

Final Assignment Mobile App Development 2024

For the final assignment you can choose between two options (see below). Before starting to work on the final assignment you must get a short proposal approved. You do this via learnIT (see section week 9). The approval is mainly to ensure that what you propose is realistic to complete in 5 weeks. You may submit your proposal as soon as it is ready (after Class 8).

Some of the concepts listed in the requirements below have not yet been covered in the weekly classes. The relevant weeks are listed below next to the new concepts.

You are encouraged to do the assignment in groups with up to three members. The **difficulty (number of extensions) must reflect the size of the group**.

Options for the final assignment

Here are the options you may choose between for the final assignment:

- a) Doing a small project for an Android **app that you find interesting**. Maybe something related to a hobby, musical interest, sport You can decide whether to do it in Kotlin or Java.

The app **must** contain:

- a user interface,
- some form of scrollable list, and
- work in both portrait and landscape mode.

Furthermore, it must use **at least four** of these concepts:

- MutableLiveData,
- ConstraintLayout,
- An internal SQLite database (covered in week 9),
- Networking (HTTP communication – covered in weeks 9 & 10),
- Navigation,
- Camera (covered in week 11),
- Maps, GPS/location (covered in week 13).

- b) **Garbage V9** which is Garbage V8 and **at least three** of the following extensions:

- Reading barcodes of garbage items (covered in week 11),
- ConstraintLayout,
- Navigation,
- Network database with synchronization between several users (covered in week 10),
- Including Dialogs/DataPicker (<https://developer.android.com/guide/topics/ui/dialogs>),
- Using images eg. for buttons, in scrollable lists or ... (covered in week 11).

Proposal for Final Assignment

You must turn in a short proposal describing the app you want to do for the final assignment. Just a few lines. Furthermore, the proposal should specify which of the options listed above you have chosen to include in your final app (including the specific features from the lists above), and the names of all group members.

You submit the proposal in learnIT (Week 8), the same way as you submit the mandatory assignment.

There is no deadline for submitting the proposal, but you will quickly get feedback on the proposal, so you can start working on your app.

Submission

You must turn in your solutions for the final assignment using GitHub (as explained in the note UsingGitHubForAssignmentsV2.pdf) before Wednesday May 8, 10:00.

In addition to the code include a short text explaining what your app is doing, how it is used (if this is not obvious) and any shortcomings (bugs) you were not able to finish before the deadline.