetbrains.com/idea/>

Kotlin: why is used?

- **Fully Java interoperable:**
 - Use Kotlin within a Java project as a separate module, or even within a Java module;
 - Use all available Java libraries from your Kotlin code;
 - Create your own Kotlin libraries that can be used from Java code.

