

### Introduction

The first challenge was an introductory one. You learned how to pass information in both activities and fragments, how to mess around with views, among other things. Although some of you tried to implement data persistency, it was not mandatory - in this second challenge you will have to do that, but now with the proper tools.

Nowadays, almost every phone has an application for you to take notes. You can give a title/label for the note, write text for its content, search for entries, and perform other operations. Thus, the objective of this challenge is for you to replicate a note-taker app with the characteristics detailed below.

For any questions or doubts, you can send an e-mail to [joaonf@dei.uc.pt](mailto:joaonf@dei.uc.pt).

### Milestone 1

This first milestone is to be done in **groups**. The objectives are:

- Have an application where you can take or erase notes.
- It contains, at least, two fragments (dynamic). If you use activities or static fragments, you will be penalized by -0.3pts.
  - One fragment shows a list of the notes, with the title.
    - If you click on a note, it will open it (new fragment).
    - If you do a long-press (long-click), it will pop a dialog box to choose if you want to erase the note or change the title of the note (or not).
    - You must use an AppBar to be able to create new notes. You must also be able to search by note's title.
  - One fragment shows the text of the note.
    - In the AppBar, you have two buttons (use `ifRoom` as the option) where one allows you to "Save" and the other to go "Back" to the first activity (without saving).
- You must have data persistency.
  - The titles of the notes (for the first fragment) must be saved in a `SharedPreferences` instance.
  - The notes (the text from the second fragment) must be saved in the File System.
  - **Reads and writes to files should be done with Executors/Handlers.**

### Deadlines and Evaluation

#### Milestone 1 (1.5pts)

- The deadline is on November 19<sup>th</sup>.
- There will be an evaluation of this challenge during the PL classes, on November 23<sup>rd</sup>.