Assignment. Creating an Android mobile app based on your own topic

Create a mobile app based on your own idea/topic. App could be displaying data retrieved from API service, or it could perform some calculation other software logic. Example app (Current weather app) is available on https://oulu.yuja.com/V/Video?v=427973&node=1920738&a=17125859&autoplay=1 which illustrates requirements (but has no detailed explanation how to do development nor it has source code available). But as mentioned, you can make the app based on your **OWN** topic and app does not have to include all the features that are implemented on the example app.

By returning this assignment (and at least 7 weekly assignments) your grade could be 4 or 5.

App for grade 4 should have all features listed:

- App contains some software logic. It could be, for example, performing some calculation (complexity must be similar to Calories or Alcometer exercises) or retrieving (simple) data from API (like in Todos example). In case API has parameters, you can hardcode them (e.g., coordinate to weather API in case you choose the do the app based on example app)
- ViewModel class must be implemented for holding state and functionality for UI (composables)
- UI needs to suitable for mobile app. Modify theme (e.g., colors) so your app does not use default values.
- All the strings should be saved under resource file.
- Implement navigation and a simple screen (e.g., info screen). App must have at least two screens (main and info).

App for grade 5 should have all features listed for grade 4 and following:

- App must use API service and display data retrieved from the service.
- App must implement MVVM architecture.
- Code is divided into separate files and packages.

- Possible errors are handled (e.g., if API does not return anything or there is an error, a message is displayed).
- When data is loaded on the background, a message (or spinner) is displayed to the user on UI.

App for grade 5 may contain also following features:

- Displaying an image (using Coil library).

Return your app by announcing address to the public GIT repository on Moodle. Upload text file containing required information to the assignment box. In case API keys or other information is required inform that as well. Do not use any services that needs payment or registration from the teacher (e.g., Spotify).

Create readme file to the project, where you describe how to configure app (e.g. where to place required API key) so it can build and tested. Describe also, what is the purpose of your app and how it is used. In case you have used tutorial or Youtube video to make your app, inform address as well (it is ok to use those but is not ok to just copy some existing example, or even worse, download an example and return that as your own work).