

Mobile Application Development 2023

Lab 1

In order to practice with the syntax and semantics of the kotlin language, solve the following exercises, available on the site <https://exercism.org/tracks/kotlin/exercises>:

- **Minesweeper**: String manipulation and lambda functions
- **Bank account**: Classes, custom property accessors, thread-safeness
- **Forth**: Recursion, stack, maps
- **List Ops**: extension functions, recursion (Hint: start implementing the `customFoldLeft(...)` method and use it as a building block for all other methods)

The source code for these (and other) exercises is available by cloning the github repository <https://github.com/exercism/kotlin.git>

Single projects are available in the `exercises/practice` folder.

Each project comes with a set of unit tests that must succeed before moving to the next one. Open the specific exercise folder using IntelliJ IDEA's File → Open menu, read the instructions contained in the `.docs` project folder and complete the provided code in the `src/main/kotlin` folder.

Often instructions are not complete: this is done on purpose, since in real projects, the analysts cannot provide full details about the solutions. It is the task of the developer to figure them out, using, as a guideline, the tests provided.

Use the Gradle test command (either from the command line, by running `./gradlew test`) or by opening the Gradle command panel, via View → Tool Windows → Gradle menu and double clicking on the Task → verification → test label.

Note that most tests are prefixed with the `"@Ignored"` annotation: comment it out, in order to enable the test.

All exercises come with many (50+) solutions provided by people around the world.

Try not to read them, initially: the primary objective of this lab is not having running code, but learning how to write that code and how to test and debug it.

Solutions can be useful afterwards, in order to learn different (and often very elegant) approaches to the problem space.