

Android Course - Project Assignment

Introduction

The assignment is an **individual project** in which you will apply the concepts learned during the labs, in order to develop an Android application.

Requirements

Your task is to develop an app with any topic/purpose of your choice, which has the following components and functionalities:

- Use Kotlin programming language
- Use the Jetpack Compose toolkit
- Include at least two screens
- Navigate between the screens using [Jetpack Navigation](#)
- Follow the [recommended application architecture](#)
- Integrate with at least one API (e.g. Retrofit)
 - Online API servers (e.g. [Google APIs](#))
 - Local API server on a separate PC/laptop
 - **Python:** [http.server](#) / [flask](#) / [Django](#)
 - **NodeJS:** [http](#) / [ExpressJS](#)
 - **PHP** (+ *Apache / Nginx / Lighttpd etc.*)
 - **Golang:** [net/http](#)
 - **Rust:** [http](#)

Bonus Points

- Using a database (e.g. SQLite, Room, Firebase)
- Input sanitization for database storage (to prevent [SQLite injection](#))
- Encrypt the data for sensitive communication (e.g. over network / Bluetooth)
- Settings screen (customize colors, language)
- Unit testing
- Code readability, modularization, clean code

Example

- Weather application
 - Show the current temperature in a specific city
 - The city will be selected from a dropdown box
 - Based on the selection, send a request to an API server to get the temperature

- The API server can be implemented in Python Flask, and could answer to a REST request of the type <http://192.168.1.100/temperature?Bucharest>

Resources

- [Retrofit](#)