

# Mobile Development

## A.A. 2022/2023

### Final Project Instructions

The final project requires to complete the following steps:

#### **(1) Describe the mobile application that you want to implement (Project proposal)**

You have to provide a description of the various functionalities of the application that you want to implement. You can use for instance a combination of Use Case Diagram<sup>1</sup>, a set of Use Cases<sup>2</sup>, and some Screen Mockups (e.g., create by using Pencil<sup>3</sup> or Android Studio).

Moreover you have to provide a high level technical description of how the application will be implemented. For example, which and how software and hardware features will be used: for instance, AsyncTask, Internet, Camera, Sensors (e.g., accelerometers, GPS), Remote servers, Database, etc. If you want to implement you application using a solution different from Android Studio (e.g., React Native or Flutter<sup>4</sup>) you should briefly describe it and motivate the rationale of the choice.

Output: a pdf file (for instance >2-3 pages long) containing the description of the app.

Surname\_[Surname2]-ProjectProposal.pdf

#### **(2) Send me the description and wait for my approval**

I have to check that your project proposal is complex enough to represent a reasonable “final assignment”. I’m quite flexible on this point: the idea is that the proposal should be for an app by far more complex than the ones created for completing the various assignments during the course.

Specify the group members in the project proposal (Name, Surname, ID Number and EMail)! Recall, ideally the app should be developed in pairs. Working alone is fine also.

Instead working in more than two members is allowed, but should be motivated in the proposal (3-members groups should propose a (by far) more complex app).

#### **(3) Implement your mobile application**

The standard way to complete this task is by using Android Studio (you can freely select Java or Kotlin for the implementation). However, as said before, you are allowed to adopt other solutions (e.g., React Native or Flutter).

#### **(4) Produce a final report**

The final report should be a refinement of the initial description. You have to add some considerations about the problems you encountered during the actual development of the application and the solutions you have found. You have to describe and document your implementation choices. Describe how the application can be executed starting from the source code that you have uploaded on AulaWeb. I expect more details in case you have selected a solution different from Android Studio (in other words, let me know how I can execute the app without wasting too much time).

Output: a pdf file (for instance >6-8 pages long) containing the description of the app and of its implementation.

#### **(5) Upload on AulaWeb**

- the complete implementation of the app (a zip file)      Surname\_[Surname2]-SourceCode.zip
- the final report (pdf)      Surname\_[Surname2]-FinalReport.pdf

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<sup>1</sup> [https://en.wikipedia.org/wiki/Use\\_case\\_diagram](https://en.wikipedia.org/wiki/Use_case_diagram)

<sup>2</sup> [https://en.wikipedia.org/wiki/Use\\_case](https://en.wikipedia.org/wiki/Use_case)

<sup>3</sup> <https://pencil.evolus.vn/>

<sup>4</sup> <https://www.thedroidsonroids.com/blog/flutter-vs-react-native-what-to-choose-in-2020>